

Volume 2, Chapter 19

Landscape and visual impact



Contents

19.	Landscape and visual impact	8
19.1	Introduction	8
19.2	Relevant legislation, policy and other information and guidance	9
	Introduction	9
	Legislation and national planning policy	10
	Local planning policy	15
	Other relevant information and guidance	29
19.3	Consultation and engagement	29
	Overview	29
	Early engagement	30
	Scoping opinion	30
	Evidence Plan Process (EPP)	34
	Informal consultation and further engagement	35
19.4	Scope of the assessment	36
	Overview	36
	Spatial scope and study area	37
	Temporal scope	37
	Potential receptors	38
	Zone of Theoretical Visibility (ZTV)	39
	Viewpoint selection	41
	Potential effects	53
	Activities or impacts scoped out of assessment	56
19.5	Methodology for baseline data gathering	57
	Overview	57
	Desk study	57
	Site surveys	61
	Data limitations	62
19.6	Baseline conditions	62
	Current baseline	62
	Baseline of landscape receptors	62
	Baseline of visual receptors	67
	Future baseline	73
19.7	Basis for PEIR assessment	73
	Maximum design scenario	73
	Embedded environmental measures	78
19.8	Methodology for PEIR assessment	98
	Introduction	98
	Landscape Sensitivity Rating	99
	Landscape Magnitude of Change Rating	101
	Visual sensitivity rating	103
	Visual magnitude of change rating	104
	Determining the significance of effects	106

19.9	Preliminary assessment: landscape effects	109
	Introduction	109
	Onshore substation search area option A: Bolney Road / Kent Street	110
	Onshore substation search area option B: Wineham Lane North	121
	Onshore cable corridor	128
19.10	Preliminary assessment: visual effects	130
	Overview	130
	Onshore substation search area option A: Bolney Road / Kent Street	132
	Onshore substation search area option B: Wineham Lane North	143
	Onshore cable corridor	152
19.11	Preliminary assessment: Cumulative effects	153
	Approach	153
	Cumulative effects assessment	154
19.12	Transboundary effects	171
19.13	Inter-related effects	171
19.14	Summary of residual effects	173
19.15	Further work to be undertaken for ES	197
	Overview	197
	Residential Visual Amenity Assessment	197
	Landscape Design Plan	197
	Assessment during operation at Year 15	197
	Photomontages	197
19.16	Glossary of terms and abbreviations	198
19.17	References	209

Table 19-1	Legislation relevant to the LVIA	11
Table 19-2	National planning policy relevant to the LVIA	11
Table 19-3	Key local planning policies relevant to the LVIA	16
Table 19-4	PINS Scoping Opinion responses in relation to the LVIA	30
Table 19-5	Receptors requiring assessment for the LVIA	38
Table 19-6	Onshore substation search area option A Bolney Road / Kent Street viewpoints	42
Table 19-7	Onshore substation search area option B Wineham Lane North viewpoints	44
Table 19-8	Onshore cable corridor viewpoints	45
Table 19-9	Potential effects on landscape and visual receptors scoped in for further assessment	53
Table 19-10	Activities or impacts scoped out of assessment.	56
Table 19-11	Data sources used to inform the PEIR assessment	57
Table 19-12	Site surveys undertaken to date	62
Table 19-13	Onshore substation search area option A: Bolney Road / Kent Street – landscape receptors within 2km (Figure 19.5a)	63
Table 19-14	Onshore substation search area option B: Wineham Lane North – landscape receptors within 2km (Figure 19.5a)	64
Table 19-15	Onshore cable corridor – landscape receptors within 2km (south to north) (Figures 19.5bi – iii, Volume 3)	65

Table 19-16	Onshore substation search area option A: Bolney Road / Kent Street – visual receptors within 2km	68
Table 19-17	Onshore substation search area option B: Wineham Lane North – visual receptors within 2km	68
Table 19-18	Onshore cable corridor – visual receptors within 2km (south to north)	69
Table 19-19	Maximum assessment assumptions for impacts on landscape and visual receptors	74
Table 19-20	Relevant LVIA embedded environmental measures	81
Table 19-21	Landscape sensitivity to change	99
Table 19-22	Landscape magnitude of change ratings	101
Table 19-23	Visual sensitivity to change	103
Table 19-24	Visual magnitude of change	105
Table 19-25	Evaluation of landscape and visual effects	108
Table 19-26	Onshore substation search area option A – indirect effects on surrounding Landscape Character (within 2km)	116
Table 19-27	Onshore substation search area option B – Indirect effects on surrounding Landscape Character (within 2km)	127
Table 19-28	Onshore substation search area option A: Bolney Road / Kent Street – Visual effects on views from Settlements	132
Table 19-29	Onshore substation search area option A – Visual effects on views from Transport routes	134
Table 19-30	Onshore substation search area option A – visual effects on views from Recreational routes	139
Table 19-31	Onshore substation search area option B – visual effects on views from Transport routes	143
Table 19-32	Onshore substation search area option B – Visual effects on views from Recreational routes	147
Table 19-33	Summary of cumulative landscape effects on the onshore elements of the Proposed Development	156
Table 19-34	Summary of cumulative visual effects on the onshore elements of the Proposed Development	161
Table 19-35	Inter-related effects assessment for landscape and visual impact	171
Table 19-36	Summary of landscape effects on onshore substation search area option A	174
Table 19-37	Summary of visual effects on onshore substation search area option A	175
Table 19-38	Summary of landscape effects on onshore substation search area option B	178
Table 19-39	Summary of visual effects on onshore substation search area option B	179
Table 19-40	Summary of landscape effects on the onshore cable corridor (includes landfall, temporary construction compounds and access routes)	182
Table 19-41	Summary of visual effects on the onshore cable corridor (includes landfall, temporary construction compounds and access routes)	187
Table 19-42	LVIA Glossary of terms and abbreviations	198

Volume 3, Figures

Figure 19.1	Landscape and Visual Study Area
Figure 19.2	Landscape and Visual Study Area – onshore substation search area options
Figure 19.3a	Zone of Theoretical Visibility with viewpoints – onshore substation search area Option A (Bolney Road / Kent Street)
Figure 19.3b	Zone of Theoretical Visibility with viewpoints – onshore substation search area Option B (Wineham Lane North)
Figure 19.4a	Zone of Theoretical Visibility with viewpoints – onshore cable corridor
Figure 19.4b	Zone of Theoretical Visibility with viewpoints – onshore cable corridor – Climping to Warningcamp
Figure 19.4c	Zone of Theoretical Visibility with viewpoints – onshore cable corridor – Warningcamp to Wiston (within South Downs National Park)
Figure 19.4d	Zone of Theoretical Visibility with viewpoints – onshore cable corridor – Wiston to Substation Options
Figure 19.5a	Landscape Character – Onshore Substation Search Area Options
Figure 19.5bi	Landscape Character - onshore cable corridor - Part 1
Figure 19.5bii	Landscape Character - onshore cable corridor- Part 2
Figure 19.5biii	Landscape Character - onshore cable corridor- Part 3
Figure 19.6a	Landscape Designations
Figure 19.6b	Landscape Designations with ZTV
Figure 19.7ai	Visual Receptors: Part 1 - Climping Beach to Warningcamp
Figure 19.7aii	Visual Receptors: Part 2 - Warningcamp to Wiston
Figure 19.7aiii	Visual Receptors: Part 3 - Wiston to Bolney
Figure 19.7bi-bvii	PROW and Open Space: Part 1-7
Figure 19.8a	ZTV: Rampion 2 (Onshore substation search area Option A with Rampion 1 substation and National Grid Bolney substation)
Figure 19.8b	ZTV: Rampion 2 (Onshore substation search area Option B with Rampion 1 substation and National Grid Bolney substation)
Figure 19.9	Landscape elements
Figure 19.10	Onshore substation search area Option A (Bolney Road / Kent Street) Viewpoint SA1: Kent Street
Figure 19.11	Onshore substation search area option A (Bolney Road / Kent Street) Viewpoint SA2: A272
Figure 19.12a-b	Onshore substation search area Option A (Bolney Road / Kent Street) Viewpoint SA3: PRow 1786, Taintfield Wood
Figure 19.13	Onshore substation search area Option A (Bolney Road / Kent Street) – Viewpoint SA4: PRow 1775 Eastlands Farm, Cowfold
Figure 19.14	Onshore substation search area option A (Bolney Road / Kent Street) - Viewpoint SA5: PRow 1730 between Dragons and Crateman's Farms
Figure 19.15	Onshore substation search area Option A (Bolney Road / Kent Street) – Viewpoint SA6: PRow 1750 north of Aglands

Figure 19.16a-b	Onshore substation search area Option A (Bolney Road / Kent Street) Viewpoint SA7: PRoW 1788 southwest of Site, west of Taintfield Wood
Figure 19.17	Onshore substation search area Option A (Bolney Road / Kent Street) – Viewpoint SA8: PRoW 1789 north of Eastridge Farm
Figure 19.18	Onshore substation search area Option B (Wineham Lane North) Viewpoint SB1: PRoW 34Bo south of Coombe House
Figure 19.19	Onshore substation search area Option B (Wineham Lane North) Viewpoint SB3: Wineham Lane Viewpoint SB2: Bolney Chapel Road
Figure 19.20	Onshore substation search area Option B (Wineham Lane North) Viewpoint SB3: Wineham Lane "
Figure 19.21	Onshore substation search area Option B (Wineham Lane North) Viewpoint SB4: PRoW 32Bo Nyeshill Farm
Figure 19.22	Onshore substation search area Option B (Wineham Lane North) Viewpoint SB5: Hickstead Lane
Figure 19.23 a-b	Onshore substation search area Option B (Wineham Lane North) – Viewpoint SB6: PRoW 8T southeast of Site
Figure 19.24	Onshore cable corridor – Viewpoint A: PRoW 829 Climping Beach
Figure 19.25	Onshore cable corridor – Viewpoint B: PRoW 168, Climping Caravan Park
Figure 19.26	Onshore cable corridor – Viewpoint B1: Church Lane, Climping
Figure 19.27	Onshore cable corridor – Viewpoint C: A259, Littlehampton
Figure 19.28	Onshore cable corridor – Viewpoint C1: Benjamin Grey Drive, Littlehampton
Figure 19.29	Onshore cable corridor – Viewpoint D: Ford Road, near Tortington
Figure 19.30a-b	Onshore cable corridor – Viewpoint E: Arundel Castle (The Keep)
Figure 19.31	Onshore cable corridor – Viewpoint E1a: Arundel Park
Figure 19.32	Onshore cable corridor – Viewpoint E1b: PRoW 2266 near Offham Farm, Arundel
Figure 19.33	Onshore cable corridor – Viewpoint F: Wepham Down PRoW 2191
Figure 19.34	Onshore cable corridor – Viewpoint F1: PRoW 2191_2 Barpham Hill
Figure 19.35	Onshore cable corridor – Viewpoint F3: PRoW 2173 North of Blackpatch Hill
Figure 19.36	Onshore cable corridor – Viewpoint F4: Peppering Lane, north of Burpham
Figure 19.37a-b	Onshore cable corridor – Viewpoint F5: PRoW 2221 / 2226, southeast of Wepham
Figure 19.38	Onshore cable corridor – Viewpoint G: Chantry Hill
Figure 19.39a-b	Onshore cable corridor – Viewpoint H: Washington
Figure 19.40	Onshore cable corridor – Viewpoint H1: Junction of The Pike and A283, Washington

Figure 19.41	Onshore cable corridor – Viewpoint I: Chanctonbury Ring /Hill
Figure 19.42	Onshore cable corridor – Viewpoint J1: PRoW 2709 at All Saints Church, Wiston
Figure 19.43	Onshore cable corridor – Viewpoint J2: PRoW 2617 west of Abbots Farm
Figure 19.44	Onshore cable corridor – Viewpoint J4: A283 at Lower Chancton Farm
Figure 19.45	Onshore cable corridor – Viewpoint J5: PRoW 2604 Upper Chancton Farm
Figure 19.46a-b	Onshore cable corridor – Viewpoint K: PRoW 2519 at Ashurst
Figure 19.47a-b	Onshore cable corridor – Viewpoint K1: PRoW 2594 near College Wood
Figure 19.48	Onshore cable corridor – Viewpoint L: Downs Link between Henfield and Partridge Green
Figure 19.49	Onshore cable corridor – Viewpoint M: High Weald, Landscape Trail (near Bolney)
Figure 19.50	Onshore cable corridor – Viewpoint N: Devil's Dyke
Figure 19.51	Onshore cable corridor – Viewpoint O: Cissbury Ring
Figure 19.52	Onshore cable corridor – Viewpoint Q: Ferry Road, Sustrans Cycle Route 2
Figure 19.53	Onshore cable corridor – Viewpoint R: PRoW 2207, Lyminster
Figure 19.54	Onshore cable corridor – Viewpoint S2: Blakehurst Lane, Warningcamp
Figure 19.55 a-b and Blakehurst Lane	Onshore cable corridor - Viewpoint S3: Junction of Clay Lane
Figure 19.56	Onshore cable corridor - Viewpoint S4: PRoW 2202 Crossbush Lane
Figure 19.57	Onshore cable corridor – Viewpoint S5: PRoW 2202_1 near Westlands Copse
Figure 19.58 a-b	Onshore cable corridor – Viewpoint T: B2116, Partridge Green
Figure 19.59	Onshore cable corridor – Viewpoint T1: PRoW 2373, Partridge Green
Figure 19.60	Onshore cable corridor – Viewpoint U: Highdown Hill
Figure 19.61a-b	Onshore cable corridor – Viewpoint V1: PRoW 2382 off Fryland Lane
Figure 19.62	Onshore cable corridor – Viewpoint V2: PRoW 2384 between Springlands and Oaklands Farm
Figure 19.63	Onshore cable corridor – Viewpoint W: PRoW 1774 north of The Hangers
Figure 19.64	Onshore cable corridor – Viewpoint X: Long Furlong
Figure 19.65	Cable Corridor – Viewpoint Y: PRoW 2380 Wineham Caravan Park
Figure 19.66a-c	South Downs Way: Sequential Assessment
Figure 19.67	Landscape and visual cumulative study area

Volume 4, Appendices

Appendix 19.1 LVIA Methodology

Appendix 19.2 Viewpoint Analysis

Appendix 19.3 Landscape Assessment

Appendix 19.4 Visual Assessment

19. Landscape and visual impact

19.1 Introduction

19.1.1 The Landscape and Visual Impact Assessment (LVIA) provided in this chapter of the Preliminary Environmental Information Report (PEIR) presents the preliminary results of the assessment of the likely significant effects of Rampion 2 with respect to the onshore landscape resource and visual amenity. The LVIA assesses the landscape and visual effects of the onshore elements of the Proposed Development whilst **Chapter 16: Seascape, landscape and visual** assesses the seascape, landscape and visual effects of the offshore elements of the Proposed Development. It should be read in conjunction with the project description provided in **Chapter 4: The Proposed Development** and the relevant parts of the following chapters:

- **Chapter 16: Seascape, landscape and visual** (due to the close association between the LVIA and Seascape, landscape and visual impact assessment (SLVIA), and the inter-project effects of the onshore and offshore elements of the Proposed Development);
- **Chapter 18: Socio-economics** (due to the visual effects on recreational receptors and visitor attractions);
- **Chapter 21: Soils and agriculture** (due to the effects visible during construction from preparation site clearance, earthworks etc);
- **Chapter 22: Noise and vibration** (due to the inter-relationships between visual effects and noise on several visual receptors);
- **Chapter 23: Terrestrial ecology and nature conservation** (due to the inter-relationships between the landscape habitats and effects on landscape elements (including trees hedges and woodland) and visual effects on nature reserves which may also be visitor attractions);
- **Chapter 24: Transport** (due to the close association on recreational routes including Public Rights of Way); and
- **Chapter 26: Historic environment** (due to the inter-relationships between the landscape and visual effects on some heritage features which may also be landmarks and visitor attractions).

19.1.2 This chapter should be read in conjunction with the maps and visualisations presented on **Figures 19.1 to 19.66a-c, Volume 3**, and is supported by the following appendices:

- **Appendix 19.1: LVIA Methodology, Volume 4;**
- **Appendix 19.2: Viewpoint Analysis, Volume 4;**
- **Appendix 19.3: Landscape Assessment, Volume 4;** and
- **Appendix 19.4: Visual Assessment, Volume 4.**

19.1.3 This chapter describes:

- the legislation, planning policy and other documentation that has informed the assessment (**Section 19.2: Relevant legislation, planning policy, and other information and guidance**);
- the outcome of consultation engagement that has been undertaken to date, including how matters relating to the LVIA within the Scoping Opinion received in August 2020 have been addressed (**Section 19.3: Consultation and engagement**);
- the scope of the assessment for the LVIA (**Section 19.4: Scope of the assessment**);
- the methods used for the baseline data gathering (**Section 19.5: Methodology for baseline data gathering**);
- the overall baseline (**Section 19.6: Baseline conditions**);
- embedded environmental measures relevant to the LVIA and the relevant maximum design scenario (**Section 19.7: Basis for PEIR assessment**);
- the assessment methods used for the PEIR (**Section 19.8: Methodology for PEIR assessment**);
- the assessment of landscape and visual effects (**Section 19.9: Preliminary assessment: landscape effects** and **Section 19.10: Preliminary assessment: visual effects**);
- approach to cumulative assessment and effects (**Section 19.11: Preliminary assessment: Cumulative effects**) – it is to be noted that cumulative effects for each receptor have been assessed individually within **Sections 19.9** and **19.10** given that this assessment is receptor based;
- consideration of transboundary effects (**Section 19.12: Transboundary effects**);
- consideration of inter-related effects (**Section 19.13: Inter-related effects**);
- a summary of residual landscape and visual effects (**Section 19.14: Summary of residual effects**);
- an outline of further work to be undertaken for the Environmental Statement (ES) (**Section 19.15: Further work to be undertaken for ES**); and
- glossary of terms and abbreviations is provided **Section 19.16: Glossary of terms and abbreviations**; and
- a references list is provided in **Section 19.17: References**.

19.2 Relevant legislation, policy and other information and guidance

Introduction

- 19.2.1 This section identifies the legislation, policy and other documentation that has informed the assessment of effects with respect to the LVIA. Further information

on policies relevant to the EIA and their status is provided in **Chapter 2: Policy and legislative context** of this PEIR.

Legislation and national planning policy

Introduction

19.2.2 **Table 19-1** lists the legislation relevant to the assessment of the effects on landscape and visual receptors.

European Landscape Convention (ELC)

- 19.2.3 The ELC is devoted exclusively to the protection, management and planning of all landscapes in Europe. Landscape is described as "*an area, as perceived by people, whose character is the result of the action and interaction of natural and / or human factors*" (ELC, 2000. Art.1(a)). The definition applies to all urban and peri-urban landscapes, towns, villages, rural areas, the coast and inland areas. In addition, it applies to ordinary or even degraded landscape as well as those areas that are of outstanding value or protected.
- 19.2.4 The ELC is binding in the UK. As a signatory, the UK Government has therefore undertaken to adopt general policies and measures to protect, manage and plan landscapes as follows:
- to recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity;
 - to establish and implement landscape policies aimed at landscape protection, management and planning through the adoption of the specific measures. These include awareness-raising, training and education, identification and assessment of landscapes, definition of landscape quality objectives and the implementation of landscape policies;
 - to establish procedures for the participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of the landscape policies mentioned above; and
 - to integrate landscape into regional and town planning policies and in cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape.
- 19.2.5 Landscape policy in the UK is already closely aligned with the ELC, and before UK ratification a Regulatory Impact Assessment had demonstrated that existing procedures and practice (through the work over many years of Government agencies, Local Government and Non-Governmental Organisations (NGOs) such as the National Trust) are compliant with its formal requirements. Given the UK's adoption of the ELC and its aims, the ELC gives an appropriate basis for the importance placed on the UK landscape.

Table 19-1 Legislation relevant to the LVIA

Legislation description	Relevance to assessment
National Parks and Access to the Countryside Act 1949, as amended	
National Parks and Areas of Outstanding Natural Beauty (AONB), which are nationally designated landscapes, are designated under the provisions of the National Parks and Access to the Countryside Act (1949).	The effects on the Special Landscape Qualities of the South Downs National Park (SDNP) and High Weald AONB and their setting are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.
Countryside and Rights of Way Act 2000, as amended	
Section 85 of the Countryside and Rights of Way Act (2000) provides that in exercising or performing any functions in relation to, or so as to affect, land in an AONB, a relevant authority shall have regard to the purpose of conserving and enhancing the natural beauty of these areas.	The High Weald AONB is located approximately 1km to the north of the PEIR Assessment Boundary. The effects on the AONB and its Special Landscape Qualities are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.

19.2.6 **Table 19-2** lists the national planning policy relevant to the assessment of the effects on landscape and visual receptors.

Table 19-2 National planning policy relevant to the LVIA

Policy description	Relevance to assessment
EN-1 Overarching National Policy Statement (NPS) for Energy	
Paragraph 5.9.5 of EN-1 advises that the applicant should carry out a landscape and visual assessment and makes reference to the following documents: Landscape Institute and Institute of Environmental Management and Assessment (2002, 2nd edition): <i>Guidelines for Landscape and Visual Impact Assessment</i> ; and Land Use Consultants (2002): <i>Landscape Character Assessment – Guidance for England and Scotland</i> .	<i>'The Guidelines for Landscape and Visual Impact Assessment' (GLVIA) (2002, 2nd edition) has been superseded by GLVIA Version 3 (2013). Landscape Character Assessment – Guidance for England and Scotland (2002) has been superseded by Natural England's 'An Approach to Landscape Character Assessment' (2014).</i>

Policy description	Relevance to assessment
	<p>This LVIA has been prepared following the updated versions of these documents which are referred to in the LVIA Methodology in Appendix 19.1, Volume 4.</p>
<p>Paragraph 5.9.5 of EN-1 states <i>“The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project. The applicant’s assessment should also take account of any relevant policies based on these assessments in local development documents in England.”</i></p>	<p>Reference to landscape character assessment studies and local development documents to inform the assessment is set out in Section 19.5.</p>
<p>Paragraph 5.9.6 of EN-1 states <i>“The applicant’s assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character.”</i></p>	<p>The effect of the onshore elements of the Proposed Development on landscape components (elements) and landscape character during the construction, and operation and maintenance phases are assessed in Section 19.9, and Appendix 19.3, Volume 4.</p>
<p>Paragraph 5.9.7 of EN-1 states <i>“The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity.”</i></p>	<p>The visual effects of the onshore elements of the Proposed Development on surrounding receptors including settlements, transport routes, recreational routes and visitor attractions during the construction, and operation and maintenance phases are assessed in Section 19.10, and Appendix 19.4, Volume 4.</p>
<p>Paragraph 5.9.8 of EN-1 states <i>“Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential</i></p>	<p>The quality, value and capacity of the landscape to accommodate change are considerations of the landscape assessment. The design of the onshore elements of the Proposed Development has considered the potential effect on the landscape and includes embedded</p>

Policy description	Relevance to assessment
<p><i>impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate."</i></p>	<p>environmental measures presented in Section 19.7 which will be delivered in order to minimise harm by mitigation of landscape effects as reported in Section 19.9, and Appendix 19.3, Volume 4.</p>
<p>Paragraphs 5.9.12 and 5.9.13 relate to considerations for development outside nationally designated landscapes, and state <i>"The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation and such projects should be designed sensitively given the various siting, operational, and other relevant constraints."</i> ... and paragraph 5.9.13 advises <i>"The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent."</i></p>	<p>Direct and indirect landscape effects on the SDNP, its setting and its Special Landscape Qualities are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter. Indirect landscape effects on the High Weald AONB, its setting and its Special Landscape Qualities are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.</p>
<p>Paragraphs 5.9.10-11 relate to considerations for development within nationally designated landscapes: Paragraph 5.9.10 states that: <i>"The development should be demonstrated to be in the public interest and consideration of such applications should include an assessment of: [...] any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated."</i> Paragraph 5.9.11 indicates that: <i>"The IPC [now the Secretary of State] should ensure that any projects consented in these designated areas should be carried out to high environmental standards, including through the application of appropriate requirements where necessary."</i></p>	
<p>Paragraph 5.9.14 of EN-1 states <i>"Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be paid particular attention. However, local landscape designations should not be used in themselves to</i></p>	<p>There are no locally designated landscapes within the LVIA study area.</p>

Policy description	Relevance to assessment
<p><i>refuse consent, as this may unduly restrict acceptable development."</i></p> <p>Paragraph 5.9.16 of EN-1 states <i>"In reaching a judgment, the IPC [now the Secretary of State] should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the IPC considers reasonable."</i></p>	<p>The LVIA has reported on the nature of effects in Sections 19.9 and 19.10, as set out in the methodology in Appendix 19.1, Volume 4.</p>
<p>Paragraph 5.9.17 of EN-1 states that in reaching a judgement <i>"The IPC [now the Secretary of State] should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by reasonable mitigation."</i></p>	<p>The design of the onshore elements of the Proposed Development has been an iterative process (Chapter 3: Alternatives) that has sought to avoid sensitive features in the landscape wherever possible. Embedded environmental measures are presented in Section 19.7.</p>
<p>Paragraph 5.9.19 of EN-1 states <i>"It may be helpful for applicants to draw attention, in the supporting evidence to their applications, to any examples of existing permitted infrastructure they are aware of with a similar magnitude of impact on sensitive receptors. This may assist the IPC in judging the weight it should give to the assessed visual impacts of the proposed development."</i></p>	<p>Rampion 1, East Anglia ONE, Greater Gabbard and Triton Knoll are examples of existing permitted onshore infrastructure which may have comparable landscape and visual effects.</p>
<p>Paragraph 5.9.22 of EN-1 states <i>"Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration."</i></p>	<p>Mitigation through detailed landscape proposals will be a consideration in terms of the mitigation of landscape and visual effects. Embedded environmental measures are presented in Section 19.7.</p>
EN-3 NPS for Renewable Energy	
<p>Paragraph 2.4.2 of EN-3 NPS states <i>"Proposals for renewable energy infrastructure should demonstrate good design in respect of landscape and visual amenity..."</i></p>	<p>The design of the onshore elements of the Proposed Development has been an iterative process (Chapter 3) that has sought to avoid sensitive features in the landscape</p>

Policy description	Relevance to assessment
	wherever possible. Embedded environmental measures are presented in Section 19.7 .
EN-5 NPS for Electricity Networks	
Paragraph 2.8.2 of EN-5 NPS states “ <i>New substations, sealing end compounds and other above ground installations that form connection, switching and voltage transformation points on the electricity networks can also give rise to landscape and visual impacts. Cumulative landscape and visual impacts can arise where new overhead lines are required along with other related developments such as substations, wind farms and/or other new sources of power generation.</i> ”	The potential landscape and visual effects are assessed in Sections 19.9-19.10 , and Appendix 19.3, Volume 4 and Appendix 19.4, Volume 4 .
National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2019)	
Paragraph 127 of the NPPF states that developments should be “ <i>visually attractive</i> ” and “ <i>sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change.</i> ”	This chapter assesses effects in relation to valued landscapes including nationally designated landscapes, such as the SDNP and High Weald AONB, landscape character areas, and views and visual receptors as set out principally in Sections 19.9-19.10 , Appendix 19.3, Volume 4 and Appendix 19.4, Volume 4 .
Paragraph 170 of the NPPF states that planning decisions “ <i>should contribute to and enhance the natural and local environment by: protecting and enhancing valued landscapes...[and] recognising the intrinsic character and beauty of the countryside...</i> ”	
Paragraph 172 states that “ <i>great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding National Beauty, which have the highest status of protection in relation to these issues.</i> ”	

Local planning policy

- 19.2.7 **Table 19-3** lists the local planning policy relevant to the assessment of the effects on landscape and visual receptors.
- 19.2.8 The key local planning policies from the following host local authorities within the LVIA study area have been considered:

- SDNP Authority (SDNPA);
- Arun District Council;
- Horsham District Council; and
- Mid-Sussex District Council.

Table 19-3 Key local planning policies relevant to the LVIA

Policy description	Relevance to assessment
South Downs Local Plan 2014-2033 (SDNPA, 2019)	
<p>Core Policy SD1: Sustainable Development states <i>"1. When considering development proposals that accord with relevant policies in this Local Plan and with National Park purposes, the Authority will take a positive approach that reflects the presumption in favour of sustainable development. It will work with applicants to find solutions to ensure that those development proposals can be approved without delay, unless material planning considerations indicate otherwise.</i></p> <p><i>2. The National Park purposes are</i></p> <ul style="list-style-type: none"> <i>i) to conserve and enhance the natural beauty, wildlife and cultural heritage of the area; and</i> <i>ii) to promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public.</i> <p><i>Where it appears that there is a conflict between the National Park purposes, greater weight will be attached to the first of those purposes. In pursuit of the purposes, the National Park Authority will pay due regard to its duty to seek to foster the economic and social wellbeing of the local communities within the National Park.</i></p> <p><i>3. When determining any planning application, the Authority will consider the cumulative impacts of development.</i></p> <p><i>4. Planning permission will be refused where development proposals fail to conserve the landscape, natural beauty, wildlife and cultural heritage of the National Park unless, exceptionally:</i></p> <ul style="list-style-type: none"> <i>a) The benefits of the proposals demonstrably outweigh the great weight to be attached to those interests; and</i> <i>b) There is substantial compliance with other relevant policies in the development plan."</i> 	<p>Direct and indirect landscape effects on the SDNP, its setting and its Special Landscape Qualities are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.</p>
Core Policy SD3: Major Development states	Direct and indirect landscape effects including any potential

Policy description

“1. In determining what constitutes major development the National Park Authority will consider whether the development, including temporary events should they be deemed to constitute development, by reason of its scale, character or nature, has the potential to have a significant adverse impact on the natural beauty, wildlife or cultural heritage of, or recreational opportunities provided by, the National Park. The potential for significant adverse impact on the National Park will include the consideration of both the impact of cumulative development and the individual characteristics of each proposal and its context.

2. Planning permission will be refused for major developments in the National Park except in exceptional circumstances, and where it can be demonstrated they are in the public interest. Consideration of such applications should include an assessment of:

[...]

c) Any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated....”

Strategic Policy SD4: Landscape Character states

“1. Development proposals will only be permitted where they conserve and enhance landscape character by demonstrating that:

- a) They are informed by landscape character, reflecting the context and type of landscape in which the development is located;*
- b) The design, layout and scale of proposals conserve and enhance existing landscape and seascape character features which contribute to the distinctive character, pattern and evolution of the landscape;*
- c) They will safeguard the experiential and amenity qualities of the landscape; and*
- d) Where planting is considered appropriate, it is consistent with local character, enhances biodiversity, contributes to the delivery of GI and uses native species, unless there are appropriate and justified reasons to select non-native species.*

2. Where development proposals are within designed landscapes, or the setting of designed landscapes, (including historic parkscapes and those on the Historic England Register of Historic Parks and Gardens) they should be based on a demonstrable understanding of

Relevance to assessment

significant effects on the SDNP, its setting and its Special Landscape Qualities are assessed in **Appendix 19.3, Volume 4** and summarised in **Section 19.9** of this chapter.

The cumulative effects assessment is presented in **Sections 19.9-19.10**.

Visual effects on recreational activities (recreational routes and visitor attractions) are assessed in **Section 19.10** and **Appendix 19.4, Volume 4**.

Direct and indirect effects on the landscape character of the SDNP (*South Downs Landscape Character Assessment 2020*) is assessed in **Appendix 19.3, Volume 4** and summarised in **Section 19.9** of this chapter.

Strategic principles to the landscape design and approach to embedded environmental measures are presented in **Section 19.7**. Reference has also been made to the SDNP interactive maps covering landscape character, dark skies and tranquillity.

Policy description

the design principles of the landscape and should be complementary to it.

3. The settlement pattern and individual identity of settlements and the integrity of predominantly open and undeveloped land between settlements will not be undermined.

4. Green and blue corridors will be safeguarded. Development proposals should identify and take opportunities to create and connect green and blue corridors.

5. The restoration of landscapes where features have been lost or degraded will be supported where it contributes positively to landscape character."

Strategic Policy SD5: Design states

"1. Development proposals will only be permitted where they adopt a landscape led approach and respect the local character, through sensitive and high quality design that makes a positive contribution to the overall character and appearance of the area. The following design principles should be adopted as appropriate:

a) Integrate with, respect and sympathetically complement the landscape character by ensuring development proposals are demonstrably informed by an assessment of the landscape context;
b) Achieve effective and high quality routes for people and wildlife, taking opportunities to connect GI;
c) Contribute to local distinctiveness and sense of place through its relationship to adjoining buildings, spaces and landscape features, including historic settlement pattern;

[....]

e) Incorporate hard and soft landscape treatment which takes opportunities to connect to the wider landscape, enhances GI, and is consistent with local character
.....'

Strategic Policy SD6: Safeguarding Views states

"1. Development proposals will only be permitted where they preserve the visual integrity, identity and scenic quality of the National Park, in particular by conserving and enhancing key views and views of key landmarks within the National Park.

2. Development proposals will be permitted that conserve and enhance the following view types and patterns identified in the Viewshed Characterisation & Analysis Study:

Relevance to assessment

The design of the onshore elements of the Proposed Development has been an iterative process (**Chapter 3**) that has sought to broadly adopt these design principles including avoiding sensitive features in the landscape wherever possible.

Strategic principles to the landscape design and approach to embedded environmental measures are presented in **Section 19.7**.

Reference has been (where appropriate) made to SDNP design guides such as Hamilton-Baillie Associates Ltd (2015) "Roads in the South Downs".

Visual effects on the SDNP's key views / key landmarks within and just beyond the LVIA study area are assessed in **Appendix 19.2, Volume 4**.

Visual effects on recreational activities within the SDNP (recreational routes – South Downs Way, other public rights of way (PRoWs), Open

Policy description	Relevance to assessment
<p>a) Landmark views to and from viewpoints and tourism and recreational destinations;</p> <p>b) Views from publicly accessible areas which are within, to and from settlements which contribute to the viewers' enjoyment of the National Park;</p> <p>c) Views from public rights of way, open access land and other publicly accessible areas; and</p> <p>d) Views which include or otherwise relate to specific features relevant to the National Park and its special qualities, such as key landmarks including those identified in Appendix 2 of the Viewshed Characterisation & Analysis Study, heritage assets (either in view or the view from) and biodiversity features.</p> <p>3. Development proposals will be permitted provided they conserve and enhance sequential views, and do not result in adverse cumulative impacts within views."</p>	<p>Access Land, and recreational destinations) are assessed in Section 19.10, and Appendix 19.4, Volume 4.</p> <p>Sequential visibility on the South Downs Way has been assessed in Appendix 19.4, Volume 4 and illustrated on Figure 19.66a-c, Volume 3.</p>
<p>Strategic Policy SD7: Relative Tranquillity states: "Development proposals will only be permitted where they conserve and enhance relative tranquillity and should consider the following impacts:</p> <p>a) Direct impacts that the proposals are likely to cause by changes in the visual and aural environment in the immediate vicinity of the proposals;</p> <p>b) Indirect impacts that may be caused within the National Park that are remote from the location of the proposals themselves such as vehicular movements; and</p> <p>c) Experience of users of the PRow network and other publicly accessible locations..."</p>	<p>Direct and indirect effects on visual amenity including PRow network are assessed in Section 19.10 and Appendix 19.4, Volume 4. Indirect landscape effects within the SDNP including vehicular movements are assessed in Appendix 19.3, Volume 4.</p>
<p>Development Management Policy SD8: Dark Night Skies states: "The SDNP is also an International Dark Sky Reserve and the policy sets out a hierarchy for new development. Wherever possible new development will be required to avoid installing lighting. If new lighting is unavoidable steps must be taken to avoid its impacts on our dark night skies by making sure that it's properly designed, taking into consideration direction of lighting and number of lumens emitted. If that is not possible, adverse impacts of lighting will be required to be mitigated – for example, by installing timing restrictions and making sure that the light emitted is of a colour that won't disturb wildlife."</p>	<p>Embedded environmental measures in relation to lighting are identified in Section 19.7.</p> <p>The effects of lighting have been assessed in Appendix 19.2, Volume 4 and Appendix 19.4, Volume 4.</p>
<p>Development Management Policy SD11: Trees Woodland and Hedgerows states:</p>	<p>Direct and indirect effects on the landscape character and</p>

Policy description

“1. Development proposals will be permitted where they conserve and enhance trees, hedgerows and woodlands.

2. Development proposals that affect trees, hedgerows and woodland must demonstrate that they have been informed by a full site survey, including an Ecological Survey, Arboricultural Method Statement and associated Tree Protection Plan, and include a management plan.

3. The removal of protected trees, groups of trees woodland or hedgerows will only be permitted in exceptional circumstances and in accordance with the relevant legislation, policy and good practice recommendations. Where protected trees are subject to felling, a replacement of an appropriate number, species and size in an appropriate location will be required.

4. Development proposals must provide adequate protection zones and buffers around hedgerows and other woodland and trees to prevent damage to root systems and taking account of future growth. A minimum buffer of 15 metres will be required between the development and ancient woodland or veteran trees.

5. A proposed loss or damage of non-protected trees, woodland or hedgerows should be avoided, and if demonstrated as being unavoidable, appropriate replacement or compensation will be required.

6. Development proposals must demonstrate that appropriate protection measures are in place prior to any work on site throughout the development process as part of a comprehensive landscaping plan, and that suitable opportunities for the restoration, enhancement or planting of trees, woodland, and hedgerows are identified and incorporated.

7. Opportunities should be identified and incorporated for planting of new trees, woodlands and hedgerows. New planting should be suitable for the site conditions, use native species and be informed by and contribute to local character, and enhance or create new habitat linkages.”

Strategic Policy SD45: Green Infrastructure states:
“1. Development proposals will be permitted where they demonstrate that they:
a) Maintain or enhance GI assets, GI links and the overall GI network; and

Relevance to assessment

landscape elements (trees/woodland/hedgerows) of the SDNP are assessed in **Appendix 19.3, Volume 4** and summarised in **Section 19.9** of this chapter. Strategic principles to the landscape design and approach to embedded environmental measures are presented in **Section 19.7**. These have been developed holistically in conjunction with other EIA disciplines notably: **Chapter 23**.

An arboricultural survey is due to be carried out between PEIR and ES.

Strategic principles to the landscape design and approach to embedded environmental measures are presented in **Section 19.7**.

Policy description	Relevance to assessment
<p><i>b) Provide new GI, or improvements to existing green assets and green linkages, which are integrated into the development design, that meets the needs of communities both within and beyond the site's boundaries.</i></p> <p><i>2. GI proposals must contribute to multifunctional landscapes which:</i></p> <p><i>a) Strengthen connectivity and resilience of ecological networks;</i></p> <p><i>b) Incorporate GI measures that are appropriate to the type and context of the development proposal as part of an overall landscape design;</i></p> <p><i>c) Maximise opportunities to mitigate, adapt and improve resilience to climate change;</i></p> <p><i>d) Maximise opportunities for cycling and walking, including multi user routes and, where possible, facilitate circular routes; and</i></p> <p><i>e) Support health and wellbeing and improve opportunities for understanding and enjoyment of the National Park and its special qualities.</i></p> <p><i>3. Development proposals that will harm the GI network must incorporate measures that sufficiently mitigate or offset their effects.</i></p> <p><i>4. Where appropriate, the Authority will seek to secure via planning condition or legal agreement provision for the future management and/or maintenance of GI."</i></p>	<p>These have been developed holistically in conjunction with other EIA disciplines notably: Chapter 23.</p>
Arun Local Plan 2011-2031 (Arun District Council, July 2018)	
<p>Policy LAN DM1: Protection of landscape character states:</p> <p><i>"Development within the setting of the SDNP must have special regard to the conservation of that setting, including views into and out of the Park, and will not be permitted where there would be harmful effects on these considerations.</i></p> <p><i>Development throughout the plan area should respect the particular characteristics and natural features of the relevant landscape character areas and seek, wherever possible, to reinforce or repair the character of those areas.</i></p> <p><i>The historic character and development pattern of settlements within the District should be respected, taking into account their distinct identity and setting."</i></p>	<p>Direct and indirect effects on the landscape character within Arun District are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.</p> <p>Strategic principles to the landscape design and approach to embedded environmental measures are presented in Section 19.7.</p>
<p>Policy C SP1: Countryside states:</p> <p><i>"Outside the Built-Up Area Boundaries (as identified on the Policies Maps) land will be defined as countryside</i></p>	<p>Direct and indirect effects on the landscape character within Arun District are assessed in</p>

Policy description	Relevance to assessment
<p><i>and will be recognised for its intrinsic character and beauty. Development will be permitted in the countryside where it is:</i></p> <p><i>[...]</i></p> <p><i>b. for quiet, informal recreation; or</i></p> <p><i>c. for green infrastructure; or</i></p> <p><i>[...]</i></p> <p><i>The Council will take into account cumulative impact of development in the consideration of planning applications.</i></p> <p><i>To ensure better management of the rural-urban fringe in those areas where significant new development is proposed, early consideration will need to be given to landscape and biodiversity enhancement, woodland management, recreation provision and access routes.”</i></p>	<p>Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.</p> <p>Cumulative effects have been considered in Sections 19.9-19.11, and Appendices 19.2-19.4, Volume 4.</p> <p>The design of the onshore elements of the Proposed Development has been an iterative process (Chapter 3) that has sought to avoid sensitive features in the landscape wherever possible. Strategic principles to the landscape design and approach to embedded environmental measures are presented in Section 19.7.</p>
Horsham District Planning Framework (Horsham District Council, November 2015)	
<p>Strategic Policy 2: Strategic Development states:</p> <p><i>“To maintain the district’s unique rural character whilst ensuring that the needs of the community are met through sustainable growth and suitable access to services and local employment, the spatial strategy to 2031 is to:</i></p> <p><i>[...]</i></p> <p><i>12. Retain and enhance natural environmental resources, including landscapes and landscape character, biodiversity, and retaining and enhancing environmental quality including air, minimises energy and resource use and provides flood mitigation.</i></p> <p><i>...”</i></p>	<p>Direct and indirect effects on the landscape character within Horsham District is assessed in Section 19.9 and Appendix 19.3, Volume 4.</p> <p>The design of the onshore elements of the Proposed Development has been an iterative process (Chapter 3) that has sought to avoid sensitive features in the landscape wherever possible. Strategic principles to the landscape design and approach to embedded environmental measures are presented in Section 19.7.</p>
<p>Strategic Policy 25: The Natural Environment and Landscape Character states:</p> <p><i>“The Natural Environment and landscape character of the District, including the landscape, landform and</i></p>	<p>Direct and indirect effects on the landscape character within Horsham District is assessed</p>

Policy description

development pattern, together with protected landscapes and habitats will be protected against inappropriate development.

The Council will support development proposals which:

1. Protects, conserves and enhances the landscape and townscape character, taking into account areas identified as being of landscape importance, the individual settlement characteristics, and maintains settlement separation.

[...]

4. Conserve and where possible enhance the setting of the SDNP."

Strategic Policy 26: Countryside Protection states *"Outside built-up area boundaries, the rural character and undeveloped nature of the countryside will be protected against inappropriate development.*

[...]

In addition, proposals must be of a scale appropriate to its countryside character and location. Development will be considered acceptable where it does not lead, either individually or cumulatively, to a significant increase in the overall level of activity in the countryside, and protects, and/or conserves, and/or enhances, the key features and characteristics of the landscape character area in which it is located, including;

- 1. The development pattern of the area, its historical and ecological qualities, tranquillity and sensitivity to change;*
- 2. The pattern of woodlands, fields, hedgerows, trees, waterbodies and other features; and*
- 3. The landform of the area."*

Policy 30 Protected Landscapes states:

"1. The natural beauty and public enjoyment of the High Weald AONB and the adjoining SDNP will be conserved and enhanced and opportunities for the understanding and enjoyment of their special qualities will be promoted. Development proposals will be supported in or close to protected landscapes where it can be demonstrated that there will be no adverse impacts to the natural beauty and public enjoyment of these landscapes as well as any relevant cross boundary linkages.

Relevance to assessment

in **Section 19.9** and **Appendix 19.3, Volume 4.**

The design of the onshore elements of the Proposed Development has been an iterative process (**Chapter 3**) as noted above.

The design of the onshore elements of the Proposed Development has been an iterative process (**Chapter 3**) that has sought to avoid sensitive features in the landscape wherever possible and retain the overall rural character of the landscape.

Strategic principles to the landscape design and approach to embedded environmental measures are presented in **Section 19.7**. A Landscape Design Plan and Strategy for the onshore substation will be developed and presented in the ES as part of the Outline Landscape and Ecological Management Statement.

Indirect landscape effects on the High Weald AONB and its Special Landscape Qualities are assessed in **Appendix 19.3, Volume 4** and summarised in **Section 19.9** of this chapter.

Direct and indirect landscape effects on the SDNP and its Special Landscape Qualities are assessed in **Appendix**

Policy description

2. Proposals should have regard to any management plans for these areas and must demonstrate:
a. How the key landscape features or components of natural beauty will be conserved and enhanced. This includes maintaining local distinctiveness, sense of place and setting of the protected landscapes, and if necessary providing mitigation or compensation measures...."

Policy 33 Development Principles states:

"In order to conserve and enhance the natural and built environment developments shall be required to:

[...]

2. Ensure that it is designed to avoid unacceptable harm to the amenity of occupiers/users of nearby property and land, for example through overlooking or noise, whilst having regard to the sensitivities of surrounding development;

3. Ensure that the scale, massing and appearance of the development is of a high standard of design and layout and where relevant relates sympathetically with the built surroundings, landscape, open spaces and routes within and adjoining the site, including any impact on the skyline and important views;

4. Are locally distinctive in character, respect the character of the surrounding area (including its overall setting, townscape features, views and green corridors) and, where available and applicable, take account of the

recommendations/policies of the relevant Design Statements and Character Assessments;

[...]

6. Presume in favour of the retention of existing important landscape and natural features, for example trees, hedges, banks and watercourses.

Development must relate sympathetically to the local landscape and justify and mitigate against any losses that may occur through the development;

....'

Relevance to assessment

19.3, Volume 4 and summarised in **Section 19.9** of this chapter.

The design of the onshore elements of the Proposed Development has been an iterative process (**Chapter 3**) that has sought to avoid sensitive features in the landscape wherever possible. Embedded environmental measures are presented in **Section 19.7**.

A Landscape Design Plan for the onshore substation will be developed and presented in the ES as part of the Outline Landscape and Ecological Management Statement.

Draft Horsham District Local Plan 2019-2036 (Horsham District Council, 2019)

Strategic Policy 27: The Natural Environment and Landscape Character states:

"The Natural Environment and landscape character of the District, including the landscape, landform and development pattern, together with protected

Direct and indirect effects on the landscape character within Horsham District is assessed in **Section 19.9** and **Appendix 19.3, Volume 4**.

Policy description	Relevance to assessment
<p><i>landscapes and habitats, will be protected against inappropriate development. The Council will expect development proposals to be landscape led from the outset so that they clearly inform the design and layout. Proposals will also be required to:</i></p> <ol style="list-style-type: none"> <i>1. Protect, conserve and enhance the landscape and townscape character, taking into account areas identified as being of landscape importance, the individual settlement characteristics, and maintain settlement separation;</i> <i>2. Maintain and enhance the Green Infrastructure Network, the Nature Recovery Network and, where practicable, help to address any identified deficiencies in the District;</i> <p><i>[...]</i></p> <ol style="list-style-type: none"> <i>4. Incorporate SUDS into a scheme in an optimal location for their purpose whilst also securing landscape enhancements and good quality spaces. Proposals will be expected to provide details to demonstrate that the whole life management and maintenance of the SUDS are appropriate, deliverable and will not cause harm to the natural environment and/or landscape; and</i> <i>5. Where applicable, conserve and, where possible, enhance the setting of the South Downs National Park and the High Weald Area of Outstanding Natural Beauty.”</i> 	<p>Indirect landscape effects on the High Weald AONB and its Special Landscape Qualities are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.</p> <p>Direct and indirect landscape effects on the SDNP and its Special Landscape Qualities are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.</p> <p>The design of the onshore elements of the Proposed Development has been an iterative process (Chapter 3) that has sought to avoid sensitive features in the landscape wherever possible. Embedded measures are presented in Section 19.7. A Landscape Design Plan for the onshore substation will be developed and presented in the ES as part of the Outline Landscape and Ecological Management Statement.</p>
<p>Strategic Policy 28: Countryside Protection is similar to Policy C SP1 of the adopted Horsham District Planning Framework, November 2015.</p>	<p>As above</p>
<p>Strategic Policy 30: Protected Landscapes states:</p> <p><i>“1. The natural beauty and public enjoyment of the High Weald AONB and the adjoining South Downs National Park will be conserved and enhanced and opportunities for the understanding and enjoyment of their special qualities will be promoted. Development proposals will be supported within the High Weald AONB and in the setting of protected landscapes where it can be demonstrated that there will be no adverse impacts to the natural beauty and public enjoyment of these</i></p>	<p>Indirect landscape effects on the High Weald AONB and its Special Landscape Qualities are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.</p> <p>Direct and indirect landscape effects on the SDNP and its Special Landscape Qualities</p>

Policy description

landscapes as well as any relevant cross boundary linkages.

2. Proposals should have regard to any management plans for these areas and must demonstrate:

a. How the key landscape features or components of natural beauty will be conserved and enhanced. This includes having appropriate regard to 'dark skies', and maintaining local distinctiveness, sense of place and setting of the protected landscapes, and if necessary providing mitigation or compensation measures;

b. How the public enjoyment of these landscapes will be retained; and

c. How the proposal supports the economy of the protected landscape and will contribute to the social wellbeing of the population who live and work in these areas.

3. In the case of major development proposals in or adjoining protected areas, applicants will also be required to demonstrate why the proposal is in the public interest and what alternatives to the scheme have been considered."

Strategic Policy 33: Development Quality states:

"High quality and inclusive design for all development in the District will be required based on a clear understanding of the local, physical, social, economic, environmental and policy context for development. In particular, development will be required to:

1. Provide an attractive, functional, accessible, safe and adaptable environment in accordance with the principles of the National Design Guide, or any future updates;
2. Complement and respond to locally distinctive characters and heritage of the District. In appropriate locations where existing character allows, unique modern new design which has a high standard of architectural principles may be considered;
3. Contribute a sense of place both in the buildings and spaces themselves and in the way they integrate with their structural surroundings and the landscape in which they sit;
4. Make efficient use of land and optimise the provision and use of buildings and open space within a site, taking into account the character, appearance and needs, together with the appearance and needs of the surrounding area;

Relevance to assessment

are assessed in **Appendix 19.3, Volume 4** and summarised in **Section 19.9** of this chapter.

The design of the onshore elements of the Proposed Development has been an iterative process (**Chapter 3**) that has sought to avoid sensitive features in the landscape wherever possible. Embedded measures are presented in **Section 19.7**. A Landscape Design Plan for the onshore substation will be developed and presented in the ES as part of the Outline Landscape and Ecological Management Statement.

The design of the onshore elements of the Proposed Development has been an iterative process (**Chapter 3**) that has sought to avoid sensitive features in the landscape wherever possible. Embedded measures are presented in **Section 19.7**. A Landscape Design Plan for the onshore substation will be developed and presented in the ES as part of the Outline Landscape and Ecological Management Statement.

Policy description	Relevance to assessment
<p>5. <i>Contribute to, and enhance, the green infrastructure that makes the District a more pleasant place to live. Existing landscape belts, trees, and hedgerows that are field boundaries and form the character of the landscape should be retained; and</i></p> <p>6. <i>Help secure a framework of high quality open spaces which meets the identified needs of the community as set out in any relevant Neighbourhood Plan, Design Statement and Character Statement.”</i></p> <p>Strategic Policy 34 also advises on the Development Principles.</p>	
Mid Sussex District Plan 2014 – 2031 (Mid Sussex District Council, 2018)	
<p>Policy DP12: Protection and Enhancement of Countryside states:</p> <p><i>“The countryside will be protected in recognition of its intrinsic character and beauty. Development will be permitted in the countryside, defined as the area outside of built-up area boundaries on the Policies Map, provided it maintains or where possible enhances the quality of the rural and landscape character of the District,</i></p> <p><i>[....]</i></p> <p><i>The Mid Sussex Landscape Character Assessment, the West Sussex County Council Strategy for the West Sussex Landscape, the Capacity of Mid Sussex District to Accommodate Development Study and other available landscape evidence (including that gathered to support Neighbourhood Plans) will be used to assess the impact of development proposals on the quality of rural and landscape character.</i></p> <p><i>...”</i></p>	<p>Direct and indirect effects on the landscape character within Mid-Sussex District is assessed in Section 19.9 and Appendix 19.3, Volume 4.</p> <p>A Landscape Design Plan for the onshore substation will be developed and presented in the ES as part of the Outline Landscape and Ecological Management Statement.</p>
<p>Policy DP16: High Weald Area of Outstanding Natural Beauty states:</p> <p><i>“Development within the High Weald Area of Outstanding Natural Beauty (AONB), as shown on the Policies Maps, will only be permitted where it conserves or enhances natural beauty and has regard to the High Weald AONB Management Plan, in particular;</i></p> <ul style="list-style-type: none"> <i>• the identified landscape features or components of natural beauty and to their setting;</i> <i>• the traditional interaction of people with nature, and appropriate land management;</i> 	<p>Indirect landscape effects on the High Weald AONB and its Special Landscape Qualities are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.</p>

Policy description	Relevance to assessment
<ul style="list-style-type: none"> • <i>character and local distinctiveness, settlement pattern, sense of place and setting of the AONB; and</i> • <i>the conservation of wildlife and cultural heritage.</i> <p><i>Small scale proposals which support the economy and social well-being of the AONB that are compatible with the conservation and enhancement of natural beauty will be supported.</i></p> <p><i>Development on land that contributes to the setting of the AONB will only be permitted where it does not detract from the visual qualities and essential characteristics of the AONB, and in particular should not adversely affect the views into and out of the AONB by virtue of its location or design."</i></p>	
<p>Policy DP18: Setting of the SDNP states: <i>"Development within land that contributes to the setting of the SDNP will only be permitted where it does not detract from, or cause detriment to, the visual and special qualities (including dark skies), tranquillity and essential characteristics of the National Park, and in particular should not adversely affect transitional open green spaces between the site and the boundary of the SDNP, and the views, outlook and aspect, into and out of the National Park by virtue of its location, scale, form or design.</i></p> <p><i>Development should be consistent with National Park purposes and must not significantly harm the National Park or its setting. Assessment of such development proposals will also have regard to the South Downs Partnership Management Plan and emerging National Park Local Plan and other adopted planning documents and strategies."</i></p>	<p>Direct and indirect landscape effects on the SDNP and its Special Landscape Qualities are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.</p>
<p>Policy DP22: Rights of Way and Other Recreational Routes states <i>"Rights of way, Sustrans national cycle routes and recreational routes will be protected by ensuring development does not result in the loss of or does not adversely affect a right of way or other recreational routes unless a new route is provided which is of at least an equivalent value and which does not sever important routes.</i></p> <p><i>Access to the countryside will be encouraged by:</i></p> <ul style="list-style-type: none"> • <i>Ensuring that (where appropriate) development provides safe and convenient links to rights of way and other recreational routes;</i> • <i>Supporting the provision of additional routes within and between settlements that contribute to providing a joined up network of routes where possible;</i> 	<p>Direct and indirect visual effects on PRow and Sustrans Cycle Routes are assessed in Section 19.10 and Appendix 19.4, Volume 4.</p> <p>Information on the amenity of recreational routes is provided in Chapter 18: Socio-economics.</p>

Policy description	Relevance to assessment
<ul style="list-style-type: none"> • <i>Where appropriate, encouraging making new or existing rights of way multi-functional to allow for benefits for a range of users. (Note: ‘multi-functional will generally mean able to be used by walkers, cyclists and horse-riders).’</i> 	
<p>Policies on Trees, woodlands and hedgerows are included under Biodiversity in Chapter 23: Terrestrial ecology and nature conservation (Appendix 23.1, Volume 4).</p>	-

Other relevant information and guidance

- 19.2.9 In addition to the Landscape Institute’s and Institute of Environmental Management and Assessment (IEMA) *Guidelines for Landscape and Visual Impact Assessment*, Third Edition, (GLVIA3) (2013), other key methodological guidance for the LVIA, but not limited to, are included below. A full list of guidance documents are listed in the references at the end of this chapter.
- Landscape Institute (2019). *Visual Representation of Development Proposals*;
 - Natural England, (2014). *An Approach to Landscape Character Assessment*;
 - Natural England, (2019). *An Approach to Landscape Sensitivity Assessment*;
 - NatureScot, (2017) – *Visual Representation of Wind Farms*, Guidance (Version 2.2);
 - NatureScot, (2012). *Assessing the Cumulative Impact of Onshore Wind Energy Developments*;
 - IEMA, (2015). *Environmental Impact Assessment Guidance to Shaping Quality Development*;
 - IEMA, (2017). *Delivering Proportionate EIA. A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice*; and
 - IEMA, (2019). *EIA Quality Mark Article – Predicting the growth of tree and hedge planting when determining the effectiveness of mitigation*.

19.3 Consultation and engagement

Overview

- 19.3.1 This section describes the outcome of, and response to, the Scoping Opinion in relation to the LVIA and also provides details of the ongoing informal consultation that has been undertaken with stakeholders and individuals. An overview of engagement undertaken can be found in **Section 1.5 of Chapter 1: Introduction**.

- 19.3.2 Given the restrictions which have been in place due to the COVID-19 pandemic during this period, all consultation has taken the form of conference calls using Microsoft Teams.

Early engagement

- 19.3.3 Early engagement was undertaken with a number of prescribed and non-prescribed consultation bodies and local authorities in relation to the LVIA.
- 19.3.4 A joint LVIA and SLVIA meeting to introduce the Proposed Development and the proposed scope of the assessment was undertaken with the following stakeholders:
- National Trust – 17 June 2020; and
 - SDNPA and Natural England – 18 June 2020.
- 19.3.5 Early engagement regarding viewpoint selection with the High Weald AONB was undertaken via email correspondence in May and June 2020.

Scoping opinion

- 19.3.6 Rampion Extension Development Limited (RED) submitted a Scoping Report (RED, 2020) and request for a Scoping Opinion to the Secretary of State (SoS) (administered by the Planning Inspectorate (PINS)) on 2 July 2020. A Scoping Opinion was received on 11 August 2020 (Planning Inspectorate, 2020). The Scoping Report set out the proposed LVIA methodology, outline of the baseline data collected to date and proposed, and the scope of the assessment. **Table 19-4** sets out the comments received in Section 5 of the PINS Scoping Opinion ‘Aspect based scoping tables – Onshore’ and how these have been addressed in this PEIR. A full list of the PINS Scoping Opinion comments and responses is provided in **Appendix 5.1: Response to the Scoping Opinion, Volume 4**. Regard has also been given to other stakeholder comments that were received in relation to the Scoping Report.
- 19.3.7 The information provided in the PEIR is preliminary and therefore not all the Scoping Opinion comments have been able to be addressed at this stage, however all comments will be addressed within the ES.

Table 19-4 PINS Scoping Opinion responses in relation to the LVIA

PINS ID number	Scoping Opinion comment	How this is addressed in this PEIR
5.1.1	<p>Effects of the cable corridor and Landfall during operation upon landscape and visual receptors within 2km.</p> <p>The Scoping Report states that the cable corridor will be reinstated and restored post construction. There are</p>	<p>The effects of the onshore cable corridor on landscape and visual receptors post construction have been summarised in the main assessment in Sections 19.9 and 19.10, and detailed in Appendix 19.3, Volume 4.</p>

PINS ID number	Scoping Opinion comment	How this is addressed in this PEIR
	insufficient details in the Scoping Report to understand the type of landscape features which may be lost during the construction phase and also no details of the types of planting which may not be allowed during reinstatement (for example, lack of tree planting on and near to the cable corridor). The cable corridor may look very different during operation as it did preconstruction. On this basis, the Inspectorate does not agree to scope this matter out.	Strategic principles to the landscape design and approach to embedded environmental measures are presented in Section 19.7 . Further information about the landscape design and assessment of landscape elements (including arboriculture survey) will be provided in the ES.
5.1.2	Receptors beyond the Zone of Theoretical Visibility. The Scoping Report states that any receptors beyond the Zone of Theoretical Visibility will not have a view of the onshore elements and impacts are therefore scoped out. The information provided in the Scoping Report lacks detailed information from which to be able to fully understand what the ZTV applied is. The ES must include a clear figure of an appropriate scale and size to present the ZTV as well as justification for definition of study areas and sensitive receptors within the ZTV.	Zones of Theoretical Visibility (ZTVs) for the onshore substation search area options and the onshore cable corridor are illustrated in Figures 19.3a – 19.4d, Volume 3 . For the avoidance of doubt, if an area on these maps is shown to be outwith the ZTV then there will be <u>no view</u> of the onshore elements of the Proposed Development from these locations and are therefore scoped out. The technical basis for the ZTV is described in Section 19.4 .
5.1.3	A 2km study area is proposed on the basis that the same study area was used for Rampion 1. The study area for the Proposed Development should be applied taking into account specifics for the area around the proposed cable route.	A 2km study area is proposed for the LVIA. Detail and justification for the study area is provided in Section 19.4 .
5.1.4	The scale of the figures provided in the Scoping Report show the route of the cable corridor in its entirety and it is therefore difficult to understand which landscape receptors may be affected. The ES should contain	Detailed figures illustrating the landscape and visual receptors within the onshore cable corridor and the study area are illustrated in Figures 19.5a-biii, 19.6a-b and 19.7a-b, Volume 3 .

PINS ID number	Scoping Opinion comment	How this is addressed in this PEIR
	figures at a scale which would ensure that the content is more easily understood.	
5.1.5	The Inspectorate expects the assessment to have regard to the Strategy for the West Sussex Landscape; Local Distinctiveness Study of West Sussex as well as the High Weald AONB Management Plan 2019-2024.	Acknowledged. These documents have been taken into consideration in the assessment in Section 19.9 , and in Appendix 19.3, Volume 4 .
5.1.6	High Weald AONB is shown in Figure 6.2.3 to be in the study area for LVIA, however paragraph 6.2.39 state that this is beyond the study area. On the basis that the nature, scale and location of the works at the proposed and existing substations (including connection between them) are not fully defined at this stage, an assessment of significant effects on the AONB should be provided as part of the ES (including cross reference to the SLVIA and socio-economic assessments).	Indirect landscape effects on the High Weald AONB and its Special Landscape Qualities are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.
5.1.7	There are no details provided in the Scoping Report regarding landscape effects on community amenities, or schools. The ES should assess impacts on all receptor groups and the location of those receptors which have been assessed should be included in clear figures at an appropriate scale.	Visual effects on community amenities or schools are included within the assessment of settlements, where relevant.
5.1.8	The Scoping Report refers to impacts beyond and in the ZTV, however it is not currently clear what the ZTV for onshore works and the substation are as no ZTV has been prepared. The ES should provide details of the ZTV for all onshore workings and assessments should be made for impacts during construction, operation and decommissioning.	ZTVs for the onshore elements of the Proposed Development (onshore substation search area options and the onshore cable corridor) are illustrated in Figures 19.3a – 19.4d, Volume 3 . The LVIA includes an assessment of the onshore elements of the Proposed Development during the

PINS ID number	Scoping Opinion comment	How this is addressed in this PEIR
		construction, operation and maintenance, and decommissioning phases.
5.1.9	The proposed substation location is identified as being 'near to' the existing Bolney substation. With approximate dimensions of 300m x 150m x 15m, the effects on landscape and visual amenity of this new structure by itself and any cumulative impacts with the existing substation and other existing or proposed structures, should be assessed in the ES.	The LVIA includes the assessment (Sections 19.9 and 19.10) of the onshore substation search area options, taking into account other similar developments within the study area including the nearby existing National Grid Bolney substation and Rampion 1 onshore substation.
5.1.10	The Scoping Report states that loss of landscape features such as trees, hedgerows, Ancient Woodlands will be avoided "where possible". A tree survey and hedgerow survey should be completed to inform the ES. The ES should assess the impacts if such features are to be removed and explain any mitigation measures to reduce impacts.	An arboricultural survey is not part of the PEIR and will be carried out in summer 2021 which will inform the effects in the ES.
5.1.11	The Scoping Report states that up to 4 trenches will be required for the installation of the onshore corridor. The ES should report the number of trenches to be used and also dimensions of each and how long they would remain open for. The intention is to use trenchless techniques where possible; the ES should assess the landscape effects which may be created by open trenches.	Table 19-19 provides a summary of the assessment assumptions of the onshore elements of the Proposed Development with a full description provided in Chapter 4, Section 4.4 . Effects on landscape character/elements as a result of the installation of the onshore cable corridor are assessed in Appendix 19.3, Volume 4 and summarised in Section 19.9 of this chapter.
5.1.12	The ES should include all different types of development which may lead to a cumulative impact, not just those which are similar in nature to the Proposed Development. Details of agreements with relevant consultation	The approach to the Cumulative Effects Assessment (CEA) and cumulative developments included in the PEIR are reported in Chapter 5: Approach to the EIA and Appendix 5.4: Cumulative

PINS ID number	Scoping Opinion comment	How this is addressed in this PEIR
	bodies as to the scope of projects to be included should be presented as part of the ES.	effects assessment shortlisted developments, Volume 4.
5.1.13	Efforts should be made to agree the location of viewpoints to assess impacts from the onshore cable corridor during construction and operation with relevant consultation bodies. Details of the agreement should be included in the ES.	Viewpoints have been agreed with a number of stakeholders including SDNP, Natural England, West Sussex County Council, High Weald AONB and Horsham District Council as described later in this section.
5.1.14	It is noted that computer models will be used to inform the LVIA assessment, and the ES should contain details of these various methods used to inform the landscape and visual assessment	The methodology used to illustrate the ZTVs and visualisations is reported in Appendix 19.1, Volume 4.
5.1.15	The night time lighting assessment should be appended to the ES together with evidence of consultation with relevant bodies. Visual representations should also be included.	<p>Where required, construction lighting will be limited to directional task lighting positioned to minimise glare and nuisance to residents and recreational receptors as noted in Section 19.7.</p> <p>The effects of lighting have been assessed in Appendix 19.2, Volume 4 and Appendix 19.4, Volume 4.</p> <p>A lighting assessment in relation to the offshore elements of the Proposed Development (wind generator turbines) is reported in Chapter 16.</p>

Evidence Plan Process (EPP)

- 19.3.8 The EPP has been set up to provide a formal, non-legally binding, independently chaired forum to agree the scope of the EIA and Habitats Regulations Assessment (HRA), and the evidence required to support the DCO Application.
- 19.3.9 For LVIA, engagement has been undertaken via the EPP Expert Topic Group (ETG) 'Seascape, Landscape, Archaeology & Cultural Heritage and Marine Archaeology' meeting held by conference call on 15 September 2020. The conference call was attended by the following stakeholders:

- West Sussex County Council (WSSCC);
- Natural England (NE);
- Historic England;
- South Downs National Park Authority (SDNPA);
- Brighton and Hove City Council;
- Horsham District Council;
- Chichester District Council;
- Arun District Council;
- Isle of Wight Council;
- Mid Sussex District Council;
- National Trust;
- High Weald AONB Partnership; and
- Chichester Harbour Conservancy AONB.

- 19.3.10 The LVIA section of the ETG meeting covered the scope of the LVIA, the baseline data and supporting assessments to be used to undertake the assessment, proposed embedded environmental measures and the assessment methodology. The engagement also presented the proposed approach to address the Scoping Opinion comments detailed in **Table 19-4**.
- 19.3.11 A second ETG meeting was held for ‘Seascape, Landscape, Archaeology & Cultural Heritage and Marine Archaeology’ on 18 March 2021 with the same key stakeholders as the meeting in September 2020.
- 19.3.12 The LVIA section of the ETG meeting covered an update on baseline collation, informal consultation, site visits, design input, PEIR Assessment and initial findings, and next steps.

Informal consultation and further engagement

Overview

- 19.3.13 Informal consultation is ongoing with a number of prescribed and non-prescribed consultation bodies and local authorities between completion of the Scoping Report up to and including March 2021 in relation to the LVIA.

Informal Consultation – January 2021 / February 2021

- 19.3.14 RED carried out an Informal Consultation exercise for a period of four weeks from 14 January 2021 to 11 February 2021. This exercise aimed to engage with a range of stakeholders including the prescribed and non-prescribed consultation bodies, local authorities, Parish Councils and general public with a view to introducing the Proposed Development and seeking early feedback on the emerging designs.

- 19.3.15 The key themes which emerged from Informal Consultation relating to LVIA are:
- concerns over the location of the Wineham Lane substation search area and their proximity to nearby properties;
 - concerns over minimising impacts on sensitive sites including ancient hedgerows, ancient woodland, and trees;
 - onshore substation design and potential screening;
 - concerns over the use of the Wineham Lane for construction traffic in terms of visual impacts;
 - details around construction programming and phasing; and
 - questions around the management of PRoW during construction including temporary and permanent diversions, and reinstatement.
- 19.3.16 Further detail about the results of the Informal Consultation exercise can be found in **Informal Consultation Analysis**.

Further engagement

- 19.3.17 Consultation in relation to the LVIA study area and viewpoint selection was undertaken in November and December 2020 with the SDNPA, NE, WSCC, Horsham District Council, Arun District Council and Mid-Sussex District Council.
- 19.3.18 A technical note was issued to the above stakeholders on 10 November 2020 and 4 December 2020 describing the study area and viewpoint selection process. SDNPA, WSCC and Horsham District Council were in agreement to the list of viewpoints and provided further comments on a number of additional views to be included which have been taken into account. No response was received by Arun District Council or Mid-Sussex District Council. Natural England deferred their response to the SDNPA and the High Weald AONB Partnership.
- 19.3.19 The High Weald AONB provided a separate response to viewpoint selection in June 2020.

19.4 Scope of the assessment

Overview

- 19.4.1 This section sets out the scope of the PEIR assessment for the LVIA. This scope has been developed as the Rampion 2 design has evolved and responds to feedback received to date as set out in **Section 19.3**. As outlined in the Planning Inspectorate's (PINS) Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements (Version 7, the Planning Inspectorate, 2020), information presented in the PEIR is preliminary, therefore this scope will be reviewed and may be refined as Rampion 2 evolves and as a result of ongoing consultation.

Spatial scope and study area

- 19.4.2 The study area for the LVIA is illustrated in **Figure 19.1, Volume 3** and extends to a 2km buffer beyond the centre of the PEIR Assessment Boundary, and is supported by a number of elevated, long-distance panoramic viewpoint locations within the wider landscape, beyond 2km, as agreed with stakeholders, in particular with the SDNPA to demonstrate any visibility at these distances.
- 19.4.3 IEMA Guidance (IEMA, 2015 and 2017) recommends a proportionate assessment focused on the likely significant effects of a development, and a proportionate aspect chapter. The LVIA study area must therefore be large enough to capture all likely significant effects. However, an overly large LVIA study area may be considered disproportionate if it makes understanding the key impacts of the development more difficult by including extraneous baseline information, and hence receptors which are unlikely to be significantly affected by the Proposed Development.
- 19.4.4 This is supported by the Landscape Institute (GLVIA3) (Landscape Institute & IEMA, 2013) (paragraph 3.16) which recommends that *“The level of detail provided should be that which is reasonably required to assess the likely significant effects”*. Paragraph 5.2 also states that *“The study area should include the site itself and the full extent of the wider landscape around it which the proposed development may influence in a significant manner”*.
- 19.4.5 The LVIA study area therefore defines a limit, based on professional judgement, beyond which it is considered unlikely for significant effects to arise. This judgement of up to 2km is based on a detailed analysis of the Zone of Theoretical Visibility (ZTV) (**Figures 19.2 – 19.4, Volume 3**); site surveys to establish an understanding of the local landscape character; the scale of the construction and development proposed; and knowledge of similar projects including East Anglia TWO and THREE, Rampion 1, Norfolk Vanguard and Thanet Extension offshore wind farms.

Temporal scope

- 19.4.6 The temporal scope of the assessment of the LVIA is the entire lifetime of Rampion 2 which therefore covers the construction, operational and decommissioning periods, as follows:
- **construction phase** (landfall, onshore temporary cable corridor and onshore substation) – up to 3 years six months in respect of the landfall and onshore temporary cable corridor including use of construction compounds, and 3 years for the onshore substation (all defined in the assessment methodology as ‘short term’);
 - **operation and maintenance phase** (onshore substation) – around 30 years (defined in the assessment methodology as ‘long term’); and
 - **decommissioning phase** (substation) – 4 years (short term).
- 19.4.7 During the decommissioning phase, it is anticipated that the onshore electrical cables will be left in-situ with ends cut, sealed and buried to minimise landscape and visual effects associated with removal. The onshore substation, however, may be used as a substation site after decommissioning of the Proposed Development

or it may be upgraded for use by another offshore wind project. This would be subject to a separate planning application. Should the onshore substation need to be decommissioned fully, the decommissioning works are likely to be undertaken in reverse to the sequence of construction works and involve similar levels of equipment. All relevant sites will be restored to their original states or made suitable for an alternative use. The assessment has therefore assumed a worst-case scenario that the substation will be decommissioned after the operation and maintenance phase.

Potential receptors

- 19.4.8 The spatial and temporal scope of the assessment enables the identification of receptors which may experience a change as a result of Rampion 2. The landscape and visual receptors identified that may experience likely significant effects are outlined in **Table 19-5**.

Table 19-5 Receptors requiring assessment for the LVIA

Receptor group	Receptors included within group
Landscape Receptors	<ul style="list-style-type: none"> • Landscape elements (within the PEIR Assessment Boundary). • Landscape Character – National, County and Local Landscape Character Areas (LCAs). • Landscape Designations – SDNP and High Weald AONB.
Visual Receptors	<ul style="list-style-type: none"> • Settlements. • Transport routes (roads and rail). • Recreational routes (including Public Rights of Way (PRoW), National Trails, Sustrans Cycle Routes and other long-distance walking and cycling routes). • Recreational and tourist destinations.

- 19.4.9 The list of receptors will be kept under review during the EIA as more detailed information is obtained during baseline surveys and other forms of data collection by other aspects and will be reflected in the final ES.

Zone of Theoretical Visibility (ZTV)

Overview

- 19.4.10 The Zone of Theoretical Visibility (ZTV) and viewpoint analysis is used to further define the scope of the assessment process. In particular, a significance threshold indicating the distance from the onshore elements of the Proposed Development, where significant effects may be likely, has been identified. This has been used to focus the baseline information and detailed reporting of the assessment in this chapter.
- 19.4.11 The ZTVs in **Figures 19.3a – 19.4d, Volume 3** are calculated using ArcGIS and Resoft Wind Farm© softwares to generate the zone of theoretical visibility of the onshore elements of the Proposed Development. These software's create a 3D computer model of the existing landscape and the development using 2m LIDAR data with gaps filled with 1m LIDAR and 50cm Bluesky Digital Surface Model (DSM) within 5km. The following maximum assessment assumptions have been used to define the ZTV (extracted from **Table 19-19**):
- **onshore substation**: PEIR Assessment Boundary x 12m maximum building height; and
 - **onshore cable corridor**: PEIR Assessment Boundary x 6m maximum construction vehicle height.
- 19.4.12 The ZTVs also include an adjustment that allows for the Curvature and Light Refraction of the Earth.
- 19.4.13 The ZTVs do not indicate the decrease in scale that occurs with increased distance from the construction works or operation and maintenance of the onshore substation search area options, or the construction works associated with the onshore temporary cable corridor.
- 19.4.14 Areas of existing woodland have been masked out (vector source) to compensate for limitations in the ZTV production process. Note that this does not include individual trees, hedgerows, roadside vegetation and treebelts/smaller groups of trees which collectively provide successive layers of vegetation screening within the study area.
- 19.4.15 The resulting ZTV plots are overlaid on Ordnance Survey mapping at an appropriate scale and presented as figures using desktop publishing/graphic design software.
- 19.4.16 Cumulative ZTVs of the existing National Grid Bolney substation and Rampion 1 onshore substation are also provided in **Figures 19.8a-b, Volume 3** to illustrate the combined visibility of the existing substations and the proposed Rampion 2 onshore substation search area option locations.

ZTV for onshore substation search area option A: Bolney Road / Kent Street (**Figure 19.3a, Volume 3**)

- 19.4.17 The ZTV pattern for onshore substation search area option A reflects the underlying landform within the 2km study area (**Figure 19.3a, Volume 3**) and the

total ZTV coverage accounts for 37% of the study area. This percentage will further reduce if all vegetation and built-form were included.

- 19.4.18 Onshore substation search area option A is bounded on all sides by a mixture of mature trees, hedgerows and woodland which in practice limits the theoretical visibility to within one to two field boundaries from the boundary of the search area. The field boundary to the south of Oakendene Manor is however open and the northern field boundary along the A272 is bounded by a lower hedge and trees which over some intermittent visibility into the site from the road. Further north, theoretical visibility is limited by roadside vegetation along the northern side of the A272 and by further woodland and undulating ridges at Barnfield Park/Kings Hill and at North Farm to the north at approximately 1-1.5km distance. Whilst the ZTV indicates theoretical visibility, site surveys have revealed limited to no visibility from these areas with only the upper parts of existing pylons visible.
- 19.4.19 To the east and south, theoretical visibility is limited with rising ground at approximately 1km distance. In reality short-range visibility from Kent Street is largely restricted by tall and mature roadside vegetation (including mature trees).
- 19.4.20 Theoretical visibility is more extensive to the southwest, extending approximately 2-3km distance. In reality, much of this area is subject to screening from successive layers of intervening trees, hedgerows and woodland along roads and field boundaries. To the west, visibility is restricted to the built-up edge of Cowfold and more immediately by buildings and vegetation at Oakendene Industrial Estate. From north and west of Taintfield Wood, and the low ridge near Westridge Farm there are more open and elevated views across the onshore substation search area option A. From here, the white building at Oakendene Manor is visible.

ZTV for substation search area option B: Wineham Lane North (Figure 19.3b, Volume 3)

- 19.4.21 The ZTV pattern for onshore substation search area option B reflects the underlying landform within the 2km study area (Figure 19.3b, Volume 3) and the total ZTV coverage accounts for 45% of the study area. This percentage will further reduce if all vegetation and built-form were included.
- 19.4.22 Onshore substation search area option B is located to the north of the Rampion 1 and existing National Grid's Bolney substations. The onshore substation search area is bounded on all sides by a mixture of mature trees, hedgerows and woodland which in practice limits visibility of the search area to the immediate boundary in most cases.
- 19.4.23 To the north, theoretical visibility is restricted by woodland and intervening field boundaries to within 1km (fragmented visibility beyond Red House). Views towards the onshore substation search area may be accessed from PRoW at Coombe House, although these are also screened by vegetation with only the upper parts of existing pylons visible (PRoW 1T between Old Doctors on Wineham Lane and Coombe House crosses the onshore substation search area).
- 19.4.24 Views east are also limited by successive layers of intervening trees, and field boundaries with theoretical visibility becoming more fragmented beyond 1km distance at Twineham Green and again at Hickstead and along the A23 at 2km distance. At these distances, views are largely restricted due to vegetation screening. PRoW 8T is routed along the eastern boundary which provides open

views into the onshore substation search area. Theoretical visibility to the south is largely restricted by woodland surrounding the existing National Grid Bolney substation and Rampion 1 onshore substation. Theoretical visibility to the west is restricted to well within 1km by landform and mature vegetation along Wineham Lane.

Onshore cable corridor ZTV (Figure 19.4a-c, Volume 3)

- 19.4.25 The ZTV pattern for the construction works of the approximately 36km long onshore cable corridor (including the temporary construction compounds) reflects the underlying landform within the 2km study area and the total ZTV coverage accounts for 60% of the study area. This percentage will further reduce if all vegetation and built-form were included. The ZTV coverage is greater in some areas and represents the worst-case scenario as it takes into account all the onshore cable corridor options presented in the PEIR. The visibility will reduce further once the final onshore cable corridor options are presented in the ES.
- 19.4.26 Much of the theoretical visibility is contained within 1-2km of the onshore cable corridor with fragmented visibility with patches or fragmented theoretical visibility indicated beyond this. In practice, site surveys have indicated that in most cases the most notable visibility will be limited to 1-2 field boundaries from the onshore cable corridor.

Viewpoint selection

- 19.4.27 Viewpoints have been selected to cover a range of receptor locations, taking account of the following assessment assumptions:
- a range of viewpoints from where there are likely to be any notable effects;
 - those representative of views within the 2km study area and from specific viewpoints (including some elevated, distant viewpoints beyond 2km within the SDNP and High Weald AONB);
 - key landscape and visual receptors and different local authority areas;
 - utilisation of a number of relevant viewpoint locations from LVIA completed as part of the existing Rampion 1 project;
 - a range of distances; and
 - an integrated approach representing several aspects from same location.
- 19.4.28 Viewpoints are selected from the ZTVs within the study area. These locations are then 'ground truthed' on site. For the avoidance of doubt, if an area on the map is shown to be outwith the ZTV then there will be **no view** of the onshore elements of the Proposed Development from that location.
- 19.4.29 With regards to the viewpoint locations, the following may be noted:
- The NatureScot (former Scottish Natural Heritage) guidance (2017) recognises *"the need to limit the list of viewpoints to a reasonable number"*;
 - over-provision of viewpoints "can be as unhelpful as under-provision" and 'may distract attention from where impacts may be significant';

- an appropriate balance must be struck through the LVIA consultation process to agree a proportionate number of viewpoints;
- not all receptors require a viewpoint – receptors are still assessed; and
- not all viewpoints require a photomontage – distant viewpoints with no significant effects may be better illustrated by an annotated photograph only.

- 19.4.30 Each of the viewpoint locations have been agreed with a number of stakeholders including South Downs National Park Authority, West Sussex County Council, Natural England, High Weald AONB and Horsham District Council, outlined in **Section 19.3** and are listed in **Table 19-6** to **Table 19-8**.
- 19.4.31 All the agreed 56 viewpoints are assessed and reported in **Appendix 19.2, Volume 4**. The viewpoint analysis is used to assist the landscape and visual assessment of visual receptor locations reported in this chapter. A number of viewpoints in the tables below (indicated in italics) have been excluded from the preliminary assessment primarily due to refinement of the PEIR Assessment Boundary which has resulted in no views of the onshore elements of the Proposed Development.
- 19.4.32 It may be noted that any viewpoint which has no visibility of either an onshore substation search area or onshore cable corridor will be reported and excluded from further assessment in the ES in order to assess a proportionate list of viewpoints in the LVIA. RED will seek to agree this with stakeholders between PEIR and ES.

Table 19-6 Onshore substation search area option A Bolney Road / Kent Street viewpoints

Viewpoint name and number	Distance to onshore substation search area option A (m)	View direction	GLVIA 3 viewpoint type / receptor
SA1: Kent Street	14	West / Northwest	Illustrative – road users. Partial views are likely, subject to perimeter vegetation screening.
SA2: A272	27	Southwest	Illustrative – road users. Partial views are likely, subject to perimeter vegetation screening.
SA3: PRow 1786, Taintfield Wood	111	North	Illustrative – footpath users. Open views across the onshore substation search area are possible from elevated location to the south.

Viewpoint name and number	Distance to onshore substation search area option A (m)	View direction	GLVIA 3 viewpoint type / receptor
SA4: PRow 1775 Eastlands Farm, Cowfold	825	Northeast	Illustrative – Residents, footpath users. Little to no visibility is likely due to vegetation screening.
SA5: PRow 1730 between Dragons and Crateman's Farms	1,479	Northeast	Illustrative – residents, footpath users. Limited views of the upper parts of the onshore elements of the Proposed Development may be possible, subject to perimeter vegetation screening.
SA6: PRow 1750 north of Aglands	1,425	South / Southeast	Illustrative – footpath users within High Weald AONB. Limited views of the upper parts of the onshore elements of the Proposed Development may be possible, subject to perimeter vegetation screening.
SA7: PRow 1788 southwest of Site, west of Taintfield Wood	172	South	Illustrative – footpath users. Open views across the onshore substation search area (and temporary construction compound) are possible from this elevated location to the south.
SA8: PRow 1789 north of Eastridge Farm	782	West	Illustrative – footpath users. Little to no visibility of the onshore substation search area due to vegetation screening. However, there may be views during construction of the onshore cable corridor.

Table 19-7 Onshore substation search area option B Wineham Lane North viewpoints

Viewpoint name and number	Distance to Substation Search Area option B (m)	View direction	GLVIA 3 viewpoint type / receptor
SB1: PRoW 34Bo south of Coombe House	14	Southwest	Representative – footpath users on PRoW T1 and 34Bo. Partial views are likely, subject to perimeter vegetation screening.
SB2: Bolney Chapel Road	27	North / Northwest	Illustrative – residents and road users. Limited views of the upper parts of the onshore elements of the Proposed Development may be possible, subject to perimeter vegetation screening.
SB3: Wineham Lane	111	West / Southwest	Illustrative – footpath users and road users. Some open views into the substation search area at gap in perimeter vegetation.
SB4: PRoW 32Bo, Nyeshill Farm	825	South	Representative – residents. Limited views of the upper parts of the onshore elements of the Proposed Development may be possible, subject to perimeter vegetation screening.
SB5: Hickstead Lane	1,479	Southeast	Illustrative – residents and road users. Partial, elevated views are likely, beyond trees.
SB6: PRoW 8T northeast of Site	1,425	West / Southwest	Illustrative – footpath users. Open views into the substation search area along footpath.

Table 19-8 Onshore cable corridor viewpoints

Viewpoint name and number	Distance to centre of onshore cable corridor (m)	View direction	GLVIA 3 Viewpoint Type / Receptor
A: PRow 829 Climping Beach / Atherington	147	East	Illustrative – walkers, visitors, footpath users and residents. First opportunity to view onshore cable corridor from open coastal area with open views inland and out to sea.
B: PRow 168, Climping Caravan Park	338	East	Illustrative – walkers, local residents and caravan park users. Viewpoint located on open footpath and able to view across the Arundel valley in comparison to roadside and resident-based receptors which are screened by existing tree cover.
B1: Church Lane, Climping	939	Southwest	Specific – road users, local residents and footpath users. Partial views of temporary construction compound. No visibility of onshore cable corridor.
C: A259, Littlehampton	314	Northwest	Specific– road users. Specific viewpoint located on the A259 bridge over the railway providing a glimpsed, elevated view over the Arundel valley and the proposed river crossing point.
C1: Benjamin Grey Drive, Littlehampton	182	West	Illustrative – residents. Partial views of part of the onshore cable corridor along the River Arun.
D: Ford Road, near Tortington	1,442	East	Specific– road users. The viewpoint represents an open / glimpsed and relatively long-range view from the road across the Arundel valley, taking in Arundel Castle and the urban edge of Littlehampton as well as part of the onshore cable corridor. Other receptor locations along this road and at residential properties are screened. Views from the riverside although open are experienced by fewer receptors.

Viewpoint name and number	Distance to centre of onshore cable corridor (m)	View direction	GLVIA 3 Viewpoint Type / Receptor
E: Arundel Castle	1,278	Southeast	Specific – visitors. Located within the SDNP. The viewpoint is at the highest, publicly accessible point on the castle (The Keep), viewing across the Arundel Valley and is a view that large numbers of tourists will experience.
E1a: Arundel Park	2,484	East / Southeast	Specific – visitors and walkers. Located within the SDNP. The viewpoint is sited at the trig point within Arundel Park viewing across the Arundel Valley and into the South Downs hills above Wepham.
E1b: PRoW 2266 near Offham Farm, Arundel	1,216	East / Southeast	Illustrative – walkers. Located within the SDNP. The Views across the Arundel Valley and into the South Downs hills above Wepham.
F: Wepham Down PRoW 2191	300	South / Southeast	Specific – walkers. Located within the SDNP at a junction of PRoWs where walkers may pause to admire the view south and across the interior of the South Downs hills.
F1: PRoW 2191_2, Barpham Hill	279	North / Northeast / West	Illustrative - walkers. Located within the SDNP to the south of the onshore cable corridor viewing north from the hill / hillside potentially able to view north and south as well as across the onshore cable corridor.
<i>F2: North of Harrow Hill¹</i>	180	<i>North / Northeast / Northwest</i>	<i>Excluded viewpoint. Illustrative – walkers. Excluded Viewpoint as too similar to F1 close to the onshore cable corridor and viewing in the same direction.</i>

¹ Viewpoints presented in italics are excluded from the preliminary assessment primarily due to a change in refinement of the PEIR Assessment Boundary which has resulted in no views of the onshore elements of the Proposed Development.

Viewpoint name and number	Distance to centre of onshore cable corridor (m)	View direction	GLVIA 3 Viewpoint Type / Receptor
F3: PRoW 2173 North of Blackpatch Hill	875	North / Northwest	Illustrative – walkers. Located within the SDNP on PRoW 2173 to the north of Blackpatch Hill approximately 1km south of the onshore cable corridor.
F4: Pepperering Lane north of Burpham	996	East / Southeast	Illustrative – road users. Located within the SDNP north of Burpham viewing east along Coombe Lane towards Perry Hill.
F5: PRoW 2221 / 2226, southeast of Wepham	86	Northwest	Illustrative – walkers. Located within the SDNP at a junction of two footpaths southeast of Wepham viewing northwest.
G: Chantry Hill	611	Southeast	Specific – walkers. Located on the South Downs Way (SDW) within the SDNP at a footpath junction with long views from the edge of the chalk escarpment. This location is also identified as a landmark viewpoint in the Land Use Consultants (2015) <i>South Downs National Park View Characterisation and Analysis</i> (Viewshed Study Report). Additional sequential views along the route of the SDW are also proposed, as follows: G1-2: Barnfarm Hill; G3: Springhead Hill; G4: Rackham Hill; and G5: Amberly Mount.
H: Washington	6	West / North / East	Illustrative – residents. Located within the SDNP on London Road viewing west, north and east from the northeast of the settlement edge across open space with community uses.
H1: Junction of The Pike and	88	Northeast	Specific – road users. Located on the edge of the SDNP at the junction of The Pike and the A283 with partial

Viewpoint name and number	Distance to centre of onshore cable corridor (m)	View direction	GLVIA 3 Viewpoint Type / Receptor
A283, Washington			views towards the temporary construction compound along the onshore cable corridor.
I: Chanctonbury Ring / Hill	1,218	North	Specific – walkers and visitors. Located on Chanctonbury Hill within the SDNP and close to the SDW. This location is also identified as a landmark viewpoint in the Land Use Consultants (2015) <i>South Downs National Park View Characterisation and Analysis</i> (Viewshed Study Report). Additional sequential views along the route of the SDW are proposed: I1 SDW / PRoW junction further west.
J: Wiston	158	South / North	<i>Excluded viewpoint. Water Lane at Wiston is well vegetated and likely to be screened by intervening woodland, hedgerows and roadside trees.</i>
J1: PRoW 2709 at All Saints Church, Wiston	86	South	Illustrative – footpath users and visitors. Located on a PRoW adjacent to the church viewing south towards the onshore cable corridor and northern slopes of the SDNP.
J2: PRoW 2617 west of Abbots Farm	490	South	Illustrative – footpath users. Located on a PRoW west of Abbots Farm viewing south towards the onshore cable corridor.
J3: Rock Common	533	South	<i>Excluded viewpoint. There are no views to the south or southwest as the PRoW no longer goes up the hill, instead it follows the edge of the woodland to the northwest.</i>
J4: A283 at Lower Chancton Farm	37	South	Illustrative – road users and residents. Located on the A283 at the junction of the road with the entrance to Lower Chancton Farm on the edge of the SDNP.

Viewpoint name and number	Distance to centre of onshore cable corridor (m)	View direction	GLVIA 3 Viewpoint Type / Receptor
J5: PRoW 2604 Upper Chancton Farm	1,060	South	Illustrative – footpath users. Located on a PRoW south of Upper Chancton Farm viewing south towards the temporary construction compound. No visibility of the onshore cable corridor.
J6: Chanctonbury Ring road	54	North	<i>Specific – Excluded viewpoint as Windmill Quarry B route option has been removed from the PEIR Assessment Boundary, and therefore there will be no views from Chanctonbury Ring road.</i>
K: PRoW 2519 at Ashurst	84	North / Southeast	Illustrative – walkers and residents. Located on a PRoW east of the edge of Ashurst viewing back towards the settlement across the onshore cable corridor to the north and south.
K1: PRoW 2594 near College Wood	41	North / Northwest	Illustrative – walkers and residents. Located on a PRoW south of Spithandle Lane towards College Wood Farm.
L: Downs Link between Henfield and Partridge Green	148	Northwest	Illustrative – walkers. The viewpoint is located on an open stretch of the multi-use National Cycle Route 223 and Downs Link near Brightham's Farm, avoiding cuttings and well wooded sections of the onshore cable corridor.
M: High Weald, Landscape Trail (near Bolney)	2,958	Southwest	Illustrative – walkers, visitors and cyclists. The aim of this viewpoint is to provide a location within the High Weald AONB to the northeast of the onshore elements of Proposed Development. Much of this area is well wooded and views tended to be short range and channelled along roads / PRoW and the ZTV is also fragmented. The viewpoint is located at the gap in a hedge close to the

Viewpoint name and number	Distance to centre of onshore cable corridor (m)	View direction	GLVIA 3 Viewpoint Type / Receptor
			junction of two PRoWs that allows an elevated view over the landscape to the southwest.
N: Devil's Dyke	8,790	North / Northwest	<p>Specific – walkers and visitors. Located beyond 5km from the onshore cable corridor within the SDNP. This location is identified as a landmark viewpoint in the Land Use Consultants (2015) <i>South Downs National Park View Characterisation and Analysis</i> (Viewshed Study Report) with promoted views particularly to the north and northwest, as also indicated on OS maps.</p> <p>Edburton Hill and Beeding Hill, also located beyond 5km, are excluded from the viewpoint assessment as the views from these locations towards the onshore cable corridor will be similar to those from Devil's Dyke. However, they are referred to in the assessment for sequential visibility along the SDW.</p>
O: Cissbury Ring	5,039	North / Northwest	<p>Specific – walkers and visitors. The viewpoint is located beyond 5km distance from the onshore cable corridor and visibility from the northern side of the hill is limited. This location is also identified as a landmark viewpoint in the Land Use Consultants (2015) <i>South Downs National Park View Characterisation and Analysis</i> (Viewshed Study Report).</p>
P: Low Weald (A24, Ashington)	3,475	Southeast	<p><i>Excluded viewpoint. Site visits indicate no views from this location (beyond 3km) all year round due to the roadside vegetation and limited ZTV coverage.</i></p>

Viewpoint name and number	Distance to centre of onshore cable corridor (m)	View direction	GLVIA 3 Viewpoint Type / Receptor
Q: Ferry Road, Sustrans Cycle Route 2	156	West	Illustrative – road users and cyclists. Northern prospect from the road is open, viewing across the Arundel Valley (southern views towards the coast are screened by trees).
R: PRow 2207, Lyminster	306	West / Northwest	Illustrative – walkers and residents. Located on a PRow close to the settlement edge and church outwith the SDNP but will view north (towards the SDNP boundary) and west along the onshore cable corridor.
S: A27, Arundel	48	East / Southeast	<i>Illustrative – Excluded viewpoint as Warningcamp A cable corridor option has been removed from the PEIR Assessment Boundary, and therefore there will be no views from this viewpoint location.</i>
S1: Warningcamp	258	Southeast	<i>Illustrative – Excluded viewpoint as Warningcamp A cable corridor option has been removed from the PEIR Assessment Boundary, and therefore there will be no views from this viewpoint location.</i>
S2: Blakehurst Lane, Warningcamp	483	West	Illustrative – road users. Located on higher ground viewing northwest, west and southwest along the onshore cable corridor, subject to landform and vegetation screening which also foreshortens the view.
S3: Junction of Clay Lane and Blakehurst Lane	36	Northwest / Southwest	Illustrative – road users and residents.
S4: PRow 2202 Crossbush Lane	91	West	Illustrative – footpath users and residents. Viewing across Warningcamp B cable corridor option.

Viewpoint name and number	Distance to centre of onshore cable corridor (m)	View direction	GLVIA 3 Viewpoint Type / Receptor
S5: PRow 2202_1 near Westlands Copse	161	West	Illustrative – footpath users. Viewing west from a PRow near Westlands Copse across Warningcamp C option.
T: B2116, Partridge Green	66	Southeast	Illustrative – road users. Located on the B2116 between Partridge Green and Shermanbury looking east / southeast towards the onshore cable corridor.
T1: PRow 2373, Partridge Green	262	Southeast	Illustrative – footpath users. Located on a PRow near the sewage works looking southeast towards the onshore cable corridor.
U: Highdown Hill	5,757	West / Southwest	Specific – walkers and visitors. The viewpoint is located beyond 5km distance from the onshore cable corridor where views are promoted particularly to the south. This location is also identified as a landmark viewpoint in the Land Use Consultants (2015) <i>South Downs National Park View Characterisation and Analysis</i> (Viewshed Study Report).
V1: PRow 2382 off Fryland Lane	15	North	Illustrative – footpath users and residents. Located on a PRow just off Fryland Lane viewing north towards the Wineham Lane North / South 1B cable corridor option.
V2: PRow 2384 between Springlands and Oaklands Farm	35	West	Illustrative – footpath users. Located on a PRow between the two farms viewing west towards the Wineham Lane North / South 1A cable corridor option.
W: PRow 1774 north of The Hangers	73	South	Illustrative – footpath users. Located on a PRow off the A281 north of the Hangers viewing south towards the onshore cable corridor.

Viewpoint name and number	Distance to centre of onshore cable corridor (m)	View direction	GLVIA 3 Viewpoint Type / Receptor
X: Long Furlong	3,350	Northwest	Illustrative – road users and footpath users. Located on a PRow slightly elevated ground off the A280 viewing north towards the onshore cable corridor.
Y: PRow 2380, Wineham Caravan Park	31	Southwest	Illustrative – footpath users. Located on a PRow adjacent to Wineham Caravan Park with potential views of the onshore cable corridor.

Potential effects

19.4.33 Potential effects on landscape and visual receptors that have been scoped in for assessment are summarised in **Table 19-9**.

Table 19-9 Potential effects on landscape and visual receptors scoped in for further assessment

Receptor	Activity or impact	Potential effect
Construction phase		
Landscape elements within the PEIR Assessment Boundary	Land preparation (site clearance, earthworks)	Removal of landscape elements present under the baseline conditions. Direct and temporary localised effects on landscape elements may be significant.
Host Local LCAs. Local LCAs, and parts of the SDNP and High Weald AONB that are within the LVIA study area and that are at least partly within the ZTVs.	Construction activity of the onshore substation, landfall and onshore cable corridor including the presence of cranes, other machinery, vehicle movements, contractors facilities and site access	Direct and temporary effects on the host landscape character. Indirect and temporary effects related to the visibility of the construction activities and their effect on landscape character, special landscape qualities and setting of the SDNP and High Weald AONB.

Receptor	Activity or impact	Potential effect
<p>Visual Receptors within the LVIA study area:</p> <ul style="list-style-type: none"> • settlements (residents); • transport routes (roads and rail); • recreational routes (including PRow, National Trails, Sustrans Cycle Routes and other long-distance walking and cycling routes); and • recreational and tourist destinations. 	<p>Construction activity of the onshore substation, landfall and onshore cable corridor including the presence of cranes, other machinery, vehicle movements, contractors' facilities and site access</p>	<p>Temporary effects on views and visual amenity resulting from visibility of the construction activities within the LVIA study area.</p>
<p>Operation and maintenance phase (Year 1)</p> <p><i>Note - The PEIR assesses the operation and maintenance effects at Year 1 only. This is due to the ongoing development of the Landscape Design Plan which will be completed between PEIR and ES following which the potential effects during the operation and maintenance phase at both Year 1 and Year 15 will also be assessed in the ES. It is therefore expected that any potential effects at Year 15 will be materially reduced by mitigation planting than those assessed at Year 1.</i></p>		
<p>Landscape elements within the PEIR Assessment Boundary</p>	<p>Implementation of the landscape design plan</p>	<p>A new framework of landscape elements such as recontoured land and newly planted hedgerows and trees will be introduced surrounding the onshore substation and along the onshore cable corridor, where applicable.</p>
<p>Host Local LCAs. Local LCAs, and parts of the SDNP and High Weald AONB that are within the LVIA study area and that are at least partly within the ZTVs.</p>	<p>Operation of the onshore substation and reinstatement of the onshore cable corridor</p>	<p>Direct effects on the host landscape character. Indirect effects related to the visibility of the onshore substation and reinstatement of the onshore cable corridor, and its effect on landscape character, the special qualities and setting of the</p>

Receptor	Activity or impact	Potential effect
<p>Visual Receptors within the LVIA study area:</p> <ul style="list-style-type: none"> • settlements (residents); • transport routes (roads and rail); • recreational routes (including PRow, National Trails, Sustrans Cycle Routes and other long-distance walking and cycling routes); and • recreational and tourist destinations. 	Operation of the onshore substation and reinstatement of the onshore cable corridor	<p>SDNP and High Weald AONB.</p> <p>Effects on views and visual amenity resulting from visibility of the onshore substation and reinstatement of the onshore cable corridor within the LVIA study area.</p>
<p>Decommissioning phase</p> <p><i>Note – Given the assessment of the onshore substation during the operation and maintenance phase at Year 15 will be undertaken in the ES after the development of the Landscape Design Plan, the effects during the decommissioning phase take into account the worst-case scenario which would mean cutting down all established trees / mitigation planting and completely restoring the land to a field, and the effects are therefore likely to be similar during the construction phase of the onshore substation. However, following the development of the Landscape Design Plan, it is therefore expected that the significance of these effects will be materially reduced by planting in the ES.</i></p>		
Host Local LCAs. Local LCAs, and parts of the SDNP and High Weald AONB that are within the LVIA study area and that are at least partly within the ZTVs.	Decommissioning activity of the onshore substation including the presence of cranes, other machinery, vehicle movements, contractors facilities and site access	<p>Direct and temporary effects on the host landscape character.</p> <p>Indirect and temporary effects related to the visibility of the decommissioning activities and their effect on landscape character, the special qualities and setting of the SDNP and High Weald AONB.</p>
Visual Receptors within the LVIA study area:	Decommissioning activity of the onshore substation	Temporary effects on views and visual amenity resulting

Receptor	Activity or impact	Potential effect
<ul style="list-style-type: none"> • settlements (residents); • transport routes (roads and rail); • recreational routes (including PRow, National Trails, Sustrans Cycle Routes and other long-distance walking and cycling routes); and • recreational and tourist destinations. 	including the presence of cranes, other machinery, vehicle movements, contractors' facilities and site access	from visibility of the decommissioning activities within the LVIA study area.

Activities or impacts scoped out of assessment

- 19.4.34 A number of potential effects have been scoped out from further assessment, resulting from a conclusion of no likely significant effect. These conclusions have been made based on the knowledge of the baseline environment, the nature of planned works and the wealth of evidence on the potential for impact from such projects more widely. The conclusions follow (in a site-based context) existing best practice. Each scoped out activity or impact is considered in turn below and an indication given of whether the scope has evolved since Scoping.

Table 19-10 Activities or impacts scoped out of assessment.

Activity or impact	Rationale for scoping out
Receptors outwith the ZTV	All receptors within the LVIA study area that are outwith the ZTV will have <i>no view</i> of the onshore elements of the Proposed Development and are scoped out.
Indirect effects upon National Landscape Character Areas (NCAs) and Seascape Character Areas (MCAs) within the LVIA study area	NCAs and MCAs within the LVIA study area cover extensive areas and consequently it is considered unlikely that the construction, and operation and maintenance of the onshore elements of the Proposed Development will have the potential to result in significant indirect landscape or seascape effects on these receptors. This conclusion is supported by GLVIA3 (Paragraph 5.14), which advises that " <i>Broad scale assessments at national and regional level can be helpful in setting the landscape context but are unlikely to be helpful on their own as the basis for LVIA</i>

Activity or impact	Rationale for scoping out
	– <i>they may be too generalised to be appropriate for the particular purpose</i> ".

19.5 Methodology for baseline data gathering

Overview

- 19.5.1 Baseline data collection has been undertaken to obtain information over the study areas described in **Section 19.4: Scope of the assessment**. The current baseline conditions presented in **Section 19.6: Baseline conditions** sets out data currently available information from the study area.

Desk study

- 19.5.2 A range of desk-based and site-based data have been sourced to undertake the LVIA, covering landscape and visual receptors and other relevant cumulative development. The desk-based data has been drawn from Ordnance Survey and a range of document sources in addition to the relevant planning policy documents outlined in **Chapter 2: Policy and legislative context**. The principal desk-based data sources used to inform this chapter are set out in **Table 19-11**.

Table 19-11 Data sources used to inform the PEIR assessment

Source	Date	Summary	Coverage of study area
Arun District Council	2006	Arun Landscape Study - Landscape and Visual Amenity Aspects of Development Choices in Arun District 2006-2026 (available online: https://www.arun.gov.uk/download.cfm?doc=docm93jjm4n6851.pdf&ver=6564 [Accessed 30 June 2021])	Arun District
Campaign to Protect Rural England (CPRE)	2016	Interactive maps of the UK's light pollution and dark skies as part of a national mapping project (LUC/CPRE, 2016). Open Source data, used to understand and illustrate baseline lighting levels (available online: https://www.nightblight.cpre.org.uk/maps/ [Accessed 30 June 2021])	Full coverage of the study area.
English Heritage	2021	Any specific visitor attractions / tourist destinations (available online: https://www.english-heritage.org.uk/visit/places/#?page=1&place=&mp=false&fe=false [Accessed 30 June 2021])	Full coverage of the study area.

Source	Date	Summary	Coverage of study area
Google Earth Pro	2021	Aerial Photography	Full coverage of the study area.
High Weald AONB	2019	High Weald AONB Boundary (included within the AONB Management Plan 2019 – 2024) (available online: http://www.highweald.org/high-weald-aonb-management-plan.html [Accessed 30 June 2021])	High Weald AONB
Historic England	2021	Registered Parks and Gardens and UNESCO World Heritage Sites (available online: https://historicengland.org.uk/listing/what-is-designation/registered-parks-and-gardens/ [Accessed 30 June 2021])	Full coverage of the study area.
Horsham District Council	2003	Horsham District Landscape Character Assessment (available online: https://www.horsham.gov.uk/planning/planning-policy/evidence-base/landscape-character-assessment [Accessed 30 June 2021])	Horsham District
Long Distance Walkers Association	2021	Overview map for Long Distance Paths and Walks (available online: https://www.ldwa.org.uk/ldp/public/ldp_overview_map.php [Accessed 30 June 2021])	Full coverage of the study area.
Marine Management Organisation	2016	Marine Character Areas – South Inshore and Offshore Marine Plan Areas (available online: https://www.gov.uk/government/publications/the-south-marine-plans-documents [Accessed 30 June 2021])	Coastal section of study area.
Mid-Sussex District Council	2005	Mid Sussex Landscape Character Assessment (available online: https://www.midsussex.gov.uk/media/1756/lca-part-one-intro-and-background.pdf [Accessed 30 June 2021])	Mid-Sussex District
National Trust	2021	Any specific visitor attractions / tourist destinations (available online: https://www.nationaltrust.org.uk/days-out [Accessed 30 June 2021])	Full coverage of the study area.
Natural England	2013	National Character Area Profiles (NCAP), for information on National Landscape Character Areas:	Full coverage of the study area.

Source	Date	Summary	Coverage of study area
		<ul style="list-style-type: none"> • NCAP 120: Wealden Greensand • NCAP 121: Low Weald • NCAP 122: High Weald • NCAP 125: South Downs • NCAP 126: South Coast Plain <p>(available online: https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles#ncas-in-south-east-england-and-london [Accessed 30 June 2021])</p> <p>Landscape Character Types and Landscape Description Units</p>	
Natural England	2021	Multi-Agency Geographic Information for the Countryside (MAGIC). (available online: https://magic.defra.gov.uk/ [Accessed 30 June 2021]).	Full coverage of the study area.
Natural England	2020	<p>GIS datasets for:</p> <ul style="list-style-type: none"> • National Parks (https://data.gov.uk/dataset/334e1b27-e193-4ef5-b14e-696b58bb7e95/national-parks-england [Accessed 30 June 2021]) • Areas of Outstanding Natural Beauty (AONB) (https://data.gov.uk/dataset/8e3ae3b9-a827-47f1-b025-f08527a4e84e/areas-of-outstanding-natural-beauty-england [Accessed 30 June 2021]) • County Parks (https://data.gov.uk/dataset/e729abb9-aa6c-42c5-baec-b6673e2b3a62/country-parks-england [Accessed 30 June 2021]) • Open Access Land (https://data.gov.uk/dataset/05fa192a-06ba-4b2b-b98c-5b6bec5ff638/crow-act-2000-access-layer [Accessed 30 June 2021]) 	Full coverage of the study area.

Source	Date	Summary	Coverage of study area
Ordnance Survey	2019	1:25,000 scale mapping: <ul style="list-style-type: none"> • Explorer OL10 – Arundel & Pulborough • Explorer OL11 – Brighton and Hove • Explorer OL34 - Crawley & Horsham <p>Topo 50 and 5 Digital Terrain Model (DTM) and Digital Surface Model (DSM) data.</p>	Full coverage of the study area.
Ordnance Survey Open Data	2019	Ordnance Survey County Region, Local Unitary Authority, Railways, Roads and Settlements (available online: https://www.ordnancesurvey.co.uk/business-government/products [Accessed 30 June 2021])	Full coverage of the study area.
SDNP	2020	South Downs Landscape Character Assessment 2020 (available online: https://www.southdowns.gov.uk/landscape-design-conservation/south-downs-landscape-character-assessment/south-downs-landscape-character-assessment-2020/ [Accessed 30 June 2021])	SDNP
Sustrans	2021	National Cycle Network (GIS dataset) (available online: https://www.sustrans.org.uk/national-cycle-network/ [Accessed 30 June 2021])	Full coverage of the study area.
Visit England	2021	Any specific visitor attractions / tourist destinations (available online: https://www.visitengland.com/destinations/south-east-england [Accessed 30 June 2021])	Full coverage of the study area.
WSCC	2003	Landscape character assessment of West Sussex (available online: https://www.westsussex.gov.uk/land-waste-and-housing/landscape-and-environment/landscape-character-assessment-of-west-sussex/ [Accessed 30 June 2021]).	West Sussex
WSCC, East Sussex County Council, Brighton & Hove Unitary Authority	2010	Sussex Historic Landscape Classification (available online: https://www.westsussex.gov.uk/media/1773/sussex_hlc_volume_1.pdf [Accessed 30 June 2021])	West Sussex

Source	Date	Summary	Coverage of study area
and English Heritage			
WSCC	2021	Public Rights of Way iMap (available online: https://www.westsussex.gov.uk/land-waste-and-housing/public-paths-and-the-countryside/public-rights-of-way/public-rights-of-way-imap/ [Accessed 30 June 2021]).	West Sussex
WSCC	2020	Local distinctiveness study of West Sussex (available online: https://www.westsussex.gov.uk/land-waste-and-housing/landscape-and-environment/local-distinctiveness-study-of-west-sussex/ [Accessed 30 June 2021])	West Sussex
Wood – Internal dataset	2021	Public Rights of Way	Full coverage of the study area
Woodland Trust	2021	Identified / Ancient Woodlands (available online: https://www.woodlandtrust.org.uk/visiting-woods/find-woods/ [Accessed 30 June 2021])	Full coverage of the study area

Site surveys

19.5.3 Site and field survey activities have included the following:

- field survey verification of landscape elements within the onshore substation search areas and onshore cable corridor and recommendations for embedded environmental measures where potentially significant effects are identified;
- field survey verification of the ZTV from landscape and visual receptor locations and transport and recreational routes through the LVIA study area;
- micro-siting of viewpoint locations and recording of panoramic baseline photography and subsequent visual assessment from the assessment viewpoints; and
- identification of interactions between onshore and offshore elements of the Proposed Development such as whole Proposed Development visibility or landscape and seascape effects.

19.5.4 All site survey work has been undertaken in fair weather conditions with good to excellent visibility. **Table 19-12** shows the dates of survey work undertaken to date.

Table 19-12 Site surveys undertaken to date

Survey type	Coverage of study area	Survey status
Familiarisation of LVIA study area, verification of ZTV from landscape and visual receptor locations, viewpoint photography and verification of landscape elements	Full coverage of study area, including areas of potential visibility beyond the study area from specific elevated locations.	Surveys completed during October to December 2020, and January 2021.

Data limitations

19.5.5 Except for the following, there are no other data limitations relating to the LVIA that affect the robustness of the assessment of this PEIR:

- Arboricultural Survey – to be completed between PEIR and ES.

19.6 Baseline conditions

Current baseline

19.6.1 Information on the existing landscape resource or baseline conditions included in the LVIA has been collected from local plans, Ordnance Survey maps, and relevant literature, as well as information gathered from site and study area surveys. This baseline information is set out as an inventory of the existing landscape resource and focuses on those landscape and visual receptors with most potential to be significantly affected.

Baseline of landscape receptors

Immediate landscape context

- 19.6.2 The topography of the landscape within the study area varies from being relatively flat in the south towards the coast at 3m Above Ordnance Datum (AOD) rising to 238m AOD at Chanctonbury Hill within the central part of the SDNP before dropping down into the low-lying vales of the Low Weald at around 10m AOD in the northeast near Bolney. The landform rises again towards the High Weald AONB beyond Bolney.
- 19.6.3 The landscape between the landfall at Climping near Atherington and the edge of the SDNP is a coastal plain very gently rising north/northeast towards the National Park. The relatively flat, lower coastal plain is heavily urbanised and includes parts of the settlements of Littlehampton, Middleton-On-Sea and Arundel linked by road (A27, A259 and A284) and regional rail corridors. In between development and transport links is a farmed landscape of large open fields with few trees and hedgerows. Drainage ditches, wire fences or low banks are more usual as field boundaries. Further north, the upper coastal plain comprises flat, regular patterns of large fields with gentler forms and patterns, blending into the openness of the lower dip slope of the SDNP. Here the landscape is varied, incorporating both

open arable farmland and low-density settlements, with a more wooded and semi-enclosed (somewhat suburban) character locally at the settlements of Arundel and Crossbush near the A27.

- 19.6.4 The part of the SDNP within the study area comprises a broad elevated east–west ridge with a predominantly steep, north facing scarp slope and a gentle southerly dip slope, breaking into a series of hills east and west beyond the study area. The area to the east of the River Arun is characterised by larger open arable and grassland fields, with a general absence of woodland and fewer hedgerow boundaries, creating an open, exposed ‘South Downs’ landscape, however, the area to the south, and west of the River Arun features large woodlands. Roads and villages are mainly concentrated in the river valleys (River Arun) with the more elevated areas sparsely settled with scattered farmsteads. PRow including the South Downs Way National Trail traverse this landscape with some routes benefiting from panoramic views across the downs and beyond.
- 19.6.5 Between the SDNP and the northeast of the study area, the topography of the landscape drops sharply into the broad, low-lying vales of the Low Weald, before rising again towards the High Weald AONB beyond. This landscape is predominantly agricultural and largely pastoral with either grassland or meadows. Field boundaries of hedgerows enclose small, irregular fields linking small and scattered linear settlements. A number of smaller towns and villages including Henfield, Ashington, Cowfold, Partridge Green and Bolney are scattered among areas of woodland, where larger villages have grown around major transport routes including the A23, A272 and A281. Numerous woodland blocks are scattered throughout this landscape along with many small rivers, streams and water features such as ponds and brooks.
- 19.6.6 The landscape receptors for each of the two onshore substation search areas, and onshore cable corridor are set out individually for ease of reference.
- 19.6.7 The baseline inventory in **Table 19-13** to **Table 19-15** includes the following landscape receptors overlapped by the ZTV within the 2km study area:
- Landscape Character Units; and
 - Landscape Planning Designations.

Table 19-13 Onshore substation search area option A: Bolney Road / Kent Street – landscape receptors within 2km (Figure 19.5a)

National Character Area (NCA)	County Character Area	Local Character Area (LCA)
‘Host’ Landscape Character Units		
NCA 121: Low Weald NCA 122: High Weald	LW10: Eastern Low Weald	J3 Cowfold & Shermanbury Farmlands
Other Landscape Character Units		
NCA 122: High Weald	HW4: High Weald Fringes	M1 Crabtree & Nuthurst Ridges & Ghylls

National Character Area (NCA)	County Character Area	Local Character Area (LCA)
NCA 121: Low Weald NCA 122: High Weald	LW10: Eastern Low Weald	LW1 Hickstead Low Weald
NCA 122: High Weald	HW4: High Weald Fringes	HW10 High Weald Fringes
Landscape Designations	High Weald AONB Effects on other designations such as Registered Parks and Gardens, Conservation Areas and Nature Reserves are covered by other chapters: Chapter 26 and Chapter 23 respectively.	

- 19.6.8 Site visits and viewpoint analysis indicate that there will be no visibility of substation search area option A from HW10 High Weald Fringes LCA. It is therefore excluded from the assessment. Effects on the remaining landscape character receptors identified in **Table 19-13** above are assessed in **Section 19.9**. Effects on the High Weald AONB are assessed in **Appendix 19.3, Volume 4**.

Table 19-14 Onshore substation search area option B: Wineham Lane North – landscape receptors within 2km (Figure 19.5a)

National Character Area (NCA)	County Character Area	Local Character Area (LCA)
‘Host’ Landscape Character Units		
NCA 121: Low Weald	LW10: Eastern Low Weald	LW1 Hickstead Low Weald
Other Landscape Character Units		
NCA 121: Low Weald	LW10: Eastern Low Weald	J3 Cowfold & Shermanbury Farmlands
		LW2 Upper Adur Valley
	LW9: Upper Adur Valley	P2 Upper Adur Valleys
NCA 122: High Weald	HW4: High Weald Fringes	HW10 High Weald Fringes
		M1 Crabtree & Nuthurst Ridges & Ghylls
Landscape Designations	High Weald AONB Effects on other designations such as Registered Parks and Gardens, Conservation Areas and Nature Reserves are	

National Character Area (NCA)	County Character Area	Local Character Area (LCA)
covered by other chapters: Chapter 26 and Chapter 23 respectively.		

- 19.6.9 Site visits and viewpoint analysis indicate that there will be no visibility of onshore substation search area option B from LW2 Upper Adur Valley, P2 Upper Adur Valleys, HW10 High Weald Fringes and M1 Crabtree & Nuthurst Ridges & Ghyls. They are therefore excluded from the assessment. Effects on the remaining landscape character receptors identified in **Table 19-14** above are assessed in **Section 19.9**. Effects on the High Weald AONB are assessed in **Appendix 19.3, Volume 4**.

Table 19-15 Onshore cable corridor – landscape receptors within 2km (south to north) (Figures 19.5bi – iii, Volume 3)

National Character Area (NCA)	County Character Area	Local Character Area (LCA)
Climping to Arundel (Figure 19.5bi)		
NCA 126: South Coast Plain	SC1: South Coast Shoreline	None
	SC9: Chichester to Yapton Coastal Plain	31 Climping Lower Coastal Plain
	SC10: Lower Arun Valley	35 Lower Arun Valley Floor
		38 Littlehampton Arun Valley Sides
		34 Middle Arun Valley Floor
	LW5: Southern low Weald	37 Lyminster Arun Valley Sides
	SC12: Angmering Upper Coastal Plain	36 Crossbush Arun Valley Sides
	SC10: Lower Arun Valley & SC11: Littlehampton and Worthing Fringes	39 Littlehampton Northern Fringe
	LW5: Southern Low Weald	40 Lyminster-Angmering Coastal Plain

National Character Area (NCA)	County Character Area	Local Character Area (LCA)
	SC11: Littlehampton and Worthing Fringes	41 Black Ditch Rife
Arundel to Wiston (Figure 19.5bii) – All Landscape Character Areas in this section are within the SDNP with the South Downs Landscape Character Assessment, 2020 taking precedent over other character assessments.		
Landscape Character Areas	G4: Arun Valley Sides	
	R1: South Downs Upper Coastal Plain	
	B4: Angmering and Clapham Wooded Estate Downland	
	F4: Arun Floodplain	
	A3: Arun to Adur Open Downs	
	I3: Arun to Adur Down Scarp	
	J3: Arun to Adur Scarp Footslopes	
Wiston to Bolney (Figure 19.5biii)		
NCA 120: Wealden Greensand NCA121: Low Weald	WG8: Central Scarp Footslopes	D1 Amberley to Steyning Farmlands
NCA 120: Wealden Greensand NCA121: Low Weald	WG7: Storrington Woods and Hearths	E1 Parham & Storrington Wooded Farmlands &Heaths
NCA121: Low Weald	WG7: Storrington Woods and Hearths	F1 Pulborough, Chiltington & Thakeham Farmlands
	LW7: Wiston Low Weald	G1 Ashurst & Wiston Wooded Farmlands
	LW9: Upper Adur Valley	O3 Steyning & Henfield Brooks
		P2 Upper Adur Valleys
	LW10: Eastern Low Weald	J3 Cowfold & Shermanbury Farmlands
		LW1 Hickstead Low Weald
Landscape Designations	SDNP High Weald AONB	

National Character Area (NCA)**County Character Area****Local Character Area (LCA)**

Effects on other designations such as Registered Parks and Gardens, Conservation Areas and Nature Reserves are covered by other chapters: **Chapter 26** and **Chapter 23** respectively.

- 19.6.10 Effects of the onshore cable corridor on landscape receptors listed in **Table 19-15** above (landscape character and landscape designations) are assessed in **Appendix 19.3, Volume 4**.

Baseline of visual receptors

- 19.6.11 The visual assessment draws upon the ZTV, site visits and viewpoint analysis and assesses the potential visual effects on views and visual amenity likely to be experienced by receptors (people) outlined in **Table 19-5** within the landscape as follows:
- settlements;
 - transport routes (roads and rail);
 - recreational routes (PRoW including National Trails, Sustrans Cycle Routes and other long-distance walking and cycling routes); and
 - recreational and tourist destinations.
- 19.6.12 Views experienced within the study area are influenced by landform and features such as woodlands and built development. Views tend to be open in the south, affording panoramic views out to sea from areas of the coastal plain with longer distance views of the surrounding landscape and from more elevated parts of the SDNP and High Weald AONB (beyond the study area), where vegetation does not restrict views. Moving further inland to the northeast of the study area, away from the coastal plain and the SDNP, variations in topography and a greater concentration of woodlands and hedgerows combine to frame, filter and foreshorten views.
- 19.6.13 The existing National Grid Bolney substation and the existing Rampion 1 onshore substation are well screened beyond roadside trees. A row of high voltage electrical pylons (Bolney to Lovedean 400kv overhead line) are visible in views from limited locations extending to the northwest beyond Cowfold and to the east beyond the A23.
- 19.6.14 The visual receptors for each of the two onshore substation search areas, and onshore cable corridor (including temporary construction compounds and access routes) are set out individually in **Table 19-16** to **Table 19-18** for ease of reference.

Table 19-16 Onshore substation search area option A: Bolney Road / Kent Street – visual receptors within 2km

Visual receptor	
Settlements	<ul style="list-style-type: none"> - Cowfold. <p>There will be Zero visibility from other settlements within 2km including Wineham due to screening from intervening landform, built-form and / or vegetation, even in the winter.</p>
Transport routes	<ul style="list-style-type: none"> - A272; - A281; and - Kent Street. <p>There will be Negligible to Zero visibility from other transport routes within 2km due to screening from intervening landform, built-form and / or vegetation, even in the winter.</p>
Recreational routes	<ul style="list-style-type: none"> - PRoW 1786 between east of Taintfield Wood and A272; - PRoW 1788 between west of Taintfield Wood Oakendene Industrial Estate; and - PRoW 1775 and 1777 near Eastlands Farm. <p>There will be Negligible to Zero visibility from any other recreational routes within 2km due to screening from intervening landform, built-form and / or vegetation, even in the winter (see viewpoints SA5 and SA8).</p>
Recreational and tourist destinations	<p>There will be Zero visibility from Wineham Lane Caravan Park due to screening from intervening landform, built-form and / or vegetation, even in the winter. No other recreational and tourist destinations within 2km.</p>

Table 19-17 Onshore substation search area option B: Wineham Lane North – visual receptors within 2km

Visual receptor	
Settlements	<p>Site visits and viewpoint analysis confirm Negligible to Zero visibility from any settlements within and just beyond 2km including Wineham, Twineham, Twineham Green, Crosspost, Bolney, Cowfold and Hickstead, due to screening from intervening landform, vegetation and / or built-form.</p>
Transport routes	<ul style="list-style-type: none"> - Wineham Lane; and - Bolney Chapel Road. <p>There will be Negligible to Zero visibility from other transport routes within 2km including the A272, A23, Bob Lane and Hickstead Lane due to screening from intervening landform, built-form and / or vegetation, even in the winter.</p>
Recreational routes	<ul style="list-style-type: none"> - PRoW 1T / 36Bo between Wineham Lane and Coombe House; - PRoW 8T / 34Bo between Bob Lane and Coombe House; and - PRoW 32Bo at Nyeshill Farm.

Visual receptor

Site visits and viewpoint analysis confirm that there will be Negligible to Zero visibility from other recreational routes within 2km including Sustrans Cycle Route 20 and the nearby PRow 1790 and 1791 (due to screening from intervening landform, built-form and / or vegetation, even in the winter).

Recreational and tourist destinations There will be Zero visibility from Wineham Lane Caravan Park due to screening from intervening landform, built-form and / or vegetation, even in the winter. No other recreational and tourist destinations within 2km.

Table 19-18 Onshore cable corridor – visual receptors within 2km (south to north)

Visual receptor

Settlements – Climping to Arundel (south of SDNP)

- Climping;
- Littlehampton;
- Lyminster; and
- Arundel.

There will be Negligible to Zero visibility of the onshore cable corridor from other settlements within 2km including Middleton on Sea, Yapton and Poling due to screening from intervening vegetation, built-form and / or landform.

Settlements – Arundel to Wiston (within SDNP)

- Crossbush;
- Warningcamp;
- Burpham and Wepham; and
- Washington, West Sussex (including Washington Recreation Ground and Allotments Village Green).

Settlements – Wiston to Bolney (north of SDNP)

- Wiston;
- Ashurst;
- Partridge Green;
- Shermanbury; and
- Wineham.

There will be Negligible to Zero visibility of the onshore cable corridor from other settlements within 2km including Storrington, Ashington, Henfield, Cowfold, Crosspot, Twineham Green, Twineham and Bolney.

Transport routes – Climping to Arundel (south of SDNP)

- Climping Street;
- A259;
- Ferry Road;
- Church Lane;
- Ford Road;
- A284 Lyminster Road;
- A27; and
- Railway Line from Littlehampton and Yapton to Arundel.

Visual receptor

	<p>There will be Negligible to Zero visibility of the onshore cable corridor from other transport routes within 2km including the B2233, B2187, and roads within Littlehampton and Arundel due to screening from intervening landform, built-form and / or vegetation, even in the winter.</p>
Transport routes – Arundel to Wiston (within SDNP)	<ul style="list-style-type: none"> - Crossbush Lane; - Local roads around Warningcamp (Clay Lane and Blakehurst Lane); - Local roads around Wepham and Burpham; - A24; and - A283. - Railway Line from Arundel to Amberley.
Transport routes – Wiston to Bolney (north of SDNP)	<ul style="list-style-type: none"> - Water Lane, Wiston; - Spithandle Lane; - B2135; - B2116; - A281; - Wineham Lane; - Bob Lane; - Kent Street; - Bolney Chapel Road; and - Fryland Lane. <p>There will be Negligible to Zero visibility of the onshore cable corridor from other transport routes within 2km including roads within Henfield and Storrington, and the B2116 due to screening from intervening landform, built-form and / or vegetation, even in the winter.</p>
Recreational routes – Climbing to Arundel (south of SDNP)	<p><u>National Routes:</u></p> <ul style="list-style-type: none"> - Sustrans Cycle Routes 2. <p><u>Local Routes:</u></p> <ul style="list-style-type: none"> - Arun Way; and - South Coast Cycle Route. <p><u>PRoW (only those with potential visibility of the onshore cable corridor):</u></p> <ul style="list-style-type: none"> - PRoW 829, 174, 197, 173, 172, 169, 168, 3110, 206, 2165, 2163/1, 3096, 2163, 2202/1, 2205, 2200 and 2207. <p>There will be Negligible to Zero visibility from other recreational routes within 2km including group of PRoW around Burndell and Littlehampton, and Wick to Littlehampton Cycle Route due to screening from intervening landform, built-form and / or vegetation, even in the winter.</p> <p>The England Coast Path along Climbing Beach has not yet been approved by the SoS. Therefore, it has not been included in the assessment. However, effects on walkers are included as part of Climbing Beach given the overlap of the route.</p>

Visual receptor

Recreational routes – Arundel to Wiston (within SDNP)

National Routes:

- South Downs Way National Trail.

Local Routes:

- Monarch Way; and
- Arundel Route.

PRoW (only those with potential visibility of the onshore cable corridor):

- PRoW 2202, 2189, 2189/1, 2217, 2218, 3064/1, 3069, 2222, 2223, 2238, 2219, 2213, 2221, 2226, 2212, 2215, 2220/1, 2226, 2256, 2256/1, 2214, 2191/2, 2231, 2232, 2233/1, 2235, 2236, , 2227, 2230, 2247, 2245, 2249, 3419, 2252/1, 2191, 3558/1, 2252, 2260, 2173, 2282/1, 2209, 2671/1, 3507, 2551, 2684, 2683, 2108/1, 2282, 2689, 2665, 2691, 2697, 2666, 2996, 2623, 2698, 2701, 2704, 2706, 2705, 2089/1, 2696, 2089/2, 2699, 3181 and 2703.

There will be Negligible to Zero visibility from other recreational routes within 2km including PRoW within Wepham Wood and Washington Common.

Recreational routes – Wiston to Bolney (north of SDNP)

National Routes:

- Sustrans Cycle Route 223.

Local Routes:

- Downs Link.

PRoW (only those with potential visibility of the onshore cable corridor):

- PRoW 2604, 2616, 2617, 2710, 2709, 2711, 2514, 2594, 2589, 2590, 2588, 2589/1, 2519, 2520, 2587, 2583/2, 3200, 3514, 2372, 2372/1, 2372/2, 1841, 2374, 1841/1, 2808, 2800, 1774, 1772 and 2377.

There will be Negligible to Zero visibility of the onshore cable corridor from other recreational routes within 2km including group of PRoW around Storrington, PRoW along River Adur, PRoW north and west of Henfield, due to screening from intervening landform, built-form and / or vegetation, even in the winter.

Recreational and tourist destinations – Climbing to Arundel (south of SDNP)

- Littlehampton Golf Club;
- Littlehampton West and East Beach;
- Climping Camp Site;
- Climping Caravan Park; and
- Brookside Caravan Park.

There will be Negligible to Zero visibility of the onshore cable corridor from other recreational and tourist destinations within 2km including Ship & Anchor Caravan Park and Littlehampton Caravan Park.

Recreational and tourist destinations –

- Crossbush Caravan Park; and
- Arundel Castle.

There will be Negligible to Zero visibility of the onshore cable corridor from other recreational and tourist destinations within 2km including

Visual receptor

Arundel to Wiston (within SDNP)

the Arundel Wetland Centre and the publicly accessible Angmering Park Ancient Woodland.

There are a number of areas of Open Access Land within 2km with potential visibility of the onshore cable corridor including:

- Arundel Park;
- Perry Hill;
- Barpham Hill;

- Chantry and Sullington Hills; and
- Chanctonbury Hill.

A number of hilltops (landmarks) within 2km, as identified in the Land Use Consultants (2015) *South Downs National Park View*

Characterisation and Analysis (Viewshed Study Report) , include:

- Arundel Castle;
- Chantry Hill;
- Sullington Hill; and
- Chanctonbury Ring.

A number of hill tops (landmarks) within the SDNP beyond 2km are included as part of the viewpoint assessment, in agreement with the SDNPA.

Recreational and tourist destinations – Wiston to Bolney (north of SDNP)

- Washington Caravan Park; and
- Wineham Lane Caravan Park.

There will be Negligible to Zero visibility of the onshore cable corridor from other recreational and tourist destinations within 2km including the publicly accessible The Warrens Ancient Woodland.

Other recreational receptors

The Rivers Arun and Adur are important recreation assets and both will be crossed by the onshore cable corridor. The River Arun will be crossed about 2km from the coast at Littlehampton. The western fork of the River Adur will be crossed about 2km south of Partridge Green, west of Henfield. Both rivers host annual swimming events and are both also recognised as kayaking/ canoeing rivers, though they are both heavily tidal – restricting canoeing opportunities. Angling also takes place along both rivers. Both rivers have PRoW following one or both banks, and effects on users of these rivers are therefore included as part of the PRoW assessment.

There are a number of areas of Registered Common Land within the study area including Unnamed Common and The Pond at Climping, Broad Green Waster at Tortington, Washington Common, Sullington Warren, Horsebridge Common and Bines Green at Ashurst, Henfield Common, and Blackland Common. Horsebridge Common and Bines Green overlap with the B2135 and are therefore included as part of the route assessment. The remainder of the areas of Registered Common Land are outwith the ZTV or would have no view of the

Visual receptor

onshore elements of the Proposed Development, and therefore excluded from further assessment.

- 19.6.15 The effects of the two onshore substation search areas on the views and visual amenity experienced by visual receptors listed in **Table 19-18** above are assessed in **Section 19.10** whilst effects of the onshore cable corridor (including temporary construction compounds and access routes) are assessed in **Appendix 19.4, Volume 4**.

Future baseline

- 19.6.16 Landscape change is an ongoing and inevitable process and will continue across the study area irrespective of whether the Proposed Development proceeds. Change could arise through natural processes (for example, the maturity of woodlands) and natural systems (for example, river erosion) or as a result of human activity including land use and land management.
- 19.6.17 Reference to the Arun, Horsham and Mid-Sussex Local Development Plans indicate strategic and economic growth within their districts which is likely to affect various settlements. Similarly, the South downs Local Plan (SDNPA, 2019) indicates a number of housing sites within its boundary.
- 19.6.18 The published profile report for all five NCAs within the study area reports on a number of drivers of change, particularly on climate change, which may also alter the existing landscape and visual baseline within the surrounding area. However, long-term changes as a result of climate change are unpredictable, and the LVIA is undertaken against the current baseline.

19.7 Basis for PEIR assessment

Maximum design scenario

- 19.7.1 The LVIA has been undertaken using a parameter-based design envelope approach means that the assessment considers a maximum design scenario whilst allowing the flexibility to make improvements in the future in ways that cannot be predicted at the time of submission of the DCO Application. The assessment of the maximum design scenario for each receptor establishes the maximum potential adverse impact and as a result impacts of greater adverse significance will not arise should any other development scenario (as described in **Chapter 4: The Proposed Development**) to that assessed within this chapter be taken forward in the final scheme design.
- 19.7.2 The maximum design assumptions that have been identified to be relevant to the LVIA are outlined in **Table 19-19** and are in line with the Project Design Envelope (**Chapter 4**).

Table 19-19 Maximum assessment assumptions for impacts on landscape and visual receptors

Project phase and element	Maximum assessment assumptions	Justification
Construction	Landfall <ul style="list-style-type: none"> • Temporary construction compound 100m x 75m. • It is assumed that the tallest elements will be the mechanical excavator which has been modelled to a maximum height of 6m (fully extended). • Up to four horizontal directional drilling (HDD) drills. • Up to four transition bays. • Total construction period and installation duration up to six months. 	These elements of the works at the landfall will be visible temporarily during the construction phase.
Construction	Onshore cable corridor <ul style="list-style-type: none"> • Onshore cable corridor length approximately 36km. • It is assumed that the tallest elements will be the mechanical excavator which has been modelled to a maximum height of 6m (fully extended). • The onshore temporary construction corridor width will be up to 50m (25m either side of a centreline). • The permanent corridor width (easement) will be 15-25m (and may need to be increased at HDD and Joint Bays). • Up to four trenches and up to 20 cables and ducts (including fibre optics). • Burial depth minimum 1.2m standard cover to top of duct and maximum (for HDD) 25m (trees 	These elements of the works will be visible temporarily during the construction phase and for a temporary period after the trench pathway may be visible as reinstated vegetation grows.

Project phase and element	Maximum assessment assumptions	Justification
	<p>within the HDD corridor will be retained).</p> <ul style="list-style-type: none"> • A minimum of 11 trenchless (HDD) crossing locations with HDD compounds 50m x 75m. Other trenchless methodologies to be considered could include auger boring and micro-tunnelling. • Approximately 45 joint bays with temporary construction compounds 4m x 14m – construction duration 6-8 weeks. • Total of four temporary construction compounds: • West of River Arun – 57,000m² • Crossbush – 23,000m² • Washington – 45,000m² • Oakendene – 53,000m² • Temporary roadway width – 5m to 10m. The LVIA considers a 10m width as the worst case (which will be refined post – PEIR as the design is finalised). • Approximately 59,500 HGV construction traffic movements (two-way) across onshore cable corridor over the construction period. Further information is provided in Chapter 24: Transport. • Total construction period and installation duration up to 3 years (approximately 150m per day with 4 trenches) • In addition, reinstated areas will be subject to a Landscape Design Plan that will include new and replacement / compensatory landscape planting along the 	

Project phase and element	Maximum assessment assumptions	Justification
	reinstated onshore cable corridor, temporary construction compounds and accesses as described in Section 19.7 .	
Construction	<p>Onshore Substation</p> <p>Two onshore substation search areas:</p> <ul style="list-style-type: none"> • A – Bolney Road / Kent Street; and • B – Wineham Lane North. • Overall footprint for each option – approximately 9.2 hectares (ha) • Permanent area of site for all infrastructure – 4.25ha • Temporary works area - 2.5ha • Maximum number of buildings - 12 • Maximum length building - 70m • Maximum width of building - 20m • Maximum heights: • Maximum main building / equipment height - 12m • Lightning protection mast height - 12m • Height of fire walls - 10m • It is assumed that the tallest elements will be the mechanical excavator which has been modelled to a maximum height of 6m (fully extended). • Total construction period and installation duration up to 3 years. • In addition, perimeter areas of the site will be subject to a Landscape Design Plan and Strategy that will include 	<p>These elements of the works will be visible temporarily during the construction phase. See operational and maintenance phase for enduring maximum assessment assumptions as the onshore substation infrastructure will be in place above ground level permanently.</p>

Project phase and element	Maximum assessment assumptions	Justification
	earthworks, SuDS and planting as described in Section 19.7 .	
Operation and maintenance	Landfall and onshore cable corridor <ul style="list-style-type: none"> No above ground infrastructure The permanent corridor width (easement) will be 15-25m (and may need to be increased at HDD and Joint Bays). New, replacement / compensatory landscape planting will be established and maintained. 	It should be noted that joint bays will be underground – there will be no surface infrastructure except for a manhole cover flushed at ground level.
Operation and maintenance	Onshore Substation <ul style="list-style-type: none"> As per construction phase, excluding temporary works area – 2.5ha and height of mechanical excavator. The perimeter landscape estate will be subject to establishment and management / maintenance, as described in Section 19.7. 	This chapter assesses the effect on landscape elements, character and designated landscapes, and visual amenity owing to the presence of the onshore substation. These maximum assessment assumptions are relevant to the assessment of effects on LVIA receptors undertaken at PEIR and ES.
Decommissioning	Landfall and onshore cable corridor Onshore electrical cables will be left in-situ with ends cut, sealed and buried.	There will be no decommissioning of the landfall and onshore cable corridor at the end of their operational life as the electrical cables will be left in-situ to minimise the landscape and visual effects associated with removal.
Decommissioning	Onshore substation Onshore substation: if fully decommissioned, then as per construction phase.	These maximum assessment assumptions are relevant to the assessment of effects on LVIA receptors undertaken at PEIR and ES.

- 19.7.3 The assessment of effects in this PEIR takes into consideration the optionality that exists for flexibility at this stage of the design of the Proposed Development (as outlined in **Chapter 5**). For example, the LVIA has differentiated between the effects where there are multiple cable corridor options at Warningcamp and those between Shermanbury and the onshore substation options.
- 19.7.4 Therefore, effects that are more significant than those presented in this PEIR are not predicted to occur should any other development scenario within the maximum design envelope be taken forward in the final design of the Proposed Development.

Embedded environmental measures

Overview

- 19.7.5 As part of the Rampion 2 optioneering and design process, a number of environmental measures have been embedded into the design of the onshore elements of the Proposed Development as explained in **Chapter 5: Approach to the EIA**. They include measures to reduce landscape and visual effects and commitments to protect and or reinstate landscape elements (such as trees, woodland and hedgerows) as set out below. These embedded environmental measures will evolve through the design process, as the EIA progresses, and in response to consultation. They will be fed iteratively into the assessment process.
- 19.7.6 Embedded environmental measures typically include those that have been identified as good or standard practice and include actions that will be undertaken to meet existing legislation requirements. As there is a commitment to implementing these embedded environmental measures, and also to various standard sectoral practices and procedure, they are considered inherently part of the design of Rampion 2 and are set out in this PEIR.

Landscape Design Plan

- 19.7.7 A Landscape Design Plan will be provided to cover the onshore elements of the Proposed Development. The main principles governing the Landscape Design Strategy will draw from the Rampion 1 design plan and principles (C-61) and the landscape related embedded environmental measures and commitments (excluding optioneering) are explained as follows:
- 19.7.8 Onshore substation: Landscape Design Plan:
- develop conceptual landscape design planning as part of the overall onshore substation design to ensure where practical the protection of landscape character, key characteristics and elements and the inclusion of sufficient areas and zones for mitigation such as screen planting or view / line of sight protection (C-195, **Table 19-20**); and
 - develop a high quality Landscape Design Plan to mitigate landscape and visual as well as other environmental effects and where possible enhance landscape quality through use of sustainable landscape design techniques involving earthworks, sustainable drainage systems (SUDs), soft / hard landscaping including, but not limited to planting (trees, hedges and woodland), outline

architectural strategy (building colours and materials) lighting details (emergency and intruder lighting) and perimeter fencing. The Landscape Design Plan will take account of the West Sussex Landscape Land Management Guidelines (C-68, **Table 19-20**).

19.7.9 Landfall and onshore cable corridor: Landscape Design Plan:

- The entire onshore cable corridor will be completely buried underground (C-1);
- reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall construction (C-1, C-2, C-3, C-6, C-9, C-113 and C-128, **Table 19-20**), including location and design of construction/HDD compounds and construction access provision through iterative design and EIA;
- reduction to the working width of the onshore cable corridor to 15-25m at sensitive locations to protect landscape elements where practical and trenchless technology will be used in some locations such as roads and rivers (C-3, C-5, C-20, C-114 and C-115, **Table 19-20**);
- develop a phasing plan (C-19, **Table 19-20**) to reduce the amount of time trenches need to be open, typically working to sections 600m-1000m in length, particularly in the SDNP, allowing for quicker backfilling and progressive/early restoration and reinstatement of the landscape with all construction areas reinstated to pre-existing conditions as far as practical (C-7, C-27 and C-128, **Table 19-20**);
- soil storage and handling will accord with Department for Environment, Food and Rural Affairs (Defra) *Code of Construction Practice (COCP) for the Sustainable Use of Soils on Construction Sites PB13298* (Defra, 2009) (C-11, C-12, C-13, C-29, C-130, C-132 and C-133, **Table 19-20**);
- avoid removing landscape elements, particularly where these are key characteristics and or veteran or mature trees, woodland and hedgerows as far as practical. A number of these will also have ecology / nature conservation and/or heritage value (C-21, C-23, C-115 and C-174, **Table 19-20**);
- ensure remaining vegetation is protected in accordance with BS 5837: 2012 *Trees in Relation to Design, Demolition and Construction* (BSI, 2012) where required (C-21, **Table 19-20**);
- develop a Compensatory/Planting Plan to reinstate landscape elements such as trees, woodland and hedgerows, which have been removed as a result of construction, including temporary construction/HDD compounds and temporary construction access (C-196, **Table 19-20**);
- re-instate all vegetation (trees, woodland and hedgerows) removed during the construction process as far as possible (noting that only hedges can be planted within the onshore substation and onshore cable corridor easements). This includes trees and woodland removed to allow for temporary construction compounds or access and or the provision of visibility splays (C-115, C-165, **Table 19-20**);
- trees and woodland removed as a result of the onshore cable corridor will be reinstated by new planting elsewhere within the PEIR Assessment Boundary and attention will also be given to maintaining levels and types of vegetation

and landscape patterns within each LCA to avoid any long-term adverse landscape effects (C-196, **Table 19-20**). Rampion 2 will make best endeavours, noting that this effort is subject to landowner agreement; and

- ensure all new planting is established within 5 years and appropriate maintenance and management plans provided (C-199, **Table 19-20**).

Additional embedded environmental measures in respect of the South Downs National Park

- 19.7.10 From an overall design perspective, the extent of construction activity within the SDNP has been limited as far as possible to avoid the most sensitive locations such as ancient woodland, the brows of hills and to have due regard to landscape patterns for example field boundaries (C-67, **Table 19-20**) where possible and the temporary construction compounds and the onshore substation search areas are all outwith the SDNP boundary. A key commitment of relevance to this assessment is C-66 (**Table 19-20**) which aims to minimise effects on the special qualities of the SDNP and the High Weald AONB through careful design consideration and planning in respect of the construction process and activity, taking account of the relevant policy and guidance. A number of other commitments are relevant to the SDNP as set out in **Appendix 4.1: Commitments register, Volume 4**.

Public Rights of Way and Open Access Land

- 19.7.11 All PRow (including the South Downs Way National Trail) will be subject to a crossing schedule that will limit diversions (C-18, C-162, and C-168, **Table 19-20**) and the South Downs Way and Downs Link will be managed to avoid any closures or diversions (C-161, **Table 19-20**) and where this is not possible a permanent diversion will be provided (C-164, **Table 19-20**). Temporary signage for diversions will be provided during construction (C-32, **Table 19-20**) and any damage recorded via a condition survey will be repaired (C-163, **Table 19-20**).
- 19.7.12 A Code of Construction Practice (COCP) will be adopted to minimise temporary disturbance to residential properties, recreational users and existing land users (C-33, C-157, **Table 19-20**).

Construction lighting

- 19.7.13 The SDNP is also an International Dark Sky Reserve and Local Plan Policy SD8: Dark Night Skies includes specific lighting requirements for developers.
- 19.7.14 In order to avoid construction lighting where possible, construction work will be limited to between 07:00 to 19:00 hours Monday to Friday and 08:00 to 13:00 hours on Saturday with only exceptional activities occurring on Sundays and public / bank holidays (C-200, **Table 19-20**). Although the detail of any lighting design for all temporary and permanent lighting will be developed once contractors are appointed, the principles of any lighting regime are set out in **Chapter 4: The Proposed Development**. Where required, construction lighting will be limited to directional task lighting positioned to minimise glare and nuisance to residents and walkers within the SDNP and informed by BS EN 12464-2:2014 Lighting of outdoor work places (BSI, 2014) and guidance provided by the CIBSE Society of

Light and Lighting, The Bat Conservation Trust and the Institution of Lighting Professionals.

- 19.7.15 A detailed list of the embedded environmental measures is set out in **Appendix 4.1 Commitments register, Volume 4** and a large number of these relate to the landscape. These measures will all be secured via Development Consent Order (DCO) covering plans, description of development and requirements and COCP.
- 19.7.16 A summary of some of the main commitments related to the LVIA is provided in **Table 19-20**.

Table 19-20 Relevant LVIA embedded environmental measures

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
C-1	The onshore cable route will be completely buried underground for its entire length where practicable.	Scoping	Development Consent Order (DCO) works plans, description of development and requirements	This measure will reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall.
C-2	Cables will be installed in ducting.	Scoping	DCO works plans, description of development and requirements	This measure will reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall construction.
C-3	At sensitive crossing locations the working width will be reduced as far as practicable.	Scoping	DCO works plans, description of development and requirements	This measure will protect landscape elements and reduce as far as practical the landscape and visual effects of the

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
				onshore cable corridor and landfall construction.
C-4	Horizontal Directional Drill (HDD) technique will be used at the landfall location.	Scoping	DCO works plans and order limits, description of development and requirements	This measure will protect landscape elements and reduce as far as practical the landscape and visual effects of the landfall construction.
C-5	Main rivers, watercourses, railways and roads that form part of the Strategic Highways Network will be crossed by Horizontal Directional Drill (HDD) or other trenchless technology where this represents the best environment solution and is financially and technically feasible (see C-17).	Scoping – updated at PEIR	DCO works plans and order limits	This measure will protect landscape elements and reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall construction.
C-6	Where practical, sensitive sites will be avoided by the temporary and permanent onshore project footprint including SSSIs, Local Nature Reserves, Local Wildlife Sites, ancient	Scoping – updated at PEIR	DCO works plans and order limits	This measure will protect sensitive sites and reduce as far as practical the landscape and visual effects of the onshore

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
	woodland, areas of consented development, areas of historic and authorised landfills and other known areas of potential contamination, National Trust Land, Listed Buildings, Scheduled monuments, and mineral resources (including existing mineral sites, minerals sites allocated in development plans and mineral safeguarding areas).			elements of the Proposed Development.
C-7	Post construction, the work area will be reinstated to pre-existing conditions as far as reasonably practical in line with the Outline Materials Management Plan (MMP) (C-69) and Defra 2009 Code of Construction Practice for the Sustainable Use of Soils on Construction Sites PB13298.	Scoping – updated at PEIR	Outline Code of Construction Practice (COCP) and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-9	Joint bays will be completely buried, with the land above reinstated to pre-construction ground level, with the exception of link box	Scoping – updated at PEIR	DCO works plans, description of development and requirements	This measure will protect landscape elements and reduce as far as practical the landscape

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
	chambers where access will be required from ground level (via manholes). Once constructed joint bays and link box chambers will be resilient to flooding.			and visual effects of the onshore cable corridor and landfall construction.
C-11	During construction topsoil and subsoil will be stored within the temporary working corridor of the onshore cable. The topsoil and subsoil will be stored in line with Defra 2009 Construction Code of Practice for the Sustainable Use of Soils on Construction Sites PB13298, including guidance on utilising separate stockpiles and giving due consideration to adverse weather conditions. Any suspected or confirmed contaminated soils will be separated, contained and tested before removed.	Scoping – updated at PEIR	Outline COCP and DCO requirement	This measure will protect landscape elements and reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall construction.
C-12	During topsoil stripping, machinery with low ground pressure will be used to minimise soil compaction where the soil conditions	Scoping	Outline COCP and DCO requirement	This measure will protect landscape elements and reduce as far as practical the landscape

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
	indicate that compaction is possible. Storage time will be kept to the practicable minimum to prevent the soil deteriorating in quality. Topsoil stripped from different fields will be stored separately, as will soil from hedgerow banks or woodland strips.			and visual effects of the onshore elements of the Proposed Development.
C-13	In areas (or during periods of adverse weather) there may be the requirement to import aggregates to create a stable surface for construction traffic movements. Options such as bogmatting and geotextiles will be considered by the principal contractor for sensitive sections of the route to reduce impact.	Scoping	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall construction.
C-18	A crossing schedule will be prepared which includes crossing methodology for each crossing of road, rail, public right of way (PRoW) and watercourse.	Scoping	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall construction.

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
C-19	The onshore cable will be constructed in discrete sections. The trenches will be excavated, the cable ducts will be laid, the trenches backfilled and the reinstatement process commenced in as short a timeframe as practicable. At regular intervals (typically 600m – 1,000m) along the route joint bays/pits will be installed to enable the cable installation and connection process.	Scoping	Outline COCP and DCO requirement	This measure will protect landscape elements and reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall construction.
C-20	The typical construction working area will be 50m along the onshore cable corridor to minimise the construction footprint. At other discrete locations this may be expanded to accommodate working area for example for Horizontal Directional Drilling (HDD).	Scoping	Outline COCP and DCO articles/ requirement	This measure will protect landscape elements and reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall construction.
C-21	Vegetation will be retained where possible. Where necessary, vegetation removal will be scheduled over winter to avoid bird breeding season. If not	Scoping – updated at PEIR	Outline COCP and DCO articles/ requirement	This measure will protect landscape elements and reduce as far as practical the landscape and visual

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
	possible for all areas, any vegetation removal will be undertaken in line with British Standard (BS) 5837-2012 (Trees in relation to design, demolition and construction). This will be carried out, under supervision and will be appropriately managed to remove the risk of damaging or destroying active nests, young or eggs. Suitable methods will also be used to ensure vegetation supporting other legally protected species is removed sensitively and in a legally compliant way.			effects of the onshore elements of the Proposed Development.
C-22	Core working hours for construction of the onshore components will be 0700 to 1900 Monday to Friday, and 0800 to 1300 on Saturdays, apart from specific circumstances to be set out and agreed in the outline COCP.	Scoping	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-23	Where possible, micrositeing will be undertaken during detailed design to avoid ponds.	Scoping	Outline COCP and DCO requirement	This measure will protect ponds and reduce as far as practical the landscape

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
				and visual effects of the onshore elements of the Proposed Development.
C-27	Following construction, construction compounds will be returned to previous conditions as far as reasonably possible.	Scoping – updated at PEIR	Outline COCP and DCO requirement	This measure will protect landscape elements and reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-29	A depth of cover of 1.2m is assumed. Deeper trenches may be required at specific crossing locations (such as watercourses).	Scoping - updated at PEIR	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall construction.
C-32	Signage and / or temporary PRoW / footpath diversions will be provided during construction.	Scoping	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
C-33	An Outline COCP will be adopted to minimise temporary disturbance to residential properties, recreational users and existing land users. It will provide details of measures to protect environmental receptors.	Scoping	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-66	The Proposed Development will aim to minimise effects on the special qualities of the South Downs National Park and High Weald Area of Outstanding Natural Beauty (AONB) through careful design consideration in terms of scale, size and location, and taking account of the relevant policy and guidance.	Scoping	DCO works plans, description of development and requirements	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-67	The onshore cable route will avoid the brows of hills as far as is reasonably practical and is likely to follow the established pattern of the landscape i.e. routed to closely follow the line of existing field boundaries as far as is practicable.	Scoping	DCO works plans, description of development and requirements	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
C-68	<p>The final form of the onshore substation will be finished to a high standard of design, using quality materials and integrated into the surrounding environment through the adoption of a robust, sustainable landscape planting strategy, taking account of the West Sussex Landscape Land Management Guidelines. A Landscape Design Plan will be developed to mitigate landscape and visual effects and where possible, protect landscape character, key characteristics and elements, and enhance landscape quality through use of sustainable landscape design techniques. The Landscape Design Plan will take account of the Landscape Character Assessment of West Sussex (West Sussex Council, 2003), and will be included as part of the Outline Landscape and Ecological Management Plan.</p>	<p>Scoping – updated at PEIR</p>	<p>Outline Landscape and Ecology Management Plan</p>	<p>This measure will reduce as far as practical the landscape and visual effects of the onshore substation.</p>

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
C-111	A decommissioning plan will be prepared for the project in line with the latest relevant available guidance.	PEIR	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore substation.
C-112	No ground-breaking activity or use of wheeled or tracked vehicles will take place within the Littlehampton Golf Course and Atherington Beach Local Wildlife Site (LWS) unless remedial action is required. Any predicted activity will be restricted to foot access for the purpose of surveying and monitoring of the progress of the horizontal directional drill (HDD).	PEIR	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore cable corridor and landfall construction.
C-113	The construction corridor through the Warningcamp Hill and New Down Local Wildlife Site (LWS) will be narrowed to no more than 30m for its entire length. A method statement for the Warningcamp Hill and New Down LWS will be written and agreed with the South	PEIR	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore cable corridor.

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
	Downs National Park Authority and West Sussex County Council.			
C-114	Sullington Hill Local Wildlife Site will be crossed using a trenchless method such as Horizontal Directional Drill (HDD).	PEIR	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore cable corridor.
C-115	The construction corridor through woodland, tree lines and across important hedgerows (in terms of the Hedgerows Regulations 1997) will be narrowed to no more than 30m for its entire length to minimise habitat losses. All hedgerows will be reinstated following cable installation.	PEIR	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore cable corridor.
C-128	Any temporary crossings will be in place for the minimal time possible.	PEIR	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore cable corridor.
C-130	During construction, no soil stockpiles will be stored within 8m of	PEIR	Outline COCP and DCO requirement	This measure will reduce as far as

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
	Ordinary Watercourses, within 8m of a non-tidal Main River, and within 16m of a tidal Main River.			practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-132	Soil stockpiles in the tidal floodplain will have regular gaps to prevent floodplain compartmentalisation. The maximum continuous length of embankment is to be determined in the Flood Risk Assessment (FRA).	PEIR	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-133	Stockpiles will be present for the shortest practicable timeframe, with stockpiles being reinstated as the construction work progresses. Stockpiles which remain present for six months or longer will be seeded to encourage stabilisation.	PEIR	Outline COCP and DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-157	The proposed heavy goods vehicle (HGV) routing during the construction period to individual accesses will be developed to avoid major settlements such as	PEIR	Proposed routing in agreed Outline CTMP	This measure will reduce as far as practical the landscape and visual effects of the onshore

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
	Storrington, Cowfold, Steyning, Wineham, Henfield, Woodmancote and other smaller settlements where possible.			elements of the Proposed Development.
C-161	The South Downs Way and the Downs Link Public Rights of Ways (PRoWs) will be managed in a way that minimises any closures or diversions.	PEIR	Outline PRoWMP	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-162	Public Rights of Ways (PRoWs) that cross the onshore cable corridor will be managed or diverted over the shortest distance possible with potential to provide adjacent crossings.	PEIR	Outline PRoWMP	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-163	Public Rights of Way (PRoW) condition surveys will be undertaken before, during and after the construction phase. If damage has been identified during the construction phase, the damage will be repaired. Post-construction, all	PEIR	Outline PRoWMP	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
	PRoWs will be returned to their pre-construction condition.			
C-164	Public Rights of Way (PRoW) routing through locations of permanent infrastructure will be provided with a permanent diversion and the existing route closed.	PEIR	Outline PRoWMP	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-165	Construction access will be provided with visibility splays designed to Design Manual for Roads and Bridges (DRMB) design standards as agreed with West Sussex County Council (WSCC).	PEIR	Outline CTMP - Requirement, order limit plans, access plans	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-168	Impacts on open access land will be managed through active management strategy.	PEIR	Outline PRoWMP	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-174	Where practicable any veteran trees identified will be	PEIR	Embedded into design	This measure will protect veteran trees

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
	avoided by micro-siting. A suitable root protection zone (with reference to BS 5837) will be identified and used to define the limits of the micro-siting effort.			and reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-196	A Planting Plan (included as part of the Landscape Design Plan) will be developed to reinstate landscape elements such as trees, woodland and hedgerows, which have been removed as a result of construction, including construction / HDD compounds and construction access. Attention will also be given to maintaining levels and types of vegetation and landscape patterns within each Landscape Character Area.	PEIR	Outline Landscape and Ecology Management Plan	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-199	An Outline Landscape and Ecology Management Plan will be developed to ensure all new planting is established within five years of the	PEIR	Outline Landscape and Ecology Management Plan	This measure will reduce as far as practical the landscape and visual effects of the onshore

ID	Environmental measure proposed	Project phase measure introduced	How the environmental measures will be secured	Relevance to the landscape and visual assessment
	construction period, and appropriate maintenance and management is carried out.			elements of the Proposed Development.
C-200	Where required, construction lighting would be limited to directional task lighting positioned to minimise impacts to residents and walkers within the South Downs National Park and informed by BS EN 12464-2:2014 Lighting of outdoor work places and guidance provided by the CIBSE Society of Light and Lighting, The Bat Conservation Trust and the Institution of Lighting Professionals.	PEIR	DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.
C-202	An Outline Public Rights of Way Management Plan (PRoWMP) will be developed in consultation with West Sussex County Council. The PRoWMP will set out the approach to managing the use of PRoWs during construction.	PEIR	DCO requirement	This measure will reduce as far as practical the landscape and visual effects of the onshore elements of the Proposed Development.

19.8 Methodology for PEIR assessment

Introduction

- 19.8.1 The project-wide generic approach to assessment is set out in **Chapter 5**. The assessment methodology for the LVIA at the PEIR stage is consistent with that provided in the Scoping Report (RED, 2020) and no changes have been made since the scoping phase. The LVIA methodology is presented in **Appendix 19.1, Volume 4**.
- 19.8.2 The assessment has been undertaken in accordance with the Landscape Institute and IEMA (2013) *Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition (GLVIA3), and other best practice guidance listed in **Section 19.2**. A full description of the SLVIA methodology is provided in **Chapter 16**. A summary of the LVIA assessment methodology is provided below.
- 19.8.3 Essentially, the landscape and visual effects (and whether they are significant) is determined by an assessment of the nature or 'sensitivity' of each receptor or group of receptors and the nature of the effect or 'magnitude of change' that will result from the onshore elements of the Proposed Development. The evaluation of sensitivity takes account of the value and susceptibility of the receptor to the onshore elements of the Proposed Development. This is combined with an assessment of the magnitude of change which takes account of the size and scale of the proposed change and the geographical extent. The duration and reversibility are stated separately in relation to the assessed effects. By combining assessments of sensitivity and magnitude of change, a level of landscape or visual effect can be evaluated and determined. The resulting level of effect is described in terms of whether it is significant or not significant and the type of effect is described as either direct or indirect; temporary or permanent (reversible); cumulative; and beneficial, neutral or adverse.
- 19.8.4 The assessment also considers the whole Proposed Development effects resulting from the onshore and offshore elements of the Proposed Development, and the cumulative effects with other similar developments to the onshore elements of the Proposed Development within the LVIA study area.
- 19.8.5 The time period for the assessment covers the construction phase of the onshore elements of the Proposed Development, their subsequent operation and the implementation and establishment of embedded landscape measures which are likely to overlap with the construction and or operation and maintenance phases.
- 19.8.6 The landscape and visual assessment unavoidably involves a combination of quantitative and qualitative assessment and wherever possible a consensus of professional opinion has been sought through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach.
- 19.8.7 For the operation and maintenance phase, the assessment reports on the potential effects of the onshore elements of the Proposed Development at Year 1 only. This is due to the ongoing development of the Landscape Design Plan which will be completed between PEIR and ES following which an assessment of the onshore elements of the Proposed Development will be reported at both Years 1

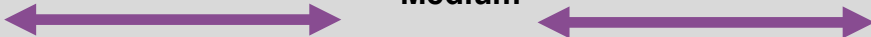
and 15 in the ES. It is therefore expected that any potential effects at Year 15 will be materially reduced by mitigation planting than those assessed at Year 1.

- 19.8.8 For the decommissioning phase, given the assessment of the onshore substation during the operation and maintenance phase at Year 15 will be undertaken in the ES after the development of the Landscape Design Plan, the effects during the decommissioning phase take into account the worst-case scenario which would mean cutting down all established trees / mitigation planting and completely restoring the land to a field, and the effects are therefore likely to be similar during the construction phase of the onshore substation. However, following the development of the Landscape Design Plan, it is therefore expected that the significance of these effects will be materially reduced by mitigation planting in the ES.

Landscape Sensitivity Rating

- 19.8.9 An overall sensitivity assessment of the landscape receptor is made by combining the assessment of the value of the landscape character receptor and its susceptibility to change. The evaluation of landscape sensitivity is described as 'High', 'Medium-high', 'Medium', 'Medium-low' or 'Low' and is drawn from the consideration of a range of criteria that indicate landscape value and susceptibility. The basis for the assessment is made clear using evidence and professional judgement in the evaluation of sensitivity for each receptor. Criteria that tend towards higher or lower sensitivity are set out in **Table 19-21**.

Table 19-21 Landscape sensitivity to change

Value / Susceptibility criteria	Level of value/susceptibility ranging from 'High' to 'Medium' to 'Low'	
	High	Medium
		
<u>Value – Landscape Value is determined by consideration a range of indicators/criteria with examples as follows:</u>		
Designation	Designated landscapes/elements with national policy level protection or defined for their natural beauty. Evidence that the landscape/element is valued or used substantially for recreational activity.	Landscapes without formal designation. Despoiled or degraded landscape with little or no evidence of being valued by the community. Elements that are uncharacteristic such as non-natives or self-seeded vegetation that may need to be cleared.
Quality	Higher quality landscapes/elements with consistent, intact and well-defined, distinctive attributes.	Lower quality and indistinct landscapes/elements or features that detract from its inherent attributes.

Value / Susceptibility criteria	Level of value/susceptibility ranging from 'High' to 'Medium' to 'Low'	
	High	Medium
Rarity	Rare or unique landscape character types, features or elements.	Widespread or 'common' landscape character types, features or elements.
Aesthetic/scenic	Aesthetic/scenic or perceptual aspects of designated wildlife, ecological or cultural heritage features that contribute to landscape character.	Limited wildlife, ecological or cultural heritage features, or limited contribution to landscape character.
Perceptual qualities	Landscape with perceptual qualities of wildness, remoteness or tranquillity.	Limited or no evidence that the landscape is used for recreational activity.
Cultural associations	Landscape with strong cultural associations that contributes to scenic quality.	Landscape with few cultural associations.

Susceptibility – Landscape Susceptibility is determined by consideration a range of indicators/criteria with examples as follows:

Strength and robustness	Fragile landscape vulnerable and lacking the ability to accommodate change.	Robust landscape, able to accommodate change or loss of features without undue adverse effects.
Landscape Scale	A landscape of a suitably large enough scale to accommodate the onshore elements of the Proposed Development.	A smaller scale landscape that may require further engineering to accommodate the onshore elements of the Proposed Development.
Openness/Enclosure	An open landscape with limited screening and higher susceptibility to the onshore elements of the Proposed Development.	An enclosed landscape with screening and lower susceptibility to the onshore elements of the Proposed Development.
Reinstatement	Lower value, non-characteristic landcover and elements capable of rapid reinstatement or replacement.	Higher value, characteristic landcover and elements that cannot be easily reinstated or replaced.
Skyline	Distinctive undeveloped skylines with landmark features.	Developed, nondistinctive skylines.

Value / Susceptibility criteria	Level of value/susceptibility ranging from 'High' to 'Medium' to 'Low'	
	High	Medium
Association	Weak and indirect association. Other development may be of a smaller scale or historic.	Strong or direct association other similar contemporary developments/landscape character.
Rationale	Strong landscape rationale and opportunity with high degree of design quality and/or environmental measures.	Landscape with numerous environmental and technical constraints and fewer environmental measures.
Perceptual Qualities	Perceptual qualities associated with particular scenic qualities, wildness or tranquillity.	Contemporary, cultivated/settled or developed landscapes are likely to have a lower susceptibility.
Landscape Context	Adjacent landscape character context connected by borrowed character and views.	Host landscape character is separate from surrounding/adjacent landscape character
<u>Sensitivity</u>	Sensitivity drawn from consideration of the above Value and Susceptibility criteria with the final conclusion on the level of Sensitivity ranging from 'High' to 'Medium' to 'Low'.	

Landscape Magnitude of Change Rating

19.8.10 The 'magnitude' or 'degree of change' resulting from the onshore elements of the Proposed Development is described as 'High', 'Medium-high', 'Medium', 'Medium-low', 'Low' or 'Negligible-Zero'. In assessing the magnitude of change, the assessment has focused on the size or scale of change and its geographical extent. The duration and reversibility are stated separately in relation to the assessed effects (i.e. as short/medium/long-term and temporary/permanent). The basis for the assessment of magnitude of change for each receptor will be made clear using evidence and professional judgement.

19.8.11 The levels of magnitude of change that can occur are defined in **Table 19-22**.

Table 19-22 Landscape magnitude of change ratings


Magnitude of landscape change	Examples of landscape magnitude
High	<ul style="list-style-type: none"> Size/Scale – A large-scale change and major loss of key landscape elements/characteristics or the addition of large scale or numerous new and uncharacteristic features or elements that would affect the landscape character and the special landscape qualities/integrity of a landscape designation.

Magnitude of landscape change	Examples of landscape magnitude
	<p>Directly affecting a host landscape receptor or indirectly affecting a nearby receptor.</p> <ul style="list-style-type: none"> Geographical extent – The size or scale of change would typically, but not always affect a large geographical extent or area and may be close to the onshore elements of the Proposed Development.
Medium-high	Intermediate rating with combination of criteria from high or medium magnitude.
Medium	<ul style="list-style-type: none"> Size/Scale – A medium scale change and moderate loss of some key landscape elements/characteristics or the addition of some new medium scale uncharacteristic features or elements that could partially affect the landscape character and the special landscape qualities/integrity of a landscape designation. <p>Directly affecting a host landscape receptor or indirectly affecting a nearby receptor.</p> <ul style="list-style-type: none"> Geographical extent – The size or scale of landscape change would typically, but not always affect a more localised geographical extent at an intermediate distance from the onshore elements of the Proposed Development.
Medium-low	Intermediate rating with combination of criteria from medium or low magnitude.
Low	<ul style="list-style-type: none"> Size/Scale – A small-scale change and minor loss of a few landscape elements/non key characteristics, or the addition of some new small-scale features or elements of limited characterising influence on landscape character/designations. Geographical extent – There may be a small partial change in landscape character, typically, but not always affecting a localised geographical extent at some distance from the onshore elements of the Proposed Development.
Negligible - Zero	<ul style="list-style-type: none"> Size/Scale – A very small-scale change that may include the loss or addition of some landscape elements of limited characterising influence. The landscape characteristics and character would be unaffected. Geographical extent – Typically affecting a very small geographical extent at greater distance from the onshore elements of the Proposed Development.

Visual sensitivity rating

- 19.8.12 An overall level of sensitivity is applied for each visual receptor or view – High, Medium-high, Medium, Medium-low, or Low – by combining individual assessments of the value of the view and the susceptibility of the visual receptor to change. Each visual receptor, meaning the particular person or group of people likely to be affected at a specific viewpoint, is assessed in terms of their sensitivity. The basis for the assessments is made clear using evidence and professional judgement in the evaluation of each receptor. Criteria that tend towards higher or lower sensitivity are set out in **Table 19-23**.

Table 19-23 Visual sensitivity to change

Value/ Susceptibility criteria	Level of value / susceptibility ranging from 'High' to 'Medium' to 'Low'		
	High	Medium	Low
			
<u>Value – is determined by consideration a range of indicators/criteria with examples as follows:</u>			
Map/tourist information	Specific viewpoint identified in OS maps and/or tourist information and signage.	Viewpoint not identified in OS maps or tourist information and signage.	
Facilities	Facilities provided at viewpoint to aid the enjoyment of the view.	No facilities provided at viewpoint to aid enjoyment of the view.	
Planning recognition	View afforded protection in planning policy.	View is not afforded protection in planning policy.	
Landscape value	View is within or overlooks a designated landscape, which implies a higher value to the visible landscape.	View is not within, nor does it overlook, a designated landscape.	
Recognition	View has informal recognition and well- known at a local level, as having particular scenic qualities.	View has no informal recognition and is not known as having particular scenic qualities.	
Art/Literature	View or viewpoint is recognised through references in art or literature.	View or viewpoint is not recognised in references in art or literature.	
Scenic Quality	View has high scenic qualities relating to the content and composition of the visible landscape.	View has low scenic qualities relating to the content and composition of the visible landscape.	
<u>Susceptibility – is determined by consideration a range of indicators/criteria with examples as follows:</u>			

Value/ Susceptibility criteria	Level of value / susceptibility ranging from 'High' to 'Medium' to 'Low'		
	High	Medium	Low
Activity of the viewer	Viewer who is likely or liable to be influenced by the onshore elements of the Proposed Development such as residents, walkers, or tourists, whose main attention and interest may be on their surroundings.	Viewer who is un or less likely to be influenced by the onshore elements of the Proposed Development such as viewers whose attention is not focused on their surroundings (e.g. people at work, or team sports).	
Nature of the View	Residents that gain static, long-term views of the development in their principal outlook.	Mobile viewers whose views are transient and dynamic (e.g. travelling in cars or on trains with glimpsed views).	
Numbers of Viewers	Viewpoint is visited or used by a large number of people.	View is visited or gained by relatively very few people. An exception may be wild land.	
Direction/ Field of View	A view that is focused in a specific directional vista, with notable features of interest in a particular part of the view.	Open views with no specific point of interest.	
	Viewers are focused on the experience of a high level of visual amenity at the location due to its overall pleasantness as an attractive visual setting or backdrop to activities.	The visual amenity experienced at the location by viewers is less pleasant or attractive than might otherwise be the case.	
<u>Sensitivity</u>	Sensitivity drawn from consideration of the above Value and Susceptibility criteria with the final conclusion on the level of Sensitivity ranging from 'High' to 'Medium' to 'Low'.		

Visual magnitude of change rating

- 19.8.13 The 'magnitude' or 'degree of change' resulting from the onshore elements of the Proposed Development is described as 'High', 'Medium-high', 'Medium', 'Medium-low', 'Low' and 'Negligible-Zero'. In assessing the magnitude of change, the assessment has focused on the size or scale of change and its geographical extent. The duration and reversibility are stated separately in relation to the assessed effects (i.e. as short/medium/long-term and temporary/permanent). The basis for the assessment of magnitude for each receptor will be made clear using evidence and professional judgement and some examples of the levels of magnitude of change that can occur on views are defined in **Table 19-24**.

Table 19-24 Visual magnitude of change

Magnitude of visual change	Examples of visual magnitude
High	<ul style="list-style-type: none"> • Size and scale – A very large - large and dominant change to the view. • Number – Involving the loss/addition of a large number of features/elements. • Distance – Typically appearing closer to the viewer in the fore to middle ground. • FoV – Affecting a large vertical and wide horizontal FoV. • Nature of visibility – Multiple phase development, continuously and sequentially visible. • Contrast – Strong degree of contrast with surroundings with little or no screening. • Skyline – Visible on the skyline as a new feature. • Consistency of image – Contrasting with other developments, lacking in visual rationale. <p>Typically experienced from representative viewpoints illustrating a visual effect likely to be experienced by larger numbers of people, relative to the activity, affecting a large area or length / proportion of route. May also be experienced from a specific viewpoint.</p>
Medium-high	Intermediate rating with combination of criteria from high or medium magnitude of change category.
Medium	<ul style="list-style-type: none"> • Size and scale – A medium and prominent change to the view. • Number – Involving the loss/addition of a number of features/elements. • Distance – Typically appearing in the middle ground. • FoV – Affecting a medium vertical and a medium horizontal FoV. • Nature of visibility – Multiple phase development, intermittently and sequentially visible. • Contrast – Contrast with surroundings and may benefit from some screening. • Skyline – Visible on the skyline along with other features. • Consistency of image – Different from other developments, some visual rationale. <p>Typically experienced from representative viewpoints illustrating a visual effect likely to be experienced by a medium number of people, relative to the activity, affecting a medium area or length/proportion of route. May also be experienced from a specific viewpoint.</p>
Medium-low	Intermediate rating with combination of criteria from medium or low magnitude of change category.

Magnitude of visual change

Examples of visual magnitude

Low

- Size and scale – A small and noticeable change, could be missed by the casual observer.
- Number – Involving the loss/addition of a small number of features/elements.
- Distance – Typically appearing in the background.
- FoV – Affecting a small vertical and a narrow horizontal FoV.
- Nature of visibility – Simple, single development, intermittently and infrequently visible.
- Contrast – Some parity/‘fits’ with surroundings and may benefit from screening.
- Skyline – Partly visible on a developed skyline or not visible on the skyline.
- Consistency of image – Similar from other developments with visual rationale, appearing reasonably well accommodated within its surroundings.

Typically experienced from illustrative viewpoints likely to be experienced by low numbers of people, relative to the activity, affecting a smaller area or length/proportion of route. May also be experienced from a specific viewpoint.

Negligible - Zero

- Size and scale – A small or negligible change, need to ‘look for it’.
- Number – Involving the loss/addition of a small number of features/elements.
- Distance – Typically appearing in the far distance.
- FoV – Affecting a small vertical and a very narrow horizontal FoV.
- Nature of visibility – Simple, single development, intermittently and infrequently visible.
- Contrast – Blends with surroundings and/or is well screened.
- Skyline – Partly visible on a developed skyline or not visible on the skyline.
- Consistency of image – Similar from other developments with strong visual rationale, appearing well accommodated within its surroundings.

Typically experienced from illustrative viewpoints likely to be experienced by low numbers of people, relative to the activity, affecting a smaller area or length/proportion of route. May also be experienced from a specific viewpoint.

Determining the significance of effects

- 19.8.14 A matrix presented in **Table 19-25** is used as a guide to illustrate the LVIA process. In line with the emphasis placed in GLVIA3 upon the application of professional judgement, an overly mechanistic reliance upon a matrix is avoided through the provision of clear and accessible narrative explanations of the rationale underlying the assessment made for each landscape and visual receptor. Such narrative assessments provide a level of detail over and above the outline

assessment provided by use of the matrix alone. Wherever possible cross references are made to baseline figures and / or visualisations to support the rationale. The matrix as presented in **Table 19-25** should therefore be considered as a guide and any deviation from this guide will be clearly explained in the assessment rationale.

- 19.8.15 Significant landscape and visual effects are highlighted in **bold** and shaded dark purple in **Table 19-25**, and relate to all those effects that result in a '**Major**' or a '**Major / Moderate**' level of effect. In some circumstances, '**Moderate**' levels of effect (shaded light purple) also have the potential, subject to the assessor's opinion, to be considered as significant and these exceptions are also highlighted in bold and are explained as part of the assessment, where they occur. White or un-shaded boxes in **Table 19-25** indicate a non-significant effect.
- 19.8.16 Where there is no view of the onshore elements of the Proposed Development from a receptor, the magnitude of change is assessed as Zero, and the level of effect is stated as **no effect**.
- 19.8.17 The type of effect is also described and may be direct or indirect; short, medium or long-term; cumulative; and beneficial, neutral or adverse.

Table 19-25 Evaluation of landscape and visual effects

Sensitivity	Magnitude of change					
	High	Medium-high	Medium	Medium-low	Low	Negligible-Zero
High	Major (Significant)	Major (Significant)	Major / Moderate (Significant)	Moderate*	Moderate*	Minor
Medium-high	Major (Significant)	Major / Moderate (Significant)	Moderate*	Moderate*	Moderate / Minor	Minor
Medium	Major / Moderate (Significant)	Moderate*	Moderate*	Moderate / Minor	Slight	Minor / Negligible
Medium-low	Moderate*	Moderate*	Moderate / Minor	Minor	Minor / Negligible	Negligible
Low	Moderate*	Moderate / Minor	Minor	Minor / Negligible	Negligible	Negligible

*Note: Moderate levels of effect may / may not be significant subject to the assessor's opinion which shall be clearly explained.

19.9 Preliminary assessment: landscape effects

Introduction

- 19.9.1 Landscape Effects are defined by the Landscape Institute in GLVIA 3, paragraphs 5.1 and 5.2 as follows.
- "An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern ... is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. ... The area of landscape that should be covered in assessing landscape effects should include the site itself and the full extent of the wider landscape around it which the proposed Development may influence in a significant manner."*
- 19.9.2 These effects are assessed by considering the landscape sensitivity (value and susceptibility) against the magnitude of change. The type of effect may also be described as short, medium or long-term, direct or indirect, cumulative and beneficial, neutral, or adverse.
- 19.9.3 The residual landscape effects, assessed here, are those effects remaining after all of the embedded environmental measures have been taken into account outlined in **Section 19.7** and **Table 19-20**. An assessment of the cumulative landscape effects, taking account of other developments, as set out in **Chapter 5: Approach to the EIA** has been undertaken according to the methodology detailed in **Appendix 19.1, Volume 4**.
- 19.9.4 The landscape assessment takes into consideration the optionality that exists for flexibility at this stage of the design of the Proposed Development (as outlined in **Chapter 5**). For example, the assessment has differentiated between the effects where there are multiple cable corridor options at Warningcamp and those between Shermanbury and the onshore substation options. Therefore, effects that are more significant than those presented in this PEIR are not predicted to occur should any other development scenario within the maximum design envelope be taken forward in the final design of the Proposed Development.
- 19.9.5 The landscape assessment is set out as follows:
- Onshore substation search area option A: Bolney Road / Kent Street:
 - ▶ Landscape effects on the 'host' Landscape Character Area;
 - ▶ Indirect landscape effects on surrounding Landscape Character; and
 - Onshore substation search area option B: Wineham Lane North:
 - ▶ Landscape effects on the 'host' Landscape Character Area;
 - ▶ Indirect landscape effects on surrounding Landscape Character; and
 - Onshore cable corridor (assessed in detail in **Appendix 19.3, Volume 4**):
 - ▶ Direct effects on Landscape Character; and
 - ▶ Indirect effects on surrounding Landscape Character.

- 19.9.6 Direct and indirect effects on Landscape Designations are assessed in detail in **Appendix 19.3, Volume 4**.
- 19.9.7 The assessment of cumulative landscape effects on the onshore elements of the Proposed Development and whole Proposed Development effects have been assessed and reported for each receptor in this section with a summary provided in **Section 19.11**.

Onshore substation search area option A: Bolney Road / Kent Street

Landscape effects on the 'host' Landscape Character Area

Overview

- 19.9.8 The 'host' landscape is the character area within which onshore substation search area option A is located and includes J3: Cowfold and Shermanbury Farmlands local LCA within Horsham (also part of LW10: Eastern Low Weald County LCA within West Sussex), as illustrated in **Figure 19.5a, Volume 3**.
- 19.9.9 This low-lying, gently undulating landscape comprises a lowland mixed pastoral and arable landscape with a strong hedgerow pattern and occupies the central and southern parts of the 2km study area. The Low Weald lies north of the Wealden greensand forming a horseshoe shape around the High Weald. Scattered woodlands, hedgerows and hedgerow trees create enclosure and restrict views in many parts of the surrounding area. Viewpoints SA1 to SA5, SA7 and SA8 are located within this landscape. The key characteristics as defined in the relevant landscape character assessments (West Sussex County Council 2003 and Horsham District Council, 2003) include:
- Gently undulating low ridges and valleys.
 - Scattered small woodlands.
 - Small and medium size pasture fields and some larger arable fields.
 - Mostly small scale intricate landscape. Localised areas with more open character.
 - Field ponds.
 - Small farmsteads and cottages dispersed along lanes and tracks.
 - The historic village of Cowfold and more suburban development at Partridge Green and Shermanbury.
 - Local building materials of half timer, brick, tile, Horsham stone and weatherboarding.
 - Landmark of St Hugh's Charterhouse Monastery at Shermanbury."
 - Views dominated by the steep downland scarp to the south and the High Weald fringes to the north.
 - Arable and pastoral rural landscape, a mosaic of small and larger fields, scattered woodlands, shaws and hedgerows with hedgerow trees.

- Quieter and more secluded, confined rural landscape to the west, much more development to the east, centred on Burgess Hill.
- Mix of farmsteads and hamlets favouring ridgeline locations, strung out along lanes.
- A modest spread of designed landscapes.
- Crossed by north-south roads with a rectilinear network of narrow rural lanes.

19.9.10

The key landscape characteristics are defined in the West Sussex County Council (2013) Low Weald Local Distinctiveness Guidance include:

- *“The qualities of fine long views to and from ridges and scarp slopes.*
- *Small-scale, intimate and pastoral character of the landscape.*
- *The small irregular fields.*
- *Shaws enclosing fields and shaws linking into and integrating settlement.*
- *Species rich grassland.*
- *Ancient woodland.*
- *The strong network of hedgerows, shaws and hedgerow trees including chestnut and hazel coppice woodland.*
- *The rivers and streams with associated meadows and wet woodland.*
- *The natural character of watercourses*
- *Field trees (e.g. oak) linking copses and waterside trees.*
- *The network and character of narrow rural un-kerbed lanes, ancient droveways, and associated linear fields, green lanes, broad trackways, verges, and footpaths.*
- *Fruit growing on lighter soils.*
- *Mill sites and ponds, hammer ponds, ornamental lakes and ponds.*
- *Narrow field entrances and traditional gates.”*

Landscape sensitivity of the ‘host’ landscape

Introduction

19.9.11

Landscape sensitivity has been assessed through a combination of the value of the landscape and its susceptibility, in accordance with GLVIA 3 and the methodology set out in **Appendix 19.1, Volume 4**.

Landscape value

19.9.12

Landscape planning designations illustrated in **Figure 19.6a, Volume 3** shows that there are no areas within this landscape with a locally or nationally designated landscape. However, the High Weald AONB is located less than 1km to the north

of the character area, although site survey has revealed that there is limited intervisibility between the onshore substation search area and the AONB. This landscape has limited recreational value, with local recreational walking and horse riding along PRow and informal road cycling being the main forms of recreational activity. The local landscape has a sense of place and local distinctiveness, with a simple, rural character, network of fields with strong hedgerow field boundaries, scattered mature deciduous field boundary trees and woodlands, which contribute to the local landscape quality. There are also some intrusive or detracting features of suburbanisation with industrial estates, A roads, horse paddocks, pylons and existing substation infrastructure associated with the existing National Grid Bolney substation and Rampion 1 onshore substation to the southeast of the study area. Large-scale modern agricultural buildings also influence scenic quality, especially where there is inadequate screening. The landscape value of onshore substation search area option A is therefore assessed as Medium, increasing to High-medium closer to the AONB in the north of the study area.

Landscape susceptibility

- 19.9.13 The Horsham District Landscape Character Assessment (LCA) (Chris Blandford Associates on behalf of Horsham District Council, 2003) states that the “*Sensitivity to change overall is moderate reflecting the moderate to high intervisibility of the area and moderate intrinsic landscape qualities.*” The relatively rural character of this landscape however, is susceptible to the influence of onshore substation search area option A, which will be permanent and more extensive than the onshore temporary construction corridor. However, the visual containment of the landscape by extensive woodland blocks, tree belts and hedges will reduce the susceptibility to change. Woodland blocks increase enclosure in the landscape and reduce the likelihood to experience change as a result of onshore substation search area option A. Susceptibility is reduced where the landscape is influenced by the presence of pylons and other existing electrical infrastructure in the surrounding area. The presence of other large-scale modern agricultural buildings and other built development in the local landscape also have already resulted in changes to its intrinsic qualities. The landscape susceptibility of onshore substation search area option A is therefore assessed as *High-medium*.

Overall sensitivity

- 19.9.14 The overall sensitivity to change considering all of the factors within the landscape character assessments, and the assessment of High-medium to Medium value and High-medium susceptibility is considered to be **High-medium**.
- 19.9.15 Landscape elements (mature trees, hedgerows, and woodland) are indicative of higher levels of sensitivity as they are not easily replaced.

Magnitude of change on the ‘host’ landscape

Magnitude of change during construction

- 19.9.16 There is potential for both physical changes to landscape elements and changes in character resulting from the alteration/loss of these features; as well as potential for the introduction of new features associated with the construction of onshore

substation search area option A during the construction phase, which will change the character of the landscape and pattern of elements within a localised area of up to approximately 250m beyond the onshore substation search area boundary during the construction phase.

- 19.9.17 There are approximately seven hedgerows with trees and approximately three field trees within the onshore substation search area, including additional trees, hedgerows and woodland along the perimeter of the onshore substation search area.
- 19.9.18 The construction of the onshore substation will result in a high magnitude of change to the local character of this landscape and the loss of a number of landscape elements. The geographical extent of the landscape effects will range up to 100-250m (particularly to the south and east). The construction works will include a temporary construction compound and access roads, together with the increased activity of vehicles, machinery, cranes and the stockpiling of materials that will be needed during construction. The construction works will result in changes in ground conditions/profiles, installation of infrastructure, fencing and installation of electrical infrastructure. This will slightly change the network of hedgerow field boundaries and the PRoW within the onshore substation search area that allow people to experience the character of the local landscape. However, the western edge of the onshore substation search area is adjacent to the Oakendene Industrial Estate. As the onshore substation is constructed, the form of the buildings and external electrical infrastructure will take shape during the construction phase and influence the existing landscape character. The built forms will increase the prominence of development components in the landscape through the introduction of large-scale buildings and introduce complex electrical infrastructure, increasing the influence of electrical infrastructure on the character of this area amongst existing pylons. The surrounding mature trees and hedgerows, woodland at Taintfield Wood, and gently undulating landscape to the south provide visual containment of the onshore substation in the landscape.
- 19.9.19 In terms of the likely effects on landscape character, the magnitude of change within the onshore substation search area and <100-250m (mainly to the south and east) will range from **Zero** to **High** during the construction phase. Beyond this distance the landscape is generally contained, restricting indirect effects on the perception of landscape character beyond the onshore substation search area boundary to the extent that they will be **Negligible** to **Zero**.

Magnitude of change during operation and maintenance (Year 1)

- 19.9.20 During operation, the completed onshore substation will gain a more 'settled' appearance when compared to the same area during the construction phase, although significant landscape effects will continue throughout the operation and maintenance phase.
- 19.9.21 Further trees and hedgerows will have been planted as part of the pre-construction planting and during the first year of the operation and maintenance phase, which will provide progressive screening over time, from initial limited level of screening when first planted, to partial screening during their establishment period.

- 19.9.22 The magnitude of change within this localised area (<100-250m from the onshore substation search area) will be **High**.

Magnitude of change during decommissioning

- 19.9.23 The onshore substation will be decommissioned at the end of the operation and maintenance phase, it is expected to take approximately four years. All visible, above ground structures of the onshore substation will be removed upon decommissioning, thereby rendering the vast majority of the landscape effects as reversible. The area occupied by the onshore substation will be reinstated back to its original condition of fields with hedgerow boundaries. It is likely that perimeter landscaping, established at the beginning of the onshore elements of the Proposed Development will be partly retained where practical.
- 19.9.24 The magnitude of change during the decommissioning phase will tend to decrease from **High** at operation and maintenance levels to non-significant levels of **Zero** as the onshore substation is dismantled and the pre-existing landscape reinstated. The assessment has assumed the reinstatement to the previous land use and the removal of both the onshore substation and landscape mitigation, although it is likely that perimeter landscaping, established during the operation and maintenance phase will be partly retained where practical. As with the construction phase, although short-term and temporary, these works are likely to involve greater movement of machinery and visibility of contrasting construction activity.

Level of residual effect on the 'host' landscape

Residual effects during construction

- 19.9.25 Taking account of the **High-Medium** sensitivity, and **Zero** to **High** magnitude of change, the residual effects on the 'host' LCA and landscape elements during the construction phase will range from **Negligible significance (Not Significant)** increasing to **Major** to **Major/Moderate significance (Significant)** upon completion affecting a geographically contained area <100-250m from the onshore substation search area).
- 19.9.26 The duration of these residual effects will be short-term (four years) and the nature of these effects will be temporary, direct, and adverse, due largely to the nature of construction activity across the search area during this phase.

Residual effects during operation and maintenance (Year 1)

- 19.9.27 Taking account of the **High-Medium** sensitivity, and **High** magnitude of change, the residual effects on the 'host' LCA during the operation and maintenance phase will range from **Major** to **Major/Moderate significance (Significant)** (on a geographically contained area <100-250m from the onshore substation search area). It is however expected that significant effects will be reduced by the proposals within the Landscape Design Plan that are likely to include earthworks and planting, once these are established.
- 19.9.28 The duration of these residual effects will be long-term (operation and maintenance phase of around 30 years) and reversible as a result of the

decommissioning. The nature of these residual effects will be long-term (reversible), direct and adverse.

- 19.9.29 Considering the 'host' landscape as a whole, the residual effects will be **Not Significant** in overall terms due to the presence of other existing infrastructure developments within 1km, most notably the National Grid Bolney substation and Rampion 1 onshore substation to the southeast, numerous pylons through the landscape, the busy A272 to the north and the adjacent Oakendene Industrial Estate to the west.

Residual effects during decommissioning

- 19.9.30 Taking account of the **High-medium** sensitivity, and **High to Zero** magnitude of change, the residual effects on the 'host' LCA during the decommissioning phase will range from **Major** to **Major/Moderate significance (Significant)** at the start of decommissioning reducing to **Negligible significance (Not Significant)** upon completion. The assessment has assumed the reinstatement to the previous land use and the removal of both the onshore substation and landscape mitigation, although it is likely that perimeter landscaping, established during the operation and maintenance phase will be partly retained where practical.
- 19.9.31 The duration of these residual effects in the decommissioning phases will be short-term similar to the construction phase and the nature of these residual effects will be short-term, temporary, direct, and adverse, due largely to the nature of decommissioning activity across the onshore substation search area during this phase.

Whole Proposed Development residual effects

- 19.9.32 There will be whole Proposed Development residual effects of **Major to Moderate significance (Significant)** on this landscape (<250m) during construction (landscape character and landscape elements) and operation and maintenance (year 1) as a result of both the onshore substation and onshore cable corridor assessed in **Appendix 19.4, Volume 4**.
- 19.9.33 The offshore elements of the Proposed Development will have no effect on this landscape.

Cumulative effects assessment

- 19.9.34 The onshore elements of the Proposed Development will be experienced cumulatively with the consented Coombe Solar Farm to the northeast of the existing Bolney substation and west of Bolney Chapel Road (DM/15/0644). The combined and additional effects will therefore remain **Major to Major / Moderate significance (Significant)** on this landscape. The nature of these effects will be short to long-term, temporary to permanent, cumulative, direct, and adverse.

Indirect landscape effects on the surrounding Landscape Character

- 19.9.35 As described in **Table 19-13**, apart from the host LCA (J3: Cowfold and Shermanbury Farmlands local LCA within Horsham), two other LCAs (M1 Crabtree & Nuthurst Ridges & Ghylls LCA and LW1 Hickstead Low Weald LCA)

are assessed in detail in **Table 19-26**. These LCAs are illustrated in **Figure 19.5a, Volume 3**.

- 19.9.36 None of these landscapes will be directly affected by the onshore substation as the onshore substation infrastructure will not be located within them, and there will be no change to their physical characteristics. Potential effects on these landscapes will be limited to indirect effects on perceptual characteristics of these landscapes, resulting from views of the onshore substation. The assessment considers the likely change to landscape character and as such it is different from the visual assessment of particular views, experienced by people.
- 19.9.37 In summary, apart from the 'host' LCA, none of the remaining LCAs within the study area will be significantly affected by onshore substation search area option A. An assessment of the effects of the onshore cable corridor options is outlined in **Appendix 19.3, Volume 4**.

Table 19-26 Onshore substation search area option A – indirect effects on surrounding Landscape Character (within 2km)

M1 Crabtree & Nuthurst Ridges & Ghylls LCA

(also part of HW4: High Weald Fringes LCA within West Sussex)

This densely wooded landscape forms the southern flanks of the High Weald Forest Ridge. It is located approximately 150m distance north of onshore substation search area option A. It is dissected by gentle gill streams draining to the south and east and occupies the north and north-western parts of the 2km study area. There are some long views over the Low Weald however a strong network of woods and hedgerows limit many views. Viewpoint SA6 is located within this landscape. The key characteristics as defined in the relevant landscape character assessments (West Sussex County Council 2003 and Horsham District Council, 2003) state:

- *“Steep wooded ridges and ghylls.*
- *Strong pattern of woodlands, shaws and hedgerows.*
- *Ancient hedgerow oaks.*
- *Small to medium size irregular and regular-shaped pasture fields.*
- *Field ponds and small lakes.*
- *Numerous historic parks and gardens, e.g. Leonardslee, Sedgwick Park, Denne Park.*
- *Dispersed settlement pattern of farmsteads, and small hamlets, e.g. Nuthurst.*
- *Confined views.*
- *Traditional local building materials of sandstone, brick and tile hanging.”*

Sensitivity to change:

The value of the northern part of the LCA is assessed as High reflecting the national designation as an AONB. However, where the southern part of the LCA is not within a designated landscape, indicating a Medium value. This landscape within the study area

has limited recreational value, with local recreational walking and horse riding along PRow and informal road cycling being the main forms of recreational activity. Susceptibility to change from onshore substation search area option A is reduced by the visual containment of the landscape by extensive woodland blocks, tree belts and hedges and intervening distance, indicating a Medium susceptibility. The overall sensitivity is therefore assessed as High in the north of the LCA and Medium to the south.

Magnitude of change:

Construction

There is limited ZTV coverage within this LCA and much of the area is subject to further screening from intervening vegetation. There will, however, be filtered views of construction works associated with the onshore substation along the southern fringes of the LCA. The southern fringe of the LCA is already influenced by movement and traffic along the adjacent A272 and Oakendene Industrial Estate to the south. It is not considered that the construction works will significantly alter the key perceptual characteristics of the LCA and its key characteristics will be retained. The magnitude of change will range from Zero at the start of the works to Medium-low along the southern fringes of the LCA.

Operation and maintenance (Year 1)

ZTV analysis indicates theoretical visibility of the onshore substation along the southern fringes of the LCA as the landform rises towards Upper Barn, beyond this to the north and west, visibility becomes patchy and potential views are more likely to be restricted by surrounding tree and hedgerow cover. It is not considered that the onshore substation will significantly alter the key perceptual characteristics of the LCA and its key characteristics will be retained. The magnitude of change will range from Medium-low along the southern fringes of the LCA to Negligible-Zero on the remainder of the LCA.

Decommissioning

Decommissioning works associated with the onshore substation will generally be the reverse of the construction works as the landscape is restored. The magnitude of change will range from Medium-low along the southern fringes of the LCA reducing to Negligible-Zero towards the end of the decommissioning works.

Level of residual effects:

Construction

There will be residual effects of **Negligible significance (Not Significant)** at the start of the construction works increasing to **Moderate / Minor significance (Not Significant)** along the southern fringes of the LCA. The effect on the remainder of the LCA will be **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Operation and maintenance (Year 1)

There will be residual effects of **Moderate / Minor significance (Not Significant)** along the southern fringes of the LCA to **Minor / Negligible to Negligible significance (Not Significant)** on the remainder of the LCA. The nature of these residual effects will be long-term, temporary, indirect and adverse to neutral.

Decommissioning

There will be residual effects of **Moderate / Minor significance (Not Significant)** reducing to **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Whole Proposed Development residual effects:

There will be no residual effects of the onshore cable corridor on this landscape. The offshore elements of the Proposed Development will have no effect on this landscape. Therefore, the whole Proposed Development residual effects will only be limited to the onshore substation as assessed above.

Cumulative effects assessment:

The onshore elements of the Proposed Development will be experienced cumulatively with the consented Coombe Solar Farm to the northeast of the existing National Grid Bolney substation and west of Bolney Chapel Road (DM/15/0644). The combined and additional effects will therefore remain **Moderate / Minor to Negligible significance (Not Significant)**. The nature of these effects will be short to long-term, temporary to permanent, cumulative, indirect and adverse to neutral.

LW1 Hickstead Low Weald LCA
(also part of LW10: Eastern Low Weald LCA within West Sussex)

This landscape comprises a lowland mixed pastoral and arable landscape with a strong hedgerow pattern. It is located approximately 300m distance east of onshore substation search area option A. It lies over low ridges and clay vales drained by the upper Adur streams. It occupies the east and south-east of the 2km study area. Views are dominated by the steep downland scarp to the south and the High Weald fringes to the north. The key characteristics as defined in the relevant landscape character assessments (West Sussex County Council 2003 and Mid-Sussex District Council, 2005) state:

- *“Alternating west-east trending low ridges with sandstone beds and clay vales carrying long, sinuous upper Adur streams.*
- *Views dominated by the steep downland scarp to the south and the High Weald fringes to the north.*
- *Arable and pastoral rural landscape, a mosaic of small and larger fields, scattered woodlands, shaws and hedgerows with hedgerow trees.*
- *Quieter and more secluded, confined rural landscape to the west, much more development to the east, centred on Burgess Hill.*
- *Biodiversity in woodland, meadowland, ponds and wetland.*
- *Mix of farmsteads and hamlets favouring ridgeline locations, strung out along lanes.*
- *A modest spread of designed landscapes and major landmark of Hurstpierpoint College.*
- *Crossed by north-south roads including the A23 Trunk Road, with a rectilinear network of narrow rural lanes.*

- *London to Brighton Railway Line crosses the area through Burgess Hill.*
- *Varied traditional rural buildings built with diverse materials including timberframing, weatherboarding, Horsham Stone roofing and varieties of local brick and tile-hanging.*
- *Principal visitor attraction is the Hickstead All England Equestrian Showground."*

Sensitivity to change:

- There are no national or local landscape designations within this landscape. This landscape within the study area has limited recreational value, with local recreational walking and horse riding along PRoW and informal road cycling being the main forms of recreational activity. The value of the LCA is therefore assessed as Medium. Susceptibility to change from onshore substation search area option A is reduced by the visual containment of the landscape by extensive woodland blocks, tree belts and hedges and intervening distance and the presence of existing pylons and overhead lines, indicating a Medium susceptibility. The overall sensitivity is therefore assessed as Medium.

Magnitude of change:

Construction

- There is limited ZTV coverage within this LCA (western edge) and much of the area is subject to further screening from intervening vegetation. In reality, visibility of the construction works is unlikely given the layering effect of intervening vegetation, even in the winter. It is not considered that the construction works will significantly alter the key perceptual characteristics of the LCA and its key characteristics will be retained. The magnitude of change will be Negligible-Zero.
- The onshore temporary construction corridor (assessed in [Appendix 19.3, Volume 4](#)) will however add a localised and significant effect on the landscape character, subject to individual onshore cable corridor selection.
- Operation and maintenance (Year 1)
- Similar to construction phase. The magnitude of change will be Negligible-Zero.
- The onshore cable corridor (assessed in [Appendix 19.3, Volume 4](#)) will however add a localised and significant effect on the landscape elements, mainly hedgerow trees removed during construction, subject to individual onshore cable corridor selection.

Decommissioning

- Similar to construction phase. The magnitude of change will be Negligible-Zero.
- Level of residual effects

Construction

- There will be residual effects of **Minor / Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Operation and maintenance (Year 1)

- There will be residual effects of **Minor / Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Decommissioning

- There will be residual effects of **Minor / Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Whole Proposed Development residual effects

- There will be **Major to Major / Moderate significance (Significant)** residual effects on this landscape (<250m) during construction and operation and maintenance (year 1) as a result of the onshore cable corridor. However, residual effects as a result of the onshore substation will be **Minor / Negligible significance (Not Significant)**.
- The offshore elements of the Proposed Development will have no effect on this landscape.

Cumulative effects assessment

- The onshore elements of the Proposed Development will be experienced cumulatively with the consented Coombe Solar Farm to the northeast of the existing National Grid Bolney substation and west of Bolney Chapel Road (DM/15/0644) (High magnitude). The combined effect will be **Major / Moderate significance (Significant)** due to the consented solar farm, and not the onshore substation. The additional effect will remain **Minor / Negligible significance (Not Significant)**. The nature of these effects will be short to long-term, temporary to permanent, cumulative, direct to indirect, and adverse to neutral.

Indirect landscape effects on Landscape Designations

- 19.9.38 The effects of onshore substation search area option A on the Special Landscape Qualities of the High Weald AONB is assessed in detail in **Appendix 19.3, Volume 4**.
- 19.9.39 In summary, there will be **no effect** on the Special Landscape Qualities of the AONB.

Onshore substation search area option B: Wineham Lane North

Landscape effects on the 'host' Landscape Character Area

Overview

- 19.9.40 The 'host' landscape of onshore substation search area option B includes LW1: Hickstead Low Weald local LCA in Mid-Sussex (also part of LW10: Eastern Low Weald LCA within West Sussex).
- 19.9.41 This landscape comprises a lowland mixed pastoral and arable landscape with a strong hedgerow pattern. It lies over low ridges and clay vales drained by the upper Adur streams and occupies the majority of the 2km study area. Views are dominated by the steep downland scarp to the south and the High Weald fringes to the north. Viewpoints SB1 – SB6 are located within this landscape. The key characteristics as defined in the relevant landscape character assessments (West Sussex County Council, 2003 and Mid-Sussex County Council, 2005) state:
- "Alternating west-east trending low ridges with sandstone beds and clay vales carrying long, sinuous upper Adur streams.*
- Views dominated by the steep downland scarp to the south and the High Weald fringes to the north.*
- Arable and pastoral rural landscape, a mosaic of small and larger fields, scattered woodlands, shaws and hedgerows with hedgerow trees.*
- Quieter and more secluded, confined rural landscape to the west, much more development to the east, centred on Burgess Hill.*
- Biodiversity in woodland, meadowland, ponds and wetland.*
- Mix of farmsteads and hamlets favouring ridgeline locations, strung out along lanes.*
- A modest spread of designed landscapes and major landmark of Hurstpierpoint College.*
- Crossed by north-south roads including the A23 Trunk Road, with a rectilinear network of narrow rural lanes.*
- London to Brighton Railway Line crosses the area through Burgess Hill.*
- Varied traditional rural buildings built with diverse materials including timberframing, weatherboarding, Horsham Stone roofing and varieties of local brick and tile-hanging.*
- Principal visitor attraction is the Hickstead All England Equestrian Showground."*
- 19.9.42 The key landscape characteristics are defined in the West Sussex County Council (2013) High Weald Local Distinctiveness Guidance include:
- "The tranquil, intimate and enclosed rural character of the area*
- The qualities of fine long views from ridges*

*Exposures of sandstone**The network of ancient woodland including larger deciduous woodlands, ghyll woodlands and shaws**Mixed woodlands on the plateau replacing coniferous over time**Areas of heathland**The qualities of the River Ouse, its valley bottom and lower sides with medium-large scale field patterns of wet meadows and pastures bounded by hedges with trees**The fine grain and irregular pattern of assart fields [around 0.4Ha. /1 acre]**Shaws enclosing fields and linking into, and integrating settlement**The dense network of hedgerows, restoring where necessary, retaining the oak standards and other hedgerow trees**Network and character of sinuous un-kerbed deep lanes, ancient droveways, greenways, tracks and footpaths**Mill sites and ponds, hammer ponds, ornamental lakes and ponds**Narrow field entrances and traditional gates**Designed landscapes associated with large country houses and their settings, avoiding the spread of invasive species such as rhododendron."**Landscape sensitivity of the 'host' landscape**Landscape value*

- 19.9.43 There are no locally or nationally designated landscapes within this LCA. The local landscape has a sense of place and local level distinctiveness, with a simple, rural character, network of fields with strong hedgerow field boundaries, scattered mature deciduous field boundary trees and woodlands, which contribute to the local landscape quality. There is also some intrusion of suburbanisation with industrial estates, A roads, horse paddocks, pylons and existing substation infrastructure associated with the existing National Grid Bolney substation and Rampion 1 onshore substation. Large-scale modern agricultural buildings also influence scenic quality, especially where there is inadequate screening. The Hickstead All England Equestrian Showground is located over 2km within this landscape, recreational use is generally limited to local recreational walking and horse riding along PRow and informal road cycling. The landscape value of onshore substation search area option B is therefore assessed as **Medium**.

Landscape susceptibility

- 19.9.44 The relatively rural character of this landscape is susceptible to the influence of onshore substation search area option B, however the visual containment of the landscape by extensive woodland blocks, tree belts and hedges will reduce the susceptibility to change. Woodland blocks increase enclosure in the landscape and reduce the likelihood to experience change as a result of onshore substation

search area option B. Susceptibility is also reduced due to the presence of the adjacent the National Grid Bolney substation and Rampion 1 onshore substation and associated infrastructure to the south and associated pylons in the surrounding area. The presence of other large-scale modern agricultural buildings, sewage works and other built development in the local landscape also have already resulted in changes to its intrinsic qualities. The landscape susceptibility of onshore substation search area option B is therefore assessed as **Medium to Low**.

Overall sensitivity

- 19.9.45 The overall sensitivity to change considering all of the factors within the landscape character assessments, and the assessment of Medium value and Medium to Low susceptibility is considered to be **Medium to Medium-low**.
- 19.9.46 Landscape elements (mature trees, hedgerows, and woodland) are indicative of higher levels of sensitivity as they are not easily replaced.

Magnitude of change of the 'host' landscape

Magnitude of change during construction

- 19.9.47 There is potential for both physical changes to landscape elements and changes in character resulting from the alteration/loss of these features; as well as potential for the introduction of new features associated with the construction of onshore substation search area option B during the construction phase, which will change the character of the landscape and pattern of elements within a localised area of up to approximately 100m to the north and east of the onshore substation search area during the construction phase.
- 19.9.48 There are approximately three hedgerows with trees within the onshore substation search area, including additional trees, hedgerows and woodland along the perimeter of the search area, some of which to the north is ancient woodland. Areas to the south include mitigation planting as part of the existing Rampion 1 onshore substation.
- 19.9.49 The construction of the onshore substation will result in a high magnitude of change to the local character and the loss of a number of landscape elements. The geographical extent of the landscape effects will range up to approximately 100m to the north and east of the onshore substation search area, subject to intervening screening. The construction works will include a temporary construction compound and access roads, together with the increased activity of vehicles, machinery, cranes and the stockpiling of materials that will be needed during the construction phase. The construction works will result in changes in ground conditions/profiles, installation of infrastructure and the addition of a temporary construction compound, fencing and installation of electrical infrastructure. This will slightly change the network of hedgerow field boundaries and the PRoW within and on the eastern edge of the onshore substation search area that allow people to experience the character of the local landscape. However, the southern edge of the onshore substation search area is immediately adjacent to the existing National Grid Bolney substation and Rampion 1 onshore

substation and the construction activity will thus be in the context of existing similar substation features and elements. As the onshore substation is constructed, the form of the buildings and external electrical infrastructure will take shape and extend the influence of onshore substation infrastructure on the existing landscape character. The built forms will increase the prominence of development components in the landscape through the introduction of large-scale buildings and introduce complex electrical infrastructure, increasing the influence of electrical infrastructure on the character of this area amongst existing electrical infrastructure. The surrounding mature trees and hedgerows, woodland to the south of Dawe's Farm, east of Wineham Lane and along the stream to the northern boundary of the onshore substation search area provide visual containment of the onshore substation in the landscape. This is reinforced by the low lying and enclosed nature of the landform located towards the base of a shallow valley.

- 19.9.50 In terms of the likely effects on landscape character, the magnitude of change within the onshore substation search area and up to approximately 100m to the north and east (beyond which the landscape is generally contained restricting indirect visual effects on the perception of landscape character beyond the onshore substation search area boundary) will range from **Zero** to **High** during the construction phase. Beyond this distance, the landscape is generally contained, restricting indirect effects on the perception of landscape character beyond the onshore substation search area boundary to the extent that they will be **Negligible** to **Zero**.

Magnitude of change during operation and maintenance (Year 1)

- 19.9.51 During operation, the completed onshore substation will gain a more 'settled' appearance when compared to the same area during the construction phase, although significant landscape effects will continue throughout the operation and maintenance phase.
- 19.9.52 Further trees and hedgerows will have been planted as part of the pre-construction planting and during the first year of the operation and maintenance phase, which will provide progressive screening over time, from initial limited level of screening when first planted, to partial screening during their establishment period.
- 19.9.53 The magnitude of change within this localised area (up to 100m to the north and east of the onshore substation search area) will be **High**.

Magnitude of change during decommissioning

- 19.9.54 The onshore substation will be decommissioned at the end of the operation and maintenance phase which is expected to take approximately four years. All visible, above ground structures of the onshore substation will be removed upon decommissioning, thereby rendering the vast majority of the landscape effects as reversible. The area occupied by the onshore substation will be reinstated back to its original condition of fields with hedgerow boundaries. The assessment has assumed the reinstatement to the previous land use and the removal of both the onshore substation and landscape mitigation, although it is likely that perimeter

landscaping, established during the operation and maintenance phase will be partly retained where practical.

- 19.9.55 The magnitude of change during decommissioning will tend to decrease from **High** at operational levels to non-significant levels or **Zero** as the onshore substation is dismantled and the landscape reinstated. As with the construction phase, although short-term and temporary, these works are likely to involve greater movement of machinery and visibility of contrasting construction activity.

Level of residual effect on the 'host' landscape

Residual effects during construction

- 19.9.56 Taking account of the **Medium** to **Medium-low** sensitivity, and **Zero** to **High** magnitude of change, the residual effects on the 'host' LCA and landscape elements during the construction phase will range from **Negligible significance (Not Significant)** increasing to **Major/Moderate** to **Moderate significance (Significant)** upon completion affecting a geographically contained area <100m from the onshore substation search area).
- 19.9.57 The duration of these effects will be short-term (four years) and the nature of these effects will be temporary, direct, and adverse, due largely to the nature of construction activity across the search area during this phase.

Residual effects during operation and maintenance (Year 1)

- 19.9.58 Taking account of the **Medium** to **Medium-low** sensitivity, and **High** magnitude of change, the residual effects on the 'host' landscape LCA during the operation and maintenance phase will range from **Major/Moderate** to **Moderate significance (Significant)** (on a geographically contained area up to 100m to the north and east of the onshore substation search area). It is however expected that significant effects will be reduced by the proposals within the Landscape Design Plan that are likely to include earthworks and planting once these are established.
- 19.9.59 The duration of these residual effects will be long-term (operation and maintenance phase of around 30 years) and reversible as a result of the decommissioning. The nature of these effects will be long-term (reversible), direct and adverse.
- 19.9.60 Considering the 'host' landscape as a whole, the residual effects will be **Not Significant** in overall terms due to the presence of other existing infrastructure developments, most notably the adjacent existing National Grid Bolney substation and Rampion 1 onshore substation to the south, numerous pylons through the landscape and the adjacent Wineham Lane traffic.

Residual effects during decommissioning

- 19.9.61 Taking account of the **Medium** to **Medium-low** sensitivity, and **High** to **Zero** magnitude of change, the effects on the 'host' landscape LCA during the decommissioning phase will range from **Major/Moderate** to **Moderate significance (Significant)** at the start of decommissioning reducing to **Negligible significance (Not Significant)** upon completion. The assessment has assumed

the reinstatement to the previous land use and the removal of both the onshore substation and landscape mitigation, although it is likely that perimeter landscaping, established during the operation and maintenance phase will be partly retained where practical.

- 19.9.62 The duration of these residual effects in the decommissioning phase will be short-term similar to the construction phase and the nature of these residual effects will be short-term, temporary, direct, and adverse, due largely to the nature of decommissioning activity across the onshore substation search area during this phase.

Whole Proposed Development residual effects

- 19.9.63 There will be whole Proposed Development residual effects of **Major** to **Major/Moderate significance (Significant)** on this landscape (<100-250m) during construction and operation and maintenance (year 1) as a result of both the onshore substation and onshore cable corridor.
- 19.9.64 The offshore elements of the Proposed Development will have no effect on this landscape.

Cumulative effects assessment

- 19.9.65 The onshore elements of the Proposed Development will be experienced cumulatively with the consented Coombe Solar Farm to the northeast of the existing National Grid Bolney substation and west of Bolney Chapel Road (DM/15/0644). The combined and additional effects will therefore remain **Major** to **Major / Moderate significance (Significant)** on this landscape. The nature of these effects will be short to long-term, temporary to permanent, cumulative, direct, and adverse.

Indirect landscape effects on the surrounding Landscape Character

- 19.9.66 As described in **Table 19-14**, apart from the host LCA, one other local LCA (**J3 Cowfold & Shermanbury Farmlands LCA**) is assessed in detail in **Table 19-27**. In summary, this LCA will be significantly affected by onshore substation search area option B.
- 19.9.67 None of these landscapes will be directly affected by the onshore substation as the onshore substation infrastructure will not be located within them, and there will be no change to their physical characteristics. Potential effects on these landscapes will be limited to indirect effects on perceptual characteristics of these landscapes, resulting from views of the onshore substation. The assessment considers the likely change to landscape character and as such it is different from the visual assessment of particular views, experienced by people.
- 19.9.68 In summary, apart from the 'host' LCA, none of the remaining LCAs within the study area will be significantly affected by onshore substation search area option A. An assessment of the effects of the onshore cable corridor options is outlined in **Appendix 19.3, Volume 4**.

Table 19-27 Onshore substation search area option B – Indirect effects on surrounding Landscape Character (within 2km)

J3 Cowfold & Shermanbury Farmlands LCA
(also part of LW10: Eastern Low Weald LCA within West Sussex)

This low-lying, gently undulating landscape comprises a lowland mixed pastoral and arable landscape with a strong hedgerow pattern. The key characteristics of this landscape are reported in **paragraph 19.9.7**.

Sensitivity to change

High-medium (as assessed in **paragraph 19.9.12**)

Magnitude of change

Construction

Taking account of vegetation screening, the ZTV is very limited within this LCA (eastern edge) and much of the area is subject to further screening from intervening vegetation. There may be filtered views of construction works associated with the onshore substation at the eastern edge of the LCA to the west of Wineham Lane. However, this area is already influenced by movement and traffic along Wineham Lane and the presence of the National Grid Bolney substation and Rampion 1 onshore substation. It is not considered that the construction works will significantly alter the key perceptual characteristics of the LCA and its key characteristics will be retained. The magnitude of change will range from Low to Negligible-Zero.

Operation and maintenance (Year 1)

Similar to construction phase. The magnitude of change will range from Low to Negligible-Zero.

Decommissioning

Similar to construction phase. The magnitude of change will range from Low to Negligible-Zero.

Level of residual effects

Construction

There will be residual effects of **Moderate / Minor to Minor significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Operation and maintenance (Year 1)

There will be residual effects of **Moderate / Minor to Minor significance (Not Significant)**. The nature of these residual effects will be long-term, temporary, indirect and adverse to neutral.

Decommissioning

There will be residual effects of **Moderate / Minor to Minor significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Whole Proposed Development residual effects

There will be residual effects of **Major to Moderate significance (Significant)** on this landscape (<250m) during construction (landscape character and landscape elements) and operation and maintenance (year 1) (landscape elements only) as a result of the

J3 Cowfold & Shermanbury Farmlands LCA (also part of LW10: Eastern Low Weald LCA within West Sussex)

onshore cable corridor. However, residual effects as a result of the onshore substation will be **Moderate / Minor to Minor significance (Not Significant)**.

The offshore elements of the Proposed Development will have no effect on this landscape.

Cumulative effects assessment:

The onshore elements of the Proposed Development will be experienced cumulatively with the consented Coombe Solar Farm to the northeast of the existing National Grid Bolney substation and west of Bolney Chapel Road (DM/15/0644). The combined and additional effects will therefore remain **Moderate / Minor to Minor significance (Not Significant)** on this landscape. The nature of these effects will be short to long-term, temporary to permanent, cumulative, indirect, and adverse to neutral.

Indirect landscape effects on Landscape Designations

- 19.9.69 The effects of onshore substation search area option B on the Special Landscape Qualities of the High Weald AONB is assessed in detail in **Appendix 19.3, Volume 4**.
- 19.9.70 In summary, there will be **no effect** on the Special Landscape Qualities of the AONB.

Onshore cable corridor

Introduction

- 19.9.71 The landscape effects of the onshore cable corridor are assessed in detail in **Appendix 19.3, Volume 4**. A summary is provided below.

Summary of residual effects of the onshore cable corridor on Landscape Character

- 19.9.72 In summary, 29 LCAs have been included in the assessment and there will be a significant residual effect on 19 LCAs along the route of the onshore cable corridor as a result of the construction of the onshore cable corridor and associated temporary construction compounds and access. Within the SDNP, six LCAs will be significantly affected. The geographical extent of these significant residual effects are largely contained within approximately 250m of the onshore cable corridor due to the screening effects of successive layers of vegetation (trees woodland and hedgerows). This increases to within approximately 500m of the onshore cable corridor within the more open Lower Arun Valley Floor LCA No. 35 and Climping Lower Coastal Plain LCA No. 31 which will also be affected by multiple onshore elements of the Proposed Development.
- 19.9.73 Within the SDNP, the geographical extent of these significant residual effects will also be largely restricted to approximately <250m of the onshore cable corridor with the exception of the Arun to Adur Open Downs A3 where significant residual

effects will extend to within approximately 1km of the onshore cable corridor, particularly in relation to multiple elevated areas viewing along the linear onshore cable corridor.

- 19.9.74 There are multiple onshore cable corridor route options and temporary construction access options with some HDD construction compound requirements each extending 4-6km across the landscape. There are also two onshore substation search areas. The effects will be similar to those LCAs between Shermanbury Road and the A281. A summary of the main differences is provided as follows:
- Wineham Lane North Route 1A – approximately 4km in length and crossing approximately 30 field boundaries and one section of woodland approximately 350m;
 - Wineham Lane South Route 1A – approximately 4km in length and crossing approximately 30 field boundaries;
 - Wineham Lane North Route 1B – approximately 4km in length and crossing approximately 34 field boundaries and one section of woodland approximately 350m. Part of this route is within the adjacent Upper Adur Valleys (P2) LCA;
 - Wineham Lane South Route 1B – approximately 4km in length and crossing approximately 32 field boundaries. Part of this route is within the adjacent Upper Adur Valleys (P2) LCA;
 - Bolney Road / Kent Street Route 1C – approximately 6km in length and crossing approximately 42 field boundaries and one trenchless crossing of the Cowfold Stream; and
 - Bolney Road / Kent Street Route 1D – approximately 6.5km in length and crossing approximately 44 field boundaries and one trenchless crossing of the Cowfold Stream.
- 19.9.75 With regards to Warningcamp, there are two onshore cable corridor route options, B and C. There will be significant effects on parts of two LCAs (Lyminster Angmering Coastal Plain and Arun Valley Sides) due to the Warningcamp B onshore cable corridor route option. There will be significant effects on parts of two LCAs (Lyminster Angmering Coastal Plain and South Downs Upper Coastal Plain) due to the Warningcamp C onshore cable corridor route option.
- 19.9.76 The nature of these residual effects will be both direct and indirect, adverse and in some cases cumulative with the whole Proposed Development residual effects and other development such as the A27 Arundel Bypass. The duration of these residual effects will be short term (three-year onshore cable corridor construction phase) and largely reversible with progressive backfill and reinstatement of the onshore cable corridor as the works progress.
- 19.9.77 During year 1 of the operation and maintenance phase, there will be limited significant effects on 12 small areas of landscape character, mostly related to the establishment of new and replacement planting along the onshore cable corridor. Although two of these relate to the loss of trees and woodland at Steyning & Henfield Brooks (O3) LCA where a number of trees will be removed to allow access and at Hickstead Low Weald (LW1) LCA where trees and screening

planting will be removed along Bob Lane and exposing views of the existing National Grid Bolney substation and Rampion 1 substation.

Summary of residual effects of the onshore cable corridor on Landscape Designations

- 19.9.78 The onshore cable corridor is partly located within the SDNP with the route of the onshore cable corridor crossing the SDNP between Crossbush and Wiston. This onshore element of the Proposed Development will have a significant residual effect on part of the SDNP. Three of the seven special qualities of the SDNP will be significantly affected within the study area for a temporary period during the construction phase:
- 1) Diverse, inspirational landscapes and breathtaking views;
 - 3) Tranquil and unspoilt places; and
 - 7) Distinctive Towns and Villages.
- 19.9.79 The nature of these residual effects will extend across part of the SDNP and its setting and expound from significant effects on landscape character and visual receptors that will occur during the construction phase. The duration of the effects will be limited to the construction phase for the onshore cable corridor (onshore cable construction compounds may be in use for up to three years and six months) and some of these residual effects will be cumulative with the A27 Bypass and whole Proposed Development effects with the offshore elements of the Proposed Development.
- 19.9.80 In terms of the integrity of the SDNP, the short duration of these residual effects and the largely reversible nature of the effects (in that the onshore cable corridor will be reinstated and hedgerows re-planted) indicates that the integrity of this part of the SDNP (within the study area) will not be adversely or significantly affected.
- 19.9.81 Further mitigation may entail provision of a more detailed project programme within the SDNP in order to limit the construction phase activity and temporary construction access within this area.
- 19.9.82 There will be no significant effects of the onshore cable corridor on the SDNP and its special qualities setting or integrity during the operation and maintenance phase.
- 19.9.83 There will be **no effect** of the onshore cable corridor on the special landscape qualities of the High Weald AONB.

19.10 Preliminary assessment: visual effects

Overview

- 19.10.1 Visual effects are assessed by considering the sensitivity of the receptor (people in the landscape) and the magnitude of change that will affect the view or overall visual amenity. They are defined by the Landscape Institute in GLVIA 3, paragraphs 6.2 as follows:

"An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity. The concern here is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements."

- 19.10.2 The type of effect may also be described as temporary or permanent, short-term to long-term, direct or indirect, and beneficial, neutral, or adverse. The assessment methodology is set out in **Appendix 19.1, Volume 4**.
- 19.10.3 The residual visual effects assessed here are those effects remaining after all of the embedded environmental measures have been taken into account outlined in **Section 19.7** and **Table 19-20**.
- 19.10.4 The visual effects have been assessed during construction, operation and maintenance (Year 1), and decommissioning phases, as set out in **Appendix 19.1, Volume 4**.
- 19.10.5 The visual assessment takes into consideration the optionality that exists for flexibility at this stage of the design of the Proposed Development (as outlined in **Chapter 5**). For example, the assessment has differentiated between the effects where there are multiple cable corridor options at Warningcamp and those between Shermanbury and the onshore substation options. Therefore, effects that are more significant than those presented in this PEIR are not predicted to occur should any other development scenario within the maximum design envelope be taken forward in the final design of the Proposed Development.
- 19.10.6 The visual assessment is set out as follows:
- Onshore substation search area option A: Bolney Road / Kent Street:
 - ▶ visual effects on views from settlements;
 - ▶ visual effects on views from transport routes;
 - ▶ visual effects on views from recreational routes; and
 - ▶ visual effects on views from recreational and tourist destinations.
 - Onshore substation search area option B: Wineham Lane North:
 - ▶ visual effects on views from settlements;
 - ▶ visual effects on views from transport routes;
 - ▶ visual effects on views from recreational routes; and
 - ▶ visual effects on views from recreational and tourist destinations.
 - Onshore cable corridor (assessed in detail in **Appendix 19.4, Volume 4**):
 - ▶ visual effects on views from Settlements;
 - ▶ visual effects on views from Transport routes;
 - ▶ visual effects on views from Recreational routes; and

- ▶ visual effects on views from Recreational and tourist destinations.

- 19.10.7 Annotated Illustrations of the onshore elements of the Proposed Development are provided from 56 viewpoint locations and illustrated in **Figures 19.10 to 19.65, Volume 3**. Each of the viewpoints are assessed in a separate appendix (**Appendix 19.2, Volume 4**).
- 19.10.8 The assessment of cumulative visual effects on the onshore elements of the Proposed Development and whole Proposed Development effects have been assessed and reported for each receptor in this section with a summary provided in **Section 19.11**.

Onshore substation search area option A: Bolney Road / Kent Street

Visual effects on views from settlements

- 19.10.9 The visual effects likely to be experienced from settlements include consideration of residential areas, the public realm and public open spaces within the settlement boundaries that will be frequented by people.
- 19.10.10 The sensitivity of each of these receptors (people) at settlements has been assessed as **High** due to the high susceptibility of residents in accordance with GLVIA 3, paragraph 6.33. The value of the view is also likely to be regarded as high by the residents themselves.
- 19.10.11 Settlements within 2km located outwith the ZTV (**Figure 19.7aiii, Volume 3**) are not included in the visual assessment.
- 19.10.12 In summary, one settlement (Cowfold) is included in the assessment and there will be no significant effects on the views from Cowfold as assessed in **Table 19-28**.

Table 19-28 Onshore substation search area option A: Bolney Road / Kent Street – Visual effects on views from Settlements

Settlements: Cowfold

The settlement of Cowfold is located approximately 0.9km west of onshore substation search area option A. It is largely contained and surrounded by woodland blocks or groups of trees in all directions. The majority of the settlement is outwith the ZTV with any visibility limited to the eastern parts of the village, however, these views will be further restricted by intervening vegetation. Viewpoint SA4 is located to the southeast on the outer edge of the village.

Sensitivity to change:
High

Magnitude of change:
Construction

Construction works associated with the onshore substation will not be visible from any part of Cowfold village including to the east and southeast at Eastlands Farm as

Settlements: Cowfold

illustrated by viewpoint SA4 due to screening by a combination of landform and the layering effect of intervening vegetation, even in the winter. The magnitude of change will therefore be Zero.

Operation and maintenance (Year 1)

The onshore substation will not be visible from any part of Cowfold village due to screening by a combination of landform and the layering effect of intervening vegetation, even in the winter. The magnitude of change will therefore be Zero.

Decommissioning

Decommissioning works associated with the onshore substation will not be visible from any part of Cowfold village due to screening by a combination of landform and the layering effect of intervening vegetation, even in the winter. The magnitude of change will therefore be Zero., assuming the maintenance of the existing baseline.

Level of residual effects:

Construction

There will be **no effect** on the ground or street level views from the settlement.

Operation and maintenance (Year 1)

There will be **no effect** on the ground or street level views from the settlement.

Decommissioning

There will be **no effect** on the ground or street level views from the settlement, assuming the maintenance of the existing baseline.

Whole Proposed Development residual effects:

The onshore cable corridor will not be visible from this settlement.

The offshore elements of the Proposed Development will not be visible from this settlement. Therefore, there will be no whole Proposed Development residual visual effects.

Cumulative effects assessment:

None of the cumulative developments will be visible from this settlement. Therefore, there will be no cumulative visual effects.

Visual effects on views from transport routes

19.10.13 This section of the assessment considers the visual effects on views of the onshore substation from transport routes within the 2km study area as outlined in **Table 19-16**. The transport routes are illustrated on **Figure 19.7aiii, Volume 3** and those assessed include:

- A272;
- A281; and
- Kent Street.

19.10.14 The views from these transport routes will be experienced transiently by road users (mainly drivers and where appropriate cyclists and walkers) who will experience the onshore substation as part of the changing sequence of views

experienced from the road. Each of these transport routes were driven or travelled in both directions in order to assess the potential effects and each assessment has been assisted on-site with the use of sequential wirelines transects and ZTV maps (**Figure 19.7aiii, Volume 3**).

- 19.10.15 Transport routes within 2km located outwith the ZTV are not included in the assessment.
- 19.10.16 In summary, significant effects will be limited to short sections of transport routes affecting up to 300m of the A272 as it passes the northern boundary of the onshore substation search area, and up to 1km of Kent Street as it passes the eastern boundary of substation search area.

Table 19-29 Onshore substation search area option A – Visual effects on views from Transport routes

Transport routes: A272

The A272 connects Cowfold in the west and Crosspost in the east within the 2km study area. It passes along the northern boundary of onshore substation search area option A. Viewpoint SA2 is located along on this transport route. The ZTV (**Figure 19.7aiii, Volume 3**) illustrates maximum theoretical visibility of the onshore substation within 1km with very limited visibility beyond this distance. Within 1km, visibility is greatly reduced due to mature roadside vegetation and other surrounding intervening vegetation and built-form. The main area of visibility will be limited for approximately 300m of the A272 where the road passes along the northern boundary of the onshore substation search area.

Sensitivity to change

The A272 is not a designated tourist transport route and does not pass through an area designated for its scenic value. The value of the A272 is therefore assessed as Medium. Most of the road users will experience the landscape transiently whilst driving or cycling and experiencing a sequence of views, often in one direction focused on the direction of travel and often experienced at speed indicating a Medium susceptibility. To conclude, the sensitivity of road users on the A272 has been assessed as Medium.

Magnitude of change

Construction

Construction works associated with the building of the onshore substation components will be visible to the south through a large gap in the trees for approximately 300m of the A272 as it passes the northern boundary of the onshore substation search area. Other machinery, vehicle movements and welfare facilities associated with the construction works including the temporary construction compound will also be partially visible in these views. Local task and vehicle lighting may be visible in poor weather conditions. From the remainder of the A272, there will be almost no visibility of the construction works due to the layering effect of intervening vegetation, even in the winter. The magnitude of change will range from High (up to 300m of the A272) to Negligible-Zero for the remainder of the A272.

Operation and maintenance (Year 1)

As for the construction phase, the onshore substation and its components will be most visible for approximately 300m of the A272 as it passes the northern boundary of the onshore substation search area. Perimeter landscaping will not have established by Year 1. From the remainder of the A272, there will be almost no visibility of the onshore substation due to the layering effect of intervening vegetation, even in the winter. The surrounding field boundary vegetation will provide some mitigation in the form of visual containment. The magnitude of change will range from High (up to 300m of the A272) to Negligible-Zero for the remainder of the A272.

Decommissioning

Similar to construction phase. The magnitude of change will range from High (up to 300m of the A272) to Negligible-Zero for the remainder of the A272.

Level of residual effects

Construction

The residual effects on the A272 will range from **Major / Moderate significance (Significant)** (up to 300m of the A272) to **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, direct and adverse to neutral.

Operation and maintenance (Year 1)

The residual effects on the A272 will range from **Major / Moderate significance (Significant)** (up to 300m of the A272) to **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be long-term, temporary, direct and adverse to neutral.

Decommissioning

The residual effects on the A272 will range from **Major / Moderate significance (Significant)** (up to 300m of the A272) to **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, direct and adverse to neutral.

Whole Proposed Development residual effects:

The onshore cable corridor will not be visible from this transport route. The offshore elements of the Proposed Development will not be visible from this transport route. Therefore, the whole Proposed Development residual effects will be limited to views of the onshore substation as assessed above.

Cumulative effects assessment:

None of the cumulative developments including the consented Coombe Solar Farm (DM/15/0644) to the south will be visible from this route due to the layering effect of intervening vegetation, even in the winter. Therefore, there will be no cumulative effects.

A281

The A281 runs north-south through Cowfold towards the west of the study area. It is located approximately 1.5km distance west of onshore substation search area option A at its nearest point within Cowfold. The ZTV (**Figure 19.7aiii, Volume 3**) illustrates theoretical visibility of the onshore substation for approximately 800m between south of Cowfold at Cowfold Lodge and west of Little Parkminster, however, in reality, views along this stretch of transport route will be screened by a combination of intervening

roadside and other vegetation even in winter and built-form. The remainder of the A281 within the study area is outwith the ZTV.

Sensitivity to change

The A281 is not a designated tourist transport route and does not pass through an area designated for its scenic value. The value of the A281 is therefore assessed as Medium. Most of the road users will experience the landscape transiently whilst driving or cycling and experiencing a sequence of views, often in one direction focused on the direction of travel and often experienced at speed indicating a Medium susceptibility. To conclude, the sensitivity of road users on the A281 has been assessed as Medium.

Magnitude of change

Construction

Construction works associated with the onshore substation will not be visible from any part of the A281 including the 800m stretch between south of Cowfold and Little Parkminster due to screening from intervening vegetation, even in the winter. The magnitude of change will therefore be Zero.

Operation and maintenance (Year 1)

The onshore substation will not be visible from any part of the A281 due to screening from intervening vegetation, even in the winter. The magnitude of change will therefore be Zero.

Decommissioning

Decommissioning works associated with the onshore substation will not be visible from any part of the A281 due to screening from intervening vegetation, even in the winter. The magnitude of change will therefore be Zero.

Level of residual effects:

Construction

There will be **no effect** on the views from the A281.

Operation and maintenance (Year 1)

There will be **no effect** on the views from the A281.

Decommissioning

There will be **no effect** on the views from the A281, assuming the maintenance of the existing baseline.

Whole Proposed Development residual effects

There will be no effects in relation to the whole Proposed Development, with only the effects of the onshore cable corridor evident as assessed in **Appendix 19.4, Volume 4**. The offshore elements of the Proposed Development will not be visible from this transport route.

Cumulative effects assessment

None of the cumulative developments will be visible from the A281 within the study area. Therefore, there will be no cumulative effects.

Kent Street

Kent Street is a densely vegetated route which connects the A272 with Wineham Lane in the centre of the study area. It passes along the eastern boundary of onshore

substation search area option A. Viewpoint SA1 (**Figure 19.10, Volume 3**) is located along Kent Street. The ZTV (**Figure 19.7aiii, Volume 3**) illustrates maximum theoretical visibility of the onshore substation for approximately 1km of Kent Street between the A272 junction and south of Westridge Farm as the transport route passes along the eastern boundary of the onshore substation search area. In reality, due to the densely vegetated nature of Kent Street, views will be filtered through gaps in the roadside vegetation with the greatest views in the winter. There will be no visibility from the remainder of Kent Street due to the layering effect of intervening vegetation, even in the winter.

Sensitivity to change

Kent Street is not a designated tourist transport route and does not pass through an area designated for its scenic value. The value of Kent Street is therefore assessed as Medium. Most of the road users will experience the landscape transiently whilst driving or cycling and experiencing a sequence of views, often in one direction focused on the direction of travel and often experienced at speed indicating a Medium susceptibility. To conclude, the sensitivity of road users on Kent Street has been assessed as Medium.

Magnitude of change

Construction

Construction works associated with the building of the onshore substation components will be partially visible to the west through gaps in the trees for approximately 1km of Kent Street as it passes the eastern boundary of the onshore substation search area. Other machinery, vehicle movements and welfare facilities associated with the construction works including the temporary construction compound will also be partially visible in these views. Local task and vehicle lighting may be visible in poor weather conditions. From the remainder of Kent Street, there will be no visibility of the construction works due to the layering effect of intervening vegetation, even in the winter. The magnitude of change will range from High (up to 1km of Kent Street) (reducing to Medium-high in the summer) to Negligible-Zero for the remainder of Kent Street.

Operation and maintenance (Year 1)

As for the construction phase, the onshore substation and its components will be partially visible for approximately 1km of Kent Street as it passes the eastern boundary of the onshore substation search area. From the remainder of Kent Street, there will be no visibility of the onshore substation due to the layering effect of intervening vegetation, even in the winter. The surrounding field boundary vegetation will provide some mitigation in the form of visual containment. The magnitude of change will range from High (up to 1km of Kent Street) (reducing to Medium-high in the summer) to Negligible-Zero for the remainder of Kent Street.

Decommissioning

Similar to construction phase. The magnitude of change will range from High (up to 1km of Kent Street) (reducing to Medium-high in the summer) to Negligible-Zero for the remainder of Kent Street.

Level of residual effects

Construction

The residual effects on Kent Street will range from **Major / Moderate significance (Significant)** (up to 1km of Kent Street) to **Minor / Negligible to Negligible**

significance (Not Significant). The nature of these residual effects will be short-term, temporary, direct and adverse to neutral.

Operation and maintenance (Year 1)

The residual effects on Kent Street will range from **Major / Moderate significance (Significant)** (up to 1km of Kent Street) to **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be long-term, temporary, direct and adverse to neutral.

Decommissioning

The residual effects on Kent Street will range from **Major / Moderate significance (Significant)** (up to 1km of Kent Street) to **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, direct and adverse to neutral.

Whole Proposed Development residual effects:

There will be whole Proposed Development residual effects of **Major / Moderate significance (Significant)** on the views from a short section of Kent Street during construction and operation and maintenance (year 1) as a result of both the onshore substation and onshore cable corridor.

The offshore elements of the Proposed Development will not be visible from this transport route.

Cumulative effects assessment:

None of the cumulative developments will be visible from Kent Street. Therefore, there will be no cumulative effects.

Visual effects on views from recreational routes

- 19.10.17 The visual assessment has considered the potential visual effects likely to be experienced by people (walkers/cyclists/horse riders/joggers/others) on recreational routes within the 2km study area as outlined in **Table 19-16**. The recreational routes are illustrated in **Figure 19.7b, Volume 3** and those assessed include:
- PRoW 1786 between east of Taintfield Wood and A272;
 - PRoW 1788 between west of Taintfield Wood Oakendene Industrial Estate; and
 - PRoW 1775 and 1777 near Eastlands Farm.
- 19.10.18 Each of these recreational routes were walked and/or visited and walked in sections according to the ZTV coverage and the assessment has been assisted on-site with the use of sequential wirelines.
- 19.10.19 All of the recreational routes have been assessed as of **High** sensitivity on account of their High to Medium value as recreational routes, some routed through designated landscapes and the High susceptibility of the people using these recreational routes, mostly walkers and cyclists, whose attention will be focused on the landscape around them.

- 19.10.20 Recreational routes within 2km located outwith the ZTV are not included in the assessment.
- 19.10.21 In summary, significant effects will be limited to sections of recreational routes PRoW 1786 and 1788.

Table 19-30 Onshore substation search area option A – visual effects on views from Recreational routes

**Recreational routes:
PRoW 1786 between east of Taintfield Wood and A272**

PRoW 1786 is routed between east of Taintfield Wood and the A272 via Oakendene Industrial Estate. It crosses the southwestern corner of onshore substation search area option A. The ZTV (**Figure 19.7b, Volume 3**) indicates theoretical visibility from much of this recreational route. Viewpoint SA3 (**Figure 19.12, Volume 3**) is located on this route at Taintfield Wood. As reported in the PRoW Management Plan in **Appendix 24.2, Volume 4**, the part of the recreational route through the onshore substation search area will be closed and permanently diverted. Until details of the diversion are finalised, the direct effects of this route are not assessed in the PEIR, however, it will be assessed in the ES. Therefore, only indirect effects of the route are assessed in this section.

Sensitivity to change

High

Magnitude of change

Construction

Construction works associated with the building of the onshore substation components will be visible from this recreational route through gaps and above intervening vegetation in the foreground as it emerges north and east of Taintfield Wood as illustrated in Viewpoint SA3 (**Figure 19.12, Volume 3**). Other machinery, vehicle movements and welfare facilities associated with the construction works including the temporary construction compound will also be partially visible in these views. Local task and vehicle lighting may be visible in poor weather conditions. As the recreational route passes through Oakendene Industrial Estate, there will be no views due to the industrial buildings within the estate. As it exits the Oakendene Industrial Estate to the north, there will be further works visible associated of the temporary construction compound in the same field as the PRoW until it reaches the A272. The magnitude of change will range from High to Medium-high (for much of the recreational route) to Negligible-Zero (through the Oakendene Industrial Estate).

Operation and maintenance (Year 1)

As for the construction phase, the onshore substation will be most visible from between Taintfield Wood up to the Oakendene Industrial Estate beyond which there will be no visibility up to the A272. Parts of Taintfield Wood, and surrounding field boundary vegetation provide some mitigation in the form of visual containment. The temporary construction compound will be reinstated post-construction and will not be visible. The magnitude of change will range from High to Medium-high (between Taintfield Wood and Oakendene Industrial Estate) to Negligible-Zero (remainder of the recreational route).

Decommissioning

Similar to construction phase. The magnitude of change will range from High to Medium-high (for much of the recreational route) to Negligible-Zero (through the Oakendene Industrial Estate).

Level of residual effects

Construction

The residual effects on PRoW 1786 will range from **Major** to **Major / Moderate significance (Significant)** (for much of the recreational route) to **Minor** to **Negligible significance (Not Significant)** (through the Oakendene Industrial Estate). The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Operation and maintenance (Year 1)

The residual effects on PRoW 1786 will range from **Major** to **Major / Moderate significance (Significant)** (between Taintfield Wood and Oakendene Industrial Estate) to **Minor** to **Negligible significance (Not Significant)** (remainder of recreational route). The nature of these residual effects will be long-term, temporary, indirect and adverse to neutral.

Decommissioning

The residual effects on PRoW 1786 will range from **Major** to **Major / Moderate significance (Significant)** (for much of the recreational route) to **Minor** to **Negligible significance (Not Significant)** (through the Oakendene Industrial Estate). The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Whole Proposed Development residual effects

There will be localised significant whole Proposed Development residual effects on the views from a short section of this PRoW as a result of both the onshore substation and onshore cable corridor.

The offshore elements of the Proposed Development will not be visible from this recreational route.

Cumulative effects assessment

None of the cumulative developments will be visible from this recreational route. Therefore, there will be no cumulative effects.

PRoW 1788 between west of Taintfield Wood and Oakendene Industrial Estate

PRoW 1788 is routed between south and west of Taintfield Wood and Oakendene Industrial Estate where it joins with PRoW 1786. It is located near the southwest corner of onshore substation search area option A. The ZTV indicates theoretical visibility from much of this recreational route. Viewpoint SA7 is located on this recreational route west of Taintfield Wood.

Sensitivity to change

High

Magnitude of change

Construction

Construction works associated with the building of the onshore substation components will be visible from this recreational route in the foreground and middle distance as it

emerges from the southwest corner of Taintfield Wood as illustrated in Viewpoint SA7 (Figure 19.16, Volume 3). Other machinery, vehicle movements and welfare facilities associated with the construction works including the temporary construction compound will also be partially visible in these views. Local task and vehicle lighting may be visible in poor weather conditions. As the PRoW drops down slightly in elevation towards the southern end of Oakendene Industrial Estate, views of the construction works will reduce due to industrial buildings, however, views of the temporary construction compound to the west of the Oakendene Industrial Estate will be visible at close distance until it joins PRoW 1786. The magnitude of change will be High for much of the recreational route.

Operation and maintenance (Year 1)

As for the construction phase, the onshore substation will be most visible from between Taintfield Wood up to the southern end of the Industrial Estate beyond which there will be no visibility. Parts of Taintfield Wood, and surrounding field boundary vegetation provide some mitigation in the form of visual containment. The temporary construction compound to the west of the recreational route and Oakendene Industrial estate will be reinstated post-construction and will not be visible. The magnitude of change will range from High (Taintfield Wood to southern end of Oakendene Industrial Estate) to Negligible-Zero (remainder of the recreational route).

Decommissioning

Similar to construction phase. The magnitude of change will be High for much of the recreational route.

Level of residual effects

Construction

The residual effects on PRoW 1788 will be of **Major significance (Significant)** (for much of the recreational route) The nature of these residual effects will be short-term, temporary, indirect and adverse.

Operation and maintenance (Year 1)

The residual effects on PRoW 1788 will range from **Major significance (Significant)** (Taintfield Wood to southern end of Oakendene Industrial Estate) to **Minor to Negligible significance (Not Significant)** (remainder of recreational route). The nature of these residual effects will be long-term, temporary, indirect and adverse to neutral.

Decommissioning

The residual effects on PRoW 1788 will be of **Major significance (Significant)** (for much of the recreational route). The nature of these residual effects will be short-term, temporary, indirect and adverse.

Whole Proposed Development residual effects

The onshore cable corridor will not be visible from this recreational route. The offshore elements of the Proposed Development will not be visible from this recreational route. Therefore, the whole Proposed Development residual effects will be limited to views of the onshore substation as assessed above.

Cumulative effects assessment

None of the cumulative developments will be visible from this route. Therefore, there will be no cumulative effects.

PRoW 1775 and 1777 near Eastlands Farm

PRoW 1775 and 1777 are two footpaths near Eastlands Farm at Cowfold that connect to Kings Lane in the southeast and Crateman's Farm in the south. They are located approximately 600m distance to the southwest of onshore substation search area option A at its nearest point. The ZTV (**Figure 19.7b, Volume 3**) indicates theoretical visibility from much of these recreational routes, however, views towards the onshore substation will be completely screened by a combination of landform and the layering effect of intervening vegetation, even in the winter, as illustrated by Viewpoint SA4 (**Figure 19.13, Volume 3**).

Sensitivity to change

High

Magnitude of change

Construction

Construction works associated with the onshore substation will not be visible from any part of these recreational routes as illustrated by viewpoint SA4 (**Figure 19.13, Volume 3**) due to screening by a combination of landform and the layering effect of intervening vegetation, even in the winter. The magnitude of change will therefore be Zero.

Operation and operation (Year 1)

The onshore substation will not be visible from any part of these recreational routes due to screening by a combination of landform and the layering effect of intervening vegetation, even in the winter. The magnitude of change will therefore be Zero.

Decommissioning

Decommissioning works associated with the onshore substation will not be visible from any part of these recreational routes due to screening by a combination of landform and the layering effect of intervening vegetation, even in the winter. The magnitude of change will therefore be Zero.

Level of residual effects

Construction

There will be **no effect** on the views from these routes.

Operation and maintenance (Year 1)

There will be **no effect** on the views from these routes.

Decommissioning

There will be **no effect** on the views from these routes, assuming the maintenance of the existing baseline.

Whole Proposed Development residual effects

The onshore cable corridor will not be visible from these recreational routes. The offshore elements of the Proposed Development will not be visible from these recreational routes. Therefore, there will be no whole Proposed Development residual effects.

Cumulative effects assessment

None of the cumulative developments will be visible from these routes. Therefore, there will be no cumulative effects.

Visual effects on views from recreational and tourist destinations

- 19.10.22 Wineham Lane Caravan Park is outwith the ZTV and will have no visibility of the onshore substation search area option A and therefore no effect. There are no other recreational and tourist destinations within the study area.

Onshore substation search area option B: Wineham Lane North

Visual effects on views from settlements

- 19.10.23 As reported in **Table 19-19**, no settlements within the study area will have views of onshore substation search area option B.

Visual effects on views from transport routes

- 19.10.24 This section of the assessment considers the visual effects on views of the onshore substation from transport routes within the 2km study area as outlined in **Table 19-17**. The transport routes are illustrated on **Figure 19.7aiii, Volume 3** and those assessed include:
- Wineham Lane; and
 - Bolney Chapel Road.
- 19.10.25 The views from these transport routes will be experienced transiently by road users (mainly drivers and where appropriate cyclists and walkers) who will experience the onshore substation as part of the changing sequence of views experienced from the road. Each of these transport routes were driven or travelled in both directions in order to assess the potential effects and each assessment has been assisted on-site with the use of sequential wirelines transects and ZTV maps.
- 19.10.26 Transport routes within 2km located outwith the ZTV are not included in the assessment.
- 19.10.27 In summary, significant effects will be limited to short sections of road affecting up to 300m of Wineham Lane as it passes the western boundary of onshore substation search area option B.

Table 19-31 Onshore substation search area option B – visual effects on views from Transport routes

Transport routes: Wineham Lane

Wineham Lane connects the B2116 in the south to the A272 in the north in the centre of the study area. It passes along the western boundary of onshore substation search area option B. Viewpoint SB3 (**Figure 19.20, Volume 3**) is located along on this transport route. The majority of Wineham Lane is well vegetated and lined with houses and/or roadside vegetation on either side with limited outward views. The ZTV (**Figure 19.7aiii, Volume 3**) illustrates theoretical visibility of the onshore substation in the centre and southern parts of the study area, however, in reality visibility along much of this transport

route is limited due to screening from intervening vegetation and / or built-form. However, as Wineham Lane passes along the western boundary of the onshore substation search area for approximately 300m, there are glimpsed views through gaps in vegetation as illustrated in Viewpoint SB3 (**Figure 19.20, Volume 3**).

Sensitivity to change

Wineham Lane is not a designated tourist transport route and does not pass through an area designated for its scenic value. The value of Wineham Lane is therefore assessed as Medium. Most of the road users will experience the landscape transiently whilst driving or cycling and experiencing a sequence of views, often in one direction focused on the direction of travel and often experienced at speed indicating Medium susceptibility. To conclude, the sensitivity of road users on Wineham Lane has been assessed as Medium.

Magnitude of change

Construction

Construction works associated with the building of the onshore substation components will be visible to the east through gaps in the vegetation for approximately 300m of Wineham Lane as it passes the western boundary of the onshore substation search area. Other machinery, vehicle movements and welfare facilities associated with the construction works including the temporary construction compound will also be partially visible in these views. Local task and vehicle lighting may be visible in poor weather conditions. From the remainder of Wineham Lane, there will be no visibility of the construction works due to the layering effect of intervening vegetation, even in the winter, and built-form. The magnitude of change will range from High to Low (season dependent) affecting up to 300m of Wineham Lane reducing to Negligible-Zero for the remainder of Wineham Lane.

Operation and maintenance (Year 1)

As for the construction phase, the onshore substation and its components will be most visible for approximately 300m of Wineham Lane as it passes the western boundary of the onshore substation search area. From the remainder of Wineham Lane, there will be no visibility of the onshore substation due to the layering effect of intervening vegetation, even in the winter, and built-form. The roadside vegetation will provide some mitigation in the form of visual containment. The magnitude of change will range from High to Low (season dependent) affecting up to 300m of Wineham Lane reducing to Negligible-Zero for the remainder of Wineham Lane.

Decommissioning

Similar to construction phase. The magnitude of change will range from High to Low (season dependent) affecting up to 300m of Wineham Lane reducing to Negligible-Zero for the remainder of Wineham Lane.

Level of residual effects

Construction

The residual effects on Wineham Lane will range from **Major / Moderate significance (Significant)** (up to 300m of Wineham Lane) to **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, direct and adverse to neutral.

Operation and maintenance (Year 1)

The residual effects on Wineham Lane will range from **Major / Moderate significance (Significant)** (up to 300m of Wineham Lane) to **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be long-term, temporary, direct and adverse to neutral.

Decommissioning

The residual effects on Wineham Lane will range from **Major / Moderate significance (Significant)** (up to 300m of Wineham Lane) to **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, direct and adverse to neutral.

Whole Proposed Development residual effects:

There will be whole Proposed Development residual effects of **Major / Moderate significance (Significant)** on the views from a short section of Wineham Lane as a result of both the onshore substation and onshore cable corridor (and temporary construction access routes). The offshore elements of the Proposed Development will not be visible from this transport route.

Cumulative effects assessment

None of the cumulative developments will be visible from Wineham Lane. Therefore, there will be no cumulative effects.

Bolney Chapel Road

Bolney Chapel Road runs north-south connecting Twineham in the south to the A272 at Crosspost in the north. It is located approximately 900m distance east of onshore substation search area option B at its nearest point north of Twineham Green. The ZTV (**Figure 19.7a**iii, **Volume 3**) illustrates theoretical visibility of the onshore substation for approximately 2km between Crosspost and Twineham Green, however, in reality, views along this stretch of Bolney Chapel Road will be largely screened by a combination of intervening roadside and other vegetation even in winter and built-form, apart from a short 100m section north of Twineham Green as illustrated by Viewpoint SB2 (**Figure 19.19**, **Volume 3**).

Sensitivity to change

Bolney Chapel Road is not a designated tourist transport route and does not pass through an area designated for its scenic value. The value of Bolney Chapel Road is therefore assessed as Medium. Most of the road users will experience the landscape transiently whilst driving or cycling and experiencing a sequence of views, often in one direction focused on the direction of travel and often experienced at speed indicating Medium susceptibility. To conclude, the sensitivity of road users on Bolney Chapel Road has been assessed as Medium.

Magnitude of change

Construction

Construction works associated with the onshore substation will be limited to a very short 100m stretch of Bolney Chapel Road north of Twineham Green. Along this stretch Bolney Chapel Road, visibility will be limited through small gaps in intervening vegetation in the distance, mainly in the winter, and in the context of other electrical infrastructure

including pylons and the existing National Grid Bolney substation. The magnitude of change will range from Low to Negligible – Zero.

Operation and maintenance (Year 1)

Limited parts of the onshore substation components will be visible from the same 100m stretch north of Twineham Green through intervening vegetation (mainly in the winter) in the distance in the context of other electrical infrastructure including pylons and the existing National Grid Bolney substation. Roadside vegetation provides mitigation in the form of visual containment. The magnitude of change will range from Low to Negligible – Zero.

Decommissioning

Similar to construction phase. The magnitude of change will range from Low to Negligible – Zero.

Level of residual effects

Construction

The residual effects on Bolney Chapel Road will be **Minor / Negligible to Negligible significance (Not significant)**. The nature of these residual effects will be short-term, temporary, direct and neutral.

Operation and maintenance (Year 1)

The residual effects on Bolney Chapel Road will be **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be long-term, temporary, direct and neutral.

Decommissioning

The residual effects on Bolney Chapel Road will be **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, direct and neutral.

Whole Proposed Development residual effects:

There will be whole Proposed Development residual effects of **Minor / Negligible to Negligible significance (Not Significant)** on the views from Bolney Chapel Road as a result of both the onshore substation and onshore cable corridor.

The offshore elements of the Proposed Development will not be visible from this transport route.

Cumulative effects assessment:

The consented Coombe Solar Farm (CSF) will occupy a large to medium horizontal Field of View (FoV) in views immediately west of Bolney Chapel Road, north of Twineham Green (High magnitude). The combined effect will be **Major / Moderate significance (Significant)** (due to CSF and not the onshore substation). The additional effect will be **Minor / Negligible to Negligible significance (Not Significant)**. The nature of these residual effects will be short- to long-term, temporary, cumulative, direct and adverse to neutral.

Visual effects on views from recreational routes

- 19.10.28 The visual assessment has considered the potential visual effects likely to be experienced by people (walkers/cyclists/horse riders/joggers/others) on recreational routes within the 2km study area as outlined in **Table 19-17**. The

recreational routes are illustrated on **Figure 19.7b, Volume 3** and those assessed include:

- PRow 1T/36Bo between Wineham Lane and Coombe House;
- PRow 8T/34Bo between Bob Lane and Coombe House; and
- PRow 32Bo at Nyeshill Farm.

- 19.10.29 Each of these recreational routes were walked and / or visited and walked in sections according to the ZTV coverage and the assessment has been assisted on-site with the use of sequential wirelines.
- 19.10.30 All of the recreational routes have been assessed as of High sensitivity on account of their High to Medium value as recreational routes, some routed through designated landscapes and the High susceptibility of the people using these recreational routes, mostly walkers and cyclists, whose attention will be focused on the landscape around them.
- 19.10.31 Recreational routes within 2km located outwith the ZTV are not included in the assessment.
- 19.10.32 In summary, significant effects will be limited to sections of recreational routes PRow 1T/36Bo and 8T/34Bo.

Table 19-32 Onshore substation search area option B – Visual effects on views from Recreational routes

**Recreational routes:
PRow 1T/36Bo between Wineham Lane and Coombe House**

PRow 1T/36Bo extends east from Wineham Lane to Coombe House in the east. It crosses the western part of onshore substation search area option B. Views of the existing National Grid Bolney substation from this route are prominent from western parts of this recreational route. The ZTV (**Figure 19.7b, Volume 3**) indicates theoretical visibility from much of the recreational route between Wineham Lane and Coombe House beyond which there is no visibility. There will be no visibility from this recreational route between Wineham Lane and Old Doctors as it passes through the houses. The main area of visibility along this recreational route will be for approximately 400m of the recreational route between east of Old Doctors and the onshore substation search area beyond which visibility is very limited as the recreational route travels through woodland and along a well vegetated field boundary hedgerow towards Coombe House. As reported in the PRow Management Plan in **Appendix 24.2, Volume 4**, the part of the recreational route through the onshore substation search area will be closed and permanently diverted. Until details of the diversion are finalised, the direct effects of this route are not assessed in the PEIR, however, it will be assessed in the ES. Therefore, only indirect effects of the route are assessed in this section.

Sensitivity to change
High

Magnitude of change

Construction

Construction works associated with the building of the onshore substation components will be visible for approximately 400m of this recreational route between east of Old Doctors and the onshore substation search area. These works will be visible in the context of existing substation infrastructure (National Grid Bolney and Rampion 1) and pylons to the east and southeast. Other machinery, vehicle movements and welfare facilities associated with the construction works including the temporary construction compound will also be partially visible along this stretch of the recreational route. Local task and vehicle lighting may be visible in poor weather conditions. Between north of the onshore substation search area and Coombe House, visibility will be very limited due to intervening vegetation. The magnitude of change will range from High to Medium (between east of Old Doctors and onshore substation search area) to Low to Negligible-Zero (remainder of the recreational route).

Operation and maintenance (Year 1)

As for the construction phase, the onshore substation will be most visible for approximately 400m of this recreational route between east of Old Doctors and onshore substation search area. The surrounding field boundary vegetation, woodland and existing substation infrastructure (National Grid Bolney and Rampion 1) provide some mitigation in the form of visual containment. The magnitude of change will range from High to Medium (between east of Old Doctors and onshore substation search area) to Low to Negligible-Zero (remainder of the recreational route).

Decommissioning

Similar to construction phase. The magnitude of change will range from High to Medium (between east of Old Doctors and onshore substation search area) to Low to Negligible-Zero (remainder of the recreational route).

Level of residual effects

Construction

The residual effects on PRoW 1T/36Bo will range from **Major to Major / Moderate significance (Significant)** (between east of Old Doctors and onshore substation search area) to **Minor to Negligible significance (Not Significant)** (remainder of the recreational route). The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Operation and maintenance (Year 1)

The residual effects on PRoW 1T/36Bo will range from **Major to Major/Moderate significance (Significant)** (between east of Old Doctors and onshore substation search area) to **Minor to Negligible significance (Not Significant)** (remainder of the recreational route). The nature of these residual effects will be long-term, temporary, indirect and adverse to neutral.

Decommissioning

The residual effects on PRoW 1T/36Bo will range from **Major to Major/Moderate significance (Significant)** (between east of Old Doctors and onshore substation search area) to **Minor to Negligible significance (Not Significant)** (remainder of the recreational route). The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Whole Proposed Development residual effects

There will be localised significant whole Proposed Development residual effects on the views from a short section of this PRoW as a result of both the onshore substation and

onshore cable corridor. The offshore elements of the Proposed Development will not be visible from this recreational route.

Cumulative effects assessment

None of the cumulative developments will be visible from this recreational route. Therefore, there will be no cumulative effects.

PRoW 8T/34Bo between Bob Lane and Coombe House

PRoW 8T/34Bo extends from Bob Lane in the south to the A272 in the north via Coombe House. It passes the eastern boundary of onshore substation search area option B. There are views of the Rampion 1 onshore substation and existing National Grid Bolney substation along much of this recreational route. The ZTV (**Figure 19.7b, Volume 3**) indicates theoretical visibility from Bob Lane to east of Coombe House beyond which there is no visibility. There will be no visibility from this recreational route between Bob Lane and the Rampion 1 onshore substation due to screening from intervening vegetation and existing substation infrastructure at Rampion 1. The main areas of visibility along this recreational route will be from approximately 500m of the route between north of Rampion 1 onshore substation and east of Coombe House. Viewpoints SB1 and SB6 (**Figures 19.18 and 19.23, Volume 3**) are located on this recreational route. As reported in the PRoW Management Plan in **Appendix 24.2, Volume 4**, the part of the recreational route along the eastern boundary of the onshore substation search area will be diverted. Until details of the diversion are finalised, the direct effects of this route are not assessed in the PEIR, however, it will be assessed in the ES. Therefore, only indirect effects of the route are assessed in this section.

Sensitivity to change

High

Magnitude of change

Construction

Construction works associated with the building of the onshore substation components will be visible for approximately 500m of this recreational route between north of the Rampion 1 onshore substation and east of Coombe House. However, the greatest visibility will be as the recreational route passes the eastern boundary of the onshore substation search area as illustrated in Viewpoint SB1 (**Figure 19.18, Volume 3**), in the context of existing substation infrastructure (Rampion 1 and National Grid Bolney) and pylons. Between the onshore search area and east of Coombe House, visibility will be more limited due to intervening vegetation as illustrated in Viewpoint SB6 (**Figure 19.23, Volume 3**). Other machinery, vehicle movements and welfare facilities associated with the construction works including the temporary construction compound will also be partially visible along this stretch of recreational route. Local task and vehicle lighting may be visible in poor weather conditions. The magnitude of change will range from High (between north of the Rampion 1 onshore substation and eastern boundary of the onshore substation search area) to Medium-Low (between north of the onshore substation search area and east of Coombe House) to Negligible-Zero (remainder of the recreational route).

Operation and maintenance (Year 1)

As for the construction phase, the onshore substation will be most visible from between north of the Rampion 1 onshore substation and east of Coombe House. The surrounding field boundary vegetation provide some mitigation in the form of visual containment. The magnitude of change will range from High (between north of the Rampion 1 onshore substation and eastern boundary of the onshore substation search area) to Medium-Low (between north of the onshore substation search area and east of Coombe House) to Negligible-Zero (remainder of the recreational route).

Decommissioning

Similar to construction phase. The magnitude of change will range from High (between north of the Rampion 1 onshore substation and eastern boundary of the onshore substation search area) to Medium-Low (between north of the onshore substation search area and east of Coombe House) to Negligible-Zero (remainder of the recreational route).

Level of residual effects

Construction

The residual effects on PRoW 8T/34Bo will range from **Major to Moderate significance (Significant)** (between north of the onshore substation search area and east of Coombe House) to **Minor to Negligible significance (Not Significant)** (remainder of the recreational route). The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Operation and maintenance (Year 1)

The residual effects on PRoW 8T/34Bo will range from **Major to Moderate significance (Significant)** (between north of the onshore substation search area and east of Coombe House) to **Minor to Negligible significance (Not Significant)** (remainder of the recreational route). The nature of these residual effects will be long-term, temporary, indirect and adverse to neutral.

Decommissioning

The residual effects on PRoW 8T/34Bo will range from **Major to Moderate significance (Significant)** (between north of the onshore substation search area and east of Coombe House) to **Minor to Negligible significance (Not Significant)** (remainder of the recreational route). The nature of these residual effects will be short-term, temporary, indirect and adverse to neutral.

Whole Proposed Development residual effects

There will be no residual effects on the views from this route as a result of the onshore cable corridor. The offshore elements of the Proposed Development will not be visible from this recreational route. Therefore, the whole Proposed Development residual effects will be limited to views of the onshore substation as assessed above.

Cumulative effects assessment

None of the cumulative developments will be visible from this recreational route. Therefore, there will be no cumulative effects.

PRoW 32Bo at Nyeshill Farm

PRoW 32Bo extends from Wineham Lane to Red House via Nyeshill Farm. It is located approximately 400m distance to the northeast of onshore substation search area option A at its nearest point. Parts of the existing National Grid Bolney substation and pylons

are visible to the south from western parts of this recreational route. The ZTV (**Figure 19.7b, Volume 3**) indicates theoretical visibility from much of this recreational route, however, the main area of visibility will be for approximately 100m between east of Nyeshill Farm and west of Dawe's Farm with no views from the remainder of the recreational route. Views towards the onshore substation from this 100m stretch of recreational route will be limited due to screening by the large woodland block between the PRow and the onshore substation search area. Any visibility will be partially visible through this woodland, mainly in the winter, as illustrated by Viewpoint SB4 (**Figure 19.21, Volume 3**).

Sensitivity to change

High

Magnitude of change

Construction

Where views of the construction works will be available from the 100m stretch of recreational route between east of Nyeshill Farm and west of Dawe's Farm, the magnitude of change will be Low to Negligible-Zero in the winter months, reducing to Negligible-Zero in the summer months when all vegetation is in leaf. The magnitude of change on the remainder of the recreational route will be Negligible-Zero.

Operation and maintenance (Year 1)

The onshore substation components will be partially visible through intervening vegetation, mainly in the winter from the 100m stretch of recreational route between east of Nyeshill Farm and west of Dawe's Farm, and in the context of other electrical infrastructure including pylons and the existing National Grid Bolney substation. The surrounding field boundary vegetation provides mitigation in the form of visual containment from this recreational route. The magnitude of change between east of Nyeshill Farm and west of Dawe's Farm will be Low to Negligible-Zero in the winter months, reducing to Negligible-Zero in the summer months when all vegetation is in leaf. The magnitude of change on the remainder of the recreational route will be Negligible-Zero.

Decommissioning

Similar to construction phase. The magnitude of change between east of Nyeshill Farm and west of Dawe's Farm will be Low to Negligible-Zero in the winter months, reducing to Negligible-Zero in the summer months when all vegetation is in leaf. The magnitude of change on the remainder of the recreational route will be Negligible-Zero.

Level of residual effects

Construction

The residual effects on PRow 32Bo will be **Moderate to Minor significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, direct and neutral.

Operation and maintenance (Year 1)

The residual effects on PRow 32Bo will be **Moderate to Minor significance (Not Significant)**. The nature of these residual effects will be long-term, temporary, direct and neutral.

Decommissioning

The residual effects on PRoW 32Bo will be **Moderate to Minor significance (Not Significant)**. The nature of these residual effects will be short-term, temporary, direct and neutral.

Whole Proposed Development residual effects

The onshore cable corridor will not be visible from this recreational route. The offshore elements of the Proposed Development will not be visible from this recreational route. Therefore, the whole Proposed Development residual effects will be limited to views of the onshore substation as assessed above.

Cumulative effects assessment

None of the cumulative developments will be visible from this recreational route. Therefore, there will be no cumulative effects.

Visual effects on views from recreational and tourist destinations

- 19.10.33 As reported in **Table 19-19**, Wineham Lane Caravan Park will have no visibility of onshore substation search area Option B and therefore no effect. There are no other recreational and tourist destinations within the study area.

Onshore cable corridor

- 19.10.34 The effects of the onshore cable corridor (including temporary construction compounds and access routes) on visual amenity are assessed in detail in **Appendix 19.4, Volume 4**. A summary is provided below.
- 19.10.35 Small parts of eight of the 13 settlements assessed within the study area will experience significant visual effects during the construction phase including Climping, Littlehampton, Crossbush, Warningcamp, Wepham, Wiston, Partridge Green and Shermanbury. The views from Climping will be significantly affected due to the temporary construction compound, whilst views from Wepham and Partridge Green will be significantly affected due to the temporary construction access routes. Views from Littlehampton, Crossbush, Warningcamp, Wiston and Shermanbury will be significantly affected due to the onshore cable corridor. During the operation and maintenance phase (Year 1), the views on Warningcamp will be significantly affected by the onshore cable corridor.
- 19.10.36 Short sections of 14 of the 24 transport routes assessed within the study area will experience significant visual effects during the construction phase including Church Lane (Climping), Crossbush Lane, Local roads around Warningcamp (Clay Lane and Blakehurst Lane), Local roads around Wepham, A283, Water Lane, Wiston, Spithandle Lane, B2135, B2116, A281, Wineham Lane, Bob Lane, Kent Street and Fryland Lane. Nine of these routes will be significantly affected due to the onshore cable corridor, however, the views from short sections of Church Lane and the A283 will be significantly affected due to the temporary construction compound, and the views from short sections of Crossbush Lane, Local roads around Wepham, A283, Spithandle Lane, B2135, B2116, A281 and Wineham Lane will be significantly affected due to the temporary construction access routes.

- 19.10.37 The views from the following five long distance recreational routes will be significantly affected by the onshore cable corridor during the construction phase as follows:
- South Downs Way: Approximately 2.25km viewed from Chantry Post/Hill and Barnsfarm Hill;
 - South Coast Cycle Route (Sustrans NCR 2): Approximately 300m viewed from the A259;
 - Downs Link (Sustrans NCR 223): Approximately 500m south of Partridge Green;
 - Arun Way: Approximately 300m viewed from Climping Beach, 300m viewed from Church Lane and 200m viewed from Ford, the latter two locations resulting from temporary construction access; and
 - Monarch's Way: Approximately 600m viewed from part of the recreational route near Warningcamp.
- 19.10.38 Recreational receptors of short sections of approximately 76 local PRowWs will be significantly affected (direct and indirect effects) by the 36km onshore cable corridor (including temporary construction compounds and access routes) during the construction phase.
- 19.10.39 Seven of the 15 recreational and tourist destinations assessed within the study area will experience significant visual effects during the construction phase including Climping Beach, Climping Camp Site, Climping Caravan Park, Open Access Land at Barpham Hill, Chantry Hill and Sullington Hill, and Washington Caravan Park. The views from Climping Caravan Park and Washington Caravan Park will be significantly affected due to the temporary construction compound, whilst views from Climping Camp Site, and Open Access Land at Chantry and Sullington Hills will be significantly affected due to the onshore cable corridor and temporary access routes. During the operation and maintenance phase (Year 1), none of the recreational and tourist destinations will be significantly affected by the onshore cable corridor.

19.11 Preliminary assessment: Cumulative effects

Approach

- 19.11.1 A preliminary cumulative effects assessment (CEA) has been undertaken for Rampion 2 which examines the result from the combined effects of Rampion 2 with other developments on the same single receptor or resource and the contribution of Rampion 2 to those impacts. The overall method followed when identifying and assessing potential cumulative effects in relation to the onshore environment is set out in **Chapter 5** and **Appendix 19.1, Volume 4**.
- 19.11.2 The onshore screening approach has followed the Planning Inspectorate's Advice Note Seventeen (Planning Inspectorate, 2019) which is an accepted process for NSIPs and will follow the four-stage approach set out in the guidance.

- 19.11.3 The assessment of cumulative landscape and visual effects on the onshore elements of the Proposed Development has been assessed and reported for each receptor in **Sections 19.9-19.10**, and **Appendices 19.2-19.4, Volume 4** with a summary provided in **Table 19-33** below.

Cumulative effects assessment

- 19.11.4 For landscape and visual effects, the same 2km study area has been applied for the CEA to ensure direct and indirect cumulative effects can be appropriately identified and assessed. This study area is shown in **Figure 19.67, Volume 3**.
- 19.11.5 A short list of 'other developments' that may interact with the onshore elements of the Proposed Development during their construction, operation or decommissioning is presented in **Appendix 5.4: Cumulative effects assessment shortlisted developments, Volume 4** and on **Figure 5.4.2, Volume 4**. This short list has been generated applying criteria set out in **Chapter 5: Approach to the EIA** and has been collated up to the finalisation of the PEIR through desk study, consultation and engagement.
- 19.11.6 The other developments included in the cumulative assessment are as follows and illustrated on **Figure 5.4.2, Volume 4**:
- 01 A27 Arundel Bypass project;
 - 02 AQUIND connector;
 - 03 London to Southampton Pipeline Project;
 - 04 Ricebridge Works;
 - 05 Land North of Toddington Lane;
 - 06 Land South of The Littlehampton Academy;
 - 07 Land west of Brook Lane & South of A259 Angmering;
 - 08 46a & 47 Pier Road & Land north of Clifton Road;
 - 09 Land off Burndell Road Yapton;
 - 10 Land South Of Cornfield Close;
 - 11 Windroos Nursery;
 - 12 Land West of Church Lane & South of Horsemere Green Lane Climping;
 - 13 Cinders Nursery & Land;
 - 19 Ford Energy from Waste;
 - 20 Burndell Road;
 - 21 North Farm London Road;
 - 22 Unit H6 Rudford Industrial Estate;
 - 23 Land North of The Rosary;
 - 24 Thakeham Tiles Ltd;

- 25 Land North of Downsview Avenue;
- 26 Horsham Regulation 18 consultation sites SA414 Mayfield Proposal;
- 27 Land west of Bridge Road Roundabout;
- 28 Land At Coombe Farm (Coombe Solar Farm); and
- 29 Land at Ford Road Arundel.

19.11.7

Baseline data and further information on other developments will continue to be collected prior to the finalisation of the ES and iteratively fed into the assessment. An updated CEA will be reported in the ES.

Table 19-33 Summary of cumulative landscape effects on the onshore elements of the Proposed Development

Landscape Receptor	Cumulative Effect	Whole Proposed Development effect	
		Onshore elements of the Proposed Development	Offshore elements of the Proposed Development
Onshore substation search area option A: Bolney Road / Kent Street			
NCA 121: Low Weald / NCA 122: High Weald			
J3: Cowfold and Shermanbury Farmlands (<i>also part of LW10: Eastern Low Weald County LCA within West Sussex</i>)	Major to Major / Moderate (see Section 19.9)	✓	x
M1 Crabtree & Nuthurst Ridges & Ghylls LCA (<i>also part of HW4: High Weald Fringes LCA within West Sussex</i>)	Moderate / Minor to Negligible (see Table 19-22)	✓	x
LW1 Hickstead Low Weald LCA (<i>also part of LW10: Eastern Low Weald LCA within West Sussex</i>)	Major / Moderate (see Table 19-22)	✓	x
Onshore substation search area option B: Wineham Lane North			
NCA 121: Low Weald			
LW1: Hickstead Low Weald (<i>also part of LW10: Eastern Low Weald LCA within West Sussex</i>)	Major to Major / Moderate (see Section 19.9)	✓	x

Landscape Receptor	Cumulative Effect	Whole Proposed Development effect	
		Onshore elements of the Proposed Development	Offshore elements of the Proposed Development
J3 Cowfold & Shermanbury Farmlands (<i>also part of LW10: Eastern Low Weald LCA within West Sussex</i>)	Moderate / Minor to Minor (see Table 19-23)	✓	x
Onshore Cable Corridor			
NCA 126: South Coastal Plain – Climping to Arundel			
South Coast Shoreline (SC1)	No cumulative effect	x	✓
Climping Lower Coastal Plain LCA No. 31	Moderate (see Table 2-2 of Appendix 19.3, Volume 4)	✓	✓
Lower Arun Valley Floor LCA No. 35	Major / Moderate to Minor / Moderate (see Table 2-2 of Appendix 19.3, Volume 4)	✓	✓
Middle Arun Valley Floor LCA No. 34	No cumulative effect	✓	✓
Littlehampton Arun Valley Sides LCA No. 38	No cumulative effect	✓	✓
Littlehampton Northern Fringe No.39	No cumulative effect	✓	✓
Black Ditch Rife LCA No. 41	No cumulative effect	✓	✓

Landscape Receptor	Cumulative Effect	Whole Proposed Development effect	
		Onshore elements of the Proposed Development	Offshore elements of the Proposed Development
Lyminster Arun Valley Sides LCA No. 37	Moderate (see Table 2-2 of Appendix 19.3, Volume 4)	✓	✓
<u>Onshore Cable Corridor Option: Warningcamp B</u>			
Lyminster Angmering Coastal Plain No. 40	Moderate (see Table 2-3 of Appendix 19.3, Volume 4)	✓	✓
Crossbush Arun Valley Sides LCA No. 36	Moderate (see Table 2-3 of Appendix 19.3, Volume 4)	✓	✓
South Downs Upper Coastal Plain R1	Major / Moderate (see Table 2-3 of Appendix 19.3, Volume 4)	✓	✓
Arun Valley Sides G4	Moderate to Minor (see Table 2-3 of Appendix 19.3, Volume 4)	✓	✓
<u>Onshore Cable Corridor Option: Warningcamp C</u>			
Lyminster Angmering Coastal Plain No. 40	Moderate	✓	✓

Landscape Receptor	Cumulative Effect	Whole Proposed Development effect	
		Onshore elements of the Proposed Development	Offshore elements of the Proposed Development
	(see Table 2-4 of Appendix 19.3, Volume 4)		
South Downs Upper Coastal Plain R1	Minor (see Table 2-4 of Appendix 19.3, Volume 4)	✓	✓
NCA 125: South Downs and South Downs National Park – Crossbush to Wiston			
Arun Valley Sides G4 (South Warningcamp)	Minor (see Table 2-5 of Appendix 19.3, Volume 4)	✓	✓
Angmering and Clapham Wooded Estate Downland B4	Minor (see Table 2-5 of Appendix 19.3, Volume 4)	✓	✓
Arun Valley Sides G4 (North Warningcamp)	No cumulative effect	✓	✓
Arun to Adur Open Downs A3	No cumulative effect	✓	✓
Arun to Adur Downs Scarp I3	No cumulative effect	✓	x
Arun to Adur Scarp Footslopes J3	No cumulative effect	✓	x

Landscape Receptor	Cumulative Effect	Whole Proposed Development effect	
		Onshore elements of the Proposed Development	Offshore elements of the Proposed Development
Arun Floodplain F4	No cumulative effect	✓	✓
NCA 121: Low Weald – Wiston to Bolney			
Amberley to Steyning Farmlands D1	No cumulative effect	✓	x
Parham & Storrington Wooded Farmlands & Heaths E1	No cumulative effect	✓	x
Pulborough, Chiltington & Thakeham Farmlands F1	No cumulative effect	✓	x
Ashurst & Wiston Wooded Farmlands G1	No cumulative effect	✓	x
Steyning & Henfield Brooks O3	No cumulative effect	✓	x
Cowfold & Shermanbury Farmlands J3	Major to Minor (see Table 2-6 of Appendix 19.3, Volume 4)	✓	x
Upper Adur Valleys P2 – Not assessed pending further design maturity.			
Hickstead Low Weald LW1	Major to Minor (see Table 2-6 of Appendix 19.3, Volume 4)	✓	x

Landscape Receptor	Cumulative Effect	Whole Proposed Development effect	
		Onshore elements of the Proposed Development	Offshore elements of the Proposed Development
Landscape Designations			
South Downs National Park	Major to Minor (see Section 3 of Appendix 19.3, Volume 4)	✓	✓
High Weald AONB	No cumulative effect	✓	x

Table 19-34 Summary of cumulative visual effects on the onshore elements of the Proposed Development

Visual Receptor	Cumulative Effect	Whole Proposed Development Effect	
		Onshore Elements of the Proposed Development	Offshore Elements of the Proposed Development
Onshore substation search area option A: Bolney Road / Kent Street			
Settlements			
Cowfold	No cumulative effect	x	x

Visual Receptor	Cumulative Effect	Whole Proposed Development Effect	
		Onshore Elements of the Proposed Development	Offshore Elements of the Proposed Development
Transport Routes			
A272	No cumulative effect	✓	x
A281	No cumulative effect	x	x
Kent Street	No cumulative effect	✓	x
Recreational Routes			
PRoW 1786 between east of Taintfield Wood and A272	No cumulative effect	✓	x
PRoW 1788 between west of Taintfield Wood and Oakendene Industrial Estate	No cumulative effect	✓	x
PRoW 1775 and 1777 near Eastlands Farm	No cumulative effect	x	x
Recreational and Tourist Destinations			
None assessed			
Onshore substation search area option B: Wineham Lane North			
Settlements			

Visual Receptor	Cumulative Effect	Whole Proposed Development Effect	
		Onshore Elements of the Proposed Development	Offshore Elements of the Proposed Development
None within 2km			
Transport Routes			
Wineham Lane	No cumulative effect	✓	x
Bolney Chapel Road	Major / Moderate to Negligible (see Table 19-28)	✓	x
Recreational Routes			
PRoW 1T / 36Bo between Wineham Lane and Coombe House	No cumulative effect	✓	x
PRoW 8T / 34Bo between Bob Lane and Coombe House	No cumulative effect	✓	x
PRoW 32Bo at Nyeshill Farm	No cumulative effect	✓	x
Recreational and Tourist Destinations			
Wineham Lane Caravan Park	No cumulative effect	✓	x
Onshore Cable Corridor			

Visual Receptor	Cumulative Effect	Whole Proposed Development Effect	
		Onshore Elements of the Proposed Development	Offshore Elements of the Proposed Development
Settlements			
Climping	Major to Major / Moderate (see Table 1-2 of Appendix 19.3, Volume 4)	✓	x
Littlehampton	No cumulative effect	✓	✓
Lyminster	No cumulative effect	✓	x
Arundel	Major / Moderate to Minor (see Table 1-2 of Appendix 19.3, Volume 4)	✓	✓
Crossbush	No cumulative effect	✓	x
Warningcamp	No cumulative effect	✓	x
Burpham and Wepham	No cumulative effect	✓	x
Washington	No cumulative effect	✓	x
Wiston	No cumulative effect	✓	x
Ashurst	No cumulative effect	✓	x

Visual Receptor	Cumulative Effect	Whole Proposed Development Effect	
		Onshore Elements of the Proposed Development	Offshore Elements of the Proposed Development
Partridge Green	No cumulative effect	✓	x
Shermanbury	No cumulative effect	✓	x
Wineham	No cumulative effect	✓	x
Transport Routes			
Climping Street	No cumulative effect	✓	x
A259	Minor to Minor / Negligible (see Table 1-3 of Appendix 19.3 , Volume 4)	✓	x
Ferry Road	No cumulative effect	✓	x
Church Lane	Major to Negligible (see Table 1-3 of Appendix 19.3 , Volume 4)	✓	x
Ford Road	Major / Moderate to Negligible (see Table 1-3 of Appendix 19.3 , Volume 4)	✓	x
A284 Lyminster Road	Major / Moderate to Negligible	✓	x

Visual Receptor	Cumulative Effect	Whole Proposed Development Effect	
		Onshore Elements of the Proposed Development	Offshore Elements of the Proposed Development
	(see Table 1-3 of Appendix 19.3, Volume 4)		
A27	Major / Moderate to Minor / Negligible (see Table 1-3 of Appendix 19.3, Volume 4)	✓	x
Railway Line from Littlehampton and Ford to Arundel	Major / Moderate to Negligible (see Table 1-3 of Appendix 19.3, Volume 4)	✓	✓
Crossbush Lane	No cumulative effect	✓	x
Local roads around Warningcamp (Clay Lane and Blakehurst Lane)	No cumulative effect	✓	x
Local roads around Wepham and Burpham	No cumulative effect	✓	x
A24	No cumulative effect	✓	x
A283	No cumulative effect	✓	x
Railway Line from Arundel to Amberley	No cumulative effect	✓	x

Visual Receptor	Cumulative Effect	Whole Proposed Development Effect	
		Onshore Elements of the Proposed Development	Offshore Elements of the Proposed Development
Water Lane, Wiston	No cumulative effect	✓	x
Spithandle Lane	No cumulative effect	✓	x
B2135	No cumulative effect	✓	x
B2116	No cumulative effect	✓	x
A281	No cumulative effect	✓	x
Wineham Lane	No cumulative effect	✓	x
Bob Lane	No cumulative effect	✓	x
Kent Street	No cumulative effect	✓	x
Bolney Chapel Road	Major / Moderate to Minor / Negligible (see Table 1-3 of Appendix 19.3 , Volume 4)	✓	x
Fryland Lane	No cumulative effect	✓	x
Long Distance Recreational Routes			

Visual Receptor	Cumulative Effect	Whole Proposed Development Effect	
		Onshore Elements of the Proposed Development	Offshore Elements of the Proposed Development
South Downs Way	No cumulative effect	✓	✓
South Coast Cycle Route (Sustrans NCR 2)	Major / Moderate (see Table 1-4 of Appendix 19.3, Volume 4)	✓	✓
Downs Link (Sustrans NCR 223)	Major to Major / Moderate (see Table 1-4 of Appendix 19.3, Volume 4)	✓	x
Arun Way	Major to Minor (see Table 1-4 of Appendix 19.3, Volume 4)	✓	✓
Monarch's Way	Major to Minor (see Table 1-4 of Appendix 19.3, Volume 4)	✓	x
Recreational and Tourist Destinations			
Littlehampton Golf Club	No cumulative effect	✓	✓
Littlehampton West and East Beach including Climping Beach	No cumulative effect	✓	✓

Visual Receptor	Cumulative Effect	Whole Proposed Development Effect	
		Onshore Elements of the Proposed Development	Offshore Elements of the Proposed Development
Climping Camp Site	No cumulative effect	✓	-
Climping Caravan Park	No cumulative effect	✓	x
Brookside Caravan Park	No cumulative effect	✓	x
Crossbush Caravan Park	No cumulative effect	✓	x
Arundel Castle	Major / Moderate (see Table 5 of Appendix 19.4, Volume 4)	✓	✓
Arundel Park Open Access Land	No cumulative effect	✓	x
Perry Hill Open Access Land	No cumulative effect	✓	x
Barpham Hill Open Access Land	No cumulative effect	✓	x
Chantry Hill Open Access Land	No cumulative effect	✓	✓
Sullington Hill Open Access Land	No cumulative effect	✓	-
Chanctonbury Hill (including Chanctonbury Ring and Open Access Land)	No cumulative effect	✓	✓

Visual Receptor	Cumulative Effect	Whole Proposed Development Effect	
		Onshore Elements of the Proposed Development	Offshore Elements of the Proposed Development
Washington Caravan Park	No cumulative effect	✓	x
Wineham Lane Caravan Park	No cumulative effect	✓	x

19.12 Transboundary effects

- 19.12.1 Transboundary effects arise when impacts from a development within one European Economic Area (EEA) states affects the environment of another EEA state(s). A screening of transboundary effects has been carried out and is presented in Appendix B of the Scoping Report (RED, 2020).
- 19.12.2 Transboundary effects apply only to the SLVIA and concern the overlap of the SLVIA 50km study area with French maritime waters. These are assessed in **Chapter 16: Seascape, landscape and visual**.

19.13 Inter-related effects

- 19.13.1 The inter-related effects assessment considers likely significant effects from multiple impacts and activities from the construction, operation and decommissioning of Rampion 2 on the same receptor, or group of receptors.
- 19.13.1 The potential inter-related effects include:
- **Proposed Development lifetime effects:** i.e., those arising throughout more than one phase of the Proposed Development (construction, operation and maintenance, and decommissioning) to interact to potentially create a more significant effect on a receptor than if just one phase were assessed in isolation; and
 - **Receptor-led effects:** assessment of the scope for all effects to interact, spatially and temporally, to create inter-related effects on a receptor (or group). Receptor-led effects might be short term, temporary or transient effects, or incorporate longer term effects.
- 19.13.2 The potential inter-related effects that could arise in relation to landscape and visual impact are presented in **Table 19-35**. A description of the process to identify and assess these effects is presented in **Chapter 5**.

Table 19-35 Inter-related effects assessment for landscape and visual impact

Project phase(s)	Nature of inter-related effect	Assessment alone	Inter-related effects assessment
Proposed Development lifetime effects			
Construction, operation and maintenance, and decommissioning	Effects on landscape character and views on onshore substation search area options A and B and the	During the construction phase, operation phase (Year 1 only) and decommissioning the potential effects were up to Major to Major	Landscape and visual effects described in this chapter are confined to each phase of the Proposed Development. As the phases do not overlap temporally, there is no potential for any landscape and visual inter-related lifetime effects.

Project phase(s)	Nature of inter-related effect	Assessment alone	Inter-related effects assessment
	onshore cable corridor.	/ Moderate adverse Significance for both landscape and visual effects.	
Receptor-led effects			
Landscape and visual receptors (refer to Table 19-5)		The assessment of effects on landscape and visual receptors, as presented in Sections 19.9 and 19.10 has taken into account the potential for multiple impacts from seascape, landscape and visual effects on Rampion 2 affecting particular receptors. No further inter-related effects beyond this are considered likely.	
Potential for inter-related effects with seascape, landscape and visual effects			
Landscape and visual receptors (refer to Table 19-5)		The construction phase has the highest likelihood of receptor-led effects (in particular the onshore cabling corridor) as several activities take place during this phase (refer to Chapter 4). The operation and maintenance and decommissioning phases could also give rise to receptor-led effects.	
Potential for inter-related effects with terrestrial ecology and nature conservation, historic environment, transport, noise and vibration and socio-economics		<p>Potential effects to common receptors could include changes in landscape elements and landscape character that could be valuable to terrestrial ecology and nature conservation and/or the historic environment. There could also be potential impacts on recreational receptors and the tourism economy (e.g. because of changes to recreational routes).</p> <p>There is also potential for landscape and visual effects with terrestrial ecology and nature conservation, historic environment and socio-economics on the South Downs National Park.</p> <p>Finally, there is potential for noise and visual effects on people and settlements and transport and visual effects on users of the routes.</p> <p>The implementation of the Outline COCP and other embedded environmental measures are designed to reduce the above effects.</p>	

Project phase(s)	Nature of inter-related effect	Assessment alone	Inter-related effects assessment
		It is considered unlikely that any inter-related effects will exceed the significance reported in the individual aspect chapters for terrestrial ecology and nature conservation, historic environment, transport, noise and vibration and socio-economics.	

19.14 Summary of residual effects

19.14.1 **Table 19-36** to **Table 19-41** present a summary of the preliminary assessment of effects on the landscape and visual receptors.

Table 19-36 Summary of landscape effects on onshore substation search area option A

Landscape Character Area	Sensitivity	Geographical Scale	Construction (3 Years)		Operation and maintenance (Year 1)		Decommissioning	
			Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
NCA 121: Low Weald / NCA 122: High Weald								
J3: Cowfold and Shermanbury Farmlands <i>(also part of LW10: Eastern Low Weald County LCA within West Sussex)</i>	High-medium	<100-250m	High (<100-250m) to Zero	Major to Major / Moderate (<100-250m) to Negligible	High (<100-250m) to Zero	Major to Major / Moderate (<100-250m) to Negligible	High (<100-250m) to Zero	Major to Major / Moderate (<100-250m) to Negligible
M1 Crabtree & Nuthurst Ridges & Ghylls LCA <i>(also part of HW4: High Weald Fringes LCA within West Sussex)</i>	High (north) to Medium (south)	<250m	Medium - low	Moderate / Minor (southern fringes) to Minor / Negligible to Negligible (remainder of the LCA)	Medium-low (southern fringes) to Negligible-Zero (remainder of the LCA)	Moderate / Minor (southern fringes) to Minor / Negligible to Negligible (remainder of the LCA)	Medium-low to Negligible-Zero	Moderate / Minor (southern fringes) to Minor / Negligible to Negligible (remainder of the LCA)
LW1 Hickstead Low Weald LCA <i>(also part of LW10: Eastern Low</i>	Medium	<100-250m	Negligible-Zero	Minor / Negligible	Negligible -Zero	Minor / Negligible	Negligible-Zero	Minor / Negligible

Landscape Character Area	Sensitivity	Geographical Scale	Construction (3 Years)		Operation and maintenance (Year 1)		Decommissioning	
			Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Weald LCA within West Sussex)								

Table 19-37 Summary of visual effects on onshore substation search area option A

Visual Receptor	Sensitivity	Construction (3 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Settlements							
Cowfold	High	Zero	No Effect	Zero	No Effect	Zero	No Effect
Transport Routes							
A272	Medium	High (within 300m) to Negligible-Zero	Major / Moderate (up to 300m) to Minor / Negligible to Negligible (remainder of route)	High (within 300m) to Negligible-Zero	Major / Moderate (up to 300m) to Minor / Negligible to Negligible (remainder of route)	High (within 300m) to Negligible-Zero	Major / Moderate (up to 300m) to Minor / Negligible to Negligible (remainder of route)
A281	Medium	Zero	No Effect	Zero	No Effect	Zero	No Effect

Visual Receptor	Sensitivity	Construction (3 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Kent Street	Medium	High to Medium-high (within 1km of route) to Negligible-Zero	Major / Moderate (within 1km of route), to Minor / Negligible (remainder of route)	High to Medium-high (within 1km of route) to Negligible-Zero	Major / Moderate (within 1km of route), to Minor / Negligible (remainder of route)	High to Medium-high (within 1km of route) to Negligible-Zero	Major / Moderate (within 1km of route), to Minor / Negligible (remainder of route)
Recreational Routes							
PRoW 1786 between east of Taintfield Wood and A272	High	High to Medium-high (much of the route) to Negligible-Zero	Major to Major / Moderate (much of the route), to Minor to Negligible	High to Medium-high (between Taintfield Wood and Oakendene Industrial Estate) to Negligible-Zero	Major to Major / Moderate (between Taintfield Wood and Oakendene Industrial Estate), to Minor to Negligible	High to Medium-high (much of the route) to Negligible-Zero	Major to Major / Moderate (much of the route), to Minor to Negligible
PRoW 1788 between west of	High	High (much of the route)	Major (much of the route), to Minor to Negligible	High (between Taintfield	Major (between Taintfield Wood and southern end of	High (much of the route)	Major (much of the route)

Visual Receptor	Sensitivity	Construction (3 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Taintfield Wood and Oakendene Industrial Estate				Wood to southern end of Oakendene Industrial Estate) to Negligible-Zero	Oakendene Industrial Estate), to Minor to Negligible		
PRoW 1775 and 1777 near Eastlands Farm	High	Zero	No Effect	Zero	No Effect	Zero	No Effect
Recreational and Tourist Destinations							
None assessed							

Table 19-38 Summary of landscape effects on onshore substation search area option B

Landscape Character Area	Sensitivity	Geographical scale	Construction (3 Years)		Operation and maintenance (Year 1)		Decommissioning	
			Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
NCA 121: Low Weald								
LW1: Hickstead Low Weald <i>(also part of LW10: Eastern Low Weald LCA within West Sussex)</i>	Medium to Medium-low	<100-200m	High to Zero Zero (beyond 100m)	Major / Moderate to Moderate (100-200m) to Negligible	High to Zero	Major / Moderate to Moderate (100-200m) to Negligible	High to Zero	Major / Moderate to Moderate (100-200m) to Negligible
J3 Cowfold & Shermanbury Farmlands <i>(also part of LW10: Eastern Low Weald LCA within West Sussex)</i>	High-medium	<100m	Low to Negligible-Zero	Moderate / Minor to Minor	Low to Negligible - Zero	Moderate / Minor to Minor	Low to Negligible-Zero	Moderate / Minor to Minor

Table 19-39 Summary of visual effects on onshore substation search area option B

Visual Receptor	Sensitivity	Construction (3 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Settlements							
None within 2km							
Transport Routes							
Wineham Lane	Medium	High to Low (within 300m) to Negligible-Zero	Major / Moderate (up to 300m) to Minor / Negligible to Negligible (remainder of route)	High to Low (within 300m) to Negligible-Zero	Major / Moderate (up to 300m) to Minor / Negligible to Negligible (remainder of route)	High to Low (within 300m) to Negligible-Zero	Major / Moderate (up to 300m) to Minor / Negligible to Negligible (remainder of route)
Bolney Chapel Road	Medium	Low to Negligible-Zero	Minor / Negligible to Negligible	Low to Negligible-Zero	Minor / Negligible to Negligible	Low to Negligible-Zero	Minor / Negligible to Negligible
Recreational Routes							
PRoW 1T / 36Bo between Wineham Lane and	High	High to Medium (between east of Old Doctors and	Major to Major / Moderate (between east of Old Doctors and northern edge of search area), to	High to Medium (between east of Old Doctors and	Major to Major / Moderate (between east of Old Doctors and northern edge of search area), to	High to Medium (between east of Old Doctors and	Major to Major / Moderate (between east of Old Doctors and northern edge of search area), to

Visual Receptor	Sensitivity	Construction (3 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Coombe House		northern edge of search area) to Negligible-Zero	Minor to Negligible (remainder of route)	northern edge of search area) to Negligible-Zero	Minor to Negligible (remainder of route)	northern edge of search area) to Negligible-Zero	Minor to Negligible (remainder of route)
PRoW 8T / 34Bo between Bob Lane and Coombe House	High	High (between north of Rampion 1 onshore substation and eastern boundary of search area) to Medium-low (between north of search area and east of	Major to Moderate (between north of search area and east of Coombe House), to Minor to Negligible (remainder of route)	High (between north of Rampion 1 onshore substation and eastern boundary of search area) to Medium-low (between north of search area and east of	Major to Moderate (between north of search area and east of Coombe House), to Minor to Negligible (remainder of route)	High (between north of Rampion 1 onshore substation and eastern boundary of search area) to Medium-low (between north of search area and east of	Major to Moderate (between north of search area and east of Coombe House), to Minor to Negligible (remainder of route)

Visual Receptor	Sensitivity	Construction (3 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
		Coombe House), to Negligible-Zero		Coombe House), to Negligible-Zero		Coombe House), to Negligible-Zero	
PRoW 32Bo at Nyeshill Farm	High	Low to Negligible-Zero	Moderate to Minor	Low to Negligible-Zero	Moderate to Minor	Low to Negligible-Zero	Moderate to Minor
Recreational and Tourist Destinations							
Wineham Lane Caravan Park	High	Zero	No Effect	Zero	No Effect	Zero	No Effect

Table 19-40 Summary of landscape effects on the onshore cable corridor (includes landfall, temporary construction compounds and access routes)

Local Landscape Character Area (>1km)	Sensitivity	Geographical Scale*	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
			Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
NCA 126: South Coastal Plain – Climping to Arundel								
South Coast Shoreline (SC1) - No effect								
Climping Lower Coastal Plain LCA No. 31	Medium-low	<500m	Medium - high	Moderate	Negligible -zero	Negligible	N/A	N/A
Lower Arun Valley Floor LCA No. 35	Medium-low	<1km	Medium - low	Minor	Negligible -zero	Negligible	N/A	N/A
- Landscape character within 1 field unit		<500m	Medium - high	Moderate	Negligible -zero	Negligible	N/A	N/A
Ford and Horsemere Green Townscapes:								
- Church Lane, Horsemere Green	Medium-low	<250m	Medium - high	Moderate	Negligible -zero	Negligible	N/A	N/A
- Ford Lane, Ford	High	<250m	Medium - high	Major / Moderate	Medium - high	Moderate**	N/A	N/A
Middle Arun Valley Floor LCA No. 34	Medium-low	<1km	Medium	Moderate / Minor	Negligible – zero	Negligible	N/A	N/A
- Landscape character within 1 field unit		<250m	Medium - high	Moderate	Negligible -zero	Negligible	N/A	N/A
Littlehampton Arun Valley Sides LCA No. 38	Low	<250m	Low	Moderate / Minor	Negligible – zero	Negligible	N/A	N/A

Local Landscape Character Area (>1km)	Sensitivity	Geographical Scale*	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
			Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Littlehampton Northern Fringe No.39	Low	<500m	Negligible – zero	Negligible	Zero	No Effect	N/A	N/A
Black Ditch Rife LCA No. 41	Medium-low	<250m	Negligible – zero	Negligible	Zero	No Effect	N/A	N/A
Lyminster Arun Valley Sides LCA No. 37	Medium	<500m	Medium - low	Moderate / Minor	Negligible – zero	Minor / Negligible	N/A	N/A
- Landscape character within 1 field unit	Medium	<250m	Medium - high	Moderate	Negligible – zero	Minor / Negligible	N/A	N/A
- Landscape elements (mature trees)	High - medium	<100m	Medium - high	Moderate	Low	Minor	N/A	N/A

Onshore cable corridor option: Warningcamp B

Lyminster Angmering Coastal Plain No. 40	Medium	<500m	Medium - low	Moderate to Minor	Low to Negligible - zero	Minor to Minor / Negligible	N/A	N/A
- Landscape character within 1 field unit	Medium	<250m	Medium - high	Moderate			N/A	N/A
Crossbush Arun Valley Sides LCA No. 36	Medium	Whole LCA	Negligible - zero	Minor / Negligible	Zero	No Effect	N/A	N/A
South Downs Upper Coastal Plain R1	High	<250m	Negligible - zero	Minor	Zero	No Effect	N/A	N/A
Arun Valley Sides G4	High	<500m	Negligible - zero	Minor	Zero	No Effect	N/A	N/A

Local Landscape Character Area (>1km)	Sensitivity	Geographical Scale*	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
			Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Landscape and elements within 1 field unit	High - medium	<250m	Medium - high	Major	Medium - low	Moderate**	N/A	N/A

Onshore cable corridor option: Warningcamp C

Lyminster Angmering Coastal Plain No. 40	Medium	<500m	Medium - low	Moderate to Minor	Low to Negligible - zero	Minor / Negligible Minor	N/A	N/A
- Landscape and elements within 1 field unit	Medium	<250m	Medium - high	Moderate			N/A	N/A
South Downs Upper Coastal Plain R1	High	<250m	Negligible - zero	Minor	Zero	No Effect	N/A	N/A
- Landscape and elements within 1 field unit	High	<250m	Medium - high	Major	Medium - low	Moderate**	N/A	N/A

NCA 125: South Downs and South Downs National Park – Crossbush to Wiston

Arun Valley Sides G4 (South Warningcamp)	High	>250m	Medium - low	Moderate	Low	Moderate	N/A	N/A
- Landscape and elements within 1 field unit	High	<250m	Medium - high	Major	Medium - low	Moderate**	N/A	N/A
Angmering and Clapham Wooded Estate Downland B4	High - medium	Whole LCA	Negligible - zero	Minor	Negligible - zero	Minor	N/A	N/A
- Landscape and elements within 1 field unit	High - medium	<250m	Medium - high	Major / Moderate	Low	Moderate / Minor	N/A	N/A

Local Landscape Character Area (>1km)	Sensitivity	Geographical Scale*	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
			Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Arun Valley Sides G4 (North Warningcamp)	High	<500m	Medium-low	Moderate	Low	Moderate	N/A	N/A
- Landscape and elements within 1 field unit	High	<250m	Medium - high	Major	Low	Moderate**	N/A	N/A
Arun to Adur Open Downs A3	High	<1km	High to Low	Major to Moderate	Low	Moderate	N/A	N/A
- Landscape elements within onshore cable corridor	High	<100m	High	Major	Low	Moderate**	N/A	N/A
Arun to Adur Downs Scarp I3	High	N/A	Negligible - zero	Minor	Zero	No Effect	N/A	N/A
Arun to Adur Scarp Footslopes J3	High	>250m	Low to Negligible	Moderate to Minor	Low to Negligible	Moderate to Minor	N/A	N/A
- Landscape and elements within 1 field unit	High	<250m	Medium - high	Major to Major / Moderate	Low	Moderate**	N/A	N/A
Arun Floodplain F4	High	500m- 1km	Negligible - zero	Minor	Zero	No Effect	N/A	N/A
NCA 121: Low Weald – Wiston to Bolney								
Amberley to Steyning Farmlands D1	Medium	Wider LCA	Negligible - zero	Minor / Negligible	Zero	No Effect	N/A	N/A
- Landscape elements (pasture field)	Low	<250m	High	Moderate / Minor	Zero	No Effect	N/A	N/A

Local Landscape Character Area (>1km)	Sensitivity	Geographical Scale*	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
			Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Parham & Storrington Wooded Farmlands & Heaths E1	Medium - Low	Wider LCA	Negligible - zero	Negligible	Zero	No Effect	N/A	N/A
		<250m	Medium - high	Moderate	Zero	No Effect	N/A	N/A
Pulborough, Chiltington & Thakeham Farmlands F1	Medium	Wider LCA	Negligible - zero	Minor / Negligible	Zero	No Effect	N/A	N/A
- Landscape character within 1-2 field units	Medium	<250m	Medium-high	Moderate	Low to Negligible	Minor	N/A	N/A
- Landscape elements (trees)	High - medium	<100m	High	Major	Medium - low	Moderate**	N/A	N/A
Ashurst & Wiston Wooded Farmlands G1	High - medium	Wider LCA	Negligible - zero	Minor	Negligible - zero	Minor	N/A	N/A
- Landscape character within 1 field unit	High - medium	<250m	Medium - high	Major / Moderate	Low to Negligible	Moderate to Minor	N/A	N/A
- Landscape elements (trees)	High	<250m	High	Major	Low	Moderate**	N/A	N/A
Steyning & Henfield Brooks O3	Medium	Wider LCA	Negligible - zero	Minor / Negligible	Zero	No Effect	N/A	N/A
- Landscape character within 1 field unit	Medium	<250m	Medium - high	Moderate	Low to Negligible	Minor	N/A	N/A
- Landscape elements (trees)	High - medium	<250m	Medium - high	Major / Moderate	Low	Moderate**	N/A	N/A
Cowfold & Shermanbury Farmlands J3	Medium	Wider LCA	Negligible - zero	Minor / Negligible	Negligible - zero	Minor	N/A	N/A

Local Landscape Character Area (>1km)	Sensitivity	Geographical Scale*	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
			Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
- Landscape character within 1 field unit	Medium	<250m	Medium - high	Moderate	Low to Negligible	Minor	N/A	N/A
- Landscape elements (trees)	High	<250m	High	Major	Low	Moderate**	N/A	N/A
Upper Adur Valleys P2 – Not assessed pending further design maturity.								
Hickstead Low Weald LW1	Medium	Wider LCA	Negligible - zero	Minor / Negligible	Negligible - zero	Minor	N/A	N/A
Landscape character within 1-2 field units	Medium	<250m	High	Major / Moderate	High	Major / Moderate***	N/A	N/A
Landscape elements (trees and hedges)	High	<250m	High	Major	High	Major / Moderate***	N/A	N/A

Table 19-41 Summary of visual effects on the onshore cable corridor (includes landfall, temporary construction compounds and access routes)

Visual Receptor	Sensitivity	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect

SETTLEMENTS

Settlements (Climping to Arundel – south of SDNP)

Visual Receptor	Sensitivity	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Climping	High	High to Negligible-Zero	Major to Major / Moderate (due to TCoC** and Access Routes) to Minor	Low to Negligible-Zero	Moderate to Minor	N/A	N/A
Littlehampton	High	High to Negligible-Zero	Major to Major / Moderate (due to OCC*) to Minor	Zero	N/A	N/A	N/A
Lyminster	High	Medium-low to Negligible-Zero	Moderate to Minor, to Negligible	Zero	N/A	N/A	N/A
Arundel	High	Low to Negligible-Zero	Moderate to Minor, to Minor	Zero	N/A	N/A	N/A

Settlements (Arundel to Wiston - within SDNP)

Crossbush	High	High to Medium to Negligible-Zero	Major to Major / Moderate (due to OCC* and Access Routes) to Minor	Zero	N/A	N/A	N/A
Warningcamp	High	High to Negligible-Zero	Major (due to OCC*) to Minor	Medium-high to Negligible-Zero	Major (due to OCC*) to Negligible	N/A	N/A
Burpham and Wepham	High	Medium to Negligible-Zero	Major / Moderate (due to Access Route at Wepham) to Minor	Negligible-Zero	Minor	N/A	N/A

Visual Receptor	Sensitivity	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Washington	High	Low to Negligible-Zero	Moderate to Minor	Zero	N/A	N/A	N/A

Settlements (Wiston to Bolney – north of SDNP)

Wiston	High	High to Negligible-Zero	Major (due to OCC*) to Minor	Negligible-Zero	Minor	N/A	N/A
Ashurst	High	Medium-low to Negligible-Zero	Moderate to Minor	Negligible-Zero	Minor	N/A	N/A
Partridge Green	High	High to Negligible-Zero	Major (due to Access Routes) to Minor	Low to Negligible-Zero	Moderate to Minor	N/A	N/A
Shermanbury	High	Medium to Negligible-Zero	Major / Moderate (due to OCC* and Access Routes) to Minor	Zero	N/A	N/A	N/A
Wineham	High	Low to Negligible-Zero	Moderate to Minor, to Minor	Zero	N/A	N/A	N/A

TRANSPORT ROUTES

Transport Routes (Climping to Arundel – south of SDNP)

Climping Street	Medium	Negligible-Zero	Minor / Negligible	Zero	N/A	N/A	N/A
A259	Medium	Medium to Negligible-Zero	Moderate (TCoC**) to Minor / Negligible	Zero	N/A	N/A	N/A

Visual Receptor	Sensitivity	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Ferry Road	Medium to High	Low to Negligible-Zero	Moderate to Moderate / Minor, to Minor / Negligible	Zero	N/A	N/A	N/A
Church Lane	Medium	High to Medium-high, to Negligible-Zero	Major / Moderate (TCoC**) to Negligible	Medium to Negligible-Zero	Moderate (TCoC** & Access Routes) to Negligible	N/A	N/A
Ford Road	Medium	Medium to Negligible-Zero	Moderate (Access Routes) to Minor / Negligible	Negligible-Zero	Minor / Negligible to Negligible	N/A	N/A
A284 Lyminster Road	Medium	Medium to Negligible-Zero	Moderate to Minor / Negligible	Zero	N/A	N/A	N/A
A27	Medium	Negligible-Zero	Minor / Negligible	Zero	N/A	N/A	N/A
Railway Line from Littlehampton and Ford to Arundel	Medium	Medium-high to Negligible-Zero	Major / Moderate (OCC*) to Minor / Negligible	Negligible-Zero	Minor / Negligible to Negligible	N/A	N/A
Transport Routes (Arundel to Wiston - within SDNP)							
Crossbush Lane	High-medium	Medium-high to Negligible-Zero	Major / Moderate (Access Routes - Warningcamp C route option), to Minor	Negligible-Zero	Minor	N/A	N/A

Visual Receptor	Sensitivity	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Local roads around Warningcamp (Clay Lane and Blakehurst Lane)	High-medium	High to Negligible-Zero	Major to Major / Moderate (OCC*), to Minor	Medium-high to Negligible-Zero	Major / Moderate (OCC*), to Minor	N/A	N/A
Local roads around Wepham and Burpham	High-medium	Medium to Negligible-Zero	Major / Moderate (Access Routes in Wepham), to Minor	Low to Negligible-Zero	Moderate to Minor, to Minor	N/A	N/A
A24	Medium	Negligible-Zero	Minor / Negligible to Negligible	Zero	N/A	N/A	N/A
A283	Medium	High to Negligible-Zero	Major / Moderate (OCC*, TCoC** & Access Routes), to Minor	Negligible-Zero	Minor / Negligible	N/A	N/A
Railway Line from Arundel to Amberley	High-medium	Negligible-Zero	Minor / Negligible	Zero	N/A	N/A	N/A

Transport Routes (Wiston to Bolney – north of SDNP)

Water Lane, Wiston	Medium	High to Negligible-Zero	Major / Moderate (OCC*), to Minor / Negligible	Medium to Negligible	Moderate (OCC*) to Minor	N/A	N/A
Spithandle Lane	Medium	Medium to Negligible-Zero	Moderate (Access Routes*), to Minor / Negligible	Negligible-Zero	Minor / Negligible	N/A	N/A

Visual Receptor	Sensitivity	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
B2135	Medium	High to Medium-high, to Negligible-Zero	Major / Moderate to Moderate (OCC* & Access Routes), to Minor / Negligible	Medium to Negligible-Zero	Moderate (OCC*) to Minor	N/A	N/A
B2116	Medium	High to Medium, to Negligible-Zero	Major / Moderate to Moderate (OCC* & Access Routes), to Minor / Negligible	Medium to Negligible-Zero	Moderate (OCC*) to Minor	N/A	N/A
A281	Medium	Medium-high to Negligible-Zero	Major / Moderate (Access Routes), to Minor / Negligible	Negligible-Zero	Minor / Negligible	N/A	N/A
Wineham Lane	Medium	High to Negligible-Zero	Major / Moderate (OCC* & Access Routes), to Minor / Negligible	Medium-high to Negligible-Zero	Major / Moderate (OCC*), to Minor / Negligible	N/A	N/A
Bob Lane	Medium	High to Negligible-Zero	Major / Moderate (OCC*), to Minor / Negligible	Medium-high to Negligible-Zero	Major / Moderate (OCC*), to Minor / Negligible	N/A	N/A

Visual Receptor	Sensitivity	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Kent Street	Medium	High to Negligible-Zero	Major / Moderate (OCC*), to Minor / Negligible	Medium-high to Negligible-Zero	Major / Moderate (OCC*), to Minor / Negligible	N/A	N/A
Bolney Chapel Road	Medium	Negligible-Zero	Minor / Negligible	Zero	N/A	N/A	N/A
Fryland Lane	Medium	High to Negligible-Zero	Major / Moderate (OCC*), to Minor / Negligible	Zero	N/A	N/A	N/A

RECREATIONAL ROUTES - PRoW (For PRoW reference Summary table in Table 5)

RECREATIONAL ROUTES - Long Distance Recreational Routes

South Downs Way	High	High to Negligible-Zero	Major to Moderate (OCC*) affecting 2.25km of route, to Minor	Negligible-Zero	Minor	N/A	N/A
South Coast Cycle Route (Sustrans NCR 2)	High	Medium to Negligible-Zero	Major/ Moderate (TCoC**), to Minor	Zero	N/A	N/A	N/A
Downs Link (Sustrans NCR 223)	High	High to Negligible-Zero	Major to Major / Moderate (OCC* & Access Routes) affecting 500km of route, to Minor	Low to Negligible-Zero	Minor	N/A	N/A

Visual Receptor	Sensitivity	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Arun Way	High	High to Negligible-Zero	Major to Major / Moderate (OCC*) affecting 800m of route, to Minor	Low to Negligible-Zero	Moderate (OCC*) to Minor	N/A	N/A
Monarch's Way	High	High to Negligible-Zero	Major (OCC*) affecting 600m of route, to Minor	Low to Negligible-Zero	Minor	N/A	N/A

RECREATIONAL AND TOURIST DESTINATIONS

Recreational and Tourist Destinations (Climping to Arundel – south of SDNP)

Littlehampton Golf Club	High	Negligible-Zero	Minor	Zero	N/A	N/A	N/A
Littlehampton West and East Beach including Climping Beach	High	Medium to Negligible-Zero	Major / Moderate (OCC*) (Climping Beach) to Minor	Zero	N/A	N/A	N/A
Climping Camp Site	High	High to Medium-high	Major to Major / Moderate (OCC* & Access Routes), to Minor	Zero	N/A	N/A	N/A
Climping Caravan Park	High	High to Medium-high	Major to Major / Moderate (OCC*, TCoC** & Access Routes), to Minor	Zero	N/A	N/A	N/A

Visual Receptor	Sensitivity	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Brookside Caravan Park	High	Medium-low to Negligible	Moderate (Access Routes) to Minor	Zero	N/A	N/A	N/A
Recreational and Tourist Destinations (Arundel to Wiston - within SDNP)							
Crossbush Caravan Park	High	Negligible-Zero	Minor	Zero	N/A	N/A	N/A
Arundel Castle	High	Low to Negligible-Zero	Moderate to Minor	Zero	N/A	N/A	N/A
Arundel Park Open Access Land	High	Low to Negligible-Zero	Moderate to Minor	Zero	N/A	N/A	N/A
Perry Hill Open Access Land	High	Zero	N/A	Zero	N/A	N/A	N/A
Barpham Hill Open Access Land	High	Medium-high to Negligible-Zero	Major to Major / Moderate (OCC*), to Minor	Zero	N/A	N/A	N/A
Chantry Hill Open Access Land	High	High to Medium-high to Low to Negligible-Zero	Major / Moderate (Access Routes), to Moderate (OCC*), to Minor	Zero	N/A	N/A	N/A
Sullington Hill Open Access Land	High	High to Medium-high, to Negligible-Zero	Major (OCC*), to Major / Moderate (Access Routes*), to Minor	Zero	N/A	N/A	N/A

Visual Receptor	Sensitivity	Construction (3.5 Years)		Operation and maintenance (Year 1)		Decommissioning	
		Magnitude	Level of effect	Magnitude	Level of effect	Magnitude	Level of effect
Chanctonbury Hill (including Chanctonbury Ring and Open Access Land)	High	Low to Negligible-Zero	Moderate to Minor	Zero	N/A	N/A	N/A
Recreational and Tourist Destinations (Wiston to Bolney – north of SDNP)							
Washington Caravan Park	High	High to Medium-high, to Negligible-Zero	Major to Major / Moderate (TCoC**) to Minor	Zero	N/A	N/A	N/A
Wineham Lane Caravan Park	High	High to Negligible-Zero	Major (OCC*) to Minor	Zero	N/A	N/A	N/A

* OCC - Onshore Cable Corridor

** TCoC - Temporary Construction Compound

19.15 Further work to be undertaken for ES

Overview

- 19.15.1 Further work that will be undertaken to support the LVIA and presented within the ES is set out below.
- Viewpoint photography and site surveys – A number of viewpoints will be rephotographed during the summer of 2021 due to the low sun position of the winter photography. These are likely to include viewpoints A, E, F, F5, J1, J2, J5, G3, G5 and S3.
 - Public Rights of Way (PRoW) – Collaboration with the Transport team on the PRoW Management Plan to identify detailed mitigation for affected routes.
 - Environmental Measures – Refinement of embedded environmental measures in the commitments register as the design of Rampion 2 develops and is finalised.
 - Consultation – Continued consultation with relevant stakeholders.
 - Aspect Collaboration – Continued collaboration with other technical aspects including SLVIA, Ecology, Soils and Agriculture, Arboriculture, Noise and Historic Environment.

Residential Visual Amenity Assessment

- 19.15.2 A Residential Visual Amenity Assessment will be undertaken for those residential properties within the significant visual threshold identified for the onshore elements of the Proposed Development (likely to be <250m).

Landscape Design Plan

- 19.15.3 Develop conceptual landscape design planning as part of the overall onshore substation and cable corridor design to ensure where practical the protection of landscape character, key characteristics and elements and the inclusion of sufficient areas and zones for mitigation such as screen planting or view / line of sight protection. This will be included as part of the Outline Landscape and Ecological Management Statement.

Assessment during operation at Year 15

- 19.15.4 Following the development of the Landscape Design Plan, an assessment of the onshore elements of the Proposed Development will be reported at both Year 1 and Year 15 in the ES.

Photomontages

- 19.15.5 Photomontages will be produced for a select number of onshore substation viewpoints (3-4 locations) once the design and mitigation has been finalised.

19.16 Glossary of terms and abbreviations

Table 19-42 LVIA Glossary of terms and abbreviations

Term (acronym)	Definition
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
Baseline conditions	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.
Beneficial or Adverse Types of Landscape Effect	The landscape effects may be beneficial, neutral, or adverse. In landscape terms – a beneficial effect would require development to add to the landscape quality and character of an area. Neutral landscape effects would include low or negligible changes that may be considered as part of the ‘normal’ landscape processes such as maintenance or harvesting activities. An adverse effect may include the loss of landscape elements such as mature trees and hedgerows as part of construction leading to a reduction in the landscape quality and character of an area.
Beneficial or Adverse Types of Visual Effect	The visual effects may be beneficial, neutral, or adverse. In visual terms – beneficial or adverse effects are less easy to define or quantify and require a subjective consideration of a number of factors affecting the view, which may be beneficial, neutral, or adverse. However it is not the assumption of this assessment that all change, including significant change is a negative experience. Rather this assessment has considered factors such as the visual composition of the landscape in the view together with the design and composition, which may or may not be reasonably, accommodated within the scale and character of the landscape as perceived from the receptor location.
Bostall	A steep path or small road leading up a hill, particularly over the South Downs
BS	British Standard
CLVIA	Cumulative Landscape and Visual Impact Assessment
Code of Construction Practice (COCPP)	The code sets out the standards and procedures to which developers and contractors must adhere to when undertaking construction of major projects. This will assist with managing

Term (acronym)	Definition
	the environmental impacts and will identify the main responsibilities and requirements of developers and contractors in constructing their projects.
Construction Effects	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).
Coombe	Also spelled 'combe' or 'coomb' referring to a steep, narrow valley, or to a small valley or large hollow on the side of a hill which is often a dry valley (no water course) in south western England.
CSF	Coombe Solar Farm
Cumulative effects	Additional changes caused by a Proposed Development in conjunction with other similar developments or as a combined effect of a set of developments, taken together.
Cumulative Effects Assessment (CEA)	Assessment of impacts as a result of the incremental changes caused by other past, present and reasonably foreseeable human activities and natural processes together with the Proposed Development.
Cumulative landscape effects	Effects that 'can impact on either the physical fabric or character of the landscape, or any special values attached to it' (Scottish Natural Heritage, 2012)
Cumulative visual effects: In combination In succession Sequentially	<p>Effects that can be caused by combined visibility, which 'occurs where the observer is able to see two or more developments from one viewpoint' and/or sequential effects which 'occur when the observer has to move to another viewpoint to see different developments' (SNH 2012)</p> <ul style="list-style-type: none"> • In combination: Where two or more developments are or would be within the observer's arc of vision at the same time without moving his/her head (GLVIA3, 2013 Table 7.1). • In succession: Where the observer has to turn his/her head to see the various developments – actual and visualised (GLVIA3, 2013 Table 7.1). • Sequential cumulative effect. Occurs where the observer has to move to another viewpoint to see the same or different developments. Sequential effects may be assessed for travel along regularly used routes such as major roads or popular paths (GLVIA3, 2013 Table 7.1).

Term (acronym)	Definition
DCO Application	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.
Decommissioning	The period during which a development and its associated processes are removed from active operation.
Degree of change	A combination of the scale extent and duration of an effect also defined as 'magnitude'.
Designated Landscape	Areas of landscape identified as being of importance at international, national or local levels, either defined by statute or identified in development plans or other documents.
Development Consent Order (DCO)	This is the means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects, under the Planning Act 2008.
Direct effects	An effect that is directly attributable to the Proposed Development.
DSM	Digital Surface Model
DTM	Digital Terrain Model
EIA	Environmental Impact Assessment
ELC	European Landscape Convention
Elements	Individual parts which make up the landscape, such as, for example, trees, hedges and buildings.
Embedded environmental measures	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.
Environmental Impact Assessment (EIA)	The process of evaluating the likely significant environmental effects of a proposed project or development over and above the existing circumstances (or 'baseline').
Environmental Measures	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. (GLVIA3, 2013 Para 3.37).

Term (acronym)	Definition
Environmental Statement (ES)	The written output presenting the full findings of the Environmental Impact Assessment.
Expert Topic Group (ETG)	As part of the Evidence Plan Process, the ETGs are formed of experts from relevant organisations relative to the topics considered. These groups are established to discuss and agree the evidence and assessment requirements for each EIA and HRA topic area identified
Evidence Plan Process (EPP)	A voluntary consultation process with specialist stakeholders to agree the approach and the information required to support the EIA and HRA for certain aspects.
Feature	Particularly prominent or eye-catching elements in the landscape such as tree clumps, church towers or wooded skylines OR a particular aspect of the project proposal.
Formal consultation	Formal consultation refers to statutory consultation that is required under Section 42 and Section 47 of the Planning Act 2008 with the relevant consultation bodies and the public on the preliminary environmental information.
FoV	Field of View
Future Baseline	Refers to the situation in future years without the Proposed Development.
Geographical Information System (GIS)	A system that captures, stores, analyses, manages and presents data linked to location. It links spatial information to a digital database.
GLVIA 3	Guidelines for Landscape and Visual Impact Assessment, Third Edition, published jointly by the Landscape Institute and Institute of Environmental Management and Assessment, 2013.
Habitats Regulation Assessment (HRA)	The assessment of the impacts of implementing a plan or policy on a European Site, the purpose being to consider the impacts of a project against conservation objectives of the site and to ascertain whether it would adversely affect the integrity of the site.
Heritage	The historic environment and especially valued assets and qualities such as historic buildings and cultural traditions.
HGV	Heavy Goods Vehicle

Term (acronym)	Definition
Historic Landscape Characterisation (HLC)	Historic characterisation is the identification and interpretation of the historic dimension of the present-day landscape or townscape within a given area.
Horizontal Directional Drill (HDD)	An engineering technique avoiding open trenches.
IEMA	Institute of Environmental Management and Assessment
Impact	The changes resulting from an action.
Indirect effects	<p>Effects that result indirectly from the proposed project 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. 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>
Informal consultation	Informal consultation refers to the voluntary consultation that RED undertake in addition to the formal consultation requirements.
Iterative design process	The process by which project design is amended and improved by successive stages of refinement which respond to growing understanding of environmental issues.
Key characteristics	Those combinations of elements which are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.
Land cover	The surface cover of the land, usually expressed in terms of vegetation cover or lack of it. Related to but not the same as land use.
Landscape and Visual Impact Assessment (LVIA)	A tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape as an environmental resource in its own right and on people's views and visual amenity.
Landscape capacity	The amount of specified development or change which a particular landscape and the associated visual resource is able to accommodate without undue negative effects on its character and qualities.

Term (acronym)	Definition
Landscape character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape Character Area (LCA)	These are single unique areas which are the discrete geographical areas of a particular landscape type.
Landscape Character Assessment	The process of identifying and describing variation in the character of the landscape, and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscapes distinctive. The process results in the production of a Landscape Character Assessment.
Landscape Character Types (LCTs)	Distinct types of landscape which are relatively homogenous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement patterns, and perceptual and aesthetic attributes (GLVIA3 2013).
Landscape classification	A process of sorting the landscape into different types using selected criteria but without attaching relative values to different sorts of landscape.
Landscape constraints	Components of the landscape resource such as views or mature trees recognised as constraints to development. Often associated with landscape opportunities.
Landscape effects	<p>Effects on the landscape as a resource in its own right.</p> <p>An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern here is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. (GLVIA3 2013, Para 5.1).</p>
Landscape patterns	Spatial distributions of landscape elements combining to form patterns, which may be distinctive, recognisable and describable e.g. hedgerows and stream patterns.
Landscape qualities	A term used to describe the aesthetic or perceptual and intangible characteristics of the landscape such as scenic quality, tranquillity, sense of wildness or remoteness. Cultural and artistic references may also be described here.

Term (acronym)	Definition
Landscape quality (condition)	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.
Landscape receptors	Defined aspects of the landscape resource that have the potential to be affected by a proposal
Landscape resource	The combination of elements that contribute to landscape context, character, and value.
Landscape sensitivity	The sensitivity of the landscape to a particular development considers the susceptibility of the landscape and its value.
Landscape plan	The overall vision and objectives for what the landscape should be like in the future, and what is thought to be desirable for a particular landscape type or area as a whole, usually expressed in formally adopted plans and programmes or related documents.
Landscape value	The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.
Level of effect	Determined through the combination of sensitivity of the receptor and the proposed magnitude of change brought about by the development.
Likely Significant Effects	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.
Magnitude (of change)	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.
Magnitude (of change)	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.
Nationally Significant Infrastructure Project (NSIP)	Nationally Significant Infrastructure Projects are major infrastructure developments in England and Wales which are consented by DCO. These include proposals for renewable

Term (acronym)	Definition
	energy projects with an installed capacity greater than 100MW.
NCA	National Character Area
NCAP	National Character Area Profiles
NE	Natural England
NPPF	National Planning Policy Framework
NPS	National Policy Statement
Onshore part of the PEIR Assessment Boundary	An area that encompasses all planned onshore infrastructure.
OS	Ordnance Survey
PEIR Assessment Boundary	The PEIR 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.
Perception	Combines the sensory (that we receive through our senses) with the cognitive (our knowledge and understanding gained from many sources and experiences).
Perceptual Aspects	A landscape may be valued for its perceptual qualities, notably wildness and/or tranquillity. (GLVIA3, 2013 Box 5.1)
Photomontage	A visualisation which superimposes an image of the Proposed Development upon a photograph or series of photographs.
Planning Inspectorate (PINS)	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.
PPG	Planning Practice Guidance
Preliminary Environmental Information Report (PEIR)	The written output of the Environmental Impact Assessment undertaken to date for the Proposed Development. It is developed to support formal consultation and presents the preliminary findings of the assessment to allow an informed view to be developed of the Proposed Development, the assessment approach that has been undertaken, and the

Term (acronym)	Definition
	preliminary conclusions on the likely significant effects of the Proposed Development and environmental measures proposed.
Proposed Development	The development that is subject to the application for development consent, as described in Chapter 4 .
Rarity	The presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type. (GLVIA3 2013, Box 5.1)
Receptor	Physical landscape resource, special interest, or viewer group that will experience an effect.
Recreation Value	Evidence that the landscape is valued for recreational activity where experience of the landscape is important. (GLVIA3 2013, Box 5.1)
RED	Rampion Extension Development Limited
Representativeness	Whether the landscape contains a particular character and/or features or elements which are considered particularly important examples.
Scale Indicators	Landscape elements and features of a known or recognisable scale such as houses, trees, and vehicles that may be compared to other objects, where the scale of height is less familiar, to indicate their true scale.
Scenic quality	Depends upon perception and reflects the particular combination and pattern of elements in the landscape, its aesthetic qualities, its more intangible sense of place or 'genius loci' and other more intangible qualities. (GLVIA3 2013, Box 5.1)
Scoping Opinion	A Scoping Opinion is adopted by the Secretary of State for a Proposed Development.
Scoping Report	A report that presents the findings of an initial stage in the Environmental Impact Assessment process.
SDNP / SDNPA	South Downs National Park / South Downs National Park Authority
SDW	South Downs Way
Seascape	Landscapes with views of the coast or seas, and coasts and adjacent marine environments with cultural, historical and archaeological links with each other.

Term (acronym)	Definition
Secretary of State (SoS)	The body who makes the decision to grant development consent.
Sense of Place (genius loci)	The essential character and spirit of an area: 'genius loci' literally means 'spirit of the place'.
Sensitivity	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.
Significance	A measure of the importance of the environmental effect, defined by criteria specific to the environmental aspect.
Significant effects	<p>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 and the type of effect. Where possible significant effects should be mitigated.</p> <p>The significance of an effect gives an indication as to the degree of importance (based on the magnitude of the effect and the sensitivity of the receptor) that should be attached to the impact described.</p> <p>Whether or not an effect should be considered significant is not absolute and requires the application of professional judgement.</p> <p>Significant – 'noteworthy, of considerable amount or effect or importance, not insignificant or negligible'. The Concise Oxford Dictionary.</p> <p>Those levels and types of landscape and visual effect likely to have a major or important / noteworthy or special effect of which a decision maker should take particular note.</p>
SLVIA	Seascape, Landscape and Visual Impact Assessment
SuDS	Sustainable Drainage System
Susceptibility	The ability of a defined landscape or visual receptor to accommodate the specific Proposed Development without undue negative consequences.
Sustainability	The principle that the environment should be protected in such a condition and to such a degree that ensures new development meets the needs of the present without compromising the ability of future generations to meet their own needs.
Temporal Scope	The temporal scope covers the time period over which changes to the environment and the resultant effects are

Term (acronym)	Definition
	predicted to occur and are typically defined as either being temporary or permanent.
Temporary or permanent effects	Effects may be considered as temporary or permanent. In the case of wind energy development the application is for a 30 year period after which the assessment assumes that decommissioning will occur and that the site will be restored. For these reasons the development is referred to as long term and reversible.
The Applicant	Rampion Extension Development Limited (RED)
The Proposed Development / Rampion 2	The onshore and offshore infrastructure associated with the offshore wind farm comprising of installed capacity of up to 1,200MW, located in the English Channel in off the south coast of England.
Time depth	Historical layering – the idea of landscape as a ‘palimpsest’, a much written-over asset of landscape.
Type or Nature of effect	Whether an effect is direct or indirect, temporary or permanent, positive (beneficial), neutral or negative (adverse) or cumulative.
Viewpoints	<p>Selected for illustration of the visual effects fall broadly into three groups:</p> <p>Representative Viewpoints: selected to represent the experience of different types of visual receptor, where larger numbers of viewpoints cannot all be included individually and where the significant effects are unlikely to differ – for example certain points may be chosen to represent the view of users of particular public footpaths and bridleways;</p> <p>Specific Viewpoints: chosen because they are key and sometimes promoted viewpoints within the landscape, including for example specific local visitor attractions, such as landscapes with statutory landscape designations or viewpoints with particular cultural landscape associations.</p> <p>Illustrative Viewpoints: chosen specifically to demonstrate a particular effect or specific issues, which might, for example, be the restricted visibility at certain locations. (GLVIA3 2013, Para 6.19)</p>
Visual amenity	The overall views and surroundings, which provide a visual setting or backdrop to the activities of people living, working, recreating, visiting or travelling through an area.
Visual effect	Effects on specific views and on the general visual amenity experienced by people.

Term (acronym)	Definition
Visual Receptors	Individuals and/or defined groups of people who have the potential to be affected by a proposal.
Visual sensitivity	The sensitivity of visual receptors such as residents, relative to their location and context, to visual change proposed by development.
Visualisation	Computer visualisation, photomontage, or other technique to illustrate the appearance of the development from a known location.
Wireline	A computer-generated line drawing of the DTM (digital terrain model) and the Proposed Development from a known location.
WSCC	West Sussex County Council
Zone of Theoretical Visibility (ZTV)	A map, usually digitally produced, showing areas of land within which a development is theoretical visible.

19.17 References

- Arun District Council, (2006). *Arun Landscape Study - Landscape and Visual Amenity Aspects of Development Choices in Arun District 2006-2026* [online]. Available at: <https://www.arun.gov.uk/download.cfm?doc=docm93jjm4n6851.pdf&ver=6564> [Accessed: 30 June 2021].
- Arun District Council, (2018). *Arun Local Plan 2011-2031*. [online]. Available at: <https://www.arun.gov.uk/adopted-local-plan/> [Accessed: 30 June 2021].
- British Standards Institution (BSI), (2012). *Trees in relation to design, demolition and construction*. Recommendations. BS 5837:2012.
- BSI, (2014). *Light and lighting. Lighting of outdoor work places*. BS EN 12464-2:2014.
- Campaign to Protect Rural England, (2016). *England's Light Pollution and Dark Skies* [online]. Available at: <https://www.nightblight.cpre.org.uk/maps/> [Accessed: 30 June 2021].
- Chris Blandford Associates on behalf of Horsham District Council, (2003). *Horsham District Landscape Character Assessment*. Final Report [online]. Available at: <https://www.horsham.gov.uk/planning/planning-policy/evidence-base/landscape-character-assessment> [Accessed: 30 June 2021].
- Council of Europe, (2000). *Council of Europe Landscape Convention* [online]. Available at: <https://rm.coe.int/european-landscape-convention-book-text-feb-2008-en/16802f80c6> [Accessed: 30 June 2021].
- Countryside and Rights of Way Act 2000* [online]. Available at: <https://www.legislation.gov.uk/ukpga/2000/37/contents> [Accessed 30 June 2021].

Department for Environment, Food and Rural Affairs (2009) *Code of Construction Practice (COCP) for the Sustainable Use of Soils on Construction Sites* [online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/716510/pb13298-code-of-practice-090910.pdf [Accessed 30 June 2021].

Department of Energy and Climate Change (2011) *EN-1 Overarching National Policy Statement (NPS) for Energy*. [online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf [Accessed 30 June 2021].

Department of Energy and Climate Change (2011) *EN-3 NPS for Renewable Energy*. [online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/37048/1940-nps-renewable-energy-en3.pdf [Accessed 30 June 2021].

Department of Energy and Climate Change (2011) *EN-5 NPS for Electricity Networks*. [online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/37050/1942-national-policy-statement-electricity-networks.pdf [Accessed 30 June 2021].

English Heritage, (2020). *Places to Visit*. [online]. Available at <https://www.english-heritage.org.uk/visit/places/#?page=1&place=&mp=false&fe=false>. [Accessed 30 June 2021].

E-ON/RSK Environmental (2010) *Rampion Offshore Wind Farm. Scoping Report*.

E-ON/RSK Environmental (2012) *Rampion Offshore Wind Farm, Environmental Statement, RSK, Section 26 Landscape and Visual Impact Assessment* (Document 6.1.26) [online]. Available at: <https://www.rampionoffshore.com/environmental-statement/> [Accessed 30 June 2021].

High Weald AONB (2019) *High Weald AONB Management Plan 2019 – 2024*. Fourth Edition [online]. Available at: <http://www.highweald.org/high-weald-aonb-management-plan.html> [Accessed 30 June 2021].

Historic England, (2020), *Registered Parks and Gardens* [online]. Available at <https://historicengland.org.uk/listing/what-is-designation/registered-parks-and-gardens/>. [Accessed 30 June 2021].

Horsham District Council (2015). *Horsham District Planning Framework* [online] Available at: https://www.horsham.gov.uk/_data/assets/pdf_file/0016/60190/Horsham-District-Planning-Framework-November-2015.pdf [Accessed 30 June 2021]

Horsham District Council (2019) *Horsham District Local Plan Draft 2019-2036* [online]. Available at: <https://strategicplanning.horsham.gov.uk/LocalPlanReview/viewCompoundDoc?docid=10336756&sessionid=&voteid=&partid=10336788> [Accessed 30 June 2021].

IEMA (2015) *Environmental Impact Assessment Guidance to Shaping Quality Development*.

IEMA (2017) *Delivering Proportionate EIA. A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice*.

IEMA (2019) EIA Quality Mark Article - *Predicting the growth of tree and hedge planting when determining the effectiveness of mitigation.*

Infrastructure Planning Commission (2010) *Proposed Rampion Offshore Wind Farm Scoping Opinion.*

Joint Nature Conservation Committee (2004) *National Vegetation Classification: Field Guide to Woodland.*

Land Use Consultants (2002). *Landscape Character Assessment – Guidance for England and Scotland.*

Land Use Consultants (2015) *South Downs National Park View Characterisation and Analysis* (Viewshed Study Report). [online]. Available at: <https://www.southdowns.gov.uk/wp-content/uploads/2015/10/Viewshed-Study-Report.pdf> [Accessed 30 June 2021].

Landscape Institute (2019). *Residential Visual Amenity Assessment* (RVAA). Technical Guidance Note 2/19.

Landscape Institute (2019). *Visual Representation of Development Proposals.*

Landscape Institute and IEMA, (2013). *Guidelines for Landscape and Visual Impact Assessment.* Third Edition (GLVIA3).

Landscape Institute and Institute of Environmental Management and Assessment (2002). *Guidelines for Landscape and Visual Impact Assessment*, 2nd edition.

Long Distance Walkers Association, (2019), *Overview map for Long Distance Paths and Walks* [online]. Available at: https://www.ldwa.org.uk/ldp/public/ldp_overview_map.php. [Accessed 30 June 2021].

Marine Management Organisation (2016). *South Inshore and Offshore Marine Plan* Available at: <https://www.gov.uk/government/publications/the-south-marine-plans-documents> [Accessed 30 June 2021].

Mid Sussex District Council (2018) *Mid Sussex District Plan 2014 – 2031.* [online]. Available at: <https://www.midsussex.gov.uk/planning-building/mid-sussex-district-plan/> [Accessed 30 June 2021].

Mid-Sussex District Council (2005) *A Landscape Character Assessment for Mid Sussex* [online]. Available at: <https://www.midsussex.gov.uk/media/1756/lca-part-one-intro-and-background.pdf> [Accessed 30 June 2021].

Ministry of Housing, Communities and Local Government (2019) *National Planning Policy Framework* (NPPF). [online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf [Accessed 30 June 2021].

Ministry of Housing, Communities and Local Government (2021) *National Design Guide. Planning practice guidance for beautiful, enduring and successful places.*

National Grid (undated) *A Sense of Place: Design Guidelines for Development Near High Voltage Overhead Lines.*

National Parks and Access to the Countryside Act 1949 [online]. Available at: <https://www.legislation.gov.uk/ukpga/Geo6/12-13-14/97> [Accessed 30 June 2021].

National Trails, (2020), *South Downs Way*. Available at: https://www.nationaltrail.co.uk/en_GB/trails/south-downs-way/. [Accessed 30 June 2021].

National Trust (2021) *Days out* [online]. Available at: <https://www.nationaltrust.org.uk/days-out> [Accessed 30 June 2021].

Natural England, (2013). *National Character Area Profiles* [online]. Available at: <https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles#ncas-in-south-east-england-and-london>. [Accessed 30 June 2021].

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

Natural England, (2019). *An Approach to Landscape Sensitivity Assessment*.

Natural England, (2020), *Areas of Outstanding Natural Beauty (England)* [online]. Available at: <https://data.gov.uk/dataset/8e3ae3b9-a827-47f1-b025-f08527a4e84e/areas-of-outstanding-natural-beauty-england>. [Accessed 30 June 2021].

Natural England, (2020). *Country Parks (England)*. Available at: <https://data.gov.uk/dataset/e729abb9-aa6c-42c5-baec-b6673e2b3a62/country-parks-england>. [Accessed 30 June 2021].

Natural England, (2020). *CRoW Act 2000 – Access Layer*. Available at <https://data.gov.uk/dataset/05fa192a-06ba-4b2b-b98c-5b6bec5ff638/crow-act-2000-access-layer>. [Accessed 30 June 2021].

Natural England, (2020). *National Parks (England)* [online]. Available at: <https://data.gov.uk/dataset/334e1b27-e193-4ef5-b14e-696b58bb7e95/national-parks-england>. [Accessed 30 June 2021].

Natural England, (2021). *Multi-Agency Geographic Information for the Countryside (MAGIC)* [online]. Available at <https://magic.defra.gov.uk>. [Accessed 30 June 2021]

Ordnance Survey (2019) *Open data* [online]. Available at: <https://www.ordnancesurvey.co.uk/business-government/products?Product%20type=0%2F154%2F173%2F175&pageIndex=3> [Accessed 30 June 2021].

Planning Inspectorate (2014) *Rampion Wind Farm and connection works*. Examining Authority's Report of Findings and Conclusions and Recommendation to the Secretary of State for Energy and Climate Change.

Planning Inspectorate (2019) *Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects (Version 2)*. [online]. Available at: <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/12/Advice-note-17V4.pdf> [Accessed 30 June 2021].

Planning Inspectorate. (2020). *Scoping Opinion: Proposed Rampion 2 Offshore Wind Farm. Case Reference EN010117*, [online]. Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010117/EN010117-000045-EN010117_Scoping Opinion.pdf [Accessed 30 June 2021].

Rampion Extension Development Limited (RED), (2020). *Rampion 2 Offshore Wind Farm – Environmental Impact Assessment Scoping Report*, [online]. Available at: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010117/EN010117-000006-EN010117%20-%20Scoping%20Report.pdf> [Accessed 30 June 2021]

Scottish Natural Heritage (2012). *Assessing the Cumulative Impact of Onshore Wind Energy Developments*.

Scottish Natural Heritage (SNH) (2017) - *Visual Representation of Wind Farms*, Guidance (Version 2.2).

South Downs National Park Authority (2011) *South Downs National Park Special Qualities*.

South Downs National Park Authority (2015) *Roads in the South Downs*.

South Downs National Park Authority (2015) *South Downs Viewshed Study Report*

South Downs National Park Authority (2019) *South Downs Local Plan* [online]. Available at: <https://www.southdowns.gov.uk/planning-policy/south-downs-local-plan/> [Accessed 15 April 2021]

South Downs National Park Authority (2020) *South Downs National Park Landscape Character Assessment* [online]. Available at: <https://www.southdowns.gov.uk/landscape-design-conservation/south-downs-landscape-character-assessment/south-downs-landscape-character-assessment-2020/> [Accessed 30 June 2021]

Sustrans, (2019). *National Cycle Network* [online]. Available at: <https://www.sustrans.org.uk/national-cycle-network/> [Accessed 30 June 2021].

The High Weald AONB (2019) *Management Plan 2019-2024*.

The Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

UK Government (2011) *UK Marine Policy Statement*.

Visit England, (2020), *Explore South East England Attractions* [online]. Available at: <https://www.visitengland.com/destinations/south-east-england>. [Accessed 30 June 2021]

West Sussex County Council (2003) *Landscape Character Assessment of West Sussex* [online]. Available at: <https://www.westsussex.gov.uk/land-waste-and-housing/landscape-and-environment/landscape-character-assessment-of-west-sussex/> [Accessed 30 June 2021]

West Sussex County Council (2005) *A Strategy for the West Sussex Landscape*.

West Sussex County Council (2013) *Local distinctiveness study of West Sussex* [online]. Available at: <https://www.westsussex.gov.uk/land-waste-and-housing/landscape-and-environment/local-distinctiveness-study-of-west-sussex/> [Accessed 30 June 2021]

West Sussex County Council, (2020). *Public Rights of Way iMAP* [online]. Available at: <https://www.westsussex.gov.uk/land-waste-and-housing/public-paths-and-the-countryside/public-rights-of-way/public-rights-of-way-imap/>. [Accessed 30 June 2021]

West Sussex County Council, East Sussex County Council, Brighton & Hove Unitary Authority and English Heritage. (2010) *Sussex Historic Landscape Classification* [online].

Available at: https://www.westsussex.gov.uk/media/1773/sussex_hlc_volume_1.pdf
[Accessed 30 June 2021]

Woodland Trust, (2020), *Visiting Woods* [online]. Available at:
<https://www.woodlandtrust.org.uk/visiting-woods/find-woods/> [Accessed 30 June 2021]

