



AQUIND Limited

PEIR CHAPTER 15

Landscape and Visual Amenity

CONTENTS

| | | |
|-----------|--|--------------|
| 15 | LANDSCAPE AND VISUAL AMENITY | 1 |
| <hr/> | | |
| 15.1 | SCOPE OF THE ASSESSMENT | 15-1 |
| 15.2 | LEGISLATION, POLICY AND GUIDANCE | 15-4 |
| 15.3 | SCOPING OPINION AND CONSULTATION | 15-10 |
| 15.4 | ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA | 15-19 |
| 15.5 | BASELINE ENVIRONMENT | 15-28 |
| 15.6 | PREDICTED IMPACTS | 15-44 |
| 15.7 | PROPOSED MITIGATION | 15-55 |
| 15.8 | SUMMARY AND CONCLUSIONS | 15-59 |
| 15.9 | ASSESSMENTS AND SURVEYS STILL TO BE UNDERTAKEN | 15-62 |
| | REFERENCES | 15-63 |
| <hr/> | | |

TABLES

| | |
|---|-------|
| Table 15.1 – Scoping Opinion Response | 15-11 |
| Table 15.2 - LVIA Selected Viewpoints at Consultation Stage | 15-21 |
| Table 15.3 - LVIA Local Views at Consultation Stage | 15-26 |
| Table 15.4 - Matrix for Determining Significance of Effect | 15-27 |
| Table 15.5 - Landscape Character of the Surrounding Area (within 3km) | 15-32 |
| Table 15.6 - Tree Planting Heights | 15-57 |

FIGURES

| |
|--|
| Figure 15.1 LVIA Study Area |
| Figure 15.2 LVIA Detailed Study Area |
| Figure 15.3 National Landscape Character Areas |

Figure 15.4 Local Landscape Character Areas
Figure 15.5 Topography
Figure 15.6 Landscape Planning Designations
Figure 15.7 Recreational and Transport Routes
Figure 15.8 Residential Properties, Settlements and PRow
Figure 15.9 Landscape Mitigation Plan
Figure 15.10 ZTV - 8km Bare Earth Scenario
Figure 15.11 ZTV - 8km Baseline at 10 years
Figure 15.12 ZTV - 8km Baseline at 20 years
Figure 15.13 ZTV - 3km Baseline
Figure 15.14 ZTV - 3km Baseline at 10 years
Figure 15.15 ZTV - 3km Baseline at 20 years
Figure 15.16 Viewpoint Location Plan
Figures 15.17 – 15.39 Wirelines and Photomontages

APPENDICES

Appendix 15.1 Detailed Methodology

Appendix 15.2 Summary of the Consultation undertaken for the LVIA to date

15 LANDSCAPE AND VISUAL AMENITY

15.1 SCOPE OF THE ASSESSMENT

15.1.1 INTRODUCTION

15.1.1.1 This PEIR chapter provides the preliminary findings of the Landscape and Visual Impact Assessment ('LVIA') for the Proposed Development.

15.1.1.2 The assessment of potential landscape and visual amenity effects is on-going, as is the development of mitigation design proposals and landscape enhancement measures. As such, any potential landscape effects and effects on visual amenity are identified within this chapter are subject to change. The final design of the Proposed Development and the landscape and visual amenity impacts associated with it will be assessed and reported on in the ES.

15.1.1.3 A draft landscape mitigation plan is appended to this Chapter.

15.1.1.4 The Proposed Development that forms the basis of this assessment is described in Chapter 3 - Description of the Proposed Development. The location of the proposed Converter Station which is considered within this LVIA is shown in Figure 3.10. This is the current indicative location of the Converter Station. In this case, the indicative Converter Station location would be located in the north-west corner of the Site Boundary, on land to the west of Lovedean Substation and north of Stoneacre Copse. The location of the Converter Station within the Site Boundary may be subject to change when the outcome of further investigations and assessments (including landscape) are available. The final proposed location of the Converter Station will be assessed as part of the EIA.

15.1.1.5 FOC infrastructure is anticipated to be located adjacent to the Converter Station (up to two Telecommunications buildings) and within approximately 1 km of Landfall (up to two Optical Regenerations Stations), and other associated equipment for auxiliary power supply, and security fencing, as described in Chapter 3. However, as the locations are not yet confirmed, the assessment of these elements of the Proposed Development will be considered in the ES when further details are available.

15.1.2 STUDY AREA

15.1.2.1 A ZTV is a tool used to assist the design and assessment process. For the Converter Station, Figures 15.10 – 15.15 present the ZTV as bare earth scenarios (i.e. without vegetation or structures), and with 10 and 20 years growth screening scenarios illustrated at an 8 km and 3 km radius from the indicative Converter Station location. The generation of the ZTV illustrates the predicted visibility of the indicative location of the proposed Converter Station from the surrounding area, and in turn, informed the establishment of the 8 km radius study area, and the 3 km radius detailed study area.

Zone of Theoretical Visibility and Viewpoint Analysis

- 15.1.2.2 The ZTV maps (located at Figures 15.10 – 15.15) illustrate the areas from where it may be theoretically possible to view all or some of the Converter Station. It should be noted that ZTV illustrations do not take account of all the potential screening effects of buildings, localised landform variations, and vegetation which may also impair visibility. As a result, there may be roads, tracks, and footpaths in the wider setting which, although shown as falling within the ZTV, are heavily screened or filtered by banks, walls, and vegetation which restrict viewing opportunities. The ZTVs therefore provide a starting point in the assessment process and accordingly tend towards giving a ‘maximum visual impression’ or over-estimate of the potential visibility of the Converter Station, ensuring a robust assessment of the landscape and visual impacts.
- 15.1.2.3 The ZTV shows the pattern of the predicted zone of theoretical visibility. In general terms, theoretical visibility is focused on the lowland and coastal areas to the south and west of the indicative Converter Station location, and extends into the peripheral ridge of the southern edge of the South Downs National Park, near Hambledon, where there are slopes facing towards the coast and Portsdown.
- 15.1.2.4 The generation of the ZTV figures have assisted in the confirmation of the required study area and scope of the LVIA for the Proposed Development.
- 3 km Radius ZTV**
- 15.1.2.5 The ZTVs in Figures 15.13 to 15.15 have been created using 1 m USM LiDAR digital terrain data and based on the indicative Converter Station location. Theoretical visibility of the proposed Converter Station within the 3 km radius detailed study area has been prepared to illustrate a bare earth scenario and further analysis of the ZTV illustrating the screening at 10 and 20 years growth will be provided based on the final mitigation design, and detailed site assessment work.
- 15.1.2.6 The 1 m USM LiDAR digital terrain data includes the data for above ground features, including woodland blocks and buildings, and the screening they provide.
- 8 km Radius ZTV**
- 15.1.2.7 The ZTVs in Figures 15.10 to 15.12 have been created using OS Terrain 5 digital terrain data and based on the indicative Converter Station location. This a ‘bare earth’ mapping source, and does not account for the screening of woodland blocks or buildings within the 8 km radius defined for the ZTV.
- 15.1.2.8 The Converter Station, based on its indicative location would be theoretically visible from thirty six percent of the study area, whilst it being anticipated that the Converter Station would not be visible in the remaining 64%, based on the bare earth scenario of the OS terrain data.

15.1.2.9 In reality, changing weather patterns and local climatic conditions, would influence the visibility of the Converter Station in terms of the extent of view, the colour and contrast of the proposed Converter Station building against the skyline, and thus the perceived visual impact. There would be periods of low visibility (i.e. fog, low cloud, and bright sunny conditions that are accompanied by haze) as well as periods of high visibility in clear weather.

15.1.2.10 In some instances, and from some locations, the proposed building may be naturally 'back-lit' (i.e. appearing darker in colour during sunset/sunrise and periods of pale or white blanket cloud) and in other circumstances may appear to be naturally 'up-lit' (i.e. during stormy periods that combine dark clouds and bright sunshine). As a result, careful consideration on the colour and type of render of the proposed Converter Station building's external facade, and roof type, will assist in the reduction of such contrast in different climatic conditions.

15.1.2.11 The site assessment work undertaken by the landscape architects to date has been carried out in clear and dry weather conditions during the summer and autumn months, in order to ensure visibility across the study area for medium and long distance views. Winter viewpoint photography was only conducted on clear, sunny days, and not early morning/late afternoon to avoid poor light conditions.

Section 1 – Lovedean (Converter Station Area)

15.1.2.12 Following a site assessment, and the production of ZTVs, during the initial consultations with the local planning authorities it was agreed with Winchester City Council, East Hampshire District Council and Havant Borough Council LPAs and SDNP, that an 8 km radius study area for the LVIA (Figure 15.1) would be suitable to inform the initial baseline review, including the identification of district/country level landscape character assessments and long-distance views for potential landscape and visual impacts of the Converter Station Area. A 3 km radius detailed study area has also been assessed, which focuses on local landscape character and views from the nearest visual receptors around the indicative Converter Station location (Figure 15.2). A 1 km radius study area has been selected for the assessment of views from the nearest residential properties (Figure 15.8).

Sections 2 to 9 Oshore Cable Corridor and Section 10 Eastney (Landfall)

15.1.2.13 For the Onshore Cable Corridor and Landfall area, the LVIA study area is considered within a working width of 20 m with a 100 m buffer either side. A 300 m radius LVIA study area has been considered around the proposed Landfall area. As the final alignment and design for the Onshore Cable Route has yet to be determined, the final study area for this element will be agreed as part of the ES LVIA and assessed accordingly.

15.2 LEGISLATION, POLICY AND GUIDANCE

15.2.1.1 This assessment has taken into account the current legislation, policy and guidance relevant to the LVIA. The applicable legislative and policy framework is listed and summarised in the following section.

15.2.2 LEGISLATION

Countryside and Rights of Way Act 2000

15.2.2.1 The Countryside and Rights of Way Act 2000 ('CRoW') provides a statutory framework for protected landscapes and introduced an additional right of access requiring the identification of "open access land".

European Landscape Convention

15.2.2.2 The European Landscape Convention ('ELC') which was ratified in the UK on the 21 November 2006 became binding on 1 March 2007 and provides a basis for closer co-operation on landscape issues across Europe. The Convention highlights the need to recognise landscape in law, to develop landscape policies dedicated to the protection, management and creation of landscapes, and to establish procedures for the participation of the general public and other stakeholders in the creation and implementation of landscape policies. It also encourages the integration of landscape into all relevant areas of policy, including cultural, economic and social policies.

15.2.2.3 The ELC defines landscapes as: "An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors."

15.2.2.4 The ELC applies to natural, rural, urban and peri-urban areas including land, inland water and marine areas. Its purpose is to promote landscape protection, management and planning in relation to all landscapes regardless of whether their quality and condition is considered outstanding, ordinary or degraded. The UK is recognised as already putting many of the principles of the ELC into practice. The importance of landscapes in contributing to local identity and in reflecting local cultural influences and ecological diversity is shown through the use of Landscape Character Assessments and Natural England's National Character Areas project.

15.2.3 PLANNING POLICY

National Policy

National Policy Statement

15.2.3.1 The Overarching National Planning Policy Statement for Energy ('EN-1') Department for Energy and Climate Change (DECC, 2011) includes a number of statements of relevance to the landscape including green infrastructure ('GI') and visual impacts of energy infrastructure in general.

15.2.3.2 Section 5.9 of EN-1 sets out the requirements for assessing and mitigating landscape and visual impacts of proposed NSIPs.

- 15.2.3.3 Paragraph 5.9.5 provides *"The landscape and visual assessment should include references to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project"*.
- 15.2.3.4 Paragraph 5.9.6 provides that the *"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"*.
- 15.2.3.5 Further, paragraph 5.9.7 provides *"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. This should include light pollution effects, including on local amenity, and nature conservation"*.
- 15.2.3.6 Paragraph 5.9.8 importantly recognises that *"Virtually all nationally significant infrastructure projects will have effects on the landscape."* In light of this fact, the paragraph goes on to provide *"Projects need to be designed carefully, taking into account the potential 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"*.
- 15.2.3.7 The NPS recognises at paragraph 5.9.9 that *"National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty"* and that *"the conservation of the natural beauty of the landscape and countryside should be given substantial weight by the IPC [Secretary of State] in deciding applications for development consent in these areas"*.
- 15.2.3.8 With regard to development outside of nationally designated areas, which the Proposed Development is, the NPS) confirms, at paragraph 5.9,12, the duty to have regard to nationally designated areas also applies and that *"the aim should be to avoid compromising the purposes of the designation and such projects should be designed sensitively given the various siting, operational and other relevant constraints"*.
- 15.2.3.9 In addition, consideration should be given to the impact on nationally designated areas where proposals lie outside the boundaries of protected landscapes as well as highly valued landscapes which are protected by a local designation.
- 15.2.3.10 Paragraphs 5.9.15, which relate to developments outside of nationally designated areas, provides that *"The scale of such projects means that they will often be visible within many miles of the site of the proposed infrastructure. The IPC [now the Secretary of State] should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project."*

- 15.2.3.11 Further, paragraph 5.9.16 provides that *“In reaching a judgement, the IPC [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 [Secretary of State] considers reasonable.”*
- 15.2.3.12 Further to the acknowledgement at paragraph 5.9.8 explained above, paragraph 5.9.18 provides *“All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The IPC [Secretary of State] will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project.”*
- 15.2.3.13 In respect of the mitigation of landscape and visual amenity impacts, paragraph 5.9.21 provides *“reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing scale or otherwise amending design of a proposed energy infrastructure project may result in significant operational constraint and reduction in function”.*
- 15.2.3.14 Further in this regard paragraph 5.9.22 of EN-1 adds: *“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.”*
- 15.2.3.15 Lastly, paragraph 5.9.23 provides that *“Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site. For example, filling in gaps in existing tree and hedge lines would mitigate the impact when viewed from a more distant vista.”*
- 15.2.3.16 The above provides a reasonably detailed overview of the relevant policies within EN-1 regarding the consideration of the landscape and visual impacts of a nationally significant energy infrastructure project, however as this is the principal policy document on which the landscape and visual impacts of the Proposed Development will be considered those relevant policies have been taken into account when considering its impacts.

National Planning Policy Framework

- 15.2.3.17 Whilst it does not contain specific policies for nationally significant infrastructure projects, the NPPF (Ministry of Housing, Communities and Local Government (‘MHCLG’), July 2018) may be considered to contain matters that are relevant to the determination of NSIP's. It is therefore appropriate to consider relevant policies therein contained to the assessment of the landscape and visual impacts of the Proposed Development.
- 15.2.3.18 Within Section 12 of the NPPF (MHCLG, 2018) *“Achieving well-designed places”* the Government sets out a number of overriding core planning principles for achieving well designed places. Of relevance to the consideration of impacts on the landscape

and how LPA's are engaged with during the design process, paragraph 128 provides, *“Design quality should be considered throughout the evolution and assessment of individual proposals. Early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interests. Applicants should work closely with those affected by their proposals to evolve designs that take account of the views of the community. Applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot.”*

15.2.3.19 Paragraph 170, contained within Chapter 15 *“Conserving and enhancing the natural environment”* sets out how planning policies and decisions should contribute to and enhance the natural and local environment. Of relevance to the consideration of landscape and visual amenity impacts, this includes by:

- a) *protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality); and*
- b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.*

15.2.3.20 Of further relevance to the consideration of landscape and visual impacts, paragraph 172 provides that: *“Great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty.”*

Local Policy

15.2.3.21 The LVIA study area spans four LPA areas: PCC, HBC, WCC, and EHDC.

Portsmouth City Council

- Local policies which are relevant to the assessment of potential landscape and visual effects within PCC’s ‘The Portsmouth Local Plan’ (2012) include:
 - PCS9 The Seafront; and
 - PC134 A Greener Portsmouth.
- In addition, Supplementary Planning Documents (‘SPD’) of relevance include Eastney Beach Habitat Restoration and Management Plan, SPD (2014) and Seafront Masterplan, SPD (2013).

Hampshire County Council

- The Proposed Development falls within HCC administrative area. The preliminary LVIA and draft landscape mitigation plan make reference to the

Hampshire Integrated Character Assessment (2010), which includes a landscape, townscape and seascape assessment for Hampshire, and also identifies ‘forces for change’ and information on bio diversity and landscape and society of the Hampshire landscape.

Havant Borough Council

- Local policies which are relevant to the assessment of potential landscape and visual effects within HBC’s Local Plan (Core Strategy) (2011) include:
 - ┆ Policy CS13 Green Infrastructure;
 - ┆ Policy CS16 High Quality Design; and
 - ┆ Policy CS21 Developer Requirements.
- Local policies which are relevant to the assessment of potential landscape and visual effects within HBC’s Local Plan (Allocations) (2014) include:
 - ┆ Policy AL2 Urban Area Boundaries & Undeveloped Gaps between Settlements; and
 - ┆ Policy AL8 Local Green Spaces.

Winchester City Council

- Local policies which are relevant to the assessment of potential landscape and visual effects within WCC’s Joint Core Strategy (2013) include:
 - ┆ Policy MTRA4 Development in the Countryside;
 - ┆ Policy CP13 High Quality Design;
 - ┆ Policy CP15 Green Infrastructure;
 - ┆ Policy CP16 Biodiversity;
 - ┆ Policy CP19 South Down National Park – Heritage and Landscape Character;
 - ┆ Policy CP20 Heritage and Landscape Character; and
 - ┆ Policy DM15 Local Distinctiveness.
- Local policies which are relevant to the assessment of potential landscape and visual effects within WCC’s Local Plan Part 2 Development Management (2017) include:
 - ┆ Policy DM15 Local Distinctiveness;
 - ┆ Policy DM17 Site Development Principles;
 - ┆ Policy DM23 Rural Character;
 - ┆ Policy DM 24 Special Trees, Important Hedgerows and Ancient Woodlands; and
 - ┆ Policy DM25 Historic Parks and Gardens.
- Local policies which are relevant to the assessment of potential landscape and visual effects within WCC’s Local Plan (Saved Policies) (2006) include:

- ┆ Policy DP4 Landscape and the Built Environment;
- ┆ Policy DP11 Un-neighbourly Uses;
- ┆ Policy DP14 Public Utilities; and
- ┆ Policy HE4 Conservation Areas – Landscape Setting.

East Hampshire District Council

- Local policies which are relevant to the assessment of potential landscape and visual effects within EHDC’s Local Plan (Part 1) Joint Core Strategy (2014) include:
 - ┆ Policy CP19 Development in the Countryside;
 - ┆ Policy CP20 Landscape;
 - ┆ Policy CP21 Biodiversity;
 - ┆ Policy CP28 Green Infrastructure; and
 - ┆ Policy CP29 Design.
- Local policies which are relevant to the assessment of potential landscape and visual effects within EHDC’s The Local Plan: Second Review (2006) Saved Policies include:
 - ┆ Policy C6 Tree Preservation, Forestry Operations and Management Plans; and
 - ┆ Policy UI1 New Utility Infrastructure in the Countryside.

South Downs National Park Authority

- Whilst the Proposed Development is not situated within the SDNP, it lies very close to the National Park boundary. As a neighbouring authority, and consultee, we have identified the following policies within the SDNP Local Plan (Draft April 2018) which are relevant to the assessment of potential landscape and visual effects:
 - ┆ Strategic Policy SD4 Landscape Character;
 - ┆ Strategic Policy SD5 Design;
 - ┆ Strategic Policy SD6 Safeguarding Views;
 - ┆ Strategic Policy SD7 Relative Tranquillity; and
 - ┆ Strategic Policy SD8 Dark Night Skies.
- Guidance within the South Downs National Park Management Plan 2014-2019 has also been reviewed.

15.2.4 GUIDANCE

- 15.2.4.1 The following guidance documents have been used during the preparation of this chapter:

- The Guidelines for Landscape and Visual Assessment” (‘GLVIA3’) published by the Landscape Institute (‘LI’) and the Institute of Environmental Management and Assessment (‘IEMA’), 3rd Edition (2013);
- An Approach to Landscape Character Assessment”, Natural England (2014);
- Photography and photomontage in landscape and visual impact assessment Landscape Institute Advice Note 01/11 (March 2011); and
- Photography and Photomontage in Landscape and Visual Impact Assessment - Technical Guidance Note, Public Consultation, Draft 2018-06-01.

15.2.4.2 Further reference during this PEIR LVIA will also made to the following documents:

- the SDNP’s recent studies on Viewshed Characterisation and Tranquillity (LUC on behalf of the South Downs National Park Authority, 2015);
- the SDNP’s designation as a Dark Night Skies Reserve; and
- the South Downs Integrated Landscape Character Assessment 201 (LUC on behalf of the South Downs National Park Authority , 2005).

15.3 SCOPING OPINION AND CONSULTATION

15.3.1 SCOPING OPINION

15.3.1.1 As detailed within Chapter 1 Introduction, a Scoping Opinion was received by the Applicant on 07 December 2018 from PINS (on behalf of the Secretary of State) on LVIA, including formal responses from statutory consultees. The responses from PINS in relation to LVIA, and how those requirements should be addressed by the Applicant, are set out in Table 15.1.

15.3.1.2 Appendix 5.3 provides a complete set of responses in the PEIR to the contents of the Scoping Opinion.

Table 15.1 – Scoping Opinion Response

| Scoping Opinion Ref | Topic | Summary of Comment Received | How this has been addressed by the Applicant |
|----------------------------|--|--|---|
| 4.10 | Landscape and seascape visual effects. | The Inspectorate agrees that given the nature of the Proposed Development, landscape and seascape visual effects can be scoped out of the ES. | Noted |
| 14.3.1 | Converter Station - Effects on visual receptors beyond 3 km of the Converter Station boundary. | The Scoping Report proposes to scope out this matter on the basis that changes will be limited due to the presence of built form and intervening vegetation. However, the Scoping Report does not contain sufficient evidence to support this conclusion and as such the Inspectorate cannot agree to scope this matter out. The Inspectorate notes that an initial ZTV has been prepared and discussed with local authorities, and also that viewpoints beyond 3km have been included. No visual information has been provided with the Scoping Report and therefore supporting evidence with regards to visibility and | <p>Based on discussions with LPAs and SDNP the extent of the study area was revised to an 8 km radius. Three specific long distance viewpoints which fall between 3 and 8km were identified and agreed with LPAs/SDNP.</p> <p>Consideration will be given to the likely effects on associated visual receptors beyond 3 km but within the 8 km study area, however it is considered that the effects will be limited due to intervening vegetation and built form as well as the surrounding topography which will be illustrated on the 3 and 8 km ZTVs.</p> |

| Scoping Opinion Ref | Topic | Summary of Comment Received | How this has been addressed by the Applicant |
|---------------------|--|---|--|
| | | screening is not apparent. The Inspectorate considers that effects on visual receptors beyond 3km of the site boundary of the Converter Station should therefore be included in the ES, where likely significant effects could occur. | |
| 4.13.2 | Onshore Cable Route and landfall – Effects on landscape and seascape character and features associated with the landfall during construction , operation and | The Scoping Report proposed to scope out this matter on the basis that effects would be temporary/short term and the scale of works minimal, resulting in an underground structure to house the transition bay, and that the land would be reinstated. The Scoping Report does not contain sufficient detail regarding the spatial and temporal nature of the proposed works associated with the landfall site, or the likely scale and significance of the acknowledged temporary effects, for the Inspectorate to agree that this matter can be scoped out of the ES. The Inspectorate notes the character area | <p>Table 18.1 in the scoping report states that whilst temporary landscape and visual effects would be generated associated with the Landfall TJB these will be short term and the scale of construction works will be minimal. Works will result in a below ground structure which will house TJB and land reinstated following construction.</p> <p>The preferred location of the Optical Regeneration Building is detailed in paragraph 7.2.4 of the scoping report, and is within an existing car park to the north of Eastney Beach. Paragraph 7.3.29 of the scoping report states that four TJBs will be required along the Onshore Cable Route.</p> |

| Scoping Opinion Ref | Topic | Summary of Comment Received | How this has been addressed by the Applicant |
|---------------------|---|--|---|
| | decommissioning | information including heritage assets within close proximity to the landfall site, as described in the Scoping Report. The ES should include an assessment of landscape and seascape character effects, including heritage assets, arising from the proposed landfall works, where likely significant effects could occur. | The only above ground structures proposed along the Onshore Cable Route are three small kiosks/Off Link Boxes. Once the location of these boxes is known, any potential landscape and visual effects will be considered in the ES LVIA. |
| 4.13.3 | Onshore Cable Route - Effects on visual receptors within 100 m buffer on either side of the cable route up to 2km of the proposed | The Scoping Report does not provide a clear justification as to why this matter should be scoped out of the ES and the Inspectorate cannot agree to scope this issue out. | Noted and agreed. This appears to be an error in the formatting and is inconsistent with the explanation in Table 18.1 which states that there will be changes to the visual amenity of visual receptors due to land take and loss of vegetation. Such effects will be temporary, short term and significant during construction but not during operation and decommissioning. |

| Scoping Opinion Ref | Topic | Summary of Comment Received | How this has been addressed by the Applicant |
|---------------------|-----------------------|--|---|
| | Converter Station | | <p>Paragraph 25.2.22 states that “Visual effects associated with the laying of the cable and the TJB will be temporary and experienced by a variety of users including recreational users utilising public open space, PRoWs and public footpaths, local residents and road users including cycles and horse riders. The land will be reinstated following the installation of the cables and thus returned to its previous use. There will be no permanent visible sign of the works, save for manhole covers every approx. 6km along the Onshore Cable Route at a link box location, or a small cabinet above ground providing a link pillar.” Once the details of the location of each TJB is known, then this will be included within the ES LVIA and mitigation proposals.</p> |
| 4.13.4 | Figures and receptors | The information included within the Scoping Report lacks detailed figures applicable to inform the scope of the assessment e.g. location of visual | <p>Noted.</p> <p>The PEIR and ES will include a clear set of figures which includes the location of receptors within a 1 km/3km and 8 km</p> |

| Scoping Opinion Ref | Topic | Summary of Comment Received | How this has been addressed by the Applicant |
|----------------------|-------------------|---|--|
| | | <p>receptors. The ES must include clear figures of an appropriate scale and size to present the landscape and visual effect receptors considered in the impact assessment.</p> | <p>radius of the Proposed Development. This includes recreational and transport routes throughout a 3 and 8 km radius and ZTVs based on a 3 and 8 km radius as well as other baseline figures, a landscape mitigation plan, viewpoints, wirelines and photomontages.</p> |
| <p>4.13.5</p> | <p>Study Area</p> | <p>The Scoping Report does not clearly identify and justify the proposed study areas referenced in this aspect chapter. The ES should clearly define the study area for the matters considered in this aspect chapter. The Inspectorate advises that the study area should be based on the extent of potential impacts, and that the ZTV will be essential in selecting viewpoints. The Applicant should make effort to agree the viewpoints should be agreed with relevant consultation bodies e.g. local authorities.</p> | <p>Paragraph 25.5.1 outlines the extent of the study area. It states that “it was agreed amongst LPAs and SDNP that an 8km Study Area would be defined to inform the initial baseline review, identification of district/county level assessments and more long-distance views. This would then be narrowed to a 3km inner study area which would focus on local landscape character and views” (paragraph 25.5.1). The following paragraph goes on to state that “for the DC Cable Route, the study area has been assumed to be a working width of 20 m width a 100 m buffer along either side of the working widths” (paragraph 25.5.2).</p> |

| Scoping Opinion Ref | Topic | Summary of Comment Received | How this has been addressed by the Applicant |
|---------------------|--|---|--|
| | | <p>The ES should explain how consultation with the relevant local authorities has informed the decisions taken with regards to the assessment. The ES should also document agreements reached with the local authorities with regards to the assessment methodology and justify the approach taken, should the chosen approach differ.</p> | <p>Consultations with LPAs/SDNP on viewpoints, photomontages and wirelines have taken place and agreement reached. This will be documented in both the PEIR and the ES. Furthermore, consultations have also taken place regarding the proposed mitigation, the nature of the design and the proposed methodology to inform the preparation of the PEIR.</p> |
| 4.13.6 | Relationship with Heritage and Archaeology and Ecology | <p>The Inspectorate notes and welcomes the intention to assess effects on the settings of built assets including conservation areas and listed buildings, together with loss of features such as ancient woodland, hedgerows and trees. The ES should not duplicate assessments in aspect chapters; however, the ES should ensure appropriate cross referencing</p> | Noted and agreed. |

| Scoping Opinion Ref | Topic | Summary of Comment Received | How this has been addressed by the Applicant |
|---------------------|-------|--|--|
| | | is provided between these aspect chapters. | |

15.3.2 CONSULTATION

- 15.3.2.1 Consultation is a key part of the DCO application process.
- 15.3.2.2 Consultation will continue to be undertaken once this PEIR has been made available.
- 15.3.2.3 Pre-application consultations have taken place with technical specialists in LPAs to agree the scope of the LVIA: the extent of the study area, representative viewpoints, necessity for winter views, verified photomontages and wirelines and to obtain datasets. Discussions have included WCC, EHDC/HBC, and have also included the SDNP due to the proximity of the Proposed Development to the SDNP boundary.
- 15.3.2.4 In addition, further advice will be sought from NE and PCC during the ES LVIA process.
- 15.3.2.5 The first round of consultation sought comments on the study area and preliminary viewpoints. Following site visits a further round of consultation took place over the representative viewpoints, the necessity for winter views and field verified visualisations i.e. photomontages.
- 15.3.2.6 A summary of the consultation undertaken for the LVIA to date is detailed in Appendix 15.2.

15.3.3 INSIGNIFICANT EFFECTS

- 15.3.3.1 Following a review of the ZTVs (Section 15.1.2) and initial site assessment work, the following effects have been considered insignificant and have therefore not been considered within the PEIR:
- A study of the ZTV shows reduced visibility of the proposed Converter Station in its indicative location beyond a 3 km radius, arising due to the local topography of the South Downs National Park and the built/urban environment to the south and east, which screen medium to long distance views. Therefore, potential inter-visibility of the proposed Converter Station from those landscape character areas, and the surrounding landscape is restricted. Landscape effects beyond the detailed study area of 3 km radius from the proposed Converter Station are not anticipated to be significant;
 - As above, the ZTV indicates restricted visibility from a number of areas within the 8 km study area, and landscape and visual effects from those areas out with the ZTV would either not be available, or are predicted not to be significant;
 - Whilst there may be long distance views from elevated locations within the SDNP, visual effects beyond the agreed study area of 8 km radius from the indicative Converter Station location are not expected to be significant (Viewpoint 14, Figure 15.30);
 - Given the temporary nature of the Onshore Cable Route installation, and the very limited above ground features proposed, permanent significant effects on

landscape visual receptors beyond the 100 m buffer either side of the Onshore Cable Route are not expected; and

- Given the small scale of the proposed Landfall development, with limited above ground features, potential significant effects on the townscape and visual receptors beyond the 300 m buffer of the landfall area are not anticipated and the preliminary LVIA will focus on those effects within 300 m of the Landfall area.

15.4 ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA

15.4.1.1 The assessment methodology used in this PEIR is based on the GLVIA3. Please refer to the LVIA Methodology set out in Appendix 15.1 and summary below.

15.4.2 METHODOLOGY

Overview

15.4.2.1 The approach outlined below has been followed when undertaking the preliminary assessment of the landscape and visual amenity effects of the Proposed Development presented in this PEIR chapter.

15.4.2.2 The objective of the preliminary LVIA has been to identify the likely significant landscape and visual impacts of the Proposed Development on existing and future receptors.

15.4.2.3 Landscape effects are defined by the Landscape Institute as “*Effects on the landscape as a resource in its own right. These effects can be positive or negative*” (Landscape Institute and the Institute of Environmental Management and Assessment , 2013).

15.4.2.4 Development may have a direct (physical) effect on the landscape in which it is located as well as an indirect or perceived effect from landscape character areas surrounding it. The potential landscape effects, occurring during the construction, operational stages and decommissioning, may therefore include, but are not restricted to, the following:

- Changes to landscape elements: the addition of new elements or the removal of trees, vegetation, and buildings and other characteristic elements of the landscape character type;
- Changes to landscape qualities: degradation, erosion, or reinforcement of landscape elements and patterns, and perceptual characteristics, particularly those that form key characteristic elements of landscape character types;
- Changes to landscape character: landscape character may be affected through the effect on characteristic elements (including perceptual characteristics), landscape patterns and attributes and the cumulative addition of new features, the magnitude and presence of which is sufficient to alter a notable part of the overall landscape character type of a particular area; and

- Cumulative landscape effects: where more than one development may lead to a potential landscape effect.

15.4.2.5

Visual effects are concerned wholly with the effect of development on visual receptors and general visual amenity. Visual effects are identified for different receptors (people) who would experience the view such as at their places of residence, during recreational activities, at work, or when travelling through the area. Visual effects may include the following:

- Visual effect: change in the appearance of the landscape as a result of development. This may include changes to the quality of the view, ability of the visual receptor to appreciate the view, or changes to the characteristic elements within the view. These changes can be positive (i.e. beneficial or an improvement) or negative (i.e. adverse or a detraction); and
- Cumulative visual effects: the cumulative or incremental visibility of similar types of development may combine to have a cumulative visual effect.

Desk Studies

15.4.2.6

Information on the existing ('baseline') landscape resource within the study area has been collected through desk-based study incorporating reference to Local Plans, Ordnance Survey ('OS') maps, ZTV mapping, and 3D models of the illustrative location for the proposed Converter Station and ancillary development, websites and relevant literature published by local planning authorities and parish councils.

Site Visits (Surveys)

15.4.2.7

An initial field survey was undertaken by a suitably qualified chartered landscape architect in September 2017, followed by subsequent site visits in March 2018, May 2018 and October 2018.

15.4.2.8

The early site visits were conducted to verify the extent of the study area, assess local landscape character and the nearest visual receptors to help inform early analysis and the site selection process.

15.4.2.9

Further site visits were conducted to capture baseline photography for the LVIA, and a site visit with the local planning authority officers to confirm the Local Views to be included within the LVIA.

15.4.2.10

Later site assessment work looked at the proposed site area to inform the landscape mitigation strategy. These visits included a detailed look at the SDNP landscape character within 3 km detailed study area and identification of the nearest residential properties. The proposed Onshore Cable Route options within the Onshore Cable Corridor, and Landfall area, were also reviewed. This considered the landscape and townscape character along the Onshore Cable Route, and the options for the route presented at the time.

Viewpoints

- 15.4.2.11 Many of the key issues identified during the consultation and scoping phases were considered through viewpoint analysis in the field.
- 15.4.2.12 Viewpoints were selected by analysis of the ZTVs and through consultation with the landscape representatives of the LPAs and SDNP (Figure 15.16). Following methodology established in GLVIA3, the viewpoints were chosen based on the following criteria:
- Viewpoints should be representative of the likely impacts;
 - Viewpoints should show a range of different types of views;
 - Viewpoints should be representative of a range of different receptor groups;
 - Viewpoints should be representative of a range of distances and directions; and
 - Viewpoints should be representative of the varying image of the Proposed Development in the landscape.
- 15.4.2.13 The viewpoints were selected to illustrate the landscape/site context and views from local public rights of way ('PRoW') including regionally promoted routes, the SDNP, nearby residential properties/groups of properties, views from the local road network, and to represent the local landscape character. Two of the viewpoints are identified within the SDNP View Characterisation and Analysis Report (2015), and were selected to illustrate the view from elevated locations within the SDNP.
- 15.4.2.14 A summary of the illustrated viewpoints agreed through consultation is provided in Table 15.2 below. All viewpoints are located in the public realm, and focus on the indicative location of the proposed Converter Station. Site photography was undertaken during periods of fine weather and clear visibility. Refer to Figure 15.16 for Viewpoint Locations, and Figures 15.17 - 15.30 for the baseline landscape photographs presented with wireline images of the indicative location of the proposed Converter Station.

Table 15.2 - LVIA Selected Viewpoints at Consultation Stage

| Viewpoint Number | Viewpoint Name | Reason for Selection | Approximate Distance |
|-------------------------|-----------------------|--|-----------------------------|
| 1 | Hinton Manor PRoW | Viewpoint to illustrate site context and views from a local PRoW from within the SDNP. The viewpoint is representative of views available for local recreational receptors using the PRoW north east of the indicative Converter Station location, and potential rear views from residential property. Grid Ref: 468770, 115561 | 2.6 km |

| Viewpoint Number | Viewpoint Name | Reason for Selection | Approximate Distance |
|-------------------------|--|--|-----------------------------|
| 2 | PRoW leading to Windmill Hill | Viewpoint to illustrate site context and views from PRoW south of Windmill Hill, from within the SDNP, north east of the indicative Converter Station location. Identified within the SDNP View Characterisation and Analysis Report (2015). The viewpoint is representative of views available for local recreational receptors using the PRoW. Grid Ref: 471283, 115795 | 4.4 km |
| 3 | Junction of Broadway Lane and the Monarchs Way | Viewpoint to illustrate landscape/site context and views from the Monarch's Way regionally promoted route, at the junction of Broadway Lane, on the boundary of the SDNP, east of the indicative Converter Station location. The viewpoint is representative of views available for local recreational receptors using the PRoW. Grid Ref: 467885, 113906 | 0.85 km |
| 4 | Broadway Lane PRoW | Viewpoint to illustrate site context and views from PRoW. The viewpoint is representative of views available for local recreational receptors using the PRoW, south east of the indicative Converter Station location. Grid Ref: 467679, 112771 | 0.987 km |
| 5 | Edge of James's Copse | Viewpoint to illustrate the landscape/site context and views from byway west of James Copse, Lovedean. The viewpoint is representative of views available for local recreational receptors using the local byway, and potential views from the garden area of residential properties, east of the indicative Converter Station location. Grid Ref: 468215, 112353 | 1.6 km |

| Viewpoint Number | Viewpoint Name | Reason for Selection | Approximate Distance |
|-------------------------|---|--|-----------------------------|
| 6 | PRoW close to Cutlers Farm | Viewpoint to illustrate the landscape/site context and views from the local road network. The viewpoint is representative of views available for local recreational receptors using the PRoW, south of the indicative Converter Station location. Grid Ref: 466384, 109562 | 4 km |
| 7 | View from Fort Widley, Portsdown Hill | Viewpoint to illustrate the landscape context and views from the Pilgrim's Trail (regionally promoted route). The viewpoint is representative of views available for local recreational receptors using the PRoW. and visitors to the Fort south of the indicative Converter Station location. Grid Ref: 465349, 106546 | 7.2 km |
| 8 | From PRoW close to Anmore Dell | Viewpoint to illustrate the landscape/site context and views from the local PRoW network. The viewpoint is representative of views available for local users of the PRoW and potential rear views from nearby residential properties south of the indicative Converter Station location. Grid Ref: 467041, 111885 | 1.6 km |
| 9 | Little Denmead Farm (West), White Horse Lane | Viewpoint to illustrate the landscape/site context and views from the local road network, PRoW, and potential views from nearby residential properties and listed buildings south west of the indicative Converter Station location. Grid Ref:466260, 112787 | 1.1 km |
| 10 | Boundary of site, near Little Denmead Farm (East) | Viewpoint to illustrate the landscape/site context and views from the local PRoW network, and potential views from nearby | 635 m |

| Viewpoint Number | Viewpoint Name | Reason for Selection | Approximate Distance |
|------------------|--|---|----------------------|
| | | residential properties, south of the indicative Converter Station location. Grid Ref: 467040, 112967 | |
| 11 | View from PRoW off Old Mill Lane, Denmead Mill | Viewpoint to illustrate the landscape/site context and views from the Monarch's Way on the boundary of the SDNP, and proximity to residential properties, north of the indicative Converter Station location. Grid Ref: 467221, 114199 | 644 m |
| 12 | Monarch's Way | Viewpoint to illustrate the landscape/site context and view from the Monarch's Way north of the indicative Converter Station location, on the boundary of the SDNP. Grid Ref: 467478, 114228 | 760 m |
| 13 | Broad Halfpenny Down | Viewpoint to illustrate the landscape/site context and views from the SDNP. The viewpoint is representative of views available for local recreational receptors using the area, north of the indicative Converter Station location. Grid Ref: 467091, 115938 | 2.3 km |
| 14 | Old Winchester Hill | Viewpoint to illustrate the landscape/site context and views from the SDNP. Identified within the SDNP View Characterisation and Analysis Report (2015). The viewpoint is representative of views available for local recreational receptors using the PRoW and visitors to the Scheduled Monument, National Nature Reserve and bronze age burial mound, north west of the indicative Converter Station location. Grid Ref: 464080, 120555 | 7.6 km |

15.4.2.15

Distances shown represent the approximate distance from the viewpoint to the site boundary of the indicative Converter Station location.

- 15.4.2.16 The following three viewpoints were not accessible during the site photography visits, and as a result, photographs of these viewpoints to inform the baseline are yet to be taken:
- Catherington Downs SSSI: Viewpoint to illustrate site context and views from PRoW at Catherington Down SSSI, on the boundary of the SDNP. The viewpoint is representative of views available for local recreational receptors using the PRoW circa 2.2 km east of the indicative Converter Station location. Grid Ref: 469256, 114444;
 - Edge of the settlement of Denmead: Viewpoint to illustrate the landscape context and views circa 1.7 km from the edge of the settlement of Denmead, south west of the indicative Converter Station location. Grid Ref: 466279, 111896; and
 - Monarch's Way and Horsepost Lane Bridlepath: Viewpoint to illustrate the landscape/site context and views from the SDNP, the Monarch's Way, and local bridlepath, north of the indicative Converter Station location. Grid Ref: 466793, 115203.
- 15.4.2.17 These viewpoints will be assessed and included within the ES LVIA. However, all viewpoints have been visited and confirmed for inclusion within the ES LVIA by a chartered landscape architect.
- 15.4.2.18 In addition, six Local Views were agreed through consultation with the landscape representatives of the local planning authorities and SDNP (consultation discussions are detailed in Appendix 15.2). On confirmation of the indicative Converter Station location, this list of Local Views was refined to three locations as shown below and illustrated in Figure 15.16. All viewpoints are located in the public realm. The corresponding site photography was undertaken during periods of fine weather and clear visibility. Please refer to the photomontage illustrations from these locations in Figures 15.31 to 15.39.

Table 15.3 - LVIA Local Views at Consultation Stage

| Viewpoint | Viewpoint Name | Reason for Selection | Approximate Distance |
|------------------|-----------------------|--|-----------------------------|
| A | Local View D2 | Viewpoint to illustrate the landscape/site context. The viewpoint is representative of views available for local recreational receptors using the local road network. Grid reference 466833, 112989 | 637 m |
| B | Local View B3 | Viewpoint to illustrate the landscape/site context. The viewpoint is representative of views available for local recreational receptors using the local road network. Grid reference 466634, 113267 | 543 m |
| C | Local View C | Viewpoint to illustrate the landscape/site context in proximity of residential properties. The viewpoint is representative of views available for local recreational receptors using the local road network, in the proximity to a residential property. Grid Ref: 467171, 114003 | 436 m |

15.4.2.20 Distances shown represent the approximate distance from the viewpoint to the site boundary of the indicative Converter Station location.

15.4.2.21 An additional viewpoint was requested along Old Mill Lane and through a native hedgerow looking west towards the site. As the hedgerow in this location would remain unaffected by the indicative Converter Station location this viewpoint was omitted.

15.4.3 SIGNIFICANCE CRITERIA

- 15.4.3.1 Following GLVIA3, the predicted landscape and visual effects (and whether they are significant) are determined through consideration of the ‘sensitivity’ of (a) the landscape element, assemblage of elements, key characteristics or character type or character area under consideration bearing in mind quality and value; or (b) visual receptor; and the ‘magnitude of change’ posed by the Proposed Development. In this case the construction of the Converter Station and associated infrastructure, its operation for a period of 40 years, and subsequent decommissioning, the installation of the cable along the Onshore Cable Route and the construction of the Landfall.
- 15.4.3.2 The sensitivity of the particular landscape or visual receptor is ranked high, medium, low or negligible and the magnitude of change is similarly ranked as large, medium, small or negligible, as indicated in Table 15.4 below.
- 15.4.3.3 The type of effect is also considered and may be direct or indirect, temporary or permanent, positive, neutral or negative. The landscape and visual assessment unavoidably involves a combination of both quantitative and qualitative assessment and is based on professional judgment.

Table 15.4 - Matrix for Determining Significance of Effect

| | | Sensitivity (value/importance) | | | |
|----------------------------|------------|---------------------------------------|------------------|--------------------|------------|
| | | High | Medium | Low | Negligible |
| Magnitude of change | Large | Major | Moderate - Major | Minor - Moderate | Negligible |
| | Medium | Moderate - Major | Moderate | Minor | Negligible |
| | Small | Minor - Moderate | Minor | Negligible - Minor | Negligible |
| | Negligible | Negligible | Negligible | Negligible | Negligible |

- 15.4.3.4 Significant landscape and visual effects, in the assessor’s opinion, resulting from the Proposed Development are those effects identified as ‘major’, ‘moderate - major’, or ‘moderate’, with any exceptions being clearly explained. There may for example be exceptions in the case of lower magnitudes of change affecting receptors of higher landscape and or visual sensitivity and leading to a moderate effect that in some circumstances are considered to be significant. A full description of the methodology used in this assessment is set out in Appendix 15.1.

15.4.4 ASSUMPTIONS AND LIMITATIONS

15.4.4.1 At this stage the following limitations have been identified:

- The reinstatement work required for the loss of landscape features along the Onshore Cable Route is also unknown at this time. This includes those areas in the open rural landscape and those sections alongside the highways; and
- The proposed mitigation plan for the Converter Station is in draft at this stage, until a topographic survey is complete and final siting of the Converter Station and the access road alignment confirmed.

15.4.4.2 At this stage the following assumptions have been made:

- The Converter Station building will comprise two halls each measuring approximately 90 m in length, 50 m in width and 22 m in height. The maximum height of the building may be increased to up to 26 m, dependent on the preferred architectural and roof design solution;
- The Lightning Masts for the Converter Station could be up to 4 m taller than the tallest building. These narrow structures, with catenary wiring potentially strung between them to shield the outdoor equipment from direct lightning strikes;
- The Onshore Cable Route would be located within the Site Boundary (Figure 3.2), with exact route alignment options not currently confirmed; and
- During the decommissioning phase, a new construction compound would have to be established for the removal of the building and infrastructure for recycling and disposal.

15.5 BASELINE ENVIRONMENT

15.5.1.1 The baseline information is set out as an inventory of the existing landscape resource and focuses on those landscape and visual receptors most likely to be potentially significantly affected.

15.5.2 SECTION 1 – LOVEDEAN (CONVERTER STATION AREA)

Site Description

15.5.2.1 The indicative Converter Station location is situated next to the existing Lovedean substation, located in a rural fringe area in Winchester, approximately 13.5 km to the north of Portsmouth city centre. Located to the west of Lovedean substation, with the final location to be confirmed, it would span across a number of small fields divided by hedgerows and used for horse grazing, and off-road vehicles.

15.5.2.1 The site area is a mixture of arable and grazing farmland and the land falls from approximately 90 m to 80 m AOD. A new access route would connect the proposed substation with Broadway Lane to the east and run to the south of the existing substation.

15.5.2.2 It is surrounded by mixed agricultural fields with established hedgerow boundaries and hedgerow trees. Individual farm properties are situated to the north, west and south, connected by narrow lanes. The existing Lovedean substation, associated pylons and overhead lines are dominant elements in the landscape of the indicative Converter Station location, and the immediate surrounding area.

15.5.2.3 The settlements of Lovedean and Cowplain lie approximately 2 km to the south east, Horndean 1 km to the east, and Denmead approximately 2 km to the south west. A number of PRoW are in close proximity to the indicative Converter Station location and the access track, which link to surrounding villages (Figures 15.7 and 15.8).

15.5.2.4 The indicative Converter Station location is not sited within the boundary of the SDNP.

15.5.2.5 The SDNP boundary is, at its closest point, located approximately 180-200 m to the north and west of the indicative Converter Station location (Figure 15.2 which illustrates the boundary of the SDNP).

International Dark Skies Reserve

15.5.2.6 The SDNP was given the status of an International Dark Skies Reserve in May 2016 (SDNPA, 2019). There are a number of promoted locations within the SDNP where people can visit to experience the South Down's darkest skies.

15.5.2.7 Two of the promoted locations within the SDNP, Old Winchester Hill and Butser Hill, are included within 8 km study area, at 7.4 km distance and 7.8 km distance from the indicative Converter Station location.

Setting of the SDNP

15.5.2.8 The SDNP Authority recommended during consultation that the LVIA responds to the indicative Converter Station location's proximity to the SDNP boundary and clearly explores how the site contributes to the setting of the SDNP both in visual and landscape character terms.

15.5.2.9 The SDNP Integrated Landscape Character Assessment identifies the local landscape character of the SDNP to the north of the site to be the Downland Mosaic D2a (Enclosed) Hambledon to Canfield Mosaic. Key characteristics of this landscape include:

- Large scale rolling landform characteristic of the chalk dip slope, dissected by dry valleys, with localised secondary escarpments;
- Views are constantly changing from panoramas at high points e.g. Butser Hill, to enclosed views along hedged lanes;
- A strong pattern of woodland cover, many of which are of ancient origin and some
- The downs contain a well-established network of public rights of way and a strong hierarchical network of roads of which are of national importance, and hedgerows providing enclosure which contrasts with the open farmland; and

- A landscape with a generally strong rural, secluded character, although with varying levels of movement across its extent (LUC, 2011).

Other Designations

- 15.5.2.10 The indicative Converter Station location and immediate area is within land which is undesignated, at a local, nor national, level.
- 15.5.2.11 The Converter Station Area is on the boundary of two LPA areas, East Hampshire District Council and Winchester City Council (Figure 15.3).
- 15.5.2.12 The key landscape planning designations and designated landscapes within the detailed study area for the Converter Station Area are illustrated in Figure 15.6 and information presented below.

Conservation Areas and Listed Buildings

- 15.5.2.13 Heritage assets and their settings are considered in Chapter 20 Heritage and Archaeology.
- 15.5.2.14 The Hambledon Conservation Area lies within the SDNP approximately 2 km to the northwest of the substation while Catherington Conservation Area lies approximately 2.5 km to the north east.
- 15.5.2.15 A number of Listed Buildings, predominately Grade II, lie within Lovedean, Denmead, Hambledon and along the narrow lanes mainly to the east of the substation, with the closest being at Denmead Farm, off Edneys Lane. Figure 20.1 in Chapter 20 Heritage and Archaeology identifies their locations.

Registered Parks and Gardens

- 15.5.2.16 The baseline study of the ES LVIA will include a review of the potential visual effect of the Proposed Development on the recreational users of the Leigh Park Grade II* Registered Park and Garden (List Entry Number 1000112) which is situated approximately 6 km south east of the Proposed Development in Staunton Country Park.
- 15.5.2.17 The setting of these heritage assets is assessed in Chapter 20 Heritage and Archaeology, but the LVIA considers the visual effects of the Proposed Development for those visitors to the heritage assets.

Historic Landscape Character Areas

- 15.5.2.18 The baseline study of the ES LVIA will include a review of the historical maps and historic landscape character areas within the Hampshire Historic Landscape Characterisation 2013 (Scott Wilson, Oxford Archaeology (South), 2013). The information presented within this report will be reviewed and inform the development of the mitigation proposals for the Proposed Development.

Ancient Woodland

- 15.5.2.19 The indicative location of the Converter Station is surrounded by pockets of woodland including Ancient Woodland (Figure 15.6). These woodland areas have been surveyed by ecologists, and the tree and shrub species proposed in the draft mitigation proposals have drawn on the native species within the Ancient Woodland.
- 15.5.2.20 There are no proposals which include the removal of Ancient Woodland as part of the Proposed Development.

Country Parks

- 15.5.2.21 The baseline study will include a review of the potential visual effect of the Proposed Development on the recreational users of the Country Parks which are included within the study area of the LVIA. This will include Queen Elizabeth Country Park situated approximately 6 km north east of the indicative Converter Station location, and Staunton Country Park situated approximately 6 km south east of the indicative Converter Station location (Figure 15.6).

National Landscape Character

- 15.5.2.22 The National Character Area Profiles ('NCAPs'), as defined on the National Character Areas Map of England (Natural England, 2014) indicate that the indicative Converter Station location lies within NCA 125 South Downs (Natural England, 2013) (Figure 15.3). The NCA describes the landscape as one of contrasts, the down land creating a sense of openness whilst enclosure and remoteness is evident within woodlands and close to urban areas.
- 15.5.2.23 Character areas designated at a national scale have a role to play in providing general context, in addition, local landscape character assessments have been published by county and local authorities. These contain a greater level of detail subdividing the nationally extensive character areas into much smaller discrete character areas. The NCA's are too extensive for there to be any potential for them to be significantly altered by any one development and their sheer size and diversity can limit the extent to which the character description is directly relevant to the Proposed Development and its associated study area.
- 15.5.2.24 This has led to the conclusion that they are not likely to be significantly affected by the Proposed Development, and hence do not require further assessment as part of the LVIA of this Proposed Development. Therefore, NCA 125 South Downs has been scoped out of further consideration. However, guidance within the NCA on landscape opportunities and trends will be referred to and reviewed as part of the development of the mitigation proposals for the Proposed Development.

Local Landscape Character

- 15.5.2.25 The landscape baseline has (in accordance with LPA and SDNP consultation) covered all those landscapes within the 8 km study area (Figure 15.4).

- 15.5.2.26 At a county level the indicative Converter Station location lies within Landscape Character Area ('LCA') 7H South East Hampshire Downs (Hampshire County Council, 2012) (Figure 15.3). The landscape is “a large scale downland” and predominate “landscape type, typical with expansive, rolling arable landscapes and extensive wooded visual horizons”.
- 15.5.2.27 Moving outwards, and away from the indicative Converter Station location, the Proposed Development would exert a lessening effect on landscape character as distance increases with the attributes of the surrounding landscape context exerting a greater influence.
- 15.5.2.28 The baseline conditions of the aforementioned landscape character areas within the LVIA study area are described in Table 15.5 below and illustrated within Figures 15.3 and 15.4.

Table 15.5 - Landscape Character of the Surrounding Area (within 3km)

| LCA | Description |
|--|--|
| HBC Local Landscape Character Areas | |
| Urban/Residential | Areas 1, 2, 4 and 8 Urban/Residential areas of Cowplain. |
| Woodcroft Farm | Woodcroft Farm |
| WCC Local Landscape Character Types | |
| W1 | Mixed Farmland (open) Mixed Farmland (enclosed) |
| W2 | Chalk and Clay Farmlands |
| W3 | Pasture and Woodland – Heath Associated |
| W4 | Scarp |
| W5 | Open Arable Open Arable (enclosed) |
| W6 | Parkland |

| LCA | Description |
|---|---|
| R | Residential |
| EHDC Local Landscape Character Types | |
| 3A and 3F | Downland Mosaic 3a Clanfield Downland Mosaic and 3f Horndean Clanfield Edge |
| 4 | Chalk Valley Systems |
| 10A | Wooded Claylands |

Host Landscape Character of Indicative Converter Station Location

- 15.5.2.29 The access track associated with the indicative Converter Station location lies within LCA 3F Downland Mosaic, East Hampshire Landscape Character Assessment, 2006 ('EHLCA'), whilst the indicative Converter Station location is situated within the Hambledon Downs Landscape Character Area, and specifically the Landscape Character Type 17 Chalk and Clay Farmlands, Winchester Landscape Character Assessment, 2004 ('WCCLCA'). Please refer to Table 15.3 and Figure 15.4.
- 15.5.2.30 Although both these elements of Converter Station Area lie within different administrative areas, their key characteristics are similar. Characteristics of relevance and their immediate surroundings, and drawn from the above landscape character assessments, are outlined below.
- 15.5.2.31 The Winchester Landscape Character Assessment provides a description of the local landscape:
- *“Undulating rolling landform.... The land gradually falls from the north-east to the Hambledon valley, but with a secondary ridge east/west of Hambledon. Scarps and dry valleys are common features”*
 - *“A variety of copses, shelter-belts and woodlands, many of which are ancient semi-natural woodland and designated as Sites of Importance for Nature Conservation.”;*
 - *“Medium to large irregular wavy fields formed through the enclosure of downland in medieval times, together with more regular fields created at the time of parliamentary enclosure”*

- *“Varied degrees of visual enclosure, from the exposed downs to the more enclosed areas to the south of the character area, with a strong pattern of hedgerows, intermittent trees and woodland.”*
- *“Numerous long views from high points on the Downs.”; and*
- *“Tranquil rural nature with no major routes which passing through the area (the main one being the B2150). Routes consist of an intricate network of ancient minor roads, lanes and drove roads. These are mainly straight and open across the downs and winding and narrow elsewhere.”*

15.5.2.32 The East Hampshire Landscape Character Assessment provides a description of the local landscape:

- *“A mixture of 18th and 19th century arable fields and early post medieval pasture fields, with pockets of older medieval assarts surrounded by woodland. This mosaic of habitats supports arable weeds and farmland birds.”;*
- *“A strong pattern of woodland cover, many of which are of ancient origin and some of which are of national importance, and hedgerows providing enclosure which contrasts with the open farmland.”;*
- *“A strong pattern of woodland cover, many of which are of ancient origin and some of which are of national importance, and hedgerows providing enclosure which contrasts with the open farmland.”; and*
- *“A low density of dispersed settlement across the downland with a scattering of nucleated settlement in preferred lower lying areas. Distinctive churches are often landmarks.”*

Visual Amenity

15.5.2.33 The visual assessment draws from 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) within the landscape as follows:

- Views from residential properties and settlements;
- Views experienced while travelling through the landscape (recreational road users, walkers, horse riders, cyclists for example); and
- Views from tourist and recreational destinations.

15.5.2.34 The visual assessment focuses on those receptor areas where significant effects are most likely, as detailed in the sections below.

15.5.2.35 Visual effects would be experienced by the people who live and work in the area, along with those enjoying recreational activities in this area or simply passing through. Whilst it is people who are the actual receptors of visual effects, it is the places they may occupy, and from which the Proposed Development may be seen, that are listed below.

15.5.2.36 The existing Lovedean substation is well screened by a belt of deciduous woodland which wraps around the substation to the north, south and east. Views from local roads in the short to middle distance are filtered by layers of intervening hedgerow, hedgerow trees and shelterbelt vegetation, and also built form consisting of isolated farms and cottages. Notable in most views, and particularly from higher ground to the north, is the increasing concentration of pylons and associated transmission lines clustering towards the substation.

15.5.2.37 It is anticipated that final location of the proposed Converter Station would be partially screened by vegetation in middle and long-distance views, and also from some close range views depending on the location and intervening mature hedgerow and trees.

Viewpoints from within the SDNP

15.5.2.38 The indicative location of the Converter Station would be visible from the SDNP. The prepared ZTVs illustrate the potential visibility of the Proposed Development, and the undulating topography of the southern boundary of the SDNP (within the study area, as illustrated in Figures 15.10 and 15.15). This results in a fragmented pattern of visibility to the north and north west. Greater visibility within the SDNP is afforded at the higher elevations, out with woodland, where there are clear, broad and open views towards Portsmouth and the south coast.

15.5.2.39 There are eight viewpoints agreed in consultation with the SDNP and LPAs for assessment which are located within the SDNP. Please refer to Table 15.3 and Figure 15.16 for their locations. Wireline illustrations from these locations are also included within this PEIR LVIA (Figures 15.17 to 15.33).

15.5.2.40 The South Downs National Park's View Characterisation and Analysis (LUC on behalf of the South Downs National Park Authority, 2015) report identifies specific representative views which 'represent the various types of view found across the park'. Two specific viewpoints identified in the above report were discussed during consultation with the LPAs and SDNP and are included within the 8 km Study Area. These include:

- VP 17 - Old Winchester Hill approximately 8 km to the northwest of the indicative Converter Station location. This location is on an elevated Iron Age Hillfort, and is a natural observation point. It is a flat topped spur which offers views in all directions. The South Downs Way and Monarch's Way pass through the hillfort and views are noted in literature about these trails (LUC, 2015); and
- VP 3 Windmill Hill (a good vantage point from where to experience views of the surrounding downs) (LUC, 2015) approximately 5 km to the northeast of the indicative Converter Station location (Figure 15.16).

15.5.2.41 With this in mind, the indicative location of the Converter Station, when viewed from the National Park boundary, could have a greater impact on close range views within the local landscape of 3 km radius of the site. However, this is an open, medium scale landscape which may have capacity to accommodate change.

15.5.2.42 Further away from the Proposed Development, and within the SDNP, from the elevated scarp, the Proposed Development would occupy only a small proportion of the ‘panoramic’ views afforded from this location, towards Portsmouth and the south coast. Walkers along this scarp would appreciate, not only views to the south and towards the coast, but the view to the north east, north and north west within the SDNP. Further site assessment from within the SDNP as part of the ES LVIA, for example, Butser Hill, will explore this further.

Residential Receptors

15.5.2.43 Particular attention is dedicated to the Proposed Development’s impact on local residents because they would experience the proposed Converter Station from different locations, at different times of the day, usually for longer periods of time, and in different seasons.

15.5.2.44 The visual assessment considers views from residential properties within 1 km of the Proposed Development, (Figure 15.8). From a desk based assessment and site visit, the LVIA includes an assessment of 23 property locations (including three groups of properties) such as those at Broadway Farm, Day Lane, and Eastland Gate within a 1 to 1.2 km radius of the indicative Converter Station location. This number of properties will be refined further on future site assessment.

15.5.2.45 Visual effects experienced by residents of individual properties close to the edge of the indicative Converter Station location, will be from:

- Individual farmsteads and cottages on higher ground to the north;
- Properties off Broadway Lane to the east;
- Properties off Old Mill Lane/Edneys Lane/Denmead Lane/White Horse Lane/Rushmere Lane to the west; and
- Properties off lanes which link Old Mill Lane with Broadway Lane to the south.

15.5.2.46 Properties on the fringes of Anmore and Horndean settlements will also be assessed.

15.5.2.47 Those residential receptors within 1 km of the Proposed Development have been illustrated in Figure 15.8 and include:

1. Hillcrest;
2. The Haven;
3. Old Mill Cottage;
4. The Ranch (2 properties);
5. The Shieling;

6. Old Mill House;
7. Kimberley House;
8. Denmead Farm Cottages;
9. Denmead Farm;
10. 2 properties: Nairobi and semi-detached bungalow (under construction);
11. Little Denmead Farm;
12. Static caravan (Occupied) in Little Denmead Farm;
13. Unoccupied;
14. Home Cottage and two properties;
15. Lower Chapters;
16. Broadway Lodge;
17. 5 properties: Broadway Farmhouse, 1,2 and 3 Broadway Farm Barn and Little Lovedean;
18. 2 properties: Broadway Farm Cottages;
19. Hinton Daubnay;
20. Coach House, Hinton Daubnay;
21. Edge of settlement (5 properties on Day Lane);
22. West end of New Road, Lovedean; and
23. The Arrows.

15.5.2.48 The methodology for the assessment of the impacts on residential properties is included within Appendix 15.1. Note, this is not a Residential Amenity Assessment.

Recreational Receptors

15.5.2.49 Whilst the potential visual impacts on tourists, or those engaging in recreation activities, may be brief in nature by passing through the area on horse, foot or bike, their sensitivity to landscape and visual change is high because their purpose/activity is to enjoy the landscape and surroundings.

15.5.2.50 The visual assessment considers views from recreational receptors within 8 km of the Proposed Development. Nearby recreational receptors within the study area for the indicative Converter Station location include:

- Promoted historical route: users of the Monarch Way which runs to the north and east. This is a 625 mile distance route, of which approximately 3 km are within the study area of the Proposed Development;
- Regionally promoted route: users of the Wayfarers Walk;

- Users of local PRoWs including bridlepaths along Harrowgate Lane and Sawyer's Hill;
- Users of open access land at Catherington Down;
- National Cycle Route 222, located approximately 2.5 km south east on the A3 Road in Waterlooville and Cowplain;
- Denmead Parish Council PRoWs No.s 13, 16, 17, 20, 21, 22, 23; and
- Horndean Parish Council PRoWs No.s 3, 4, 5, 6, 15, 28, 29, 30;
- Visitors to the Country Parks and Registered Park and Garden; and
- Visitors to the SDNP.

15.5.2.51 There are a number of PRoW which are located in close proximity to the indicative Converter Station location. Those within 8 km of the Proposed Development are illustrated in Figures 15.7 and 15.8.

Receptors within Settlements

15.5.2.52 The assessment of visual effects likely to be experienced from settlements includes consideration of residential areas, the public realm, and public open spaces within the settlement boundaries that would be frequented by people.

15.5.2.53 Settlements included within the assessment are as follows:

- Horndean;
- Lovedean;
- Denmead;
- Anmore;
- Anthill Common;
- Catherington;
- Hambledon; and
- Cowplain.

15.5.2.54 It is noted that Hambledon and Cowplain settlements within the study area are not identified by the ZTV and therefore it is anticipated would not experience potential views of the Proposed Development.

15.5.2.55 The proposed indicative location for the Converter Station does not fall within any key views identified in the Hambledon Character Appraisal and Management Strategy (2009) or the Catherington Conservation Area Character and Appraisal (2006).

Transport Routes

- 15.5.2.56 It is important to take account of how the Proposed Development will be experienced from surrounding road network. The visual assessment considers the potential visual effects likely to be experienced by people travelling through the landscape on main roads. Views will vary depending on proximity to the road, the mode of transport, the angle of view, and intervening landscape features. The first glimpse of the Proposed Development is important, and careful consideration will be given to the design of the Converter Station, and any proposed mitigation planting in relation to these views.
- 15.5.2.57 Routes which pass within 8 km of the indicative Converter Station location are assessed as follows:
- Motorway routes: M27 and A3(M);
 - A Roads: A3, A27 and A32; and
 - B Roads: B2150, B2177, B2148 and B2149.
- 15.5.2.58 It is noted that A3(M) and A3 routes within the detailed study area are not identified by the ZTV and would not experience potential views of the Proposed Development. In addition, it is anticipated given the local topography and built development, the M27, B2148 and B2149 would not experience views of the Proposed Development.

Future Baseline

- 15.5.2.59 The existing landscape and visual baseline is envisaged to be relatively stable. No major changes are envisaged which would mean that the future baseline is substantively different to the present-day baseline described above. However, Natural England, in the NCA 125 South Downs document, identify a number of landscape change trends, and key drivers for the South Downs landscape, which include the following:
- 15.5.2.60 *“The open landscape has been vulnerable to urban edge pressures extending from the heavily built-up coastal fringe onto the Downs, as well as from prominent communication masts on exposed skylines and from pylons and transport corridors in the principal chalk valleys.”*
- 15.5.2.61 *“Broadleaved and ancient woodland may see changes in composition of vegetation types and ground flora. Drought-sensitive species such as beech are particularly vulnerable and may be lost over time. This habitat may also be impacted by increased incidence of disease, disruption in synchronicity between species interactions, changes in range of current native species, new and increasing pest species, increased forest fires and loss of mature trees to wind blow.”*

15.5.2.62 *“Development pressure around the towns and larger commuter villages in and around the Downs will remain a challenge, but offers some opportunities for well-designed developments that contribute to landscape and settlement character and utilise sustainable technologies such as renewable energy supply and increased energy/water efficiency. This could provide green Infrastructure gains as an integral component of development.”* (Natural England, 2013)

15.5.2.63 There is a proposed Anesco Battery Storage System to the south of Lovedean substation. This would be situated north of the indicative access track route connecting the proposed Converter Station to the highway network. The development would comprise 40 storage containers, and 132kV sub station (5.5 m in height), and further substations (2.5 m in height), with perimeter security fence and new planting.

15.5.3 **ONSHORE CABLE ROUTE - SECTIONS 2 – 9**

Site Description

15.5.3.1 The LVIA study area for the Onshore Cable Corridor extends into three LPA areas; Winchester City Council, Portsmouth City Council and Havant Borough Council.

15.5.3.2 The final Onshore Cable Route at this stage is not confirmed, with various sub-options under consideration and being consulted upon. However, the proposed Onshore Cable Corridor follows a route south of the Converter Station Area, following on both off road and on road locations, for an approximate distance of 18 km.

15.5.3.3 For more detailed information on the Onshore Cable Corridor, please refer to Chapter 3 Description of the Proposed Development.

Landscape Receptors

15.5.3.4 The landscape and visual receptors along the Onshore Cable Corridor include the LCAs between Lovedean and Eastney, and designated areas, Listed Buildings, Scheduled Monuments and open space areas/common land.

15.5.3.5 The LVIA study area of the proposed Onshore Cable Corridor (100 m either side of Onshore Site Boundary) runs through the following LCAs:

- LCA 11 C Eastern Solent, LCA 8i Portsdown Hill Open Downs, LCA 2f Forest of Bere East and LCA 7h South East Hampshire Downs (Hampshire County Integrated Character Assessment, 2012);
- LCA 3f (East Hampshire Character Assessment, 2006);
- LCA 17 Hambledon Downs and LCA 18 Forest of Bere (Winchester Landscape Character Assessment, 2004); and
- Portsmouth City Urban Character Areas (from north to south) Drayton and Farlington, Anchorage Park, Baffins, Milton West and Eastney (Portsmouth Urban Characterisation Study, 2011).

- 15.5.3.6 Within the LVIA study area of the proposed Onshore Cable Corridor there are a number of Listed Buildings and Scheduled Monuments within 100 m of the proposed Onshore Cable Corridor identified. Please refer to Chapter 20 Heritage and Archaeology for more detailed information on these assets.
- 15.5.3.7 The setting of the heritage assets is assessed in Chapter 20 Heritage and Archaeology, but the ES LVIA will consider the visual effects of the Proposed Development for those visitors to the heritage assets.
- 15.5.3.8 Within the LVIA study area of the proposed Onshore Cable Corridor there are the following Conservation Areas identified:
- St Johns, Havant Borough Council;
 - Milton Locks (21), Portsmouth City Council; and
 - There are no Conservation Areas within 100 m of the Cable Corridor in the districts of East Hampshire District Council or Winchester City Council.
- 15.5.3.9 Within the LVIA study area of the proposed Onshore Cable Corridor there are the following Open Space Areas/Common Land areas identified:
- Goodman’s Fields 19 (WCC);
 - Portsdown Hill 1 (PCC);
 - Farlington Playing Fields 18 (PCC);
 - Farlington Marshes 24 (PCC);
 - Milton Common 46 (PCC);
 - Langstone Coastal Path 47 (PCC); and
 - Bransbury Park 53 (PCC).
- 15.5.3.10 Data sets for the East Hampshire District Council and Havant District Council will need to be checked and updated for the ES LVIA.
- 15.5.3.11 Within the LVIA study area of the proposed Onshore Cable Corridor there are the following TPOs and Group TPOs identified:
- Section 3 – Winchester City Council: TPO Group 1350G 1 – 6 west of Hambleton Road;
 - Section 3 – Winchester City Council: TPO 2246 T1 – single tree near Kings Pond, Anmore Dell; and
 - There are no TPOs/Group TPOs within the study area within the East Hampshire District Council, and further information will be sourced with regards to the TPO data for Portsmouth City Council on confirmation of the Cable Route alignment.

Visual Receptors

Residential/Settlements

- 15.5.3.12 The study area for the proposed Onshore Cable Corridor includes large tracts of residential areas and individual residential properties.

- Sections 1 to 3 are in open, rural fringe areas where scattered individual properties may be located within the study area of the Onshore Cable Corridor;
- Sections 4 and 5 are located within predominantly residential/suburb locations, with many properties located along the roadside. Exceptions only occur where there are commercial properties in these areas;
- Sections 6 and 7 are within largely commercial districts of Portsmouth, and along a trunk road which leads in to the city through Anchorage Park and Baffins;
- One of the route options within Section 8 is located within residential streets south of Eastern Road and west of Milton Common; and
- Within Sections 9 and 10 the route options are within residential areas, and along the road network of Eastney.

Recreational

15.5.3.13 Within the study area for the Onshore Cable Corridor, the following National Cycle Routes have been identified:

- NCR 22 within Section 6 ;
- NCR 222 within Sections 6, 7, 8 and 9; and
- NCR 2 within Section 9.

15.5.3.14 The Onshore Cable Route options include sections through allotments at:

- Milton Place Allotment Gardens; and
- Purbrook West and East Allotments on London Road (A3) in the Purbrook Ward of Havant Borough Council.

15.5.3.15 In addition, the Onshore Cable Corridor has a number of route options across Milton Common in Portsmouth, which is a popular recreational open space near residential properties.

Transport Routes

15.5.3.16 With the exception of Sections 1 to 3 of the proposed Cable Corridor, which are within open, rural fringe areas, the majority of the proposed route follows the existing road network between Hambleton Road south of Denmead, to the Landfall area in Eastney.

15.5.4 SECTION - 10 EASTNEY (LANDFALL)

Site Description

15.5.4.1 Two Optical Regeneration Stations ('ORS') may be located within 1 km of the Landfall. The final location of the ORS buildings is not confirmed at this stage, with various sub-options under consideration. However, these options will be considered in detail within the ES LVIA.

Townscape Receptors

- 15.5.4.2 The landscape and visual receptors relevant to the Landfall include the townscape character area of Portsmouth, designated areas, Listed Buildings, Scheduled Monuments and open space areas. These are detailed below.
- 15.5.4.3 The two proposed ORS may be located within the Urban Character Area 5 – Eastney (Portsmouth City Council, 2011). This is one of ten urban character areas identified within Portsmouth. This report provides a description of the Urban Character Area 5:
- The area is predominantly flat, low lying and bounded along much of its length by the sea. Whilst the relationship with the coastline generally contributes positively to the character of the area, it does leave large parts exposed and at risk of tidal flooding. Footpaths and beaches provide access to the coastline along the majority of its length affording views out across Langstone Harbour to Hayling Island and across The Solent to the Isle of Wight. This attracts visitors to the area all year round but it is noticeably busier during summer months (PCC, 2011);
 - Uses along much of the southern half of the area have strong historical links with the military. This has made a significant contribution to area's character. Fort Cumberland and a former defence research facility are located to the east off Ferry Road, which leads to a small marina, boat storage yards, and a life boat station (PCC, 2011). Fort Cumberland is a Scheduled Monument with Grade II Listed Buildings within its curtilage. The fort is situated approximately 800 m east of the two proposed ORS buildings; and
 - The shingle beaches at Eastney and areas of scrub and grassland around Fort Cumberland provide important habitats for birds, butterflies and insects. Both areas are designated as Local Wildlife Sites. The grassland to the west of Fort Cumberland bounds the existing car park, and proposed Landfall site, to the east (PCC, 2011).
- 15.5.4.4 The ORS buildings may be located within an existing car park area, with Southsea Leisure Park to the south and west, and Fraser Range former defence research buildings to the south (part of the Fort Cumberland complex), residential blocks to the north, east and west along Fort Cumberland Road, and grassland to the east towards Fort Cumberland. There is access to the beach from the car park area.
- 15.5.4.5 There are no receptors in relation to:
- Conservation Areas, within 300 m of the ORS buildings at the Landfall area;
 - Open Space Areas/Common Land within 300 m of the ORS buildings at the Landfall area; and
 - No TPO Trees, nor groups of trees with a TPO within 300 m of the ORS buildings at the Landfall area.

15.5.4.6 The Fort Cumberland Scheduled Monument lies c 100 m to the east of the ORS buildings at the Landfall. In addition, the World War II Anti Tank defences at Eastney Beach Listed Building is located within 300 m south west of the ORS buildings at the Landfall and the caravan park.

Visual Receptors

15.5.4.7 Visual effects associated with the ORS buildings at the Landfall would be experienced by a variety of users including recreational users using PRowS, public footpaths and access routes to the beach, local residents, road users and cyclists. The proposed Landfall is not visible for those recreational receptors on the beach.

15.5.4.8 There are a number of residential properties to the north, east and west of the Landfall. These are a mixture of houses and three storey flat buildings along Fort Cumberland Road, to the north of the Landfall.

15.5.4.9 The Landfall is an existing car park, which is used as an access via a short path to the beach, and to the SINC grassland next to the car park.

15.5.4.10 Southsea Leisure Park, with static caravans, bounds the site to the south and west.

15.5.4.11 There is a small children's play area to the west of the entrance to the car park.

15.5.4.12 In addition, Sustrans National Cycle Route No.2 follows Fort Cumberland Road, and passes within 300 m of the Landfall site.

15.5.4.13 Fort Cumberland Road is the only local road which borders to the Landfall to the north. There is a short access track to the Fraser Range defence building which is gated.

15.6 PREDICTED IMPACTS

15.6.1 STAGES/SCENARIOS ASSESSED AND POTENTIALLY SIGNIFICANT EFFECTS

15.6.1.1 The following effects have been considered to be of potential significance, and therefore have been assessed and are considered within this PEIR.

Construction Stage – Converter Station

15.6.1.2 Construction activities for the Converter Station would include, but would not be restricted to, the construction of the Converter Station buildings, temporary vehicular routes for construction vehicles, a temporary construction compound, car park and laydown areas, and construction vehicle movements for the proposed Converter Station. These activities could result in potentially temporary significant landscape and visual effects during the construction period, specifically:

- Effects on landscape character, based on a current and future baseline, from construction and plant activities within 3 km radius; and

- Effects on visual amenity of surrounding visual receptors, including residential properties and users of the local PRow, based on a current and future baseline, from construction and plant activities within 8 km radius.

Construction Stage – Landfall Area

15.6.1.3

Similarly, proposed construction activities for the Landfall area could include: the construction of the landfall infrastructure, temporary vehicular routes for construction vehicles, and temporary construction compound, car park and laydown area, and construction vehicle movements. These activities could result in potentially significant landscape/townscape and visual effects during the construction period, specifically:

- Effects on seascape and townscape character of the Landfall area, based on a current and future baseline, from construction and plant activities; and
- Effects on visual amenity of surrounding visual receptors, including from residential properties and recreational users of local PRow and the beach at Eastney, based on a current and future baseline, from construction and plant activities within 300 m radius of the Landfall.

Construction Stage – Onshore Cable Route

15.6.1.4

Potential significant effects during the construction of the Onshore Cable Route, which are to be assessed are as follows:

- Effects on landscape and townscape character and features associated with the construction of the Onshore Cable Route and JB's along the route; and
- Effects on visual receptors within the 100 m buffer on either side of the Onshore Cable Route.

Operational Stage

15.6.1.5

Potentially significant effects associated with the Converter Station identified during this preliminary assessment include:

- Effects of the Converter Station and indicative siting on landscape character within the study area due to new built form and landscaping during operation; and
- Effects of the Converter Station and indicative siting on the visual amenity of surrounding visual receptors due to new built form of the Proposed Development and landscaping during operation.

10 and 20 Years Post Completion

15.6.1.6

Any potential significant effects are likely to reduce fifteen years post completion.

15.6.1.7

This preliminary assessment includes the effects on the landscape character and visual amenity of the surrounding receptors.

15.6.1.8 The photomontages included within this preliminary assessment illustrate the view from three Local Viewpoints of the indicative siting of the illustrative Converter Station design with mitigation planting at implementation (0 years), 10 years and 20 years post completion, when the planting has almost reached maturity (Figures 15.31-15.39). The photomontages illustrate both the proposed and existing planting and the screening they provide to local visual receptors.

15.6.1.9 The photomontages are presented to illustrate the mitigation planting at implementation, and its subsequent growth over time. It is anticipated that as the mitigation planting matures, becoming more established by 20 years post completion, the Proposed Development will become more screened, and ‘settled’, in the landscape.

Decommissioning

15.6.1.10 It is anticipated that the decommissioning of the proposed Converter Station would commence 40 years after completion.

15.6.1.11 Potential landscape and visual effect at decommissioning would include, but would not be restricted to, the establishment of temporary vehicular routes for construction vehicles, a temporary deconstruction compound, car park and laydown areas for the demolition of the Converter Station buildings. These activities could result in potentially temporary landscape and visual effects during the construction period, specifically:

- Effects on local landscape character, based on a current and future baseline, from construction and plant activities; and
- Effects on visual amenity of surrounding visual receptors, including residential properties and users of the local PRow, based on a current and future baseline, from construction and plant activities.

15.6.1.12 However, given the maturity of the mitigation tree planting at this time, many of the ground level construction activities and vehicle movements during decommissioning would be screened in the wider landscape.

15.6.2 CONVERTER STATION

15.6.2.1 The existing substation, pylons and overhead lines influence the landscape character of the site and immediate surrounding area.

15.6.2.2 The landscape elements and the landscape of the indicative Converter Station location are itself are of a low value. They are undesignated, with some landscape features (hedgerows and trees) worthy of consideration. There is some evidence of degradation, and detracting features.

15.6.2.3 The characteristics of the landscape have a low sensitivity. There is evidence of the substantially modified landscape, with few features of value, and influence of man-made features which detract from the landscape character.

15.6.2.4 The landscape elements and landscape of the site demonstrate a high ability to accommodate proposed change, with a low susceptibility to change.

15.6.2.5 The neighbouring Ancient Woodland would not be directly affected, however, it this high sensitivity landscape receptor would have a low susceptibility to a very high magnitude of change.

Construction Period

15.6.2.6 The Construction Stage is considered to result in localised **moderate, and significant, direct and temporary landscape effects** on the existing landscape character, and the local landscape elements within the site itself. Construction activities would include: site establishment, the creation of site entrances and internal access tracks, crane hard-standing and outrigger pads, site compounds buildings, the construction of the Converter Station buildings, and car parking area. Reinstatement works would follow the construction period.

15.6.2.7 The Construction Stage is considered to result in **localised moderate and significant, temporary visual effects** on the nearest visual receptors. This would arise with the increased movement of the construction activities within a currently settled location, and the establishment of new site entrances and internal access tracks, cranes, site compounds buildings, the construction of the Converter Station buildings, and car parking area. Reinstatement works would follow the construction period.

Operational Period

15.6.2.8 Compared to the Construction Stage, the Site would gain a ‘cleaner’ and more ‘settled’ appearance during the Operational Stage, when the areas temporarily given over to the site compound/storage area would be restored to their original condition.

15.6.2.9 The photomontages in Figures 15.31 to 15.39 illustrate the proposed Converter Station building, and the associated open infrastructure, within the local landscape of the indicative location from three Local Views as identified in consultation with the LPAs. At each of the locations there are three photomontages to illustrate the proposed mitigation planting at 0/10/20 years post construction.

15.6.2.10 The effect on the local landscape character and visual receptors will be assessed in full within the ES LVIA. It is anticipated that there would be **significant, adverse direct landscape and visual effects** arising from the proposed Converter Station and indicative location. However, over time, and as the mitigation planting matures, then the predicted level of effect would reduce.

Direct Landscape Effects

15.6.2.11 The proposed Converter Station and its indicative location would exert direct landscape effects on the immediate landscape of the site within the Site Boundary.

15.6.2.12 There would be a large magnitude of change arising from the construction of the Converter Station, exerting an intensive change to a limited area.

15.6.2.13 As a result, there would be localised **moderate, and significant, direct landscape effects** on the existing landscape character, and the local landscape elements within the site itself.

Indirect Landscape Effects

Local Landscape Character

15.6.2.14 Beyond the ‘host’ landscape character, the Proposed Development would not have a direct effect on landscape character. Rather, the landscape effects would be indirect and relate to those views and visual or perceptual characteristics which are a key feature of the surrounding landscape character.

15.6.2.15 To the north, south and west, the existing pylons and over-head lines have a dominant influence on the landscape character. The influence of the urban fringe, existing Lovedean Substation and solar farm to the east of the site. The combination of both results in a landscape character of a low to medium sensitivity, and a low susceptibility to change in these areas.

15.6.2.16 The quality in the landscape varies, with land use changing from urban fringe, horse paddocks, established roadside hedgerows and hedgerow trees, to reduced hedgerow cover, and larger field units further south away from the indicative Converter Station location.

15.6.2.17 There would be a medium to large magnitude of change arising from the construction of the Converter Station, exerting an intensive change to a limited area. However, intervening tree and hedgerow cover, and buildings, filter views and would reduce this magnitude of change with distance from the indicative Converter Station location.

15.6.2.18 Therefore, there is the potential for **minor and minor – moderate (and not significant)** on the perceptual characteristics and views experienced from the surrounding landscape which lies within the 3 km detailed study area of the indicative Converter Station location. However, **moderate and moderate – major (significant) indirect landscape effects** may arise in those locations in close proximity, where there are direct views of the proposed Converter Station in its indicative location within the landscape.

15.6.2.19 Beyond 3 km radius, and within the 8 km study area, potential significant indirect landscape and visual effects are reduced due to intervening tree cover and hedgerows, screening the Converter Station in the wider landscape, and reducing the inter-visibility across medium – long distance views with the potential to influence the landscape character of neighbouring character areas.

Setting of the SDNP

- 15.6.2.20 The setting of the SDNP assessed through the assessment of representative views from within the SDNP area, and the site-specific assessment of the landscape quality, condition and characteristics of the SDNP in the study area in proximity to the Proposed Development. This in turn will facilitate the assessment of the ‘host landscape character’, and discussion about ‘inter-related/borrowed landscape characteristics’, and potential indirect landscape effects that may arise.
- 15.6.2.21 There would be no direct landscape effects on the existing landscape elements and physical characteristics within the SDNP because the proposed Converter Station building and open infrastructure locations are located out with the boundary of the SDNP.
- 15.6.2.22 The extent to which the proposed building would be visible, and how far it has an influence on the landscape character, with potential indirect landscape effects, is to be determined by the screening of the Converter Station in views from within the SDNP to the north, north east and west. Localised screening is provided by existing tree and hedgerow cover, and proposed tree planting as part of the draft landscape mitigation plan.
- 15.6.2.23 Beyond a 3 km radius, and within the 8 km study area, potential significant indirect landscape and visual effects are reduced due to the topography of the SDNP, intervening tree cover and hedgerows, screening the Converter Station Area in the wider landscape, and reducing the inter-visibility across medium – long distance views.
- 15.6.2.24 Qualitative assessment of the tranquillity and experiential characteristics of the site and surrounding area.
- 15.6.2.25 Given the high sensitivity and high value of the landscape of the SDNP, a preliminary view is that there is the potential for **significant and non-significant indirect landscape effects** arising from the proposed Converter Station within the boundary area of the SDNP, and up to 3 km from the proposed Converter Station.
- 15.6.2.26 There is also, after a preliminary review, the potential for **significant and non-significant indirect visual effects** on the perceptual characteristics and views experienced from the small area of this designated landscape which lies within the 3 km detailed study area of the indicative Converter Station location.
- 15.6.2.27 Potential significant landscape and visual effects would however reduce due to intervening tree cover and hedgerows, screening the proposed Converter Station in the wider landscape, and reducing the inter-visibility across medium – long distance views with the potential to influence the landscape character of the SDNP.
- 15.6.2.28 Baseline viewpoint photography illustrated in Figures 15.17 to 15.39 include a number of viewpoints from within the SDNP. They illustrate the topography and vegetation cover afforded within this designated landscape.

SDNP International Dark Skies Reserve

- 15.6.2.29 During the consultation process with the SDNP, it was confirmed that the proposed Converter Station would not be illuminated during the hours of darkness, with lighting limited to the perimeter road and activated only by motion sensors.
- 15.6.2.30 The assessment of the potential visual effects of lighting on the nearby properties to the Converter Station will be assessed qualitatively in the ES LVIA from those viewpoints within the SDNP. Therefore, no separate lighting/night time assessment will be conducted. The consideration of temporary effects of lighting during the construction period will also be considered within the ES LVIA.
- 15.6.2.31 Consideration of the potential for cumulative landscape and visual lighting/illumination effects from any existing/approved developments (as identified during the scoping period) will also be addressed in the ES LVIA.

Other Designated Landscapes

- 15.6.2.32 Given the distance of the Converter Station Area to any of the designated landscapes within the 8 km radius study area, significant indirect landscape effects are unlikely (Figures 15.6 and 15.10).
- 15.6.2.33 Both the Queen Elizabeth and Staunton Country Parks lie outside the ZTV, and as a result, visitors to the Country Park would not experience any visual effects arising from the indicative Converter Station location.
- 15.6.2.34 Leigh Park Registered Park and Garden is situated within Staunton Country Park, and lies outside the ZTV. Visitors to Leigh Park would not experience any visual effects arising from the indicative Converter Station location. Stanstead Park Registered Park and Garden is situated within a woodland plantation, and despite being within the ZTV, the surrounding woodland would screen views for visitors to the location, and it is unlikely they would experience views of the Converter Station from this location.
- 15.6.2.35 The Ancient Woodland of Stoneacre Copse would not be directly affected by the construction/operation of the proposed Converter Station. Should there be any visitors to the Ancient Woodland, then the proximity of the proposed Converter Station would result in a high magnitude of change, for visitors of a high sensitivity, resulting in a **major**, and **adverse** significant visual effect.

Visual Effects – Recreational and Residential Receptors

- 15.6.2.36 It is anticipated that there would be significant adverse visual effects arising from the proposed Converter Station. However, over time, after the implementation of the mitigation planting works and as the mitigation planting matures, then the predicted level of effect would reduce.
- 15.6.2.37 This is highlighted in the photomontage illustrations (Figures 15.37 – 15.39) from Local View C. This is representative of view from the local road to the north of the

indicative Converter Station location, and this road forms the boundary to the SDNP, situated close to a residential receptor. Without the screening planting there would be open and un-interrupted views to the south towards the building and open infrastructure. At a close proximity there would be a large magnitude change arising from the proposed Converter Station, to those high sensitive residential and recreational receptors, resulting in a **major adverse significant** visual effect.

15.6.2.38 In contrast, the views from Local View A benefits from the established tree and hedgerow cover to screen the indicative Converter Station location, and little change is evident from construction (0 years) to 20 years. There would be a negligible magnitude of change arising from the indicative Converter Station siting from this location, to those medium to high sensitivity receptors, resulting in a **negligible – minor and non-significant adverse** visual effect.

15.6.2.39 Local View B offers a horizon view of the indicative Converter Station location, and benefits from partial screening by the established tree and hedgerow cover. There would be a large magnitude of change arising from the proposed Converter Station, to those medium to high sensitive visual receptors, resulting in a **moderate -major and major adverse significant** visual effect.

15.6.2.40 There is the potential for significant and non-significant visual effects on the perceptual characteristics and views experienced by residential and recreational receptors within the 3 km radius detailed study area of the indicative Converter Station location.

15.6.2.41 It is noted that the NCR 222, and the Harrowgate Lane bridlepath are outside the ZTV and users are unlikely to experience views of the proposed Converter Station from these locations.

Visual Effects - Settlements

15.6.2.42 The potential visual impact on receptors within settlements approximately 3 km of the Proposed Development will be assessed in detail, drawing from the viewpoint analysis and site survey information.

15.6.2.43 There is potential for significant, and non-significant, visual effects on views experienced by residential receptors within settlements of Horndean, Lovedean, Denmead, Anmore, Anthill Common and Catherington. However, visual impacts are likely to be limited to those views from the periphery of the settlements, where intervening built development and tree cover does not screen views towards the indicative Converter Station location.

15.6.3 ONSHORE CABLE CORRIDOR

15.6.3.1 The Onshore Cable Corridor would run through rural, urban fringe, and urban/townscape areas.

- 15.6.3.2 In Sections 1 – 3 pylons and overhead lines influence the landscape character of the site and immediate surrounding area, beyond which the route is within the urban areas of Havant and Portsmouth.
- 15.6.3.3 The characteristics of the landscape/townscape have a low sensitivity in Sections 1 – 3. There is evidence of the substantially modified landscape, with few features of value, and man-made features which detract from the landscape character.
- 15.6.3.4 The landscape elements along the Onshore Cable Corridor, as a whole, are of a low - medium value. They are undesignated, with a few landscape features worthy of consideration and they demonstrate a high ability to accommodate proposed change, with a low susceptibility to change.
- 15.6.3.5 The Preliminary Arboricultural Report in Appendix 16.1 identifies those mature trees and groups of trees within Sections 1 – 3 which could be avoided when the route selection process is incepted.
- 15.6.3.6 The proposed Onshore Cable Corridor within Sections 4 – 9 is located in restricted space along highways, and where there are urban trees/hedgerows, it would be very difficult to avoid along a road side location. The Preliminary Arboricultural Report confirms that much of the vegetation in these locations is of a low value, so mitigation planting to replace the lost landscape features would be possible.
- 15.6.3.7 The extent of any vegetation loss will be subject to the confirmation of the final route option and as part of construction and reinstatement work, mitigation measures will be introduced to protect existing vegetation. This may include considering HDD and ensuring new planting appropriate to the locality is introduced through reinstatement measures.

Construction

- 15.6.3.8 The Construction Stage would result in localised direct landscape effects on the existing landscape/townscape character, and the local landscape/townscape elements, and visual receptors, along the proposed Onshore Cable Route.
- 15.6.3.9 However, these effects are mitigated by the potential for using smaller, temporary construction compounds, traffic and footpath diversions, and smaller scale construction activity.
- 15.6.3.10 Visual effects associated with the installation of the ducts and laying of the cable will be temporary and experienced by a variety of users including recreational users utilising PRoWs and public footpaths, local residents and road users including cyclists. Those residential and recreational receptors of a high sensitivity would experience a high magnitude of change in the proximity of those receptors, resulting in potential **major significant, yet temporary, adverse visual effects** during the construction period of the proposed Onshore Cable Route. However, these would be restricted to the 100 m study area, and would be temporary in nature.

15.6.3.11 Visual effects on those visitors to Listed Buildings, Scheduled Monuments, Conservation Areas, Common Land/Open Space Areas, and TPOs situated along the Onshore Cable Corridor are yet to be assessed.

Operation

15.6.3.12 After the Construction Stage, the land would be reinstated to its previous state, as far as practicable, and there would be no long term significant landscape and visual effects arising from the Onshore Cable Route works. Any hedgerows, or tree planting, which are lost during the construction period would be mitigated with replacement planting, if not in the immediate location, or an agreed suitable alternative location nearby.

15.6.3.13 More detail will be provided in the ES on confirmation of the proposed Onshore Cable Route, and the parameters known of which trees and hedgerows may be removed during the construction period, the opportunity for locations of replacement/mitigation planting post construction.

15.6.3.14 Over time, the replacement/mitigation planting will mature and the landscape elements along the propose Onshore Cable Route return to a more settled appearance.

15.6.3.15 During operation, it is not anticipated that there would be no significant landscape or visual effects associated with the Onshore Cable Route. The land will be reinstated following the installation of the cables and thus returned to its previous use. There will be no permanent visible sign of the works apart from manhole covers approximately every 6 km along the Onshore Cable Route at a link box location, or a small cabinet above ground providing a link pillar (locations yet to be determined).

15.6.4 LANDFALL

15.6.4.1 The Landfall site is located within the Urban Character Area 5 – Eastney, Portsmouth.

15.6.4.2 The townscape of the Landfall Area is of a low value and sensitivity, it is undesignated, with low quality landscape features, a lack of distinctiveness, and many detracting features.

15.6.4.3 The townscape has a high ability to accommodate change, with a negligible susceptibility and a planned desire for landscape change with development proposals for development of the nearby former MOD buildings within this degraded urban fringe.

15.6.4.4 However, the Landfall is located within a residential area, and residential receptors of a high sensitivity would experience the construction of the Landfall site within the immediate Eastney area, however, the built environment will restrict wider views of the construction activity.

Construction

- 15.6.4.5 The Construction Stage would bring about a high magnitude of change in the local area of the Landfall site, which would result in localised direct **moderate and significant adverse temporary effects** on the existing townscape character, and the local landscape elements around the Landfall area.
- 15.6.4.6 Construction activities would include: site establishment, the creation of site entrances, site compounds buildings, construction of the ORS buildings, HHD cable pull and compound area.

Operation

- 15.6.4.7 After the Construction Stage, the ORS buildings will remain in place (within two small buildings) and the construction compound will be reinstated to its previous use. The magnitude of change arising from the ORS buildings would be negligible to small in the 300 m radius study area, which would result in **minor - moderate and non-significant** landscape and visual effects. The car park, footpaths and hard standing areas would also be repaired, and returned to a more settled appearance.
- 15.6.4.8 There are no TPOs/Group TPOs which would be affected by the proposed Landfall. The ORS buildings would be sited within 1 km of the Landfall.
- 15.6.4.9 The assessment of the ORS buildings and compound on the views from the Fort Cumberland Scheduled Ancient Monument (within 300 m of the Landfall site) will be considered in the ES, in conjunction with the Cultural Heritage Assessment.
- 15.6.4.10 During operation it is not anticipated there would be significant landscape or visual effects arising from the ORS buildings within 1 km of the Landfall.

15.6.5 CUMULATIVE IMPACT ASSESSMENT

- 15.6.5.1 The potential for cumulative impacts will be considered for the construction and operation stages of the Proposed Development.
- 15.6.5.2 The cumulative assessment will consider the extent to which the Proposed Development, in combination with other large scale development, may change landscape character through either incremental effects on characteristic elements, landscape patterns and quality, or by the cumulative addition of new features.
- 15.6.5.3 This includes developments already built, those consented but not yet built, those for which a detailed planning application has been submitted but not yet determined and those for which an appeal has been lodged. Sites which may be at screening and scoping stages will be excluded on the basis that they may not progress to full applications and do not have sufficient detail available to allow cumulative effects to be assessed with any degree of certainty.

15.6.5.4 The cumulative assessment will be based on an agreed scope, and study area, with all the LPAs based on planning application information within the administrative areas, and planning domain, at a mutually agreed cut off date. It is anticipated that the study area for the cumulative assessment would mirror that of the LVIA.

15.6.5.5 In addition, the cumulative effects arising from the construction of the Onshore Cable Route will also be taken into consideration, and indeed the construction of the Converter Station Area and the Onshore Cable Route and Landfall together.

15.6.6 RESIDUAL EFFECTS

15.6.6.1 The details of the potential residual landscape and visual effects, positive and adverse, temporary and permanent, significant and non-significant, arising as a result of the Proposed Development, will be addressed in the ES LVIA once the design parameters and siting for the Converter Station have been finalised and the associated landscape mitigation proposals designed around it, and the proposed Onshore Cable Route and Landfall Area is finalised.

15.6.6.2 A draft landscape mitigation plan is included with this LVIA (Figure 15.9) to illustrate the mitigation principles and opportunities identified for the Converter Station. The mitigation proposals have been discussed with the LPAs. It is anticipated that such measures will reduce the potential landscape and visual effects arising as a result of the Proposed Development, and provide enhancement to the existing landscape fabric and landscape character.

15.6.6.3 Following the implementation of the mitigation proposals, post construction, the areas of new woodland planting and hedgerows would be evident, and would mature over time.

15.7 PROPOSED MITIGATION

15.7.1.1 Through an iterative design process, and close consultation internally with the design team (and externally with the LPAs and SDNP), a draft mitigation plan for the indicative Converter Station location has been prepared. This illustrates the principles and design parameters which could be adopted to reduce potential landscape and visual effects and create positive new habitats as well as improving connectivity and creating links to existing ancient woodland. Please refer to Figure 15.9 Landscape Mitigation Plan for the indicative Converter Station location.

15.7.1.2 Within the National Character Area Profile – 125 South Downs, published by Natural England, there are a number of opportunities identified for enhancement of the landscape fabric. This includes the following, which has helped form the principles for the draft landscape mitigation plan:

“Conserving and expanding the historic network of species-rich grassland and heathland, meadows, woodland and hedgerows to make biodiversity stepping stones

and corridors, enhance historic landscape value and facilitate their key function to reduce surface water flows and soil erosion.” (Natural England, 2013)

15.7.1.3

A set of principles, agreed within the LPAs and SDNP, have been used to inform the illustrative micro-siting of the proposed Converter Station and influence the illustrative scheme design. These include:

- Consider the different effects of all elements of the development: proposed Converter Station, access track and cable connections;
- Integrate the development and associated infrastructure into the surrounding topography;
- Seek to cut the proposed Converter Station construction platform into the gentle hill slope where possible, to reduce the ridge level of the building;
- Work with the shape of the land and making positive use of material arising from the works to create new screening landform and reduce the apparent height of the building;
- Minimise the loss of existing vegetation of ecological value (particularly long-established hedgerows and veteran trees);
- Introduce new planting which is sympathetic to the surrounding landscape character and, in consultation with the ecology team, reflective of native species;
- Consider the soil types, seeding mixes and management regimes to create species-rich meadows and glades within areas of new screen planting;
- Consider the potential for introducing offsite planting in discussion with adjacent landowners to reduce effects of middle and long-distance views; and
- Consider height, mass, colour, texture and nature of materials for the buildings and associated infrastructure which is sensitive to the immediate surroundings.

Indicative Planting Palette

15.7.1.4

The indicative mitigation planting for the proposed Converter Station location considers a mix of planting ranging from woodland and tree belts connecting with Crabden Copse, an ancient semi natural woodland adjacent to the Converter Station, native hedgerows with hedgerow trees to small copses in specific locations. The selection of species has been made in conjunction with the survey information presented in Chapter 16 Onshore Ecology.

15.7.1.5

The proposed vegetation serves a number of purposes:

- Reinstates in some locations historic field boundaries;
- Provides partial visual screening through a layering of vegetation (existing and proposed);
- Integrates the Proposed Development into its surroundings;
- Improves connectivity in terms of biodiversity;
- Ties in with the adjacent ancient woodland (as far as reasonable practicable given the location of the overhead lines and associated easements);

- Reinforces local landscape features; and
- Offsets vegetation lost as a consequence of the Proposed Development.

Tree and Understorey Planting

- 15.7.1.6 Proposed species were drawn from the Preliminary Arboricultural Report (Appendix 16.1), ecology and landscape field surveys, as well as trees, understorey and ground flora identified in Crabden Copse.
- 15.7.1.7 It is suggested that native trees would be sourced locally and supplied as a mix of standards, feathers, transplants and seedlings, to provide a variety of ages.
- 15.7.1.8 A mix of plant stock would be used with larger trees (standards) in specific locations to increase visual screening over the short term and provide a varied age and structure.
- 15.7.1.9 It is recommended that pioneer native species are introduced to increase the height of vegetation in the short to medium term and enable establishment of slower growing species taking care that one species does not dominate the planting mix.
- 15.7.1.10 Table 15.6 below details the height of the proposed species at planting and at 10 years, 20 years, and height at maturity.

Table 15.6 - Tree Planting Heights

| | Height In Metres At | 0 yrs | 10 yrs | 20 yrs | Max |
|------------------------|-----------------------------|--------------|---------------|---------------|------------|
| TREE PLANTING | | | | | |
| Beech | Fagus sylvatica | 0.8-1m | 4 | 10 | 35 |
| Hornbeam | Carpinus betulus (Sel. Std) | 0.8-1m | 4 | 10 | 20 |
| Red Oak | Quercus rubra (Sel. Std) | 0.8-1m | 5 | 10 | 25 |
| Penduculate Oak | Quercus robur (Sel. Std) | 0.8-1m | 5 | 15 | 25 |
| Wild Cherry | Prunus avium | 0.8-1m | 4 | 18 | 25 |
| Wych elm | Ulmus glabra | 0.8-1m | 4 | 16 | 30 |

| | Height In Metres At | 0 yrs | 10 yrs | 20 yrs | Max |
|--|---------------------|----------|--------|--------|-----|
| Horse chestnut | Specimen only | 3-3.5m | 4 | 14 | 28 |
| Lime | Specimen only | 3-3.5m | 3 | 20 | 40 |
| Scots pine | Specimen only | 3-3.5m | 3 | 12 | 36 |
| PIONEER SPECIES | | | | | |
| Alder | Alnus glutinosa | 0.8-1m | 5 | 18 | 25 |
| Birch | Betulus pendula | 0.8-1m | 5 | 15 | 20 |
| Poplar | Populus alba | 0.8-1m | 4 | 15 | 20 |
| Whitebeam | Sorbus aria | 0.8-1m | 3 | 8 | 15 |
| Rowan | Sorbus aucuparia | 0.8-1m | 3 | 8 | 15 |
| UNDERSTOREY PLANTING | | | | | |
| Field maple | Acer campestre | 0.4-0.6m | 2 | 8 | 14 |
| Hazel | Corylus avellana | 0.4-0.6m | 7 | 12 | 15 |
| Hawthorn | Crataegus monogyna | 0.4-0.6m | 3 | 12 | 15 |
| Holly | Ilex aquifolium | 0.4-0.6m | 2 | 8 | 15 |
| <i>Source: Cassell's Trees of Britain & Northern Europe (2003) & tree nursery literature</i> | | | | | |

15.7.1.11 The following ground flora species have also been identified for the areas of woodland planting. These have been drawn from the ecology survey notes of the neighbouring woodland areas.

| | |
|----------------------|---------------------------|
| · Ivy | Hedera helix |
| · Wood anemone | Anemone nemorosa |
| · Ramsons | Allium ursinum |
| · Broad buckler-fern | Dryopteris dilatata, |
| · Male fern | Dryopteris filix-mas |
| · Soft shield-fern | Polystichum setiferum |
| · Red currant | Ribes rubrum |
| · Wood sedge | Carex sylvatica |
| · Woodruff | Galium odoratum |
| · Dog's-mercury | Mercurialis perennis |
| · Common hemp-nettle | Galeopsis tetrahit |
| · Foxglove | Digitalis purpurea |
| · Cleavers | Galium aparine. |
| · Wood spurge | Euphorbia amygdaloides |
| · Bluebell | Hyacinthoides non-scripta |

15.8 SUMMARY AND CONCLUSIONS

15.8.1 BASELINE

15.8.1.1 The preliminary landscape character baseline information for the assessment of potential landscape and visual effects has been set out within this chapter. This includes the landscape character areas of the SDNP, and the urban rural fringe surrounding the Converter Station Area, and the townscape character areas through which the Onshore Cable Corridor runs and within which the Landfall site is located.

15.8.1.2 Detail on the Conservation Areas, Open Space Areas/Common Land, Designated Landscapes and Ancient Woodland landscape receptors for the study area around the Converter Station and Landfall Areas have been identified, and more information will be collected on confirmation of the route alignment for the Onshore Cable Route.

15.8.1.3 As above, the predicted visual receptors for the Proposed Development have been identified, and they include residential (individual properties and settlements), recreational users, including cyclists, users of transport routes and visitors to heritage locations.

15.8.2 ASSESSMENT AND MITIGATION

15.8.2.1 The methodology for the LVIA conforms to the criteria set out in 'The Guidelines for Landscape and Visual Impact Assessment – GLVIA 3 – Third Edition (April 2013).

15.8.2.2 The study area was determined by the production of a series of ZTV figures which were used to agree the LVIA study area with the Local Planning Authority landscape representatives of East Hampshire District Council, Winchester City Council, Havant Borough Council and the SDNP as 8 km radius, with a 3 km radius detailed study area around the indicative Converter Station location. The ES LVIA study area for the Onshore Cable Corridor includes a 100 m buffer alongside the working widths, and a 300 m radius Landfall study area.

15.8.2.3 The viewpoints and visualisations identified within this chapter have been agreed with the Local Planning Authority landscape representatives of East Hampshire District Council, Winchester City Council, Havant Borough Council and the SDNP. These were selected to represent visual receptors, including recreational receptors on the local and regionally promoted PRow network, settlements, and the local road network. They also include a number of viewpoints within the SDNP.

Converter Station - Potential Landscape and Visual Effects

15.8.2.4 The Converter Station Area is located within a landscape of low-medium value and sensitivity, with a demonstrated capacity to accommodate change, a landscape which already contains an electricity sub-station, pylons with overhead lines. However, the scale of the proposed Converter Station, and the open infrastructure, would have a great influence within the 3 km radius detailed study area identified, and is anticipated to result in minor and not significant, to **moderate to major and significant landscape and visual effects**. Beyond a 3 km radius, and within the 8 km study area, potential significant landscape and visual effects are reduced due to intervening tree cover and hedgerow screening the Converter Station in the wider landscape, and reducing the potential for indirect landscape effects and medium – long distance views for residential and recreational receptors.

15.8.2.5 It is not anticipated that there would be any direct landscape effects on the existing landscape elements and physical characteristics within the SDNP because the Converter Station Area lies outside the boundary of the SDNP.

15.8.2.6 Given the proximity, high sensitivity and high value of the landscape of the SDNP, there is, however, considered to be the potential for **significant and non-significant indirect landscape effects** arising from the indicative location of the Converter Station when viewed from within the boundary area of the SDNP, and up to 3km from the indicative Converter Station location.

Cable Route and Landfall Area - Potential Landscape and Visual Effects

15.8.2.7 Given the location of the Onshore Cable Corridor and Landfall Area through predominantly residential areas, and recreational areas within Havant and Portsmouth, potential significant adverse landscape and visual effects are likely. However, these would be temporary effects, and on completion the landscape and

townscape areas will be reinstated to their previous use, and the significant effects reduced.

15.8.2.8 Through an iterative design process, and close consultation internally with the design team (and externally with the LPAs and SDNP), a draft mitigation plan for the indicative Converter Station location has been prepared. This illustrates the measures to reduce potential landscape and visual effects and create positive new habitats as well as improving connectivity and creating links to existing ancient woodland.

15.8.2.9 A set of agreed principles has been, and is continuing to be, used to inform the design parameters for the Converter Station and the illustrate scheme design. These include:

- Consider the different effects of all elements of the proposed Converter Station, including the access track and cable connections;
- Integrate the development and associated infrastructure into the surrounding topography;
- Work with the shape of the land and making positive use of material arising from the works to create new screening landform and reduce the apparent height of the building;
- Minimise the loss of existing vegetation of ecological value (particularly long-established hedgerows and veteran trees);
- Introduce new planting which is sympathetic to the surrounding landscape character and, in consultation with the ecology team, reflective of native species;
- Consider the soil types, seeding mixes and management regimes to create species-rich meadows and glades within areas of new screen planting;
- Consider the potential for introducing offsite planting in discussion with adjacent landowners to reduce effects of middle and long-distance views; and
- Consider height, mass, colour, texture and nature of materials for the buildings and associated infrastructure which is sensitive to the immediate surroundings.

15.8.3 CONCLUSION

15.8.3.1 Whilst this PEIR chapter provides a preliminary LVIA at this stage, it demonstrates the consultation process with the statutory consultees. This is illustrated in refining the study area, to allow for an in-depth assessment of potential landscape and visual effects once the design of the Proposed Development is confirmed.

15.8.3.2 Any significant effects that arise are predicted to be temporary, or permanent, in relation to the proposed Converter Station, and where permanent, those significant effects would be restricted to an area of c.3 km radius of the indicative Converter Station location.

- 15.8.3.3 Any significant effects that arise in relation to the Onshore Cable Route and Landfall, would be restricted to the construction period. Once construction is complete those areas will return to a more settled appearance and significant adverse temporary effects reduced to non-significant.

15.9 ASSESSMENTS AND SURVEYS STILL TO BE UNDERTAKEN

- 15.9.1.1 The final LVIA assessment process of the proposed Converter Station will be undertaken once the design parameters and location have been confirmed. This will include a final site walk over of the proposed location of the proposed Converter Station, and winter viewpoint photography undertaken where required. It will also include a further assessment of the visual receptors for the proposed Converter Station including residential properties within 1 km radius of the proposed Converter Station in the winter months, to review vegetation/tree screening and orientation of the properties in relation to the Converter Station.
- 15.9.1.2 A more detailed assessment of the potential landscape and visual effects on the views to and from a number of Listed Buildings within the study area for the Converter Station Area, Onshore Cable Corridor and Landfall will be carried out, once the gaps in the Listed Building and Scheduled Monument data sets have been confirmed. This will be conducted in parallel with Chapter 20 - Heritage and Archaeology.
- 15.9.1.3 The final LVIA assessment process of the proposed Onshore Cable Route and Landfall, will be conducted once the route alignment has been confirmed, scoping responses received, and the full scope of the assessment finalised. This will include a final site walk over of the proposed route, and any viewpoint photography were required, after consultation with PCC.
- 15.9.1.4 Cumulative Landscape and Visual Impact Assessment ('CLVIA') of the Converter Station Area, Onshore Cable Route and Landfall will be conducted once the full scope of the proposed CLVIA is agreed with the relevant LPAs and SDNP.

REFERENCES

- Chris Blandford Associates (2003) West Sussex Landscape Character Assessment
- East Hampshire District Council (2006) The Local Plan: Second Review - Saved Policies
- East Hampshire District Council (2014) East Hampshire District Council's Local Plan (Part 1) Joint Core Strategy
- East Hampshire District Council (2011 & 2013) East Hampshire Green Infrastructure Study and Strategy.
- Enfusion (2010) Winchester City Council's Green Infrastructure Study
- Hampshire County Council (2012) Hampshire County Integrated Character Assessment
- Hampshire County Council (2012) Hampshire Integrated Character Assessment
- Havant Borough Council (2011) Havant Borough Council's Local Plan (Core Strategy)
- Havant Borough Council (2014) Havant Borough Council's Local Plan (Allocations)
- Kirkham Landscape Planning Consultants Wessex Archaeology, Countryside, Havant Borough Council (2007) Havant Borough Landscape Character Assessment
- LUC (2006) East Hampshire Landscape Character Assessment
- LUC on behalf of SDNPA (2011) South Downs Integrated Landscape Character Assessment: Technical Report
- LUC on behalf of SDNPA (2015) South Downs National Park: View Characterisation and Analysis
- LUC for the MMO (2014) The Solent, Seascape Assessment for the South Marine Plan Areas (MMO 1037)
- Landscape Institute and the Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Assessment (GLVIA3) 3rd Edition
- Natural England (2013) National Character Area Profile – 125 South Downs
- Natural England (2014) National Character Area profiles: data for local decision making
- Portsmouth City Council (2011) Portsmouth Urban Characterisation Study
- Portsmouth City Council (2013) Portsmouth City Council, Seafront Masterplan
- Portsmouth City Council (2014) The Portsmouth Plan
- Portsmouth City Council (2014) Portsmouth City Council: Eastney Beach Habitat Restoration and Masterplan DPD
- Scott Wilson & Oxford Archaeology (2013) Hampshire Historic Landscape Characterisation
- South Downs National Park Authority (2016) South Downs National Park Green Infrastructure Framework
- South Downs National Park Authority (2013) South Downs National Park Management Plan 2014 - 2019

South Downs National Park Authority (2017) South Downs National Park Tranquillity Study

South Downs National Park Authority. (2019). Dark Night Skies. Available at:

<https://www.southdowns.gov.uk/enjoy/dark-night-skies/>

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

Winchester City Council (2004) Winchester Landscape Character Assessment, Winchester City Council
Winchester City Council (2013) Winchester City Council's Joint Core Strategy

Winchester City Council (2006) Winchester City Council's Local Plan (Saved Policies)

Winchester City Council (2017) Winchester City Council's Local Plan Part 2 Development Management