



**LLYR**

# LLYR FLOATING OFFSHORE WIND PROJECT

**Llŷr 1 Floating Offshore Wind Farm**

**Environmental Statement**

**Volume 6: Appendix 7B – LVIA Detailed Assessment**

**August 2024**



## Document Status

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## Approval for Issue

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## Acronyms and abbreviations

Acronym or Abbreviation	Definition	Acronym or Abbreviation	Definition
HDD	Horizontal Directional Drilling	PRoW	Public Right of Way
km	Kilometre	RHPG	Registered Historic Park and Garden
LCA	Landscape Character Area	SCA	Seascape Character Area
PCC	Pembrokeshire County Council	ZTV	Zone of Theoretical Visibility
PCNP	Pembrokeshire Coast National Park		

## Glossary of project terms

Term	Definition
The Applicant	The developer of the Project, Llŷr Floating Wind Limited.
Array	All wind turbine generators, inter array cables, mooring lines, floating sub-structures and supporting subsea infrastructure within the Array Area, as defined, when considered collectively, excluding the offshore export cable(s).
Array Area	The area within which the wind turbine generators, inter array cables, mooring lines, floating sub-structures and supporting subsea infrastructure would be located
Floventis Energy	A joint venture company between Cierco Ltd and SBM Offshore Ltd of which Llŷr Floating Wind Limited is a wholly owned subsidiary.
Landfall	The location where the offshore export cable(s) from the Array Area, as defined, are brought onshore and connected to the onshore export cables (as defined) via the transition joint bays (TJB).
Llŷr 1	The proposed Project, for which the Applicant is applying for Section 36 and Marine Licence consents. Including all offshore and onshore infrastructure and activities, and all project phases.
Marine Licence	A licence required under the Marine and Coastal Access Act 2009 for marine works which is administered by Natural Resources Wales (NRW) Marine Licensing Team (MLT) on behalf of the Welsh Ministers.
Offshore Development Area	The footprint of the offshore infrastructure and associated temporary works, comprised of the Array Area and the Offshore Export Cable Corridor, as defined, that forms the offshore boundary for the S36 Consent and Marine Licence application
Offshore Export Cable	The cable(s) that transmit electricity produced by the WTGs to landfall.
Offshore Export Cable Corridor (OfECC)	The area within which the offshore export cable circuit(s) would be located, from the Array Area to the Landfall.
Onshore Development Area	The footprint of the onshore infrastructure and associated temporary works, comprised of the Onshore Export Cable Corridor and the Onshore Substation, as defined, and including new access routes and visibility splays, that forms the onshore boundary for the planning application.

Term	Definition
Onshore Export Cable(s)	The cable(s) that transmit electricity from the landfall to the onshore substation
Onshore Export Cable Corridor (OnECC)	The area within which the onshore export cable circuit(s) would be located.
proposed Project	All aspects of the Llŷr 1 development (i.e. the onshore and offshore components).
Onshore Substation	Located within the Onshore Development Area, converts high voltage generated electricity into low voltage electricity that can be used for the grid and domestic consumption.
Onshore Substation Site	The area within which the Onshore Substation would be located.
Section 36 consent	Consent to construct and operate an offshore generating station, under Section 36 (S.36) of the Electricity Act 1989. This includes deemed planning permission for onshore works.

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## 7-B- LVIA DETAILED ASSESSMENT

### 7.1 Introduction

1. This appendix provides an assessment of potential effects of the onshore elements of the Llŷr 1 Floating Offshore Wind Farm (hereafter referred to as the proposed Project) on landscape character and visual amenity and should be read in conjunction with **Chapter 07: Landscape and Visual, Appendix 7A: LVIA Methodology** and **Volume 5: Figures 7-1 to 7-9**.
2. Details of the assessment methodology, including criteria for value, susceptibility, sensitivity, magnitude and significance of effect and application of professional judgement, are set out in **Appendix 7A: LVIA Methodology**. A Study Area of 3 km from the proposed Onshore Substation and 1km from the proposed Onshore Export Cable Corridor (OnECC) has been defined for the assessment and agreed with Natural Resources Wales (NRW), Pembrokeshire Coast National Park Authority and Pembrokeshire County Council (PCC). The Study Area extents are considered the outer limit of potential for significant landscape and visual effects.
3. The assessment includes consideration of impacts and effects resulting from construction, operation and decommissioning of the onshore elements of the proposed Project. However, at operation, areas of the OnECC temporarily affected by construction would have been reinstated such that there would be no, or very limited, impression of change resulting from the Onshore Cable Route. The assessment of operational effects is therefore focused on impacts resulting from the Onshore Substation.

### 7.2 Landscape Designations

#### 7.2.1. Pembrokeshire Coast National Park (PCNP)

##### Baseline Description

4. The Pembrokeshire coast was formally designated as a National Park in 1952, is one of the smallest National Parks in Wales, and the only one designated for its coastal landscapes. The PCNP covers over 615 km<sup>2</sup> split over four areas which include most of the Pembrokeshire coast, several offshore islands, the Daugleddau estuary and large parts of the Gwaun Valley and Preseli Hills. It includes a range of coastal landscapes, from enclosed bays and sandy beaches to open exposed sea cliffs and offshore islands, to rolling coastal farmland and inland hills and valleys.
5. The following landscape characteristics and sensitivities of the PCNP are identified within the PCNP Management Plan (2020-2024) Background Paper: The State of the Park:
  - The intricate, complex, rugged, indented natural coasts with dramatic headlands and islands e.g. St Davids Head, Skomer, Ramsey Island, Strumble Head, Stackpole Head.
  - Important focal points along the coast and out to sea including islands, islets, headlands and distinctive sweeping beaches such as Whitesands Bay, Freshwater West and Newport Bay.
  - Unspoilt hills and backdrops which contribute to seascape character e.g. Carn Llidi, Mynydd Carningli and the Preselis.
  - Views from key places such as headlands, coastal hills and the Coast Path.
  - Tranquil seascapes where there is little disturbance and signs of development; dark skies.

- Remote undeveloped seascapes with wild, highly natural, elemental character such as the islands, north coast south west of Strumble Head and Castlemartin peninsula.
  - Secluded and tranquil, well-treed character of the Daugleddau estuary.
  - Small scale, traditional historic coastal settlements such as Solva, Abercastle, Porthgain and Newport, and harbours such as Porthclais and Stackpole Quay.
  - Other coastal conservation areas with dramatic settlement features, such as the skyline and harbour of Georgian Tenby.
  - Presence of coastal and island historic features such as peninsula forts, castles, chapels, other buildings and structures and other heritage features which have a strong relationship with the coast and sea visually, physically and culturally.
  - Presence of coastal edge and island habitats with high biodiversity e.g. Skomer Marine Conservation Zone, National Nature Reserves including Ramsey Island, Special Areas of Conservation covering most of the coast and inshore waters, Sites of Special Scientific Interest.
6. In addition, the PCNP Management Plan Background Paper: Special Qualities of PCNP, identifies a series of 12 special qualities that contribute to the PCNP sense of place. Those of most relevance to landscape and visual considerations and the Study Area include the following:
- Coastal splendour;
  - Diversity of landscape;
  - Space to breathe;
  - Remoteness, tranquillity and wildness; and
  - Diversity and combination of special qualities.
7. The remaining special qualities identified within the PCNP Management Plan relate specifically to geology, settlement, archaeology and cultural heritage, ecology or features not found in the Study Area and as such are not considered in detail as part of the LVIA.
8. The PCNP is a nationally designated landscape and as such the landscape value is considered to be **very high**.

### **Assessment of effects**

#### *Sensitivity to Change*

9. Although variable, for the purposes of this assessment the overall susceptibility to change is considered **high**. Considering the factors which contribute to the identified very high value with those that indicate a high susceptibility, the sensitivity of the special qualities of the PCNP are considered **high**.

#### *Magnitude of Change - Construction*

10. The majority of the PCNP is outside the LVIA Study Area. The assessment therefore focuses on a small area of the PCNP east of the Angle Peninsula, between Rhoscrowther, Freshwater West and Castlemartin.
11. The Landfall and part of the Onshore Export Cable would be located within the PCNP and therefore potential change would be both direct and indirect.

12. Direct change would be a result of temporary removal of vegetation, earthworks operations and introduction of temporary compounds and access tracks within part of the OnECC. Potential direct change would occur over a relatively small area from the coast near Freshwater West to the inland boundary of the PCNP near Newton/Corseside. The initial section of the Onshore Export Cable would be installed by Horizontal Directional Drilling (HDD), avoiding potential for physical change at the coast.
13. In relation to the identified special qualities there would be little influence on the physical attributes which contribute to the '*coastal splendour, space to breathe and the diversity and combination of special qualities*'. There is potential for limited and localised influence on physical attributes related to the '*diversity of landscape and remoteness, tranquillity and wildness*' as a result of temporary construction works along a linear corridor which would change the pattern of elements and result in localised removal of natural vegetation.
14. Potential indirect change related to construction of the Onshore Export Cable would occur over a slightly larger, although still limited, extent and would largely be a result of increased movement and activity within a localised part of the PCNP. The increase in movement and activity may locally influence the sense of remoteness and tranquillity experienced in parts of the Study Area, although would often be experienced in the context of the local road network, agricultural operations and notable existing development immediately outside the PCNP. There may also be perception of additional light sources if works are undertaken in hours of darkness, although these would generally be seen in the context of notable existing lighting at the oil refinery. Potential indirect change would be limited to perceptual attributes of the '*remoteness, tranquillity and wildness*' special quality, with very little or no influence on the remaining special qualities.
15. Construction associated with the Onshore Substation would be located outside of the PCNP and as such would not result in any change to physical characteristics. Potential change would therefore be indirect, relating to the influence of visibility of construction activity on perceptual aspects of the landscape. The rolling nature of the topography within and adjacent to the PCNP would limit the extent of potential indirect change to local high points where there is an existing influence from movement on the local road network and from notable industrial development bordering this part of the PCNP. Construction of the Onshore Substation would therefore result in little, if any, change to the perceptual attributes of each of the identified special qualities of the PCNP.
16. On balance, taking account of the potential for localised influence of construction of the Onshore Export Cable on a limited number of identified special qualities, and the temporary nature and short duration of change, the magnitude of impact during construction is assessed as **small**.

#### *Significance of Effect - Construction*

17. Considering the factors which contribute to the identified high sensitivity with those that indicate a small magnitude of impact, the overall significance of effect on the part of the PCNP located within the Study Area would be **minor adverse (not significant)** during construction.
18. The majority of the PCNP is outside the Study Area and would be unaffected by construction of the onshore elements of the proposed Project and as such potential effects on the PCNP overall would be lower than set out above.

### *Magnitude of Change – Operation*

19. The Onshore Substation would be located outside of the PCNP and as such would not result in any change to physical characteristics of the PCNP. Potential change would therefore be indirect, relating to the influence of visibility of the Onshore Substation on perceptual aspects of the landscape. The Zone of Theoretical Visibility (ZTV) (**Volume 5: Figure 7-7**) indicates that visibility, and therefore potential for indirect change, would be limited to localised parts of the PCNP. These areas are partially influenced by a range of existing development, most notably Pembroke Oil Refinery, providing a context to potential change, including at night.
20. On balance, taking account of the limited and indirect nature of potential change and little or no influence on the identified special qualities, magnitude of impact during operation would be **negligible** at year 1 of operation. Potential mitigation planting is likely to further reduce the magnitude of impact over time, although it would remain in the **negligible** category at year 15 of operation.

### *Significance of Change – Operation*

21. Considering the factors which contribute to the identified high sensitivity with those that indicate a negligible magnitude of impact, the overall significance of effect on the part of the PCNP located within the Study Area would be **negligible adverse (not significant)** during operation (year 1 and year 15).
22. The majority of the PCNP is outside the Study Area and would be unaffected by the onshore elements of the proposed Project and as such potential effects on the PCNP overall would be lower than set out above.

#### *7.2.2. Orierton Registered Historic Park and Garden (RHPG)*

23. The majority of Orierton RHPG is outside of the Study Area and although the ZTV (**Volume 5: Figure 7-7**) indicates potential visibility from parts of the designated area, woodland within and adjacent to the boundary would screen these areas. This designation is not therefore considered further in this assessment.

### **7.3 Landscape Character**

24. The following section provide an assessment of potential effects on each of the Landscape Character Areas (LCA) identified within the Study Area. Locations of the LCAs are shown on **Volume 5: Figure 7-3**. The baseline descriptions provided have been informed by review of the following documents and data sources in addition to site survey:
  - Pembrokeshire Coast National Park Landscape Character Assessment;
  - Pembrokeshire County Council Landscape Character Assessment; and
  - LANDMAP aspect area data.

#### *7.3.1. Castlemartin/Merrion Ranges LCA (PCNP LCA 6)*

##### **Baseline Description**

25. This LCA covers an area of coastline and hinterland between Linney Head and Rhoscrowther in the west and St Govan's Head in the east. The landscape consists largely of undulating grassland on an open coastal plateau, fringed by sea cliffs and occasional sheltered coves.
26. Key characteristics, identified through review of published documents and observations made during site survey, include:

- Exposed open coastal grassland and scrub in the south, with extensive views out to sea and a strong coastal character;
  - Agricultural character in the north consisting of small to medium sized fields defined by hedgerows, overlaid on a rolling topography;
  - Inland edge largely defined by a ridgeline, on which are located a number of small settlements with prominent church towers, and more recent military observation towers;
  - Locally strong sense of exposure, remoteness, tranquillity and dark skies, during periods when the military range is not being used; and
  - Scenic coastal views, including sea cliffs with notable rock formations and stacks.
27. This LCA is within the PCNP and partially within a registered historic landscape and includes several designated heritage assets and ecological designations. There are good opportunities for recreation, including the Pembrokeshire Coast Path and Public Right of Way (PRoW), with greater restrictions in place when the military range is active. There are strong historic and cultural associations with parts of this landscape and a variable sense of tranquillity, remoteness and exposure. The landscape value is **high**.

#### **Sensitivity**

28. This is an extensive LCA, a small part of which is located within the study area. There is local variation in the strength of attributes and influence from military activity and external development. Overall, there is a relatively high susceptibility to change occurring within the LCA, and lower susceptibility to external change, particularly in the north where the influence of existing external development is more pronounced.
29. On balance, susceptibility is **medium**, and when combined with the high value, the overall sensitivity to change is assessed as **high**.

#### **Magnitude of Impact - Construction**

30. Construction associated with installation of the Onshore Export Cable would occur within this LCA and within adjacent landscapes, and therefore change would be direct and indirect. Temporary direct physical change would be limited to a short and relatively narrow part of the OnECC representing a localised part of the LCA. Potential indirect change would occur over a slightly greater extent and would relate to the influence of increased movement, activity and temporary lighting within the OnECC on perceptual aspects of the LCA. Many of the parts of the LCA potentially affected are influenced to some degree by adjacent development, including at night, which weakens the perceptual attributes related to remoteness, tranquillity and dark skies.
31. Construction associated with the Onshore Substation would be located outside of the LCA and as such would not result in any change to physical characteristics. Potential indirect change would be somewhat limited by the rolling nature of the landscape, which would screen construction activity from lower lying areas. From the more elevated parts of the LCA construction of the Onshore Substation would be experienced in the context of the local road network and range of other development, most notably Pembroke Oil Refinery.
32. On balance, taking account of the potential for localised direct and indirect change, along with the temporary nature and short duration of construction, the magnitude of impact is assessed as **small**.

#### **Significance of Effect - Construction**

33. Considering the factors which contribute to the identified high sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect on the Castlemartin/Merrion Ranges LCA arising from the proposed Project would be **minor adverse (not significant)** during construction.
34. Potential effects on the wider extent of this LCA would be lower than set out above which is focused on only the extent within the Study Area.

#### **Magnitude of Impact - Operation**

35. The Onshore Substation would be located outside of this LCA and as such would not result in any change to physical characteristics. The ZTV (**Volume 5: Figure 7-7**) indicates that visibility, and therefore potential for indirect change, would be limited to localised, elevated parts of the LCA which tend to be influenced by existing larger-scale developments within the adjacent landscapes to the north. The Onshore Substation would appear as an additional development within this context and result in little change to the perceptual qualities or overall impression of this LCA. Magnitude of impact at year 1 of operation is assessed as **negligible**. Potential mitigation planting is likely to further reduce the magnitude of impact over time, although would remain in the **negligible** category at year 15.

#### **Significance of Effect - Operation**

36. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect on the Castlemartin/Merrion Ranges LCA arising from the proposed Project would be **negligible adverse (not significant)** during operation (year 1 and year 15).

#### *7.3.2. Angle Peninsula LCA (PCNP LCA 7)*

##### **Baseline Description**

37. This LCA covers much of the Angle peninsula west of Rhoscrowther and Freshwater West and largely comprises a rolling lowland agricultural landscape, sea cliffs and the low estuarine mudflats of Angle Bay.
38. Key characteristics, identified through review of published documents and observations made during site survey, include:
  - Relatively low-lying rolling landform ranging from the broad estuarine bay in the north to more elevated ground in the centre and south of the peninsula;
  - Predominantly agricultural land use with an irregular pattern of small to medium and occasionally large-scale fields divided by hedgerows and small woodlands;
  - Settlement largely limited to the small linear village of Angle and nearby caravan park towards the north and scattered or cluster farms elsewhere;
  - Strong coastal character with sea cliffs and enclosed bays to the south and west, and more sloping or low-lying coastal margin to the north;
  - Strong historic connections, enhanced by the traditional buildings and smaller scale field pattern in and around Angle and the notable forts at Thorne island and Chapel Bay;
  - Attractive views along parts of the coastline, particularly over West Angle Bay and to St Ann's Head to the west; and

- Strong influence of adjacent large scale industrial development during both daytime and at night, particularly in the north and east.
39. This LCA is within the PCNP and partially within a registered historic landscape and includes several designated heritage assets and ecological designations. There are good opportunities for recreation, including the Pembrokeshire Coast Path and local PRoW. There are strong historic and cultural associations with parts of this landscape and a variable sense of tranquillity, dark skies, remoteness and exposure. On balance, the landscape value is **very high**.

#### **Sensitivity**

40. There is a variable sense of susceptibility within this LCA, largely depending on the strength of influence from the adjacent industrial and energy development. The landscape characteristics are highly susceptible to direct change within the LCA boundary, and generally less susceptible to external change given the existing context.
41. On balance, susceptibility is **medium**, and when combined with the very high value, the overall sensitivity to change is assessed as **high**.

#### **Magnitude of Impact - Construction**

42. Construction associated with a short section of the Onshore Export Cable would be located within this LCA, with the potential for direct and indirect change. Direct change would be confined to the small part of the LCA within the OnECC. Potential indirect change would occur over a slightly greater extent and would relate to the influence of increased movement, activity and temporary lighting within the OnECC on perceptual aspects of the LCA. Much of the activity would occur inland away from the coast and within adjacent and nearby landscapes and often experienced in the context of existing movement, activity and light sources on the local road network and industrial development to the north and east.
43. Construction associated with the Onshore Substation would be located outside of the LCA and as such would not result in any change to physical characteristics. Potential indirect change would be limited by the distance from the LCA and the location of the Onshore Substation, inland away from the coast and in the context of larger scale developments.
44. On balance, taking account of the potential for localised direct and slightly greater indirect change, along with the temporary nature and short duration of construction, the magnitude of impact is assessed as **small**.

#### **Significance of Effect - Construction**

45. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect on the Angle Peninsula LCA arising from the proposed Project would be **minor adverse (not significant)** during construction.

#### **Magnitude of Impact - Operation**

46. The Onshore Substation would be located outside of this LCA and as such would not result in any change to physical characteristics. The ZTV (**Volume 5: Figure 7.7**) indicates that visibility, and therefore potential for indirect change, would be limited to localised parts of the LCA, largely beyond the 3km Study Area. Many of these areas are at least partially influenced by a range of existing development, within the adjacent landscape, most notably Pembroke Oil

Refinery, providing a context to potential change. The Onshore Substation would appear as a relatively small and distant additional development within this context, with little influence on the perceptual qualities or overall impression of this LCA. Magnitude of impact during operation is assessed as **negligible**.

47. Potential mitigation planting is likely to further reduce the magnitude of impact over time, although would remain in the **negligible** category at year 15.

#### **Significance of Effect - Operation**

48. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect on the Angle Peninsula LCA arising from the proposed Project would be **negligible adverse (not significant)** during operation (year 1 and year 15).

#### *7.3.3. Freshwater West/Brownslade Burrows LCA (PCNP LCA 8)*

##### **Baseline Description**

49. This LCA covers a small area to the south of the Angle peninsula and largely encompasses broad sandy beaches, dunes systems and adjacent marsh. This low-lying landscape has a strong sense of place defined by the exposed nature of the coast, beaches and rocky foreshore.
50. Key characteristics, identified through review of published documents and observations made during site survey, include:
- Long stretch of sandy beaches backed by an extensive system of fixed sand dunes and low-lying agricultural land and marsh;
  - Strong sense of exposure with a constant awareness of wind and sea and the sound of crashing waves, particularly in strong south-westerly winds;
  - Relatively limited impression of infrastructure and development resulting in a strong sense of remoteness and wilderness despite the proximity to the military firing range and oil refineries. Lighting on taller buildings and out to sea at night have some local influence on the impression of dark skies;
  - Strong landscape function, with sense of natural processes and important habitats; and
  - Historic connections with evidence of old military installations and ancient burial mounds, and strong local cultural associations and identity linked to the beaches.
51. This LCA is within the PCNP and includes several designated heritage assets and is largely covered by ecological designations. There are good opportunities for recreation, primarily through the beaches and Pembrokeshire Coast Path, and strong cultural associations linked to the local sense of identity. Widespread sense of exposure and local sense of remoteness and wilderness, particularly away from the road and in periods when the military range is not active. The landscape value of this LCA is **very high**.

##### **Sensitivity**

52. This is a relatively large-scale LCA consisting of extensive open beaches, although with a local sense of enclosure and smaller scale character within low lying parts of the dunes. The landscape characteristics are highly susceptible to direct change within the LCA boundary, and generally less susceptible to external change because of the localised influence of the firing range and wider context of development experienced from more elevated locations.

53. On balance, susceptibility is **medium**, and when combined with the very high value, the overall sensitivity to change is assessed as **high**.

#### **Magnitude of Impact - Construction**

54. The Landfall and a short section of the Onshore Export Cable would be located within this LCA and as such associated construction would result in direct and indirect change. The extent of direct change would predominantly be limited to the northern parts of the OnECC within this LCA, with the Landfall and initial section of the Onshore Export Cable installed by HDD. Potential indirect change would occur over a slightly wider extent, largely related to influence on the localised sense of remoteness and wildness. Construction activity and temporary lighting would be experienced in the context of existing activity, movement and light sources on the road networks and car parks at the beach and occasional activity at the nearby military firing range, somewhat limiting the sense of change.
55. Construction associated with the Onshore Substation would be located outside of the LCA and as such would not result in any change to physical characteristics. Potential indirect change would be limited by the distance from the LCA and the location of the Onshore Substation, inland away from the coast and in the context of larger scale developments.
56. On balance, taking account of the potential for localised direct and slightly greater indirect change, along with the temporary nature and short duration of construction, the magnitude of impact is assessed as **small**.

#### **Significance of Effect - Construction**

57. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect on the Freshwater West/Brownslade Burrows LCA arising from the proposed Project would be **minor adverse (not significant)** during construction.

#### **Magnitude of Impact - Operation**

58. The Onshore Substation would be located outside of this LCA and as such would not result in any change to physical characteristics. The ZTV (**Volume 5: Figure 7-7**) indicates that visibility, and therefore potential for indirect change, would be limited to two small, elevated parts towards the fringe of this LCA, with no potential visibility from the beach and coast. The Onshore Substation would appear as a relatively small and distant additional development within the context of other more notable development outside this LCA, resulting in very little influence on the perceptual qualities or overall impression of this LCA. Magnitude of impact during operation is assessed as **negligible**.
59. Potential mitigation planting is likely to further reduce the magnitude of impact over time, although would remain in the **negligible** category at year 15.

#### **Significance of Effect - Operation**

60. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect on the Freshwater West/Brownslade Burrows LCA arising from the proposed Project would be **negligible adverse (not significant)** during operation (year 1 and year 15).

#### 7.3.4. Southern Haven Developed LCA (PCC LCA 16)

##### Baseline Description

61. This LCA is located to the south of the Milford Haven waterway and encompasses the developed areas of Pembroke and Pembroke Dock. The landscape is characterised by urban and industrial development on a broadly undulating topography and as such there is little sense of tranquillity, naturalness or dark skies throughout.
62. This LCA is partially within a registered historic landscape and includes small areas designated for their heritage and ecological interest. There are good opportunities for recreation with connections to cycle routes, the Pembrokeshire Coast Path and local PRoW network. There are locally strong historic and cultural associations, particularly in the centre of Pembroke. However, the overall impression is of an urban and industrial character and therefore the landscape value is **low**.

##### Sensitivity

63. This LCA is predominantly defined by urban development and is therefore considered tolerant of a large degree of change, indicating a **low** susceptibility, and when combined with the low value, the overall sensitivity to change is assessed as **low**.

##### Magnitude of Impact - Construction

64. Construction of the Onshore Export Cable and onshore Substation would occur outside of this LCA and as such would not result in direct change to any of the physical characteristics. Potential indirect change would be limited by screening provided by topography, vegetation and the extensive built form in this LCA. The majority of construction activity would be relatively distant and would occur within a clearly different landscape, separated by the broad shallow bay south of Milford Haven. It would also be seen in the context of other existing larger scale energy and industrial development, resulting in little impression of change to perceptual qualities of the LCA.
65. Magnitude of impact during construction is assessed as **negligible**.

##### Significance of Effect - Construction

66. Considering the factors which contribute to the identified **low** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect on the Southern Haven Developed LCA arising from the proposed Project would be **negligible adverse (not significant)** during construction.

##### Magnitude of Impact - Operation

67. The Onshore Substation would be visible from parts of this LCA but would be relatively distant and located within a clearly separate landscape and experienced in the context of other more notable development such that it would result in little or no perceptible change. Magnitude of impact during operation is assessed as **negligible**.
68. Potential mitigation planting is likely to further reduce the magnitude of impact over time, although would remain in the **negligible** category at year 15.

##### Significance of Effect - Operation

69. Considering the factors which contribute to the identified **low** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect on the Southern

Haven Developed LCA arising from the proposed Project would be **negligible adverse (not significant)** during operation (year 1 and year 15).

#### 7.3.5. *Southern Haven Industrial Fringe LCA (PCC LCA 23)*

##### **Baseline Description**

70. This LCA is located to the south of the Milford Haven waterway, west of Pembroke Dock, and largely comprises an area of large-scale industrial development fringed by agricultural fields and coastal woodland. The LCA principally includes two large developments; Pembroke Oil Refinery and Pembroke Power Station complex, and as such there is little sense of tranquillity, naturalness or dark skies throughout.
71. The LCA is within a registered historic landscape and includes small areas designated for their heritage and ecological interest. There are limited opportunities for recreation, although the Pembrokeshire Coast Path passes through the LCA. There are historic and cultural associations, although influenced by more recent development. The overall impression of this LCA is an industrial character and therefore the landscape value is **low**.

##### **Sensitivity**

72. This LCA is predominantly defined by large scale industrial and energy development and is therefore considered tolerant of extensive change, indicating a **negligible** susceptibility, and when combined with the low value, the overall sensitivity to change is assessed as **low**.

##### **Magnitude of Impact - Construction**

73. Most construction works would be located outside of this LCA and as such would not result in change to physical characteristics. The exception would be a very short section of the Onshore Export Cable where it connects to the existing substation adjacent to Pembroke Power Station.
74. Indirect change resulting from construction along the OnECC and at the Onshore Substation would be limited, with construction activity screened from the majority of the LCA. Potential indirect change would largely be limited to small, elevated areas towards the north of the LCA and would be experienced in the context of the oil refinery and power station in the foreground. It is therefore considered that construction of the onshore elements of the proposed project would result in no perceptual change, indicating a **negligible** magnitude of impact.

##### **Significance of Effect - Construction**

75. Considering the factors which contribute to the identified **low** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect on the Southern Haven Industrial Fringe LCA arising from the proposed Project would be **negligible adverse (not significant)** during construction.

##### **Magnitude of Impact - Operation**

76. The ZTV (**Volume 5: Figure 7.7**) indicates that the Onshore Substation would be screened from the majority of this LCA, limiting the extent of potential indirect change to small, isolated areas. From these locations the Onshore Substation would be experienced as a small and relatively distant element and would have little influence on the impression of this LCA which is defined by larger scale development. Magnitude of impact at operation is assessed as **negligible**.

77. Potential mitigation planting is likely to further reduce the magnitude of impact over time, although would remain in the **negligible** category at year 15.

#### **Significance of Effect - Operation**

78. Considering the factors which contribute to the identified **low** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect on the Southern Haven Industrial Fringe LCA arising from the proposed Project would be **negligible adverse (not significant)** during operation (year 1 and year 15).

#### *7.3.6. Southern Haven Mudflats LCA (PCC LCA 24)*

#### **Baseline Description**

79. This LCA is located to the south of Pembroke Dock and east of Pembroke and encompasses an area of mudflats at southern haven along the estuary of the Pembroke River. Key characteristics, identified through review of published documents and observations made during site survey, include:

- Broad and relatively enclosed basin of intertidal mudflats, shingle and marginal saltmarsh;
- Continuously changing landscape, heavily influenced by natural fluvial, estuarine and tidal processes, with mudflats at low tide and an often calm area of water at high tide;
- Scenic landscape with locally strong sense of naturalness; and
- Notable influences from surrounding settlement, industrial development and infrastructure, largely located outside the LCA.

80. This LCA is within a registered historic landscape and is covered by two ecological designations. Recreational opportunities within the LCA are relatively limited due to the tidal nature. This is a functional landscape, providing important habitat for birds and acting as a scenic feature in views from adjacent settlement. Development and infrastructure in adjacent landscapes have an influence on the overall impression of this LCA. On balance the landscape value is **medium**.

#### **Sensitivity**

81. This LCA is largely defined by physical characteristics shaped by natural processes and as such is susceptible to direct change within its boundary. However, the nature of the existing external context results in a reduced susceptibility to change within adjacent or nearby landscapes.
82. On balance, susceptibility is **low**, and when combined with the medium value, the overall sensitivity to change is assessed as **medium**.

#### **Magnitude of Impact - Construction**

83. Construction of the Onshore Export Cable and Onshore Substation would occur outside of this LCA and as such would not result in direct change to any of the physical characteristics. Potential indirect change would be a result of increased movement, activity and temporary lighting within the adjacent landscape which includes a range of existing energy related development and light sources. Key perceptual attributes of this LCA largely relate to features within the LCA and the contrast with the external context. Addition of further movement and activity within the adjacent landscape would therefore have little influence on the overall

perception of this LCA, particularly given the temporary nature and short duration. Magnitude of impact at construction is assessed as **negligible**.

#### **Significance of Effect - Construction**

84. Considering the factors which contribute to the identified medium sensitivity with those that indicate a negligible magnitude of impact, the overall significance of effect on the Southern Haven Mudflats LCA arising from the proposed Project would be negligible adverse (not significant) during construction.

#### **Magnitude of Impact - Operation**

85. The ZTV (**Volume 5: Figure 7.7**) indicates that the Onshore Substation would be screened from the closer western parts of this LCA, with greater visibility from more distant eastern parts largely outside the Study Area. The Onshore Substation would add a further energy related development to a context of larger scale and/or more notable development and as such would result in limited change. Magnitude of impact at operation is assessed as **negligible**.
86. Potential mitigation planting is likely to further reduce the magnitude of impact over time, although would remain in the **negligible** category at year 15.

#### **Significance of Effect - Operation**

87. Considering the factors which contribute to the identified **medium** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect on the Southern Haven Mudflats LCA arising from the proposed Project would be **negligible adverse (not significant)** during operation (year 1 and year 15).

#### *7.3.7. Hundleton and Lamphey LCA (PCC LCA 25)*

##### **Baseline Description**

88. The Hundleton and Lamphey LCA is in south Pembrokeshire and covers a relatively large area generally comprising rolling agricultural lowlands. The LCA occupies the areas around Pembroke and Pembroke Dock and includes notable linear infrastructure and a series of smaller scale settlements and scattered farms. Key characteristics, identified through review of published documents and observations made during site survey, include:
- Largely rural character, of small to medium agricultural fields divided by hedges and trees or stone walls;
  - Series of small rural settlements and scattered farmsteads, with modern farm buildings alongside smaller traditional barns and outbuildings;
  - Locally strong sense of tranquillity, although darks skies characteristics often influenced by settlement and industrial development particularly in the north and east;
  - Variable sense of enclosure provided by trees and landform, with some open views to the coast and estuary to the south and north;
  - Greater influence of development towards the north, around Pembroke resulting in a localised urban fringe character; and
  - Localised influence from linear infrastructure, including roads and overhead lines and from nearby industrial development, particularly in the north.
89. This LCA is partially within a registered historic landscape, with small areas covered by heritage designations, including two RHPGs. There are good opportunities for recreation, including the

Pembrokeshire Coast Path, cycle routes and PRoW. Although largely rural, linear infrastructure, roads and traffic and development in adjacent LCAs have an influence on the impression of parts of this landscape. On balance, the landscape value is considered to be **medium**.

#### **Sensitivity**

90. The character of this area varies locally, with the south eastern parts within and outside of the Study Area of more rural character influenced by historic estates and therefore of greater susceptibility to change. Whereas the north western part of the LCA is influenced by a range of linear and electrical infrastructure and by adjacent industrial development, indicating a reduced susceptibility to change.
91. On balance, focusing on the part of the LCA within the Study Area, susceptibility is **low**, and when combined with the medium value, the overall sensitivity to change is assessed as **medium**.

#### **Magnitude of Impact - Construction**

92. Construction of a large part of the Onshore Export Cable and the Onshore Substation would be located within this LCA and as such potential change would be both direct and indirect. Direct change would be limited to within the construction footprint of the proposed Project and would be temporary in nature. The extent of the working area and associated temporary vegetation clearance would be limited as far as practical to reduce the scale of direct change, and areas reinstated as part of the construction stage.
93. Potential for indirect change would occur over a slightly wider extent, primarily associated with visibility of construction activity within this and the adjacent LCA. Movement, activity and light sources on the existing road network and the nearby industrial and energy development influences many of the perceptual attributes within the baseline and provides a context for potential change.
94. Overall, construction is likely to result in a localised notable influence on the character of this landscape within the Onshore Development Area and immediate context of the Onshore Substation, and more limited influence on the wider extent and overall impression of the LCA. Change would be temporary in nature and of a short duration, with most areas reinstated as part of construction.
95. On balance, the magnitude of impact during construction is assessed as **small** for the LCA as a whole.

#### **Significance of Effect - Construction**

96. Considering the factors which contribute to the identified **medium** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect on the Hundleton and Lamphey LCA arising from the proposed Project would be **minor adverse (not significant)** during construction.

#### **Magnitude of Impact - Operation**

97. The Onshore Substation would be located within this LCA and would represent a very localised notable direct impact at the site level, changing from an agricultural field to energy infrastructure consisting of buildings, electrical equipment, hard surfacing etc. Potential indirect change, resulting from the influence of visibility of the Onshore Substation on

perceptual attributes of the LCA is likely to occur over a greater extent, most notably within up to approximately 500 m of the Onshore Substation. The ZTV (**Volume 5: Figure 7.7**) indicates theoretical visibility would be focused on a relatively small area between two ridgelines immediately north and approximately 1 km south of the Onshore Substation, with areas of additional theoretical visibility from more distant elevated parts of the LCA. In reality visibility would be further limited by hedgerows, trees and woodland found throughout this LCA. Much of the area within the ZTV is already influenced by a range of industrial and energy development, which provides a context to potential change.

98. Overall, the addition of the Onshore Substation would result in a notable change to a very localised part of this LCA resulting in a slight alteration to the LCA as a whole, based on the very limited extent of direct change and localised nature of indirect change. Magnitude of impact at year 1 of operation is assessed as **small**.
99. The extent and impression of indirect change is anticipated to reduce over time as mitigation planting establishes. However, magnitude of impact is anticipated to remain in the **small** category at year 15 of operation.

#### **Significance of Effect - Operation**

100. Considering the factors which contribute to the identified **medium** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect on the Hundleton and Lamphey LCA arising from the proposed Project would be **minor adverse (not significant)** during operation (year 1 and year 15).

### **7.4 Seascape Character**

101. In addition to the LCAs assessed above, the following two Seascape Character Areas (SCAs) are partly located within the Study Area:
  - Inner Milford Haven SCA; and
  - Freshwater West SCA.

#### *7.4.1. Inner Milford Haven SCA*

102. This SCA is in the north of the Study Area, covering the Milford Haven estuary and adjacent coastal margins. Most of the part of this SCA found within the Study Area is land based and as such is assessed above under the following LCAs:
  - Angle Peninsula;
  - Southern Haven Developed;
  - Southern Haven Industrial Fringe;
  - Southern Haven Mudflats; and
  - Hundleton and Lamphey.
103. Potential indirect change on the offshore areas of this SCA would be very limited, such that it would add little or no additional impacts to those identified for the land based areas.

#### *7.4.2. Freshwater West SCA*

104. This SCA is in the southeast of the Study Area, covering part of the southern coast of the Angle peninsula, Freshwater West beach and adjacent nearshore waters. Impacts on the land based parts of this SCA are assessed above under Angle Peninsula LCA and Freshwater

West/Brownslade Burrows LCA. Potential change experienced from the offshore parts of this SCA would be as described for Freshwater West/Brownslade Burrows LCA.

## 7.5 Visual Amenity - Viewpoints

105. The following section provide an assessment of potential effects on representative viewpoint locations and associated visual receptors. Visualisations from each of the viewpoint locations are provided in **Volume 5: Figures VP A.2 – VP I.4.**

### 7.5.1. Viewpoint A: B4320, The Burrows

#### Baseline Description

106. This viewpoint is located at an elevated location on the B4320 close to the junction with the B4319 north of Freshwater West and is representative of views from nearby residential properties and road users. From the viewpoint location there are open and expansive views over the surrounding rolling agricultural landscape in most directions. Views from nearby residential properties are variable, but often focused towards the south across the undulating landscape to the sea beyond or north towards Milford Haven and the notable features of Pembroke Oil Refinery.
107. This is a relatively attractive, expansive view elevated over the surrounding countryside and coast. Although located within the PCNP it is not recognised through maps or publications as a specific viewpoint and is relatively typical and commonplace of the local area. On balance the value of the view is **medium**.

#### Sensitivity

108. This viewpoint is representative of views experienced by residents of nearby dwelling for which the view is of primary importance. Road users tend to be less susceptible to change as the view is likely to be less important and/or incidental. Taking a precautionary approach, susceptibility is **very high**, and when combined with the medium value, indicate an overall **high** sensitivity to change.

#### Magnitude of Impact - Construction

109. This viewpoint is located at the edge of the OnECC and near the Landfall. Construction activity at the Landfall to the south and along the Onshore Export Cable to the north and east is likely to result in noticeable change, both from the viewpoint location, the adjacent residential property (the Burrows), and local section of the B4320. Change would be temporary in nature and of short duration.
110. There are likely to be broadly similar and relatively close range views of construction of the Onshore Export Cable from several nearby properties, including Fourwinds, Middlehill, Broomhill, Neath, Newton Farm and Cottage, and Harry Standup.
111. Construction of the Onshore Substation would also be visible, although partially screened by landform and vegetation and at a distance of over 3.5km and as such contributing little to the overall change.
112. On balance, taking account of the proximity and large part of the view affected alongside the temporary nature and short duration of change, magnitude of impact during construction is assessed as **medium**.

#### **Significance of Effect - Construction**

113. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **medium** magnitude of impact, the overall significance of effect arising from the proposed Project would be **moderate adverse (significant)** during construction.

#### **Magnitude of Impact - Operation**

114. The Onshore Substation would be partially visible in the distance to the east, occupying a very small and generally unimportant part of the view, and seen in the context of existing electrical infrastructure. The Onshore Substation would therefore result in only very limited and barely discernible change, particularly given the prominence of large scale industrial development to the north. Magnitude of impact during operation is assessed as **negligible**.
115. There is potential for a slight reduction in visibility of the Onshore Substation as mitigation planting establishes. However, the magnitude of impact would remain **negligible** at year 15 of operation.

#### **Significance of Effect - Operation**

116. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect arising from the proposed Project would be **negligible adverse (not significant)** during operation (year 1 and year 15).

#### *7.5.2. Viewpoint B: Minor Road, south of Rhoscrowther*

##### **Baseline Description**

117. This viewpoint is located on the minor road south of the small settlement of Rhoscrowther and is representative of views experienced by road users. There are relatively open views over the surrounding rolling agricultural landscape in most directions, although with rising topography limiting views south. Angle Bay and the north coastline of the Angle peninsula for an attractive focus to the west. However, the Pembroke Oil Refinery is a prominent detracting feature in relative close proximity to the north, strongly influencing the overall impression of the view, including at night.
118. There are variable views from this location consisting of rolling countryside and the coast, although with prominent detracting features also present. This location is not recognised through maps or publications as a specific viewpoint and although located on the edge of the PCNP is relatively typical and commonplace of the local area. On balance the value of the view is **medium**.

##### **Sensitivity**

119. This viewpoint is representative of views experienced by road users on the edge of the PCNP to the south of Rhoscrowther. Views are likely to be largely incidental, although potentially of slightly greater importance given the location within the PCNP. Taking a precautionary approach, susceptibility is **medium**, and when combined with the medium value, indicate an overall **medium** sensitivity to change.

##### **Magnitude of Impact - Construction**

120. Construction of the Onshore Export Cable would largely be screened by intervening landform and hedgerow field boundaries from this location. There may be limited glimpsed views through gaps in the roadside hedge to a short section of the Onshore Cable Route to the south

west. The localised, limited and relatively distant nature of visibility would result in barely perceptible change which would be temporary and of a short duration.

121. Construction of the Onshore Substation would be visible approximately 2 km to the east/southeast, partially screened by landform, trees and hedges. Structures within the temporary construction compound, movement of vehicles, and particularly taller equipment such as cranes would occupy a small part of the view located on the skyline. Overall, construction would appear as a relatively minor new element in the broad views available from this location which include notable existing development (oil refinery 500 m north).
122. On balance, taking account of the limited part of the view affected, the distance, temporary nature and short duration of change, the magnitude of impact during construction is assessed as **small**.

#### **Significance of Effect - Construction**

123. Considering the factors which contribute to the identified **medium** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect arising from the proposed Project would be **minor adverse (not significant)** during construction.

#### **Magnitude of Impact - Operation**

124. Activity and movement at the Onshore Substation would be reduced and temporary construction related structures and lighting removed. The taller structures, and particularly the top of the main substation building would be visible, appearing just beyond the ridge which forms the horizon to the east. The Onshore Substation would therefore add a further structure and associated lighting into the view, not appearing dissimilar to larger agricultural buildings present within the baseline and occupying a small part of the wider views available. Overall, the Onshore Substation would result in a slight change to the view and the magnitude of impact is assessed as **small**.
125. Potential mitigation planting would help to reduce visibility of the Onshore Substation over time such that at year 15 of operation the magnitude of impact is likely to reduce to **negligible**.

#### **Significance of Effect - Operation**

126. Considering the factors which contribute to the identified **medium** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect arising from the proposed Project would be **minor adverse (not significant)** during operation.
127. It is anticipated that at year 15 of operation the significance of effects would reduce to **negligible adverse (not significant)**.

#### *7.5.3. Viewpoint C: Pembrokeshire Coast Path, Pwllcrochan*

##### **Baseline Description**

128. This viewpoint is located on the Pembrokeshire Coast Path to the north of Pwllcrochan on the south side of Milford Haven. From the viewpoint location there are elevated and relatively expansive views over the rolling agricultural land and woodland to the southeast. Two parallel lines of electricity towers and the Greenlink substation are relatively notable elements within the mid-ground and background, and the security fence of the adjacent Pembroke Oil Refinery has an influence on the foreground. Views in other directions from this location are restricted by topography and vegetation. There are more expansive open views to the north and east

over Milford Haven waterway to the settlement and development beyond from a section of the coast path to the north. Views south tend to be dominated by the adjacent oil refinery.

129. This location is not recognised through maps or publications as a specific viewpoint, and although it is on the Pembrokeshire Coast Path, views and scenic quality are influenced by a range of development, including within the foreground. Value of the view is considered to be **low**.

#### **Sensitivity**

130. This viewpoint is representative of dynamic views experienced from a localised section of the Pembrokeshire Coast Path. People are likely to be at this location as part of a longer route along the coast path, from which views are generally important. Susceptibility is **high** and when combined with the low value indicates an overall **medium** sensitivity to change.

#### **Magnitude of Impact - Construction**

131. Construction of the Onshore Export Cable would be predominantly screened from this location because of intervening landform and vegetation. There is potential for very limited visibility of tops of construction vehicles in the distance, but this would represent a largely imperceptible change.
132. Most construction activity associated with the Onshore Substation is also likely to be screened from this location, although taller equipment such as cranes may occasionally be visible.
133. There is potential for slightly greater, but still limited, visibility of construction of the Onshore Substation from the coast path to the north of the viewpoint. Where visible, construction activity would occupy a very small part of the view and would be seen in the context of other more notable development and often through the adjacent oil refinery security fence. Magnitude of impact during construction would be **negligible**.

#### **Significance of Effect - Construction**

134. Considering the factors which contribute to the identified **medium** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect arising from the proposed Project would be **negligible adverse (not significant)** during construction.

#### **Magnitude of Impact - Operation**

135. The Onshore Substation would be predominantly screened from this location and the adjacent section of the coast path such that change would be barely perceptible. Magnitude of impact during operation (year 1 and year 15) would be **negligible**.

#### **Significance of Effect - Operation**

136. Considering the factors which contribute to the identified **medium** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect arising from the proposed Project would be **negligible adverse (not significant)** during operation (year 1 and year 15).

#### *7.5.4. Viewpoint D: B4320, Wogaston*

#### **Baseline Description**

137. This viewpoint is located at a local high point on the B4320 and is representative of views experienced by users of the local path network and road users. There are open and expansive views over the surrounding rolling agricultural landscape in most directions from this location,

although the adjacent reservoir restricts views west. Views south include glimpses of the coast and sea beyond, whereas views north include a range of built features such as solar farms and more distant oil and gas, energy and residential developments and a range of notable light sources at night.

138. This is a relatively attractive, expansive view over the surrounding countryside, although with several detracting elements. This location is not recognised through maps or publications as a specific viewpoint and although located on the edge of the PCNP is relatively typical and commonplace of the local area. On balance the value of the view is **medium**.

#### **Sensitivity**

139. This viewpoint is representative of users of an elevated section of the B4320 and the local path network. Road users tend to be less susceptible to change as the view is likely to be less important and/or incidental. Views experienced by recreational users tend to be of greater importance, although influenced by the existing context and composition. On balance, susceptibility is **high** and when combined with the medium value indicates an overall **high** sensitivity to change.

#### **Magnitude of Impact - Construction**

140. Most construction of the Onshore Export Cable would be screened by landform and vegetation from this location. However, construction along a short section of the OnECC would be visible in the midground, occupying a relatively small part of the expansive views available. From parts of the footpath that runs to the north and from the residential property at Wogaston, there is likely to be greater visibility of construction of the Onshore Export Cable. From the viewpoint and footpath, construction activity would be seen against a backdrop of other existing development, including the adjacent solar farm and more distant oil refinery, gas development and wind turbines.
141. Construction of the Onshore Substation would also be visible from the viewpoint and part of the footpath, representing a greater concentration of activity and of temporary structures and lighting within a similar, albeit smaller, part of the view to the Onshore Export Cable construction.
142. Overall, construction would represent a slight change, occupying a relatively small part of the views available, seen against a backdrop of existing development and not influencing more rural views east and south. On balance and taking account of the temporary nature and short duration of construction, magnitude of impact is assessed as **small**.

#### **Significance of Effect - Construction**

143. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect arising from the proposed Project would be **minor adverse (not significant)** during construction.

#### **Magnitude of Impact - Operation**

144. The Onshore Substation would be visible in the midground, occupying a small part of the overall view, more limited in extent than during construction. The Onshore Substation would introduce new, large structures, electrical infrastructure and associated targeted lighting to the northeast, adding to the range of energy related development already visible in that part of the view. Overall the proposed Project would represent a slight change, occupying a small part of the expansive view, and as such the magnitude of impact is assessed as **small**.

145. Potential mitigation planting would help to reduce visibility of the Onshore Substation over time. However, although the magnitude of impact would be slightly reduced at year 15, it would remain within the **small** category.

#### **Significance of Effect - Operation**

146. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect arising from the proposed Project would be **minor adverse (not significant)** during operation (year 1 and year 15).

#### *7.5.5. Viewpoint E: Wallaston Green*

##### **Baseline Description**

147. This viewpoint is located along the road between the B4320 to the south and Rhoscrowther to the northwest and is representative of road users and the adjacent residential properties at Wallaston and Wallaston Green. Existing views are variable and often heavily restricted by adjacent farm buildings and dwelling and associated trees and hedgerows. Where outwards views are possible, they tend to be relatively short range, limited to the nearby agricultural fields by the rolling nature of the topography, although with some longer range views to the west potentially available. Outward views to the north and west include, and are influenced by, a relatively large solar farm and Pembroke Oil Refinery which is also notable at night. This location is not recognised through maps or publications as a specific viewpoint and is relatively typical of views experienced in the local area. On balance the value of the view is **medium**.

##### **Sensitivity**

148. This viewpoint is representative of views experienced by residents of nearby dwelling for which the view is of primary importance. Road users tend to be less susceptible to change as the view is likely to be less important and/or incidental. Taking a precautionary approach, susceptibility is **very high**, and when combined with the medium value, indicate an overall **high** sensitivity to change.

##### **Magnitude of Impact - Construction**

149. The OnECC would be near the north and west of the viewpoint and adjacent properties, and particularly those at Wallaston Green. Although outward views from these properties are partially limited and restricted, where visible construction of a section of the Onshore Export Cable is likely to represent a relatively noticeable change. Construction activity would be seen in the context and similar part of the view as the solar farm and more distant but prominent oil refinery. There is likely to be more limited visibility of construction from the viewpoint location and properties at Wallaston and in the east of Wallaston Green.
150. Construction of the Onshore Substation is likely to be partially visible from the viewpoint and some of the nearby residential properties. Although landform, vegetation and/or other buildings are likely to limit visibility to taller equipment and activity, this would add to the overall sense of change resulting from construction.
151. On balance, taking account of the proximity alongside the temporary nature and short duration of change, magnitude of impact during construction is assessed as **medium**.
152. There are likely to be broadly similar impacts from Hoplass Farm to the east, and slightly greater change, but overall similar magnitude of impact from Sunnyside to the north.

#### **Significance of Effect - Construction**

153. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **medium** magnitude of impact, the overall significance of effect arising from the proposed Project would be **moderate adverse (significant)** during construction for properties at Wallaston Green, Hoplass Farm and Sunnyridge.

#### **Magnitude of Impact - Operation**

154. The majority of the Onshore Substation would be screened by intervening topography and vegetation from the viewpoint location. There is potential for greater visibility of the Onshore Substation from some of the properties at Wallaston Green, where gaps in foreground vegetation allow outward views to the north. From these select locations the Onshore Substation may represent a notable change to part of the view, slightly extending the influence of built development which is an existing feature of views north.
155. On balance, magnitude of impact during operation is assessed as **medium** for properties at Wallaston Green, Hoplass and Sunnyridge.
156. Potential mitigation planting would help to reduce visibility of the Onshore Substation over time such that at year 15 of operation the magnitude of impact is likely to reduce to **small**.

#### **Significance of Effect - Operation**

157. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **medium** magnitude of impact, the overall significance of effect arising from the proposed Project would be **moderate adverse (significant)** at year 1 of operation.
158. It is anticipated that at year 15 of operation the significance of effects would reduce to **minor adverse (not significant)**.

#### *7.5.6. Viewpoint F: Right of Way, west of Lambeeth Farm*

##### **Baseline Description**

159. This viewpoint is located on the minor road and local PRoW to the west of Lambeeth Farm and is representative of recreational users of the local path network. There are expansive views in most directions from this location and from the PRoW. Views east are over the southern haven and towards Pembroke, while views to the south and west are of rolling agricultural land. Views north are more restricted by the adjacent mature hedgerow, although glimpses towards taller structures north of Milford Haven are possible. Electrical infrastructure and development, and particularly the parallel overhead lines and Greenlink substation, are prominent in views in most directions both from the viewpoint and PRoW in general.
160. Views from the nearby residential properties at Lambeeth and from the nearby section of the Pembrokeshire Coast Path tend to be orientated to the east, with open views along and across the southern haven towards Pembroke. Views inland to the west are screened by buildings, vegetation and landform.
161. Views are variable and although they include a number of scenic elements, there is a strong influence of existing development and infrastructure. This location is not recognised through maps or publications as a specific viewpoint and on balance the value of the view is considered to be **low**.

### **Sensitivity**

162. This viewpoint is representative of views experienced by users of the local path network for which views are generally considered to be important. However, this is likely to be somewhat reduced by the existing nature of views experienced from this route. On balance, susceptibility is considered to be **medium** and when combined with the low value indicates an overall **medium** sensitivity to change.

### **Magnitude of Impact - Construction**

163. This viewpoint and PRoW are located within the OnECC and as such there would be close range views of construction of part of the Onshore Export Cable. There is also likely to be partial views of construction of the Onshore Substation from the viewpoint location and more open and/or closer range views towards the western end of the PRoW. Construction is likely to have a strong influence on views, representing a relatively prominent change within the foreground, although would be experienced in the context of existing notable electrical infrastructure and would be both temporary in nature and of a short duration. On balance, magnitude of impact is assessed as **medium**.
164. Visibility of construction activity associated with both the Onshore Export Cable and particularly the Onshore Substation from the adjacent residential properties at Lambeeth Farm would be more restricted and largely oblique to the main views and as such would experience a reduced magnitude of impact from that described above.

### **Significance of Effect - Construction**

165. Considering the factors which contribute to the identified **medium** sensitivity with those that indicate a **medium** magnitude of impact, the overall significance of effect arising from the proposed Project would be **moderate adverse (significant)** during construction.

### **Magnitude of Impact - Operation**

166. The majority of the Onshore Substation would be screened by intervening topography and vegetation from the viewpoint location, with only the tops of taller structures potentially visible. There is likely to be greater visibility of the Onshore Substation towards the west end of the PRoW, occupying a small but relatively important part of the view when travelling west. When travelling east the Onshore Substation would be behind the viewer and as such would have little influence.
167. On balance and taking a worst case approach based on views from the west of the PRoW, the magnitude of change is assessed as **medium**.
168. Potential mitigation planting would help to reduce visibility of the Onshore Substation over time such that at year 15 of operation the magnitude of impact is likely to reduce to **small**.
169. There would be no visibility, and therefore impacts, of the Onshore Substation from the adjacent residential properties at Lambeeth Farm.

### **Significance of Effect - Operation**

170. Considering the factors which contribute to the identified **medium** sensitivity with those that indicate a **medium** magnitude of impact, the overall significance of effect arising from the proposed Project would be **moderate adverse (significant)** during operation.
171. It is anticipated that at year 15 of operation the significance of effects would reduce to **minor adverse (not significant)**.

### 7.5.7. Viewpoint G: Goldborough Road (west)

#### Baseline Description

172. This viewpoint is located on the minor road near Goldborough and is representative of views experienced by road users and nearby residential properties. There are relatively open and expansive views in most directions from the viewpoint location, although the adjacent hedgerow restricts views south. A series of developments and structures are present across much of the view, including the stacks and associated lighting, of the Pembroke Oil Refinery, Pembroke Power Station, Greenlink substation, numerous overhead line towers and more distant gas and wind development. These represent notable detracting features in contrast to the rolling agricultural landscape within the foreground. Views from nearby residential properties tend to be slightly more restricted due to foreground vegetation and or landform.
173. Although with some scenic qualities, the view from this location is influenced by a number of detracting features. It is not recognised through maps or publications as a specific viewpoint and is relatively typical and commonplace of the local area. On balance the value of the view is considered to be **medium**.

#### Sensitivity

174. This viewpoint is representative of views experienced by residents of nearby dwellings for which the view is considered to be of primary importance. Road users tend to be less susceptible to change as the view is likely to be less important and/or incidental. Overall, susceptibility is considered to be **high**, and when combined with the medium value, indicate an overall **high** sensitivity to change.

#### Magnitude of Impact - Construction

175. The majority of construction of the Onshore Export Cable would be screened by landform and vegetation from this location. However, construction of a relatively short section of the Onshore Export Cable would be visible across the midground of the view to the northwest.
176. Construction of the Onshore Substation is also likely to be partially visible on the skyline to the west, adding slightly to the overall impression of change. Construction activity would be seen in the context of a range of existing electrical infrastructure and other development and light sources which influences much of the view to the north.
177. Visibility of construction activity from the nearby residential properties, and particularly Moreston and Goldborough are likely to be more limited due to partial screening by intervening vegetation and buildings.
178. On balance, considering the relatively wide extent of the view affected alongside the temporary nature of and short duration of change, the magnitude of impact during construction is assessed as **small**.

#### Significance of Effect - Construction

179. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect arising from the proposed Project would be **minor adverse (not significant)** during construction.

#### Magnitude of Impact - Operation

180. The majority of the Onshore Substation and associated lighting would be screened by intervening topography and vegetation from the viewpoint location, with only the tops of

taller structures potentially visible, occupying a small part of the wider view. Taking account of the limited part of the view affected and partial nature of visibility, magnitude of impact is assessed as **small**.

181. Potential mitigation planting would help to reduce visibility of the Onshore Substation over time such that at year 15 of operation the magnitude of impact is likely to reduce to **negligible**.

#### **Significance of Effect - Operation**

182. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect arising from the proposed Project would be **minor adverse (not significant)** at year 1 of operation.

183. It is anticipated that at year 15 of operation the significance of effects would reduce to **negligible adverse (not significant)**.

#### *7.5.8. Viewpoint H: Pennar*

##### **Baseline Description**

184. This viewpoint is located near Pennar on the southern edge of Pembroke Dock and is representative of nearby recreational and residential receptors. There are attractive, slightly elevated, broad and open views south across the southern haven and the rolling farmland beyond. Overhead lines cross the middle distance of the view, with the Pembroke Power Station and Pembroke Oil Refinery notable to the west. Views north from the viewpoint are more restricted, although nearby recreational receptors gain more open views across the northern haven towards coastal settlement and including a number of wind farms and a large oil and gas terminal.
185. This is a variable view with a mix of attractive and some detracting features and range of light sources at night. It is not recognised through maps or publications as a specific viewpoint and is relatively typical and commonplace of the local area. On balance the value of the view is considered to be **medium**.

##### **Sensitivity**

186. This viewpoint is representative of views experienced by residents of nearby dwelling for which the view is considered to be of primary importance. Taking a precautionary approach, susceptibility is considered to be **very high**, and when combined with the medium value, indicate an overall **high** sensitivity to change.

##### **Magnitude of Impact - Construction**

187. Construction of a section of the Onshore Export Cable would be visible across part of the view to the west. The intervening distance and separation provided by the southern haven would limit the impression of change. Construction of the onshore substation would also be partially visible, occupying a very small and distant part of the view. Construction of both the Onshore Export Cable and Onshore Substation would be seen in part of the view already heavily influenced by a range of development and electrical infrastructure.
188. On balance, taking a worst case approach, while considering the intervening distance and the temporary nature and short duration of construction, the magnitude of impact is assessed as **small**.

#### **Significance of Effect - Construction**

189. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect arising from the proposed Project would be **minor adverse (not significant)** during construction.

#### **Magnitude of Impact - Operation**

190. The Onshore Substation would be partially screened by intervening topography and would occupy a very small and distant part of the overall view. It would add a further built development within part of the view already influenced by existing development and electrical infrastructure. Overall, the proposed Project would represent a slight change, with little influence on the overall impression of the view including at night and as such the magnitude of impact at operation would be **small**.
191. Potential mitigation planting would help to reduce visibility of the Onshore Substation over time such that at year 15 of operation the magnitude of impact is likely to reduce to **negligible**.

#### **Significance of Effect - Operation**

192. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect arising from the proposed Project would be **minor adverse (not significant)** during year 1 of operation.
193. It is anticipated that at year 15 of operation the significance of effects would reduce to **negligible adverse (not significant)**.

#### *7.5.9. Viewpoint I: Goldborough Road (east)*

#### **Baseline Description**

194. This viewpoint is located adjacent to the minor road to the west of Hundleton and is representative of recreational receptors on a section of the Pembrokeshire Coast Path, road users and nearby residential receptors. There are variable views from this location, with open, expansive views to the north and west and more restricted views south and east due to rising topography. To the north and west views are across a rolling agricultural landscape and the southern haven and include the large settlement of Pembroke Dock and a number of notable developments such as the Pembroke Oil Refinery, power station, nearby overhead lines and more distant wind turbines and oil and gas terminal. Many of these developments also represent notable light sources at night.
195. This is a variable view with a mix of attractive and some detracting features. It is not recognised through maps or publications as a specific viewpoint and is relatively typical and commonplace of the local area. On balance the value of the view is **medium**.

#### **Sensitivity**

196. This viewpoint is representative of recreational receptors along the Pembrokeshire Coast Path, users of the local road and more broadly approximates to the view from nearby residential receptors. Views from this inland section of the coast path are likely to be somewhat less important than those from coastal locations within the PCNP. On balance, susceptibility is **high** and when combined with the medium value indicates an overall **high** sensitivity to change.

#### **Magnitude of Impact - Construction**

197. Construction of a section of the Onshore Export Cable would be visible across part of the view to the west and northwest. The intervening distance of over 2 km at the nearest point and localised screening by vegetation and buildings would somewhat limit the impression of change. Construction of the onshore substation would also be partially visible to the west, occupying a very small and distant part of the view. Construction would be seen in part of the view already heavily influenced by a range of development and electrical infrastructure, including at night.
198. On balance considering the intervening distance and the temporary nature and short duration of construction, the magnitude of impact is assessed as **negligible**.

#### **Significance of Effect - Construction**

199. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect arising from the proposed Project would be **negligible adverse (not significant)** during construction.

#### **Magnitude of Impact - Operation**

200. The Onshore Substation would be partially screened by intervening topography and would occupy a very small and distant part of the overall view. It would add a further built development within to the view, marginally extending the influence of the existing larger scale and extensive development. Overall, the proposed Project would represent a slight change, with little influence on the overall impression of the view and as such the magnitude of impact at operation would be **small**.
201. Potential mitigation planting would help to reduce visibility of the Onshore Substation over time such that at year 15 of operation the magnitude of impact is likely to reduce to **negligible**.

#### **Significance of Effect - Operation**

202. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect arising from the proposed Project would be **minor adverse (not significant)** during operation (year 1).
203. It is anticipated that at year 15 of operation the significance of effects would reduce to **negligible adverse (not significant)**.
- 204.

### **7.6 Visual Amenity - Pembrokeshire Coast Path**

205. The Pembrokeshire Coast Path is a long distance (approximately 300km) walking route stretching from St Dogmaels in the north to Amroth in the south. The route predominantly follows the coast, except at Castlemartin where it goes inland to avoid the military firing range. Within the Study Area views from the route vary considerably, from elevated open coast and sea views from more isolated sections to more limited and enclosed views from bays and settlements, and close range views of oil and gas and other industrial development around Milford Haven. Although the scenic quality varies along the length of the route, taking a precautionary approach, overall value of the view is **high**.

### 7.6.1. Sensitivity

206. Views from the Pembrokeshire Coast Path are an important part of the experience of the route and would potentially be the primary focus of users. The main attention of views tends to be towards and along the coastline, and particularly the sea cliffs and beaches. However, inland views provide a context and contrast and are part of the overall experience of the route. Susceptibility would vary across the parts of the route found within the Study Area depending on the context and nature of existing views. Overall, susceptibility is **high** and when combined with the high value indicates an overall **high** sensitivity to change.

### 7.6.2. Magnitude of Impact - Construction

207. Three relatively short sections of the Pembrokeshire Coast Path are found within the Study Area; west from Hundleton to Pembroke Oil Refinery, east of Angle Bay, and south from Black Cave to Gupton Burrows at Freshwater West. Construction of the onshore elements of the proposed Project would be visible from parts of each of these sections of the route.
208. From most parts of the longest section (Hundleton to Pembroke Oil Refinery) visibility of construction of both the Onshore Export Cable and Onshore Substation would be screened by topography and/or mature vegetation. Visibility of construction would therefore be predominantly limited to the initial 1km immediately west of Hundleton (**see Viewpoint I, Section 7.5.9**) and approximately 600m north from Lambeeth Farm, although with potential for limited visibility from adjacent to the oil refinery (**see Viewpoint C, Section 7.5.3**). The part of the route north of Lambeeth Farm would be adjacent to or within the OnECC and as such construction of the Onshore Export Cable would be visible in the foreground. Construction of the Onshore Substation would be predominantly screened from this part of the route.
209. There would be very little or no visibility of construction of both the Onshore Export Cable and Onshore Substation from most of the section east of Angle Bay. Where visibility is possible, construction would occupy a small part of the overall view, resulting in little impression of change.
210. From the final section, visibility of construction at the Landfall and within the OnECC would be limited to localised areas, with intervening topography screening views from most part of the route. Where visible, construction of the Landfall and onshore Export Cable would generally occupy a small part of the view and would be located inland, away from the more sensitive coastal views. Construction of the Onshore Substation would not be visible from this section of the route.
211. As set out above, there is potential for localised notable change, particularly for the short section north of Lambeeth Farm where construction of the Onshore Export Cable would be in very close proximity. However, from most other parts of the route, there would be no or limited visibility or sense of change resulting from construction. Where visible, construction would be temporary in nature and of a short duration. Overall, the magnitude of impact of construction on views from the Pembrokeshire Coast Path is assessed as **small**.

### 7.6.3. Significance of Effect - Construction

212. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **small** magnitude of impact, the overall significance of effect arising from construction of the onshore elements of the proposed Project would be **minor adverse (not significant)**.

#### 7.6.4. *Magnitude of Impact - Operation*

213. The ZTV for the Onshore Substation (**Volume 5: Figure 7.7**) indicates that potential visibility would be limited to very localised sections of the route, west of Hundleton (**see Section 7.5.9**), north of Pwllcrochan (see **Section 7.5.3**) and a very limited section east of Angle Bay. Visibility from east of Angle Bay would be predominantly screened by vegetation and intervening topography.
214. On balance, considering the distant and limited nature of visibility of the Onshore Substation and very localised parts of the route potentially affected, and although there may be locally increased change, the magnitude of impact during operation is assessed as **negligible**.

#### 7.6.5. *Significance of Effect - Operation*

215. Considering the factors which contribute to the identified **high** sensitivity with those that indicate a **negligible** magnitude of impact, the overall significance of effect arising from the onshore elements of the proposed Project would be **negligible adverse (not significant)** during operation (year 1 and year 15).

## **7.7 References**

Pembrokeshire Coast National Park Authority, 2019. Pembrokeshire Coast National Park Authority, Management Plan (2020-2024) Background Paper: The State of the Park

Pembrokeshire Coast National Park Authority, 2018. Pembrokeshire Coast National Park Management Plan, Background Paper: Special Qualities of Pembrokeshire Coast National Park