



**LLYR**

# LLYR FLOATING OFFSHORE WIND PROJECT

**Llŷr 1 Floating Offshore Wind Farm**

**Environmental Statement**

**Volume 6: Appendix 23B – Seascape, Landscape and Visual  
Impact Assessment (SLVIA) Preliminary 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
HAT	Highest Astronomical Tide	PCNP	Pembrokeshire Coast National Park
km	Kilometre	PCNPA	Pembrokeshire Coast National Park Authority
LCA	Landscape Character Area	RHPG	Registered Historic Park and Garden
m	metres	SCA	Seascape Character Area
MCA	Marine Character Area	SLVIA	Seascape, Landscape and Visual Impact Assessment
MMO	Marine Management Organisation	WTG	Wind Turbine Generator
NDT	North Devon and Torridge	ZTV	Zone of Theoretical Visibility
PCC	Pembrokeshire County Council		

## 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 will 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) will be located, from the Array Area to the Landfall.

Term	Definition
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.
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) will be located.
proposed Project	All aspects of the Llyr 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.
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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## **23-B- SLVIA PRELIMINARY ASSESSMENT**

### **23.1 Introduction**

1. Llŷr Floating Wind Ltd (hereafter the Applicant) is proposing to develop the Llŷr 1 Floating Offshore Wind Farm (hereafter referred to as the proposed Project), located approximately 35 kilometres (km) off the coast of Pembrokeshire in the Celtic Sea.
2. The proposed Project is a test and demonstration wind farm development, comprising up to 10 wind turbine generators (WTGs) and associated infrastructure. The proposed Project will make landfall at Freshwater West before connecting into the national grid network at Pembroke Dock power station.
3. This appendix provides a Seascape, Landscape and Visual Impact Assessment (SLVIA) preliminary assessment in order to identify those seascape and landscape receptors with the potential for significant effects, and therefore taken forward to more detailed assessment. This helps to ensure the detailed assessment is targeted and proportionate, with a focus on potential significant effects. This appendix should be read in conjunction with **Chapter 23 – Seascape, Landscape and Visual, Appendix 23A – SLVIA Methodology** and **Volume 5: Figures 23.1 to 23.10**.

### **23.2 Approach**

4. The preliminary assessment is informed by a process of desk and field-based survey and through professional judgement. The initial step involved preparation of Zone of Theoretical Visibility (ZTV) calculations to determine the extent of potential visibility of the proposed Project. The ZTV was prepared in line with good practice guidance, *Visual Representation of Wind Farms* (NatureScot, 2017) and was based on the maximum tip height of the proposed WTGs, 325.5 metres (m) above sea level at Highest Astronomical Tide (HAT). The ZTV is calculated based on a landform model which does not take account of surface features such as trees or woodland, buildings and other structures or local landform which can locally reduce visibility. This approach allows identification of the maximum extent of theoretical visibility, and therefore represents the worst case scenario. Further information on the approach to and limitation of ZTVs is provided in **Section 23.12 of Appendix 23A – SLVIA Methodology**. Those receptors located fully or predominantly outside the extent of the ZTV and/or the 45 km SLVIA Study Area have been scoped out of the assessment.
5. The visual assessment is based on a series of representative viewpoints selected in consultation with NRW, Pembrokeshire Coast National Park Authority (PCNPA) and Pembrokeshire County Council (PCC). Details of stakeholder engagement and consultation are provided in **Section 23.3 of Chapter 23 – Seascape, Landscape and Visual**. Each of the identified viewpoints are included in the detailed assessment and therefore are not considered as part of the preliminary assessment.

### **23.3 Preliminary Assessment**

6. The findings of the preliminary assessment, including an explanation and reasoned justification for any receptors scoped out of detailed assessment, are provided in **Table 23B-1** (Landscape Designations),
7. **Table 23B-2** (Seascape Character Areas (SCA) and Marine Character Areas (MCA)), and **Table 23B-3** (Landscape Character Areas (LCA)).

Table 23B-1. Preliminary assessment of landscape designations

Landscape designations	Preliminary assessment	Detailed assessment required? (Y/N)
Pembrokeshire Coast National Park (PCNP)	Nationally designated landscape, several areas of which are within the ZTV for the proposed Project. Potential for significant effects, including in relation to the defined special qualities, to be determined through detailed assessment.	Yes
Orielton Registered Historic Park and Garden (RHPG)	The ZTV indicates potential visibility of the proposed WTGs would be limited to the high point on the southern boundary of the RHPG. The proposed Project would have very little, if any, influence on the character or impression of the RHPG, with no potential for significant effects.	No
Stackpole RHPG	RHPG largely outside extent of ZTV and at considerable distance from proposed Project, with no potential for significant effects.	No
St Brides Castle and Trewarren RHPGs	Outside the extent of the ZTV, with no potential for effects.	No
Marloes and Dale and South Pembrokeshire Heritage Coasts	Both Heritage Coasts are largely within, and have a broadly similar purpose of designation to, the PCNP and as such are considered together with the PCNP in the detailed assessment.	Yes

Table 23B-2. Preliminary assessment of SCAs and MCAs

SCA/MCA	Preliminary assessment	Detailed assessment required? (Y/N)
PCNP SCA 14: Western Sand and Gravel Bars	This SCA is entirely offshore and the subsea elements which define this area are not apparent from the Pembrokeshire coast. The proposed WTGs would be located at long distance from this SCA and would have no influence on the key perceptual qualities of openness, remoteness and exposure or the simple and uniform open sea character.	No
PCNP SCA 23: St Brides Bay South Coastal Waters - The Nab Head	The proposed WTGs would be located at long distance and as such are likely to only be apparent during periods of excellent visibility. This SCA is predominantly outside the extent of the ZTV, with no potential visibility from the coastal strip and offshore area, and no influence on key views to the west and north. There is therefore no potential for significant effects on the perceptual qualities of this SCA resulting from the proposed Project.	No

SCA/MCA	Preliminary assessment	Detailed assessment required? (Y/N)
PCNP SCA 24: St Brides Bay	This SCA is largely outside the extent of the ZTV and/or limited to visibility of tops of a small number of turbines, due to screening provided by the Marloes peninsula, Skomer and Skokholm islands. Where potentially visible the proposed WTG would be located at long distance and as such are likely to only be apparent during periods of excellent visibility. There is therefore no potential for significant effects on the perceptual qualities of this SCA resulting from the proposed Project.	No
PCNP SCA 25: Skomer Island and Marloes Peninsula PCNP SCA 27: Skokholm and Gateholm Coastal Waters	Potential for relatively open visibility from parts of the south and west coast and coastal waters of these SCAs. Potential for significant effects to be determined through detailed assessment.	Yes
PCNP SCA 27: Grassholm and the Smalls	This SCA is approximately 11 km from the mainland Pembrokeshire coast and consists of an offshore area with a number of small islands and reefs. The proposed WTGs would be located at long distance from this SCA and would not influence views towards, or the relationship of this area with, Skomer, Skokholm and the mainland coast to the west. The proposed WTGs would be perceived as a distant element within the wider open seascape, with little or no influence on this SCA.	No
PCNP SCA 28: West Open Sea	This SCA is entirely offshore and the subsea elements which contribute to its character are not apparent from the Pembrokeshire coast. While the proposed WTGs may be visible beyond this SCA from localised parts of the Pembrokeshire coast they would be perceived as a distant element within the wider open seascape, with little or no influence on the perceptual characteristics of the SCA.	No
PCNP SCA 29: Southern Inshore Waters	This SCA is entirely offshore and the subsea elements which contribute to its character are not apparent from the Pembrokeshire coast. While the proposed WTGs may be visible in the background of this SCA from parts of the Pembrokeshire coast they would be perceived as a distant element within the wider open seascape, with little or no influence on the perceptual characteristics of the SCA. Potential impacts on the coast and coastal waters are considered as part of relevant coastal SCAs.	No

SCA/MCA	Preliminary assessment	Detailed assessment required? (Y/N)
PCNP SCA 30: Southern Offshore Waters	This SCA is entirely offshore and the subsea elements which contribute to its character are not apparent from the Pembrokeshire coast. Although the proposed WTGs may be seen in the expansive open sea beyond this SCA when viewed from the coast, they would have very little or no influence on key characteristics, including the uniformity, openness and expansive nature.	No
PCNP SCA 31: Outer Milford Haven	Potential for relatively open visibility from parts of the south and west coast and coastal waters of these SCAs. Potential for significant effects to be determined through detailed assessment.	Yes
PCNP SCA 34: Freshwater West		
PCNP SCA 35: Castlemartin Coastal Waters		
PCNP SCA 32: Inner Milford Haven	A range of existing development, including onshore wind turbines and notable oil and gas developments are located within this SCA. The proposed WTGs would be located at long distance from this SCA and as indicated by the ZTV would be screened from the majority of the area, with no potential for significant effects.	No
PCNP SCA 36: Stackpole Coastal Waters	The proposed WTG would be located at long distance from this SCA and as such are likely to only be apparent during periods of excellent visibility. The ZTV extent is largely limited to offshore areas, with the landform of St Govan's Head acting as a screen for the majority of the coast and immediate coastal waters of this SCA. The majority of the coast, channelled views from Broad Haven and the overall focus towards the southeast would be unaffected. The proposed Project would have no potential for significant effects on this SCA.	No
PCNP SCA 37: Freshwater East and Manorbier	The proposed WTGs would be located at very long distance from this SCA, with the majority of the area beyond the 45 km Study Area. Where potentially visible the WTGs are likely to only be apparent during periods of excellent visibility and would have no potential for significant effects on the perceptual characteristics of this SCA.	No

SCA/MCA	Preliminary assessment	Detailed assessment required? (Y/N)
PCNP SCA 44: Western Offshore – Very Deep Water	This SCA is entirely offshore and the subsea elements which contribute to its character are not apparent from the Pembrokeshire coast. The proposed WTGs would be distant from this SCA and within a different part of the wider open seascape when viewed from the Pembrokeshire coast. The proposed Project would have no potential for significant effects on the perceptual characteristics of this SCA.	No
North Devon and Torrige (NDT) SCA 16: Lundy North	These SCAs are entirely offshore and the subsea elements which contribute to their character are not apparent from Lundy, or the Devon and Welsh coasts. The proposed WTGs would be very distant from these SCAs and appear as a small element within the expanse of open seas to the west, with no influence on the relationship between these areas and Lundy to the east. The proposed Project would have no potential for significant effects on the perceptual characteristics of these SCAs.	No
NDT SCA 27: Lundy South SCA		
Marine Management Organisation (MMO) MCA 51: Bristol Channel Approaches	This MCA covers a vast area of offshore waters distant from the Devon and Cornish coasts, largely defined as an expansive area of relatively uniform marine character. Although the WTGs may be perceived from parts of this seldom visited area, they would represent a very small and distant element with no potential for significant effects on the perceptual characteristics of this MCA.	No

Table 23B-3. Preliminary assessment of LCAs

LCA	Preliminary assessment	Detailed assessment required? (Y/N)
PCC LCA 10: The Haven North LCA	The majority of these LCAs are outside the Study Area and/or ZTV extent of the proposed Project. The proposed WTGs would be located at considerable distance from these LCA and where visible from limited and localised areas, would be experienced in the context of existing more notable industrial and energy development. Due to the long distance and existing context, there is no potential for significant effects on the perceptual qualities of these LCAs.	No
PCC LCA 16: Southern Haven Developed		
PCC LCA 22: Milford Haven		

LCA	Preliminary assessment	Detailed assessment required? (Y/N)
PCC LCA 23: Southern Haven Industrial Fringe	This LCA is largely defined by industrial development (refinery and power station) and is predominantly outside the extent of the ZTV, with only a localised area of higher ground within the refinery complex indicating theoretical visibility. In reality visibility would be further restricted, with no potential for significant effects from the proposed Project.	No
PCC LCA 24: Southern Haven Mudflats	Outside the extent of the ZTV, with no potential for effects.	No
PCC LCA 25: Hundleton and Lamphey	Predominantly outside extent of offshore WTG ZTV, with potential visibility very distant and limited to local high points where existing development is apparent at closer range. No potential for the proposed Project to result in significant effects on the perceptual qualities of this LCA.	No
PCNP LCA 4: Manorbier/ Freshwater East	Predominantly outside the extent of ZTV and/or Study Area, with theoretical visibility limited to localised high points. In reality trees and woodland is likely to further limit visibility. Given the very limited nature of theoretical visibility and the considerable distance from the proposed WTGs there would be no potential for significant effects on the perceptual qualities of these two LCAs.	No
PCNP LCA 5: Stackpole		
PCNP LCA 6: Castlemartin/ Merrion Ranges	There is potential for relatively open visibility from elevated and coastal areas of these LCAs, with lower lying or north facing areas outside the ZTV. Potential for significant effects to be determined through detailed assessment. There is considerable overlap between these LCAs and the SCAs covering Skomer, Skokholm and the south Pembrokeshire coast.	Yes
PCNP LCA 7: Angle Peninsula		
PCNP LCA 8: Freshwater West/ Brownslade Burrows		
PCNP LCA 9: Marloes Peninsula		
PCNP LCA 10: Skomer and Skokholm		

LCA	Preliminary assessment	Detailed assessment required? (Y/N)
PCNP LCA 11: Herbrandston	The proposed WTG would be located at long distance from this LCA and as such are likely to only be apparent during periods of excellent visibility. The ZTV indicated potential visibility would be largely limited to parts of the south of this LCA where there is an existing strong presence and influence from industrial and energy development. Due to the long distance and existing context, there is no potential for significant effects on the perceptual qualities of this LCA resulting from the proposed Project.	No
PCNP LCA 12: St Bride's Bay	This LCA is predominantly outside the Study Area and ZTV extent. The proposed WTGs would be located at very long distance and as such are likely to only be apparent during periods of excellent visibility. There is no potential for significant effects on the perceptual qualities of this LCA resulting from the proposed Project.	No

## **23.4 References**

Scottish Natural Heritage (NatureScot), 2017. Visual representation of Wind Farms (Version 2.2)