

Project Erebus

Planning Statement

December 2021

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Acronyms

ALARP	As Low as Reasonably Practicable
BEIS	Department of Business, Energy and Industrial Strategy
BLB	Blue Line Boundary
BGS	British Geological Survey
CCS	Carbon Capture and Storage
CEMP	Construction and Environmental Management Plan
CO ₂	Carbon dioxide
CTMP	Construction Traffic Management Plan
DAS	Design and Access Statement
DCO	Development Consent Order
DNS	Developments of National Significance
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMF	Electromagnetic Field
EN-1	Overarching National Policy Statement for Energy
EN-3	National Policy Statement for Renewable Energy Infrastructure
EN-5	National Policy Statement for Electricity Networks Infrastructure
ES	Environmental Statement
FAD	Fish Aggregating Device
FAQ	Frequently Asked Questions
FCA	Flood Consequences Assessment
FLOW	Floating Offshore Wind
FOCI	Feature of Conservation Interest
FW	Future Wales: The National Plan 2040
GHG	Greenhouse Gases
GVA	Gross Value Added
HWM	High Water Mark

IEMA	The Institute of Environmental Management and Assessment
INNS	Invasive Non-Native Species
LDP	Local Development Plan
LEMP	Landscape and Ecological Management Plan
LPA	Local Planning Authorities
LVIA	Landscape Visual Impact Assessment
MCAA	Marine and Coastal Access Act 2009
MCA	Maritime and Coastguard Agency
MHWS	Mean High Water Springs
MMO	Marine Management Organisation
MoD	Ministry of Defence
MPS	UK Marine Policy Statement
MW	Megawatts
NGT	National Grid Transco
NPS	National Policy Statement
NRA	Navigation Risk Assessment
NRW	Natural Resources Wales
OSPAR Convention	Convention for the Protection of the Marine Environment of the North-East Atlantic
OWF	Offshore Wind Farm
PCC	Pembrokeshire County Council
PCC LDP	Pembrokeshire County Council LDP
PCNP	Pembrokeshire Coast National Park
PCNPA	Pembrokeshire Coast National Park Authority
PCNPA LDP2	Pembrokeshire Coast National Park LDP 2
PDE	Project Design Envelope
PEDW	Planning and Environment Decisions Wales
PRoW	Public Rights of Way
PPW	Planning Policy Wales
PWS	Private Water Supply
SAC	Special Area of Conservation
SBE	Simply Blue Energy
SPA	Special Protection Area

SPG	Supplementary Planning Guidance
SSSI	Site of Special Scientific Interest
TAN	Technical Advice Note
TCE	The Crown Estate
TCPA	The Town and Country Planning Act 1990
UXO	Unexploded Ordnance
WoFGA	Well-being for Future Generations (Wales) Act 2015
WFD	Water Framework Directive
WNMP	Wales National Marine Plan
WTG	Wind Turbine Generator

1. Introduction

- 1.1 This Planning Statement has been prepared on behalf of Blue Gem Wind (“the Applicant”) and accompanies an application under Section 36 of the Electricity Act 1989 and Part 4 of the Marine and Coastal Access Act 2009 for the construction, operation and decommissioning of a demonstration scale Floating Offshore Wind (“FLOW”) development in the Celtic Sea, along with the associated deemed planning permission for the requisite onshore infrastructure for grid connection at Pembroke Power Station.
- 1.2 The Project comprises up to ten Wind Turbine Generators (“WTGs”) with a total capacity of up to 100 MW. Each WTG is housed on a semi-submersible floating platform with associated sub-sea catenary mooring lines (including clump weights), up to 870m in length, and a range of potential anchor solutions (including drag embedment anchors). Dynamic inter array cables are proposed between each WTG. A single offshore export cable, up to 49km in length, is proposed to make landfall at West Angle Bay, Pembrokeshire. The array area is located outside of the 12 nm limit, but all offshore elements of the Project, array area and offshore export cable corridor, fall within Welsh waters.
- 1.3 The onshore works are the subject of the deemed planning permission and comprise the onshore electrical cable route, grid connection substation and ancillary works.
- 1.4 Onshore Project components will comprise the onshore cable route, from landfall at West Angle Bay to the substation in the vicinity of Pembroke Power Station. The onshore site boundary runs for approximately 12.5km via a 66 kV cable from the landfall at West Angle Bay, through Castlemartin peninsula to the proposed onshore substation, located approximately 0.9km east of Wallaston Cross toward Lambeeth Farm.
- 1.5 The onshore substation will be connected to the 400 kV grid network at Pembroke Power Station via a 132 kV cable which is approximately 2 km in length. The onshore cable route extends through the administrative boundary of both Pembrokeshire Coast National Park Authority (“PCNPA”) and Pembrokeshire County Council (“PCC”).
- 1.6 The application adopts a Project Design Envelope (“PDE”) (also known as the Rochdale Envelope) approach. This approach has been agreed with the Planning Inspectorate (now Planning and Environment Decisions Wales (“PEDW”)) and Natural Resources Wales (“NRW”) through the pre-submission consultation process. Further detail regarding the PDE is set out at Chapter 3 of this Statement and within Chapter 4 (Section 4.2) of the accompanying Environmental Statement (“ES”).
- 1.7 This report should be read in conjunction with the other submitted documents, most notably the ES and Design and Access Statement (“DAS”). These provide a detailed account of the works for which consent will be sought and the effects of those works on the environment.

Project Consents

- 1.8 The key project consent applications are:
- Section 36 consent under the Electricity Act 1989: to construct and operate an offshore generating station, with deemed planning permission for the associated onshore transmission infrastructure.
 - Marine Licence under Part 4 of the Marine and Coastal Access Act 2009 (“MCAA”): to carry out certain activities in the marine environment, including construction works, depositing substances or articles, and dredging.
- 1.9 PEDW, administering on behalf of the Welsh Ministers, is the consenting authority for the Section 36 Application. NRW, administering on behalf of the Welsh Ministers, is the consenting authority for the marine licence application.

The Applicant

- 1.10 Blue Gem Wind was created in 2020 to develop FLOW projects in the Celtic Sea. Blue Gem Wind is a joint venture between Simply Blue Energy, a pioneering Celtic Sea energy developer and TotalEnergies, one of the world's largest energy companies. The Applicant's aim is to create a low carbon offshore energy sector in the Celtic Sea that will contribute to achieving climate change targets, along with providing energy security and high skilled employment opportunities.
- 1.11 The founding companies of Blue Gem Wind have extensive experience in the offshore renewables sector. Since its foundation in 2011, Simply Blue Energy has gained a thorough understanding of the Celtic Sea and has focussed on the area when exploring opportunities. Total Energies aims to give greater prominence to renewables in order to meet energy needs. This is achieved by adapting its energy mix to achieve a target of 35 GW of installed renewable power generation capacity by 2025 and a net-zero emissions goal by 2050.

Overview of Consultation

- 1.12 Under the Electricity Works (EIA)(England and Wales) Regulations 2017 and the Marine Works (EIA) Regulations 2007 (as amended), the Applicant is required to carry out pre-application consultation on the Project prior to submitting the application. The approach to pre-application consultation has been informed by accepted good practice as set out within legislation and national and local planning guidance. Section 1.2 of the Consultation Report (Technical Appendix 2.3) provides a summary of the relevant legislation and planning policy.
- 1.13 The consultation for the Project has been spilt into four main phases, which are set out in detail in Sections 1.3-1.6 of the Consultation Report:
- Phase 1 - Throughout 2019: Pre-scoping early stakeholder engagement in order to introduce the project, discuss the proposed consenting (and Environmental Impact Assessment (“EIA”)) strategy and programme;

- Phase 2 - July 2019 to January 2020: Scoping Opinion request - Consultation on the Scoping Report with a Scoping Opinion sought from NRW and issued in January 2020;
 - Phase - 3 February 2020 to December 2021: Pre-application submission stakeholder engagement; and
 - Phase 4 December 2021: Notification of Application.
- 1.14 Figure 1.1 of the Consultation Report provides a timeline of the consultation process, whilst Table 1.1 provides detail on both the statutory and non-statutory consultation activities undertaken.
- 1.15 The consultation process has included pre-submission engagement with PEDW, NRW, PCC and PCNPA, in addition to a wide range of other specialist consultees such as The Maritime Coastguard Agency (“MCA”), Commercial Fisheries Organisations, the Ministry of Defence (“MoD”) and locally elected Councillors. A list of consultees and stakeholders contacted for the development of each chapter of the ES is set out at Section 1.5.12 of the Consultation Report.
- 1.16 Consultation was also undertaken with the general public, both in the context of the EIA and through providing more general project updates. The Applicant maintained a dedicated website with access to the document library, contact details and subscription to project newsletters. As consultation evolved, access to the virtual exhibition was provided. A Frequently Asked Questions (“FAQ”) document was produced and updated regularly based on commonly asked questions and to provide information on specific topics.
- 1.17 Consultation methods evolved to respond to the challenge of the Covid-19 Pandemic. The Applicant utilised a number of different consultation tools throughout the consultation process to ensure engagement was effective and accessible. The tools included:
- Project Community newsletters;
 - Project website;
 - Public exhibitions and information days;
 - Project introduction emails;
 - Community Council meetings;
 - FAQ document; and
 - Local and social media.
- 1.18 Community consultation was undertaken prior to project design and assessment being finalised. Two in-person events were hosted at the locations set out below. The locations were chosen as they represent the key coastal settlements in relation to the onshore cable route:

- Hundleton Church Hall on 14 July 2021 from 2pm – 6pm; and
- Angle Village Hall on 29 July 2021 from 2pm – 7pm.

1.19 During the public consultation process, a number of channels for stakeholders to submit feedback on the Project were established. This included email, in person (at exhibitions or meetings), via their elected representative and on feedback forms provided at public exhibitions.

1.20 The feedback received across all phases of the pre-submission consultation has been helpful in identifying key areas of concern and has particularly influenced how the Project mitigation has evolved throughout the design process. Details of how the Applicant has responded to the consultation responses is set out in the Summary of Consultation tables included in each topic chapter of the ES (Chapters 6-28).

2. Project Context and Site Description

The Need for the Development

- 2.1 The UK has committed to net zero carbon emissions by 2050 through the Climate Change Act 2008 (as amended). The Welsh Government has also set a legal commitment to achieve net zero by 2050, with a push to “*get there sooner*” (Welsh Government, 2021).
- 2.2 Renewable energy is seen as a primary method of reducing emissions of greenhouse gases (“GHG”), in particular carbon dioxide (“CO₂”). FLOW plays a key part in this with the UK Government announcing a target for FLOW to deliver 1 GW of energy by 2030 (BEIS, 2020).
- 2.3 The Project will have a total capacity up to 100 MW. It is estimated that, once fully operational, the Project will produce enough renewable energy to power 89,488 UK homes per year; saving 145,751 tonnes of carbon emissions per year.
- 2.4 The ultimate goal is to use FLOW technology to contribute to the UK's target to bring all GHG emissions to net zero by 2050. As a test demonstration development, the Project is the first in the Applicant's ‘stepping-stone approach’ for FLOW in the Celtic Sea. This stepping-stone approach to the use of this technology is the best way to increase learning and to maximise the opportunities to the local economy, starting with smaller demonstration projects, such as the Project, before moving incrementally to larger commercial scale projects in the 2030s. This will provide local, Welsh and UK supply chain companies with the greatest chance to grow with the sector as it expands globally. It will also maximise knowledge transfer and facilitate a sustainable transfer to a low carbon economy.
- 2.5 The purpose of the Project is to:
- Demonstrate FLOW technology at Test and Demonstration scale in the Celtic Sea;
 - Maximise low carbon job creation and positive socio-economic impact within the local supply chain;
 - Demonstrate FLOW as a practical example of:
 - COVID-19 Green Recovery;
 - Response to the declared Climate Emergency;
 - Achieving the UK and Welsh Government's 2050 Net Zero targets; and
 - Achieving the UK FLOW 2030 target.
- 2.6 The Project will deliver the following socio-economic benefits:
- The creation of 2,059 gross jobs or 1,665 net jobs (Table 27.26 of Chapter 27 of the ES); and
 - Total indirect/induced Gross Value Added (“GVA”) of approximately £320.6 million compared to £232.4 million of Direct GVA.

- 2.7 Overall, the Project will likely provide significant benefits in terms of GVA and jobs created to the local Pembrokeshire economy and wider area. This will be delivered through the provision of direct jobs created by the Project or indirect jobs created in the supply chain or through the significant GVA benefits the Project will bring.

Site Selection

- 2.8 Chapter 3 of the supporting ES provides a detailed analysis of the steps taken by the Applicant to identify the most appropriate site for the Project (both marine and terrestrial).
- 2.9 The Project is founded on the UK's need for a timely demonstration of FLOW as a viable option for the next generation of offshore wind in UK waters. To date, the four Offshore Wind Farm ("OWF") leasing rounds run by The Crown Estate ("TCE") since 2000 have focused on conventional (fixed foundation) concepts.
- 2.10 To enable energy generation opportunities in water depths greater than 60m (where conventional OWF is not possible), FLOW projects will likely represent the most viable solution. Up to 2020, lease agreements for demonstration scale FLOW projects, up to 100 MW capacity, have been sought under TCE's Test and Demonstration process for seabed rights. This process is designed for early commercial scale leasing where an option agreement is negotiated with TCE.
- 2.11 There have been no pre-defined spatial constraints with respect to any site(s) proposed via this process, other than the regular conflict checks run by TCE where demonstration projects could not be sited in areas where existing infrastructure and/or future projects may be developed. TCE's application process requires the developer to submit a project delivery plan, including a site selection study which assesses regional energy resource, technical site parameters and appropriateness to the technology selection and practical constraints, site characteristics and uncertainties with regards to the site.
- 2.12 At the earliest stage of the site selection process, a wide range of site options for an up to 100 MW FLOW project were available to the then lead developer, SBE.
- 2.13 The broad area of interest for the initial early site selection stage of the Project focused on the Celtic Sea region (see Volume 2, of the supporting ES), where SBE has been a strong advocate for the development of innovative marine renewable energy projects. SBE has supported the development of the Celtic Sea Alliance, a collaborative agreement to progress FLOW projects and deliver at least 1 GW of floating wind turbines in the Celtic Sea before 2030 (Catapult, 2017).
- 2.14 Developing FLOW in the Celtic Sea presents significant opportunities to maximise the local supply chain. The Welsh National Marine Plan ("WNMP") supports future opportunities for offshore wind development, including floating wind (ELC_01: Low Carbon Energy (supporting) Wind), by supporting demonstration projects to progress the testing of floating wind technology. The WNMP specifically identified the *"the deeper waters of the outer Bristol Channel and Celtic Sea cited as possible sites for deployment"* (Welsh Government, 2019).

2.15 Stakeholder consultation formed a key part of the Project approach to early site selection, with engagement with regulatory authorities and stakeholders undertaken to inform the process (including PINS/PEDW, Welsh Government Planning Directorate, NRW Marine Licence Team, the Local Planning Authorities (“LPA”) (PCC and PCNPA), and the MCA).

Alternatives

2.16 Several alternatives to the Project were considered as part of the Applicant’s decision-making process, as documented in Chapter 3 of the ES. The early strategic consideration of project alternatives, which fed into the site selection process, is outlined in Table 2.1 below:

Table 2.1: Alternative Options

Topic	Consideration of alternatives	Final selection for the Project
Project size	There have been no pre-defined spatial constraints with respect to a site(s) proposed via this process, other than the regular conflict checks run by TCE where demonstration projects could not be sited in areas where existing infrastructure and/or future projects may be developed. The TCE application process requires the developer to submit a project delivery plan, including site selection study which assesses regional energy resource, technical site parameters and appropriateness to the technology selection and practical constraints, site characteristics and uncertainties with regards to the site. However, TCE does not define bidding areas for the Test and Demonstration application process.	At the earliest stage of the site selection process, a wide range of site options for an up to 100 MW FLOW project were available to the then lead developer, SBE.
Landfall area	A long list of 13 potential landfall sites (listed in Table 3.3 of the ES), and their respective associated offshore cable route options were identified. These options were assessed with a multi-constraints approach including electrical, installation, civil engineering,	Desk-based analysis of those constraints listed and consultation with key stakeholders was undertaken and informed the screening of the original list of 13 sites to a

	<p>economic, environmental and other users.</p> <p>Key constraints considered in the preliminary assessment of the potential offshore export cable corridor included: large sand wave features; sub-tidal reef; recorded wrecks; MoD Danger Areas (Manorbier and Castlemartin); explosive dumping grounds; high-density shipping lanes; existing subsea cables (and number of crossings) and pipelines; designations (Site of Special Scientific Interest (“SSSI”), Special Area of Conservation (“SAC”), Special Protection Area (“SPA”), Heritage Coast); length of indicative route; and technical viability.</p> <p>Desk-based analysis of those constraints listed above and consultation with key stakeholders was undertaken and informed the screening of the original list of 13 sites to a short list of four preferred landfall options.</p>	<p>short list of four preferred landfall options, namely:</p> <p>Angle Bay;</p> <p>West Angle Bay;</p> <p>Freshwater West A; and</p> <p>Freshwater West B.</p> <p>A detailed landfall assessment was undertaken, which concluded that the West Angle Bay landfall was the preferred option.</p>
Grid connection point	<p>Preliminary electrical studies suggested that the single export cable should be a 66 kV cable, which limited the overall length of the export cable to a maximum distance of 80 km (including the onshore cable route).</p> <p>The distance to substation was a significant limitation as a grid connection over 80 km from the array site would necessitate the inclusion of a floating substation, resulting in increased costs associated with a longer export cable, and a higher number of cable crossings. The financial and environmental implications of this would undermine the principle of a</p>	<p>The output of the background reports recommended a grid connection point closest to the array site. Having identified the preferred array area, the closest connection point to this site was located at Pembroke Power Station.</p> <p>An application for the grid connection at Pembroke Power Station for a 96 MW array was submitted to National Grid Transco (“NGT”) on 4 October 2019 and the formal grid connection offer was</p>

	<p>demonstrator project and render the Project unviable. A grid connection within 80 km would negate the need for an offshore substation and reduce the overall length, and associated costs and environmental impacts, of a longer export cable.</p> <p>The identified connection points are noted below, including the distance from the array site to connection point:</p> <p>Pembroke Power Station (45 km); Alverdiscott Grid Supply Point (109 km); Swansea Bulk Supply Point (114 km); Indian Queens Grid Supply Point (123 km); Hayle Bulk Supply Point (137 km); and Plymouth Bulk Supply Point (150 km).</p>	<p>executed on 18 March 2020.</p>
<p>Onshore substation</p>	<p>The substation search area was broken down into 12 distinct zones, all of which were within 2 km of the connection point at Pembroke Power Station.</p> <p>A preliminary assessment of the 12 zones comprised three rounds to screen the original 12 zones to a short list of preferred substation options for further assessment:</p> <p>Round 1 - Initial desktop assessment of the identified options in relation to existing utilities and other known constraints.</p> <p>Round 2 – A high-level risk assessment in terms of landscape and visual impact and associated consenting risks. Zones identified as high risk were screened out of further assessment.</p>	<p>A qualitative risk analysis of the potential physical, engineering, environmental and consenting risks has been undertaken for each substation location option.</p> <p>Although Onshore Substation Option 7 has been assessed as having the third lowest overall risk in terms of consenting and engineering, it is considered viable / consentable based on the assessment work undertaken. It is recommended as the most suitable option as it is the only short listed option located outside of RWE’s ownership. Therefore, Onshore Substation Option 7 was adopted for the Project.</p>

Round 3 – Engagement with RWE on remaining substation locations as it owns a significant portion of the land within the search area. RWE has indicated that there is a significant area of its land that is earmarked for potential future Carbon Capture and Storage (“CCS”) development. This area is referred to as the Blue Line Boundary (“BLB”). RWE has stated that any sites to be developed within the BLB may be subject to potential delay due to a requirement for amendment to existing consent(s) applicable to the power station itself. Thus any sites within the BLB were screened out of further assessment due to potentially unacceptable impacts on Project programme.

Based on the above, four options were taken forward for more detailed assessment.

Onshore cable route

Following on from the landfall and substation option selection, the onshore cable route was defined.

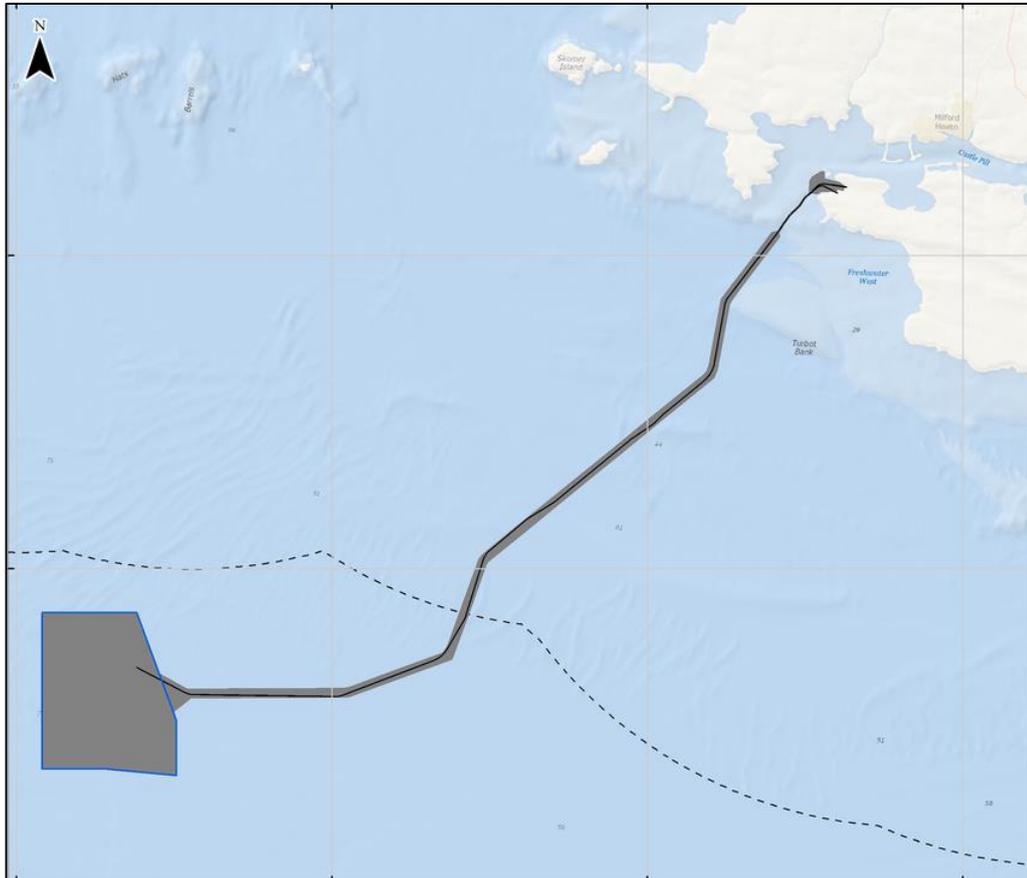
The West Angle Bay to Substation 7 cable route was refined over several months, as baseline survey data was gathered and liaison with landowners progressed, to minimise the environmental impact of the onshore works associated with the Project, avoiding areas of high environmental or planning constraint. The engineering assessments provided insight on the issues around design, construction, and operation, for supplying and installing the cable assets.

Site Location

Offshore Site Description

2.17 The site location is illustrated in Figure 2.1 below.

Figure 2.1



Source: Volume 2, Figure 4.1a of the ES

- 2.18 The FLOW array area is located in the Celtic Sea, approximately 35 km southwest of Pembrokeshire. The site boundary extends to approximately 43.5 km.
- 2.19 The offshore export cable will be up to 49 km long, connecting the offshore array area to the coast. Where possible, the export cable will be buried. There may be a need for cable protection where burial is not achievable. The offshore export cable corridor will pass through the Skomer, Skokholm and Seas off Pembrokeshire SPA and the West Wales Marine and Pembrokeshire Marine SAC.
- 2.20 The offshore export cable landfall will be at West Angle Bay, and will cross through the Arfordir Penrhyn Angle SSSI.
- 2.21 Chapter 4 of the ES provides greater detail on the physical characteristics of the array area and offshore export cable route.

Onshore Site Description

2.22 The on-shore site location is illustrated in Figure 2.2, below:

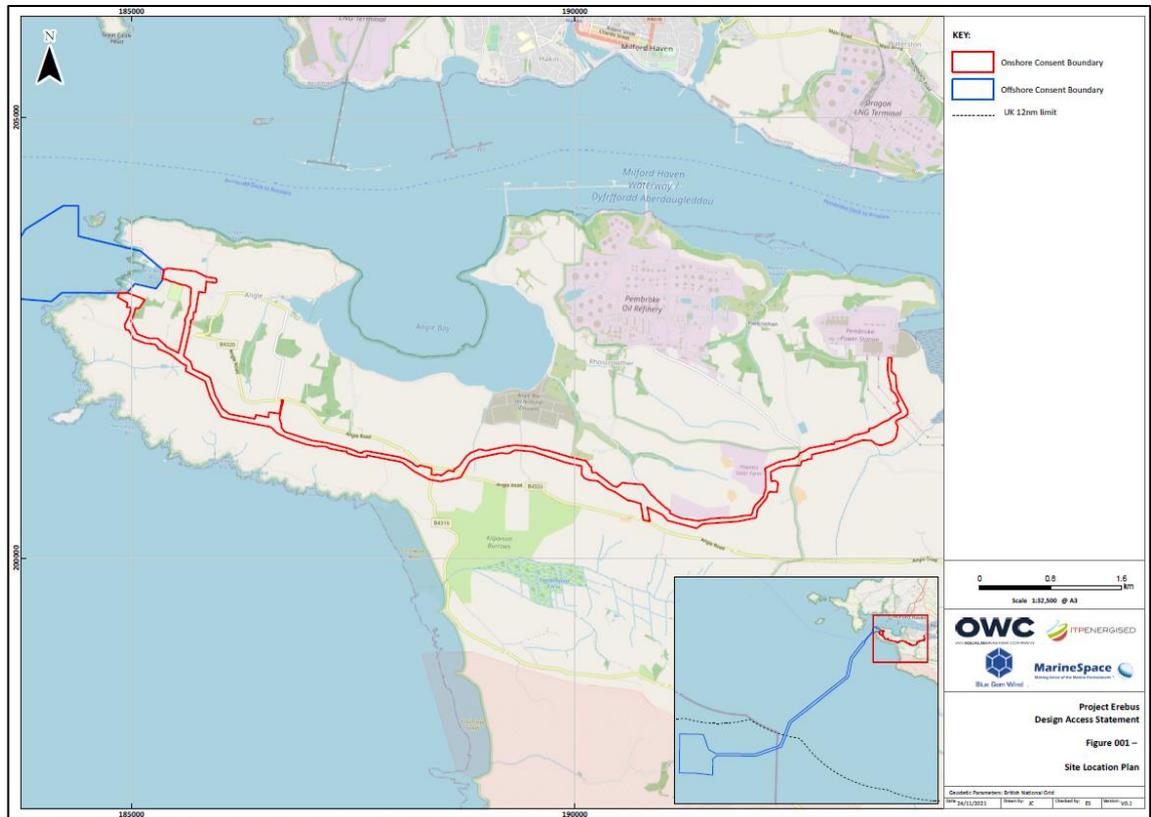


Figure 2.2 Source: Design and Access Statement

- 2.23 A single export cable will connect the array area to landfall at West Angle Bay, Pembrokeshire. The Project includes two potential landfall options. The precise landfall location and orientation within the identified Project boundary, and the selection of appropriate cable laying method will be determined following detailed design, supported by additional pre-construction ground investigations and feasibility work to be undertaken by a specialist contractor.
- 2.24 The onshore export site boundary will stretch from mean high water springs (“MHWS”) to the Great Britain grid network connection point at Pembroke Power Station. The extent of the onshore export site is set out at Volume 2, Figure 4.3 – 4.9 of the ES.
- 2.25 To enable a sufficient degree of flexibility, a cable corridor has been identified. This will ensure that the precise location of the cable route is able to respond to site specific constraints at the detailed design stage. The proposed cable corridor is approximately 60m wide across most of its length, widening at proposed laydown and construction compound areas, and areas where greater flexibility of micro-siting may be required due to the possible requirement for Horizontal Directional Drilling (“HDD”) crossings, for example.

- 2.26 The onshore site boundary runs for approximately 12.5 km from the landfall at West Angle Bay, through Castlemartin peninsula, crossing through predominantly open arable land, to the proposed onshore substation location near the connection point to the grid network via a 132 kV cable. The onshore substation will be connected to the 400 kV grid network at Pembroke Power Station via a 132 kV cable which is approximately 2 km in length.
- 2.27 A detailed description of the onshore cable corridor is provided at Section 4.7.13 of Chapter 4 of the ES. The description of the onshore cable corridor sections assumes open trenching as the method of cable installation unless otherwise stated.

3. The Project

Overview of Project

- 3.1 The Project comprises a demonstration scale FLOW development. The Project would comprise up to ten floating WTGs with a maximum capacity of 100 MW, with associated semi-submersible platforms, mooring infrastructure and array cables.
- 3.2 The key project components of this Project are summarised below:
- Total generating capacity of up to 100 MW;
 - Up to ten WTGs with nominal nameplate capacity ratings of between 9.5 MW to 18 MW ;
 - Up to ten semi-submersible floating platforms;
 - Associated subsea catenary mooring lines, including clump weights;
 - A range of potential anchoring solutions (drag embedment anchors; suction piles; drilled piles; driven piles);
 - Up to ten dynamic array cables and associated protection;
 - Offshore export cable, cable joints and associated protection;
 - Onshore export cables (66 kV from landfall to the onshore substation; and 132 kV from the onshore substation to the grid connection);
 - Onshore substation;
 - Temporary main construction compound and up to four temporary ancillary construction compounds;
 - Transition joint bay, joint bays/inspection chambers, access points and haul roads; and
 - Other associated infrastructure (such as navigational markers).
- 3.3 A full description of the Project is set out in detail within Chapter 4 of the ES. We set out below a high level summary of the approach to the project design, its key components and the key onshore development parameters proposed that will form the deemed planning permission.

Legal Framework

- 3.4 The legal framework for consenting the Project has been agreed with PEDW and NRW. The Project will be consented via:

- Section 36 consent under the Electricity Act 1989 to include a deemed planning permission under the Town and Country Planning Act 1990; and
- A Marine Licence under Part 4 of the Marine and Coastal Access Act 2009.

Deemed Planning Permission

- 3.5 Deemed planning permission is sought from Welsh Ministers, through a direction under section 90(2) of the Town and Country Planning Act 1990 for the onshore development as part of the Section 36 application.
- 3.6 The application for deemed planning permission seeks consent for the development of the landfall infrastructure at West Angle Bay, onshore cable route (from landfall to the grid connection) and grid connection substation at land adjacent to Pembroke Power Station.
- 3.7 Full detail of the development which is captured by the deemed planning permission is set out within the accompanying DAS.

Marine Licence

- 3.8 An application for a marine licence is being made in parallel to the application for the Section 36 consent and Deemed planning permission, in respect of licensable marine activities associated with the Project. Those activities are the placing, retention, operation and decommissioning in the marine environment of:
- Wind Turbine Generators mounted on semi-submersible floating platforms with anchoring solutions and mooring lines;
 - A series of array cables (and any cable protection required for those) either through a two-way split radial array or the preferred option of a looped circuit; and
 - A single submarine export cable circuit and any cable protection required for that.

Scope and Flexibility

- 3.9 The Section 36 application seeks approval for the overall parameters of the Project and gives the Applicant necessary powers to construct, operate, maintain and ultimately decommission the Project. Controls over the way in which the Project is constructed, operated maintained and decommissioned onshore are dealt with via conditions attached to the deemed planning permission as set out in the statement of draft conditions submitted with the application.

Project Design Envelope

- 3.10 The PDE sets out a series of design options for the Project. The PDE includes a realistic minimum and maximum extent for key project components. The final design parameters would lie between the minimum and maximum values. This provides flexibility when progressing the detailed design and allows for any changes in

technologies available post-consent. The flexibility also ensures the Applicant can use the most updated, efficient and cost-effective methods and technology when delivering the Project. This is beneficial to energy consumers as it minimises the cost of energy.

3.11 The PDE has sufficient detail to ensure that robust environmental assessments can be undertaken and presented, using the maximum parameters as a worst-case scenario. This has ensured that the likely significant impacts have been adequately assessed in relation to the PDE parameters. The maximum effects of the Project are clearly presented from the outset.

3.12 Flexibility is particularly important for the below:

- WTG capacity and parameters (as a result of to the potential evolution of technology);
- Number and parameters of floating platforms proposed (in correlation with the WTGs selected);
- Numbers and configuration of subsea mooring lines (as a result of the dimensions of floating platforms);
- Type of foundation options (as a result of floating platforms and site-specific ground conditions);
- Amount and exact location of cable protection surrounding the export cable (due to site-specific ground conditions);
- Landfall methodology;
- Landfall location (as there are two landfall options);
- Onshore site boundary (to allow, for example, crossings of existing utilities and other assets);
- Onshore substation maximum parameters (allowing for flexibility subject to detailed design); and
- Exact construction timing and methodologies (to be fully developed once project design is finalised and contractors are appointed).

3.13 This approach ensures that there will be sufficient flexibility provided for the installation of the onshore export cable around other utilities and features, whilst ensuring from the outset it is clearly known. This approach is taken for the offshore export cables to allow for the micro-routing of the cables within the identified corridor. This will take future detailed pre-installation surveys into account.

3.14 Where trenchless techniques (such as HDD) are to be used to install onshore export cables, or where the onshore export cables connect to the offshore export cables (in the transition joint bay), a wider site boundary is provided to ensure that the full extent of the area beneath the surface where the cables may be located is identified.

Project Parameters

3.15 A summary of the key parameters with respect to the proposed offshore and onshore construction are set out in Chapter 4 of the ES at Tables 4.20 and 4.23 respectively.

4. Relevant Legislation

4.1 This section summarises the legislative framework for this Project. This sets the framework for summarising the relevant national and local policy and guidance position, which is undertaken in Section 5 of this Statement.

Climate Change Legislation

UK Legislation

4.2 The Climate Change Act 2008 requires carbon budgets to be established, placing restrictions on the total amount of GHG the UK can emit within a five-year period. Monitoring suggests the UK is not currently on track to meet the fourth (2023 - 2027) or fifth (2028 - 2032) carbon budget targets. In line with the Committee on Climate Change recommendations for the sixth carbon budget (2033 – 2037), the UK Government has enshrined into law a new target of 78% emissions reductions by 2035.

4.3 The UK has implemented the EU Renewable Energy Directive (Directive 2009/28/EC) into UK law, primarily through the Promotion of the Use of Energy from Renewable Sources Regulations 2011, to deliver national targets and priorities in GHG reductions, as well as achieving a 78% reduction by 2035 and reaching Net Zero by 2050.

Welsh Legislation

4.4 The Welsh Government has enacted two pieces of legislation which support action on climate change:

- The Environment (Wales) Act 2016; and
- Well-Being of Future Generations Act 2015.

4.5 The Environment (Wales) Act 2016 sets emission reduction targets and provides the legislative framework for establishing a five yearly carbon budgeting approach in Wales. The Well-Being of Future Generation Act 2015 requires public bodies across Wales to contribute to seven well-being goals including a more prosperous, resilient and globally responsible Wales, such as through low carbon energy resources.

4.6 Since the passing of the Environment (Wales) Act, guided by the Well-Being of Future Generations Act 2015, the Welsh Government has set targets and provided additional support for renewable energy.

Well-being of Future Generation (Wales) Act 2015

4.7 The Well-being of Future Generations (Wales) Act 2015 (“WoFGA”) aims to improve the social, economic, environmental and cultural well-being of Wales. The WoFGA places a statutory duty on public bodies in relation to sustainable development, based on seven well-being goals, which include:

- A prosperous Wales;
- A resilient Wales;
- A healthier Wales;

- A more equal Wales;
- A Wales of more cohesive communities;
- A Wales of vibrant culture and thriving Welsh language; and
- A globally responsible Wales.

4.8 Climate change is integral to the well-being goals, recognising that action on climate change is urgent and fundamental to the future prosperity and the future resilience of communities. The WoFGA provides a mechanism for public bodies to set targets and report progress against indicators. Through its well-being objectives, the WoFGA sets a clear agenda for sustainable development. The objectives of the WoFGA must be taken in account by statutory bodies in carrying out their functions, which will include making consenting decisions.

Consenting Legislation

Town and Country Planning Act 1990

4.9 The Town and Country Planning Act 1990 (“TCPA”) is an act of the United Kingdom Parliament regulating the development of land in England and Wales. Deemed Planning Permission is sought from Welsh Ministers, through a direction under section 90(2A) of the TCPA for the onshore development authorised by the Order.

Electricity Act 1989

4.10 The Electricity Act 1989 sets out the framework for public supply and reorganisation of the electricity industry and makes provision for the separation of the generation, transmission, distribution and supply functions of the industry. Applications can be made under Section 36 for the construction or extension, and operation, of electricity generating stations and requires consent from Welsh Ministers.

The Electricity (Offshore Generating Stations) (Applications for Consent) (Wales) Regulations 2019

4.11 The Electricity (Offshore Generating Stations) (Applications for Consent) (Wales) Regulations 2019 make provision for the grant of consents under Section 36 of the Electricity Act 1989 (the 1989 Act) to construct, extend or operate an offshore generating station in respect of which the Welsh Ministers are the appropriate authority.

Marine and Coastal Access Act 2009

4.12 The MCAA introduced a new system for marine planning in the marine and coastal environment in England and Wales. Under the MCAA, a marine licence is required for carrying out a “*licensable marine activity*”, including construction works on the seabed, depositing of subjects, dredging and aggregate extraction. Welsh Ministers are the licensing authority within the Welsh inshore and offshore regions. The NRW Marine Licensing Team administers marine licences on behalf of the Welsh Ministers.

Wales Act 2017

4.13 The Wales Act 2017 devolves powers to the Senedd and Welsh Government, including consenting for new energy projects with generating capacities up to 350 MW. The

development consent powers for energy generation schemes under the Wales Act 2017 came into force on 1 April 2019. The Wales Act 2017 also devolved licensing authority powers to Welsh Ministers in the Welsh offshore region; beyond 12 nautical miles to the median line or up to 200 nautical miles. The NRW Marine Licensing Team administer marine licence applications on behalf of Welsh Ministers in both the Welsh offshore and inshore regions. Prior to April 2018, marine licence applications in the Welsh offshore region were determined by the Marine Management Organisation (MMO).

Energy Act 2004

4.14 The decommissioning of schemes for offshore wind, FLOW and marine energy installations are established in sections 105-114 of the Energy Act 2004. It incorporates decommissioning requirements of the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention).

4.15 Under the terms of OSPAR Decision 98/3, there is a prohibition on the dumping of and leaving offshore installations wholly or partly in place unless further consents are granted. The future decommissioning of the Project will need to comply with the requirements of the Energy Act and include measures to remove the Project at the end of its functional life. Guidance from the Department of Business, Energy and Industrial Strategy (“BEIS”) states that the default position for decommissioning should be full removal unless there are strong reasons for exceptions (BEIS, 2019). In addition, the guidance states that BEIS “*expects that final drafts of decommissioning programmes should be submitted for approval no later than 6 months in advance of the start of construction.*”

Planning (Wales) Act 2015

4.16 The Planning (Wales) Act 2015 sets out the legislative changes to reform the planning system in Wales. The main objectives of the Act are to improve the existing planning process by producing a modernised framework for the delivery of planning services, strengthening the plan led approach, improving resilience, improving the development management system and enabling effective enforcement.

4.17 The Act introduced a statutory purpose for the planning system in Wales, and statutory bodies carrying out a planning function must exercise those functions in accordance with the principles of sustainable development as set out in the WoFGA.

4.18 The Act also introduced a new category of planning applications in Wales, Developments of National Significance (“DNS”) in 2016. DNS are larger-scale infrastructure projects including developments (such as, onshore wind, airport related development and railways). Such projects require relevant planning applications to be submitted to the Planning Inspectorate and determined by the Welsh Government.

4.19 Most large-scale infrastructure projects in Wales are considered as DNS under the Town and Country Planning Act 1990. As of 1 April 2019, this also included all energy generation projects of between 10 MW and 350 MW. However, as the Project is for a proposed FLOW development, it is subject to both an application for consent under Section 36 of the Electricity Act and for a marine licence under the. As the DNS regime is explicitly limited to terrestrial projects, the Project does not constitute a DNS.

4.20 Deemed planning permission for the associated onshore infrastructure will be sought with the Section 36 Consent, therefore a separate planning application under the Town and Country Planning Act 1990 is not being made for the onshore infrastructure.

5. Relevant Policy

5.1 This section summarises the policy context relevant to the Project. The section addresses onshore policy and offshore policy at national and local levels.

National Policy Statement

5.2 The Project is seeking a Section 36 Consent from the Welsh Ministers and a marine licence from NRW. Although the Project is not seeking a Development Consent Order (“DCO”) due to its size (100 MW) and location (Welsh waters), it is considered that certain National Policy Statements (“NPS”) are relevant to the Project. The relevant NPS’ are:

- Overarching National Policy Statement for Energy (EN-1) (DECC, 2011a); and
- National Policy Statement for Renewable Energy Infrastructure (EN-3) (DECC, 2011b).

Onshore Planning Policy

Future Wales – The National Plan 2040

5.3 Future Wales (“FW”) was published by Welsh Government in February 2021 and constitutes the national development framework, setting out the direction of development in Wales to 2040. FW forms part of the adopted Development Plan. FW addresses key national priorities, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience and improving the health and well-being of our communities. Outcome 4 of FW supports Welsh Government’s target of achieving one million Welsh language speakers by 2050 by promoting thriving, sustainable communities.

5.4 FW recognises the obligations of the WoFGA, embedding the seven principles of the Act into the Plan. It recognises the importance of developing and supporting a low carbon economy and the growth of sustainable and renewable energy.

5.5 Outcome 11 of FW states that “*decarbonisation commitments and renewable energy targets will be treated as opportunities to build a more resilient and equitable low-carbon economy*”. FW aims to ensure that the planning system will help Wales “*lead the way in promoting and delivering a competitive, sustainable decarbonised society*” (page 56).

5.6 Policy 1 (Where Wales Will Grow) states that sustainable growth within the South West as a Regional Growth Area (including Pembroke and Pembroke Dock) is supported.

5.7 Policy 17 (Renewable and Low Carbon Energy and Associated Infrastructure) states that the Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs. In determining planning applications for renewable and low carbon energy development, “*decision-makers must give significant weight to the need to meet*

Wales' international commitments and our target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency".

- 5.8 Policy 32 (Haven Waterway and Energy) states that The Welsh Government supports operations at the Haven Waterway (which includes Pembroke Dock) and recognises its location for potential new renewable and low carbon energy related development, innovation and investment. Onshore developments associated with offshore renewable energy projects will be supported in principle.
- 5.9 The Project aligns with FW's aim for Wales to become a world leader in renewable energy technologies, support investment and reduce carbon emissions. The proposed development also supports FW's focus on new strategic energy development, including marine energy.
- 5.10 FW notes that the Welsh Government is supportive of offshore proposals and sees them as an important part of our future energy mix, however, they do not fall within the remit of Future Wales. The onshore aspects of offshore schemes are supported by FW, for example, cable landfall infrastructure. It is recognised that Development Plans and the Welsh National Marine Plan should work together across marine and terrestrial interfaces.

Planning Policy Wales

- 5.11 Planning Policy Wales Edition 11 (published in February 2021) ("PPW") sets out the land use planning policies of the Welsh Government. The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the WoFGA and other key legislation and resultant duties (such as the Socio-economic Duty).
- 5.12 PPW is supplemented by numerous documents, including Technical Advice Notes ("TANs"). There is no longer a TAN specifically related to renewable energy. PPW notes that FW sets out the national development plan for energy and provides specific policies for renewables energy development (see paragraphs 5.5.1.1 to 5.5.5.1.6). As noted above, these are specifically in relation to onshore renewable projects, with FW acknowledging that onshore developments associated with offshore renewable energy projects will be supported in principle.
- 5.13 PPW states that *"in determining applications for the range of renewable and low carbon energy technologies, planning authorities should take into account: the contribution a proposal will make to meeting Welsh, UK and European targets; the contribution to cutting greenhouse gas emissions; and the wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development"* (Paragraph 5.9.16, PPW). Furthermore, paragraph 5.9.17 states that *"planning authorities should give significant weight to the Welsh Government's targets to increase renewable and low carbon energy generation, as part of our overall approach to tackling climate change and increasing energy security"*.

Policy Statement: Local Ownership for Energy Generation in Wales – Benefitting Wales Today and for Future Generations

- 5.14 Welsh Government published its Policy Statement on local ownership for energy generation projects in Wales in February 2020.
- 5.15 The Policy Statement defines ‘locally owned’ installations as, *“energy installations, located in Wales, which are owned by one or more individuals or organisations wholly owned and based in Wales, or organisations whose principal headquarters are located in Wales.”* This includes the following categories:
- Businesses
 - Farms and estates
 - Households and other domestic scale generation
 - Local Authorities
 - Other public sector organisations
 - Registered Social Landlords
 - Third sector organisations including social enterprises and charities, their subsidiaries, trading arms and special purpose vehicles
- 5.16 With regard to shared ownership, the Policy Statement confirms that, *“‘Shared ownership’ refers to a project owned by more than one legal entity. Examples exist where the ownership of a project is shared between a developer and a community group, individuals, landowners, or a public sector organisation. Shared ownership projects can involve more than one commercial organisation. However, in order to be considered as a shared ownership project under the target set by the Welsh Government, we would expect one or more of the owning bodies to be in one of the categories included in the definition of ‘local ownership’”.*
- 5.17 The Policy Statement sets a series of targets with respect of energy generation in Wales. This includes:
- Wales to generate electricity equal to 70 per cent of its consumption from renewable sources by 2030
 - 1 gigawatt (“GW”) of renewable electricity and heat capacity in Wales to be locally owned by 2030 (including projects within Welsh Waters)
 - New renewable energy projects to have at least an element of local ownership from 2020 (including off-shore generation projects)
- 5.18 The Policy Statement confirms Welsh Government’s intent to retain social and economic benefit from future energy development located in Wales. Welsh Government requires all energy generation projects to include an element of local ownership in order to retain wealth within Wales, and to benefit local communities.

- 5.19 Welsh Government recognises the challenges of delivering renewable energy projects and proposes a model for the delivery of local ownership. The Policy Statement notes that, *“This policy is not intended to inhibit development in Wales by experienced developers, who have the skills, capacity and desire to generate electricity which meets needs and is designed and delivered in harmony with the people and places hosting it. However, it does set out our expectation for developers to make every effort to deliver the expected element of local ownership.”*
- 5.20 Section 6 of the Policy Statement confirms that, *“The Welsh Government supports renewable and low carbon energy projects developed by communities, or benefit the host community or Wales as a whole. The social, environmental and economic benefits associated with any development should be fully factored into, and given weight in, the decision making process.”*

Local Development Plan

- 5.21 The Local Development Plan (“LDP”) for the Project comprises the Pembrokeshire County Council LDP (“PCC LDP”), adopted in February 2013 and the Pembrokeshire Coast National Park LDP 2 (“PCNPA LDP2”), adopted in September 2020.

PCC LDP

- 5.22 LDP Policy SP 1 (Sustainable Development) states that development proposals must *‘demonstrate how positive economic, social and environmental impacts will be achieved and adverse impacts minimised’*.
- 5.23 LDP Policy GN.4 (Resource Efficiency and Renewable and Low-carbon Energy Proposals) notes that *‘developments which enable the supply of renewable energy through environmentally acceptable solutions will be supported’*. As stated in FW, offshore renewable energy proposals are outside the jurisdiction of the planning system, however such developments may require landfall site for energy infrastructure. The LDP recognises that major schemes will often require a *“functional link between the source of power and a user for the end product and / or the National Grid”*.
- 5.24 Pembrokeshire County Council is currently in the process of reviewing its adopted LDP, which is currently at Focussed Changes stage. The Replacement LDP is anticipated to be adopted in summer 2022.

PCNPA LDP2

- 5.25 Policy 1 states that development within the National Park must be compatible with the conservation or enhancement of the natural beauty, wildlife and cultural heritage of the Park and the public understanding and enjoyment of those qualities.
- 5.26 Policy 8 requires that the special qualities of the Pembrokeshire Coast National Park be conserved and enhanced.
- 5.27 Policy 14 states that development will not be permitted where this would have an unacceptable adverse effect on the qualities and special landscape and seascape character of the Pembrokeshire Coast National Park.

- 5.28 Policy 33 states that proposals for renewable and low carbon energy development including those relating to wind, solar and hydro power, anaerobic digestion and biomass will be permitted subject to meeting a number of criteria.
- 5.29 Policy 62 states that cables or pipelines and associated development will be permitted where the least obtrusive and damaging location, route or means of provision is chosen.

Supplementary Planning Guidance

- 5.30 The PCC LDP and PCNPA LDP2 are supported by Supplementary Planning Guidance (“SPG”) relating to biodiversity, landscape character assessment, the historic environment, archaeology, seascape, sustainable development and design and renewable energy.
- 5.31 The applicable requirements from the above SPGs are included and considered within the relevant Environmental Statement chapters, assessing the proposed developments impact on the onshore environment.

Offshore Planning Policy

Marine Policy Statement

- 5.32 The UK Marine Policy Statement (“MPS”), adopted by all UK administrations in March 2011, provides the policy framework for the preparation of marine plans and establishes how decisions affecting the marine area should be made in order to enable sustainable development. The MPS sets out a vision of having “*clean, healthy, safe, productive and biologically diverse oceans and seas*” by supporting the development of Marine Plans.
- 5.33 One of the overarching themes of the MPS is the role low carbon energy generation, including offshore renewables, has as mitigation against climate change and in reducing the UK’s dependence on fossil fuels.
- 5.34 The MPS states that “*Marine based activities can provide opportunities for employment in long established industries such as... offshore electricity transmission. This employment provides wide and long-term benefits for both national and local economies.*”
- 5.35 In addition, the MSP states that “*Offshore wind is expected to provide the largest single renewable electricity contribution as we move towards 2020 and beyond.*” The UK is the leading country in offshore wind deployments and through identifying potential sites for offshore renewables in UK waters can “*keep the UK as a global leader in renewable energy production.*”
- 5.36 The MPS recognises the role marine planning has in ensuring the right development occurs in the right location. This includes the deployment of pre-commercial demonstration offshore renewable energy projects, stating “*It is important for marine planning to take account of appropriate locations for such developments alongside more established uses of marine space and to recognise the timescales and stages against which the sector is likely to progress, including the lead time for grid and infrastructure development. For example, pre-commercial demonstration deployments*

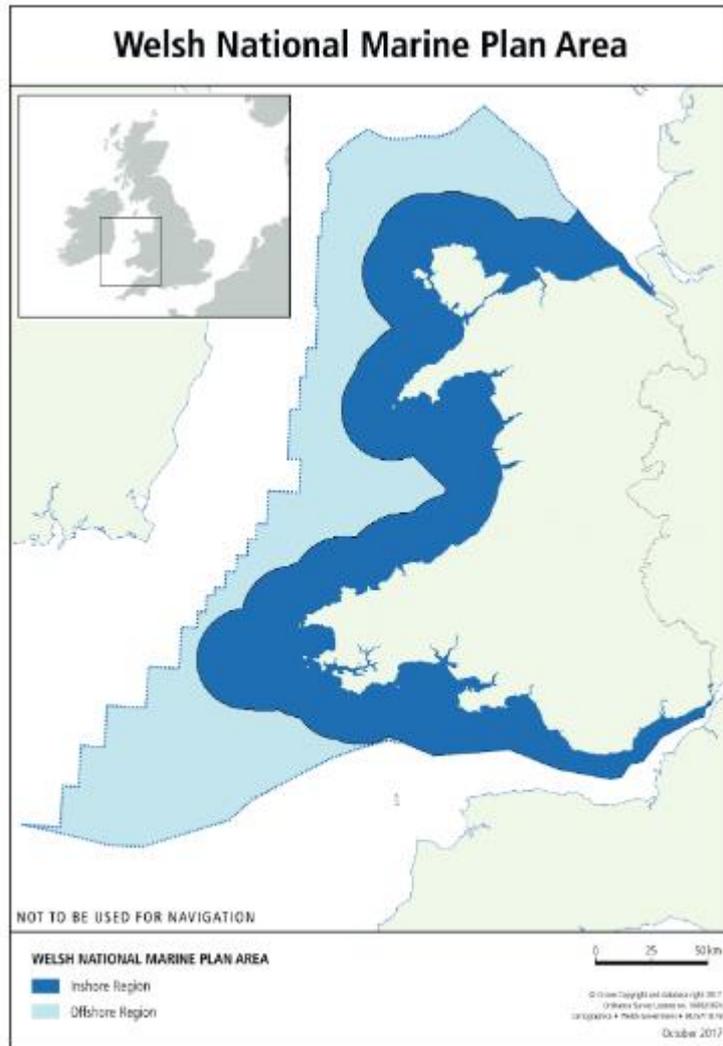
will need to manage the potential environmental impacts in relation to the scale of risks and legislative requirements while recognising that not all uncertainties can be addressed in the early life of this technology.”

- 5.37 The policy document suggests to developers that adaptation, mitigation and management measures for offshore renewable technology may be supported by detailed monitoring programmes and co-ordinated research initiatives, including post-deployment. This approach is being followed by the Applicant, with the intention to produce detailed construction and operation monitoring and mitigation plans.
- 5.38 All public authorities are to take into account the MPS and relevant Marine Plans when making decisions in regard to the marine area. This ensures that marine resources are used in a sustainable way, in line with the high-level marine objectives.

Welsh National Marine Plan (November 2019)

- 5.39 The Welsh National Marine Plan (“WNMP”) is the first marine plan for Wales. It was adopted under the Marine and Coastal Access Act (“MCAA”) 2009 for the purposes of Section 51 of the MCAA and in accordance with Schedule 6 of the MCAA and in conformity with the UK Marine Policy Statement.
- 5.40 The WNMP aims to shape the seas of Wales to support economic, social, cultural and environmental objectives. The document guides the sustainable development of Wales’ marine area by setting out how proposals will be considered by decision makers. The document covers the inshore and offshore Welsh National Marine Plan regions.
- 5.41 The WNMP sets out the Welsh Government’s policies for, and in connection with, the sustainable development of the Marine Plan Area. This area comprises an inshore and offshore region, as depicted in figure 5.1 below. The area consists of around 32,000 km² of sea and 2,120 km of coastline.

Figure 5.1: Welsh National Marine Plan Area



Source: Welsh National Marine Plan (November 2019)

5.42 The policies within the WNMP follow a theme, where proposals should demonstrate the following, in order of preference:

- *“Avoid adverse impacts; and/or*
- *Minimise impacts where they cannot be avoided; and/or*
- *Mitigate impacts where they cannot be minimised.*

If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.”

Energy Sector Policy

5.43 The WNMP provides specific Energy – Low Carbon sector policy which applies to both in-shore and off-shore areas of the Plan area.

- 5.44 The WNMP recognises that marine energy resources around Wales offer a, *“good opportunity to deliver significant renewable energy generation and thereby to make a strong contribution to securing an appropriate mix of sustainable energy provision, delivering social and economic benefit whilst respecting the environment and the needs of local communities.”*
- 5.45 The WNMP sets out two specific sector objectives, both of which are directly relevant (and support) the Project.
- 5.46 Objective one is *“to contribute significantly to the decarbonisation of our economy and to our prosperity by increasing the amount of marine renewable energy generated, through (inter alia) supporting further commercial deployment of offshore wind technologies at scale over the lifetime of this Plan.”*
- 5.47 Objective two is, *“to develop Wales as an exemplar of marine renewable energy technology by developing the essential skill base, infrastructure and technical knowledge to support the development of the industry over the next 20 years.”*
- 5.48 Paragraph 331 of the WNMP states that, *“The Plan area includes good wind resource in deeper water, particularly to the west and south west. Offshore wind energy is a proven and strategically important energy technology and the costs of deployment are decreasing rapidly, making this a viable and attractive renewable energy option for Wales, with considerable scope for further large-scale offshore wind activity. Offshore wind has significant potential to contribute to renewable energy targets during the lifetime of this Plan whereas other technologies may take time to develop and may make a more limited contribution.”*
- 5.49 Paragraph 336 confirms that the Welsh Government is also committed to the development of Wales as an exemplar of renewable energy technology, skills and knowledge in the marine renewable energy sector.
- 5.50 Policy ELC_01 (Low Carbon Energy (Supporting) Wind (a) confirms that proposals for offshore wind energy generation will be supported where they contribute to the objectives of the plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.
- 5.51 Paragraph 339 notes that *“the narrative underpinning the Energy – Low Carbon Sector Objectives sets out the Welsh Government’s conclusion that there is significant potential and a strategic need to develop marine renewable energy generation in the Plan area. It identifies offshore wind energy as a proven and strategically important technology with considerable scope in the near term for further large-scale development.”*
- 5.52 Paragraph 341 states that In determining applications for renewable and low carbon energy development and associated infrastructure, planning authorities should give significant weight to the Welsh Government’s targets to increase renewable and low carbon energy generation. Decision makers should take into account:
- the contribution a proposal will make to meeting identified Welsh, UK and European targets and potential for renewable energy;

- the contribution to cutting greenhouse gas emissions; and
- the contribution to the objectives and other policies of this Plan.

Other Policies of Relevance

- 5.53 **GEN_01** (Planning Policy) states that there is a presumption in favour of the sustainable development of the plan area in order to contribute to Wales' well-being goals.
- 5.54 **ECON_01** (Sustainable Economic Growth) states that *“proposals for economically sustainable activities are encouraged, particularly where they contribute to:*
- *the sustainable management of natural resources thereby supporting ecosystem resilience;*
 - *a more resilient economy;*
 - *employment opportunities particularly for coastal communities;*
 - *protecting and creating employment at all skill levels; maintaining communities with a high-density of Welsh speakers; and/or*
 - *tackling poverty by supporting deprived coastal communities.’*
- 5.55 **SOC_01** (Access to the Marine Environment) states that *“proposals that maintain or enhance access to the marine environment are encouraged”*. It aims for developments to be designed and managed in a way that facilitates inclusive access, or does not constrain current access, to the marine environment.
- 5.56 **SOC_02** (Well-being of Coastal Communities) states that *“proposals that contribute to the well-being of coastal communities are encouraged”*. It recognises that development and use of the marine environment has the potential to affect the socio-economic future of coastal communities and decision makers should ensure that opportunities to contribute positively to the future well-being of coastal communities are taken.
- 5.57 **SOC_05** (Historic Assets) states that the potential impacts on historic assets and their settings should be taken into consideration.
- 5.58 **SOC_06** (Designated Landscapes) considers how potential impacts on the purposes and special qualities of National Parks or Areas of Outstanding Natural Beauty should be addressed.
- 5.59 **SOC_07** (Seascapes) states that proposals should demonstrate how potential impacts on seascapes have been taken into consideration. Opportunities to enhance seascapes are encouraged.
- 5.60 **SOC_10** (Minimising Climate Change) demonstrates how proposals should minimise climate change through avoiding, minimising and mitigating the emission of greenhouse gases.

- 5.61 **SOC_11** (Resilience to Climate Change) states that proposals should demonstrate that they have considered the impacts of climate change and have incorporated appropriate adaptation measures, taking into account Climate Change Risk Assessments for Wales.
- 5.62 **ENV_01** (Resilient Marine Ecosystems) notes that proposals should demonstrate how potential impacts on marine ecosystems have been taken into consideration. Proposals that contribute to the protection, restoration and/or enhancement of marine ecosystems are encouraged.
- 5.63 **ENV_02** (Marine Protected Areas) states that *“proposals should demonstrate how they:*
- *Avoid adverse impacts on individual Marine Protected Areas (“MPAs”) and the coherence of the network as a whole;*
 - *Have regard to the measures to manage MPAs; and*
 - *Avoid adverse impacts on designated sites that are not part of the MPA network.”*
- 5.64 **ENV_03** (Invasive Non-native Species) states that *“proposals should demonstrate how they avoid or minimise the risk of introducing and spreading invasive non-native species. Where appropriate, proposals should include biosecurity measures to reduce the risk of introducing and spreading of invasive non-native species.”*
- 5.65 **ENV_05** (Underwater Noise) states that *“proposals should demonstrate that they have considered man-made noise impacts on the marine environment”.*
- 5.66 **ENV_06** (Air and Water Quality) considers that *“proposals should demonstrate that they have considered their potential air and water quality impacts”.*
- 5.67 **ENV_07** (Fish Species and Habitats) considers that proposals that affect *“important feeding, breeding (including spawning and nursery) and migration areas or habitats for key fish and shellfish species of commercial or ecological importance should demonstrate how they, in order of preference:*
- *Avoid adverse impacts on those areas; and/or*
 - *Minimise adverse impacts where they cannot be avoided; and/or*
 - *Mitigate adverse impacts where they cannot be minimised.”*
- 5.68 **GOV_01** (Cumulative Effects) requires that proposals demonstrate that they have assessed potential cumulative effects.
- 5.69 Consideration against specific planning policies is set out in Section 6 below.

6. Planning Assessment

6.1 This section considers the Project against the relevant planning policies. The assessment is broken down in to core policy themes emanating from the relevant policy documents set out in Chapter 5. Having established the context for the Project and existing planning policy context, the core policy themes relevant to the Project are as follows:

- Welsh Language and Culture;
- Renewable Energy and Climate Change;
- Socio Economic, Tourism and Recreation Impacts;
- Local Ownership; and
- Environmental Impacts:
 - Heritage, Seascape, Landscape and Visual Impact;
 - Onshore and Offshore Ecology; and
 - Other Environmental Impacts.

Welsh Language and Culture

6.2 The WoFGA aims to improve the social, economic, environmental and cultural well-being of Wales. The WoFGA places a statutory duty on public bodies in relation to sustainable development, based on seven well-being goals, which include:

- A prosperous Wales;
- A resilient Wales;
- A healthier Wales;
- A more equal Wales;
- A Wales of more cohesive communities;
- A Wales of vibrant culture and thriving Welsh language; and
- A globally responsible Wales.

6.3 FW recognises the obligations of the WoFGA, embedding the seven principles of the Act into the Plan.

6.4 The Welsh Government's aims and ambitions for the Welsh language are set out in the Welsh Language Strategy – Cymraeg 2050. The strategy recognises the need to provide Welsh speakers with easily accessible opportunities to use their skills in social and work

settings. The strategy also identifies the imperative need to create favourable circumstances to encourage the number of Welsh speakers. This involves securing goodwill towards the language and providing language infrastructure such as technology and legislation, but is also concerned with securing an economic and social future for Welsh speaking communities.

- 6.5 The future of the language across Wales will depend on a wide range of factors beyond the planning system, particularly education, demographic change, community activities and a sound economic base to maintain thriving sustainable communities. The planning system can contribute to the future well-being of the Welsh language, by establishing the conditions to allow sustainable communities to thrive. For example, creating conditions for well-paid employment opportunities and a range of quality housing options are integral to planning for sustainable communities.
- 6.6 The Welsh language is part of the social and cultural fabric of Wales. It is spoken by 19.2% of the population and others have some knowledge of the language or are in the process of learning it.
- 6.7 There are substantial variations between the proportions of Welsh speakers in different communities. The PCNPA LDP2 strategy recognises and protects the language as one of the Special Qualities.
- 6.8 Policy 8 (Special Qualities) is clear that the special qualities of the PCNP will be conserved and enhanced. One of the priorities will be to ensure that the Welsh language remains an important component in the social, cultural and economic life of many communities in the Park. The Policy cross-refers to Policy 13 (Development in Welsh Language-Sensitive Areas), which states:

“Within the identified Welsh Language-Sensitive Areas (shown on the Proposals Map), proposals which are considered likely to have a significant effect on the Welsh language will be subject to a Language Impact Assessment, setting out the measures to be taken to protect, promote and enhance the Welsh language.

Proposals which are considered likely to have a significant effect on the Welsh language are those that lie outside Centre boundaries and are for:

- a) residential development for ten or more dwellings or the site has capacity for 10 or more dwellings; or*
- b) development where the floorspace created in a building or buildings is 1,000 square metres or more; or*
- c) the site measures more than 1 hectare.*

Development which would result in an unacceptable adverse effect on the Welsh language will not be permitted.”

- 6.9 The policy will normally apply in Community and Town Council areas with 19.2% or more Welsh speaking population, as identified in the Census and referred to as ‘Welsh language-sensitive areas’ (and Table 5 of the LDP 2).

6.10 The PCC LDP also recognises the importance of Welsh language and culture. Policy SP 9 (Welsh Language) states:

“Development will be managed sensitively in areas where the Welsh Language has a significant role in the local community. This may include phasing, signage and / or other appropriate mitigation measures.”

6.11 This Plan seeks to maintain the County’s bilingual distinctiveness and the policy will apply to development proposals in all community councils defined as ‘language sensitive’, that is, communities where more than 25% of the population over the age of 3 is Welsh speaking.

6.12 The Project does not lie within an area defined as ‘language sensitive’ (PCC LDP Policy SP 9) or ‘Welsh language sensitive’ (PCNPA LDP2 Policy 13) and as such, neither policy applies.

6.13 Notwithstanding this, the Applicant recognises the importance of Welsh language and culture and acknowledges that during construction there could be the potential for a temporary cultural dilution due to influx of workers. The Applicant is committed to taking action to preserve and protect the special qualities of the Pembrokeshire Coast National Park in accordance with Policy 8 of the PCNPA LDP2, as well as responding positively to Policy SP 9 of the PCC LDP by committing to the implementation of the following:

- Bilingual signage;
- Bilingual job advertising; and
- Offering basic Welsh lessons to those members of staff who currently do not speak the language.

6.14 The Project therefore complies with Policy 8 of the PCNPA LDP2 and Policy SP 9 of the PCC LDP.

Renewable Energy and Climate Change

6.15 The Project offers an important opportunity for Wales. It represents a significant opportunity to achieve its climate change targets, for example, to generate 70% of consumed electricity by renewable means by 2030 and reach net zero greenhouse gas emissions by 2050. The principle of development is supported by UK and Welsh legislation, policy and guidance (See Section 4 and 5 of this statement).

6.16 The Project will allow FLOW technology to be tested in the Celtic Sea at demonstration scale, allowing opportunities to maximise learning and spin-off social and economic benefits for the local area. The Project forms part of the Applicant’s intended stepping stone approach to larger commercial scale FLOW deployment in the Celtic Sea in the 2030s. The approach is intended to allow Welsh and UK companies the opportunity to maximise learning and grow with the sector and it expands globally, ensuring maximum benefit to the local economy and providing the opportunity for Wales to be a global leader in FLOW development.

- 6.17 The recently published Net Zero Strategy demonstrates strong support for offshore wind. The Strategy aims to fully decarbonise the power system by 2035 and notes that *'a clean, reliable power system is the foundation of a productive net zero economy'*.
- 6.18 Point 1 of the Prime Minister's Ten Point Plan (included within the Strategy) is to 'Advance Offshore Wind'. This includes the aim of achieving 40GW of offshore wind by 2030. The Strategy targets the North and Celtic Seas with the aim of achieving 1GW of floating offshore wind by 2030. It notes the need to deploy substantial volumes of floating offshore wind infrastructure to help keep the UK on track to achieving the Carbon Budget 6 and net zero targets. The Project is wholly aligned with the Strategy and is necessary if the UK is to achieve the above targets.
- 6.19 This is supported by the WNMP, which confirms Welsh Government's commitment to unlocking the energy potential from Welsh waters. The Welsh Government is also committed to the development of Wales as an exemplar of renewable energy technology, skills and knowledge in the marine renewable energy sector.
- 6.20 The Project accords with the seven well-being goals of the WoFGA.
- 6.21 FW recognises the obligations of the WoFGA, embedding the seven principles of the Act into the Plan. It recognises the importance of developing and supporting a low carbon economy and the growth of sustainable and renewable energy.
- 6.22 Table 6.1 (below) sets out how the Project will accord with the goals.

Table 6.1: Compliance with WoFGA

WbFG Goal	Assessment
A prosperous Wales	It is anticipated that the Project will be operational for 25 years, with an additional period for construction and decommissioning. This will provide high-quality, long-term jobs for local coastal communities. A skilled energy sector supply chain already exists in the area, however, its current resilience is weakening with the closure of refineries.
A resilient Wales	The Project will enable a resilient and self-sufficient supply energy chain to develop. The proposed development will create sustainable employment in local rural coastal communities and help to tackle regional socio-economic inequalities.
A healthier Wales	The Project will have no significant adverse impacts on human health and well-being. It is expected that the Project will have in-direct beneficial impacts on health by contributing to the reduction of reliance on fossil fuels.
A more equal Wales	An assessment of the impact of the Project on socio-economics is provided in Chapter 27 of the ES. The Project will attract inward investment and enable and maintain viable, productive, rural communities, through investment and job creation.

A Wales of more cohesive communities	The employment opportunities provided by the Project will reduce the current outward migration from local communities and help support a stronger, more diverse community.
A Wales of vibrant culture and thriving Welsh language	The Project will help retain the local labour force and support the sustainability of local communities by providing employment opportunities and will thus encourage the retention of the Welsh language in this area. The Applicant will implement appropriate measures to embed the Welsh language in to its operations (as set out above).
A globally responsible Wales	The Project will provide an important opportunity to support Wales in tackling global climate change. The Project seeks to generate clean, renewable energy, in an effort to reduce the reliance on fossil fuels for electricity, and to reduce the impacts of climate change.

- 6.23 Policy 17 of FW confirms Welsh Government’s in-principle support for developing renewable energy from all technologies. The Policy notes that, *“In determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales’ international commitments and our target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency.”*
- 6.24 The WNMP establishes the principle of FLOW developments in the Celtic Sea and aims to utilise the marine environment to deliver renewable energy and reduce the reliance on fossil fuels. The Project enables this and also constitutes sustainable economic development (in line ECON_01) by creating employment opportunities for coastal communities. The Project will contribute towards minimising climate change (SOC_10) and will increase Wales’ resilience to climate change (SOC_11). The WNMP objectives are to:
- Achieve a sustainable marine economy;
 - Ensure a strong, healthy and just society;
 - Live within environmental limits;
 - Promote good governance; and
 - Use sound science responsibly.
- 6.25 The Project will achieve the above by generating renewable energy and creating local jobs in a way that protects coastal communities and marine environments. The Environmental Statement sets out how this will be achieved in detail.
- 6.26 The Project directly accords with the objectives of legislation and policy set out in sections 5 of this report. The Project constitutes sustainable development, in accordance with national and local policies. It furthers Wales’ progress towards a more resilient and equitable low-carbon economy. The Project will enable FLOW technology

to be tested at demonstration scale within Welsh waters. It supports Welsh Government's aspiration to unlock the energy potential of Wales' marine environment, whilst also developing exemplar skills, experience and a supply chain which will place Wales at the forefront of the development of FLOW technology. The Project is supported, in-principle, at all levels of national and local policy.

Socio Economic, Health and T Impacts

- 6.27 Chapter 27 of the ES assesses the potential environmental effects on tourism and recreation, socio-economics and human health arising from the Project.
- 6.28 Chapter 27 (section 27.3) of the ES confirms that a range of consultation activities with relevant local stakeholders (including with the Pembrokeshire Coastal Forum) took place throughout 2021, prior to the submission of this application. Feedback from stakeholders informed the technical analysis which is presented within the ES. This is summarised at Table 27.2 of the ES.
- 6.29 As noted in Section 5 of this report, relevant planning policy at all levels promotes the delivery of off-shore wind development in Welsh waters. However, the policy context is clear that projects should support local communities, describing the social, economic, environmental and cultural net benefits delivered (FW Policy 17).
- 6.30 Chapter 27 of the ES is supported by an Economic Impact Assessment (technical appendix 27.1 of the ES), prepared by WSP and Marine Space.
- 6.31 Paragraph 1.1.10 of the Assessment confirms that the employment and activity generated by the Project will increase economic activity in the local economy (as measured by its GVA impact). The Assessment confirms that the following key benefits will be derived from the Project:
- 715 direct (gross) jobs created during the construction phase;
 - 818 indirect/induced jobs created during the construction phase;
 - An additional £117.7m direct GVA during construction;
 - 146 direct (gross) jobs created during the operational phase;
 - 283 indirect/induced jobs created during the operational phase; and
 - An additional £104.9m direct GVA during construction.
- 6.32 The Applicant is committed to delivering a range of Project specific mitigation measures to minimise potential impacts on any affected receptors. This includes:
- An Outline Construction Environment Management Plan ("CEMP") will be produced in respect of each relevant component of the Project. Each CEMP will explain how the activities of contractors and sub-contractors will comply with its requirements, including information regarding specific construction matters where relevant;

- Work to install the onshore export cable within the highway will be required to comply with the Traffic Management Strategy (as per Chapter 25: Traffic and Transport of the ES). Individual Traffic Management Strategies will be produced for all locations where the onshore export cable is buried in, or impacts on, the uninterrupted use of the highway by vehicular traffic; and
- Proposed site access routes will utilise temporary haulage roads which will minimise the interface between the Project and the public road system. However, the haulage roads will be connected to the local road network at certain points, which may result in minor road works where necessary.

6.33 Further topic specific mitigation measures and an assessment of the effects on tourism and recreation, socio-economics and human health against relevant planning policy is set out below.

Tourism and Recreation

6.34 Tourism is a key industry in Pembrokeshire and makes an important contribution to the local economy. The Project is located within an area that is acknowledged as being important for recreation and tourism. This area of Pembrokeshire is well regarded for its coastal location and marine environment, which includes the beaches on the Angle Peninsula, the Pembrokeshire Coast National Park, Wales Coast Path and Celtic Deep.

6.35 Objective 5 of the WNMP seeks to, *“to recognise the significant value of coastal tourism and recreation to the Welsh Economy and wellbeing and ensure that such activity and potential for future growth are appropriately safe guarded”*.

6.36 The MPS states that authorities and decision makers should consider the potential for tourism and recreation in the marine environment and the benefits that this will bring to the economy and local communities, and in weighing up these considerations it will be important to ensure that local authorities, local tourism stakeholders, tourism destination management organisations, water based sports organisations and other marine and coastal users are engaged and consulted before decisions are taken. Outdoor recreation and enjoyment of the coast can also provide benefits to physical and mental wellbeing, and socio-economic benefits include positive economic benefits through increased visitor numbers and improved access.

6.37 PCNPA recognises the importance of tourism and the visitor economy throughout its PCNPA LDP2. The Plan includes objectives which seek to attract a sustainable number of people at all times of the year to enjoy the special qualities of the National Park (Policy 38) and help to create and maintain a diverse, viable and sustainable local economy benefiting all sections of the community (Policy 43, Policy 44 and Policy 45).

6.38 The Socio-Economics, Tourism and Recreation assessment considered a number of potential impacts. For tourism and recreation these include disruption/ reduced access for recreational and chartered vessel activity, coastal recreational users, coastal tourism, terrestrial recreational users and businesses. Socio-economic effects considered included employment and supply chain; skills and training; GVA impacts, creation of cluster effects, use of green energy and energy security. Health effects considered included benefits from employment, impacts from Electro Magnetic Field (“EMF”) and well-being of future generations.

- 6.39 The ES confirms that, during construction, there would be some minor local disruption to access and disturbance, but no significant effects were identified on tourism. However, there are a number of local businesses which rely on tourism that are potentially affected, and moderate adverse effects were predicted on the Wavecrest Café and West Angle Caravan Park due to their respective proximity to the works. Appropriate mitigation measures, including the preparation of a communication strategy and temporary screening during construction are required to help mitigate temporary effects. Recreational vessels and chartered boat tours will experience minor adverse effects, including from exclusion zones, during construction and potentially from operation.
- 6.40 The assessment considered that temporary disruption and/or reduced access for terrestrial recreational users during the construction phase would not result in significant effects for users of the Wales Coast Path, other Public Rights of Way (“PRoW”), cyclists and wildlife watchers. Partial loss of beach access at West Angle Bay result in moderate adverse effects being predicted for some coastal recreational users of the beach. Water-based activities at West Angle Bay, including swimming, surfing, kayaking etc. were less affected, with minor effects predicted.
- 6.41 The Applicant proposes the following mitigation measures to minimise disruption to the tourism economy and recreational users:

Disruption/ reduced access to local businesses:

- Businesses who are likely to be impacted during construction will be consulted about access requirements and where possible construction activities programmed to avoid the most sensitive periods or align with specific business needs;
- Where construction activities impact on the ability for customers to determine whether or not a business is still open, signage will be erected such as ‘Business as Usual signs’ to publicise that the business is still open;
- The contractor would need to develop these measures so that communication methods are effective during construction; and
- To reduce the interface between the construction activity and local businesses, construction activities will (where possible) be programmed outside of busy periods. For example, no weekend, school holidays or bank holiday working.

Disruption to recreational vessel activity:

- Use of Safety Zones around installation vessels during construction, major maintenance works and decommissioning;
- Project vessels to exhibit appropriate lightings and markings at all times; and
- Structures within the array area will be marked and lit in accordance with International Association of Lighthouse Authorities technical guidance (IALA, 2021).

Disruption/reduced access for coastal tourism:

- Areas required for longer-term construction works, such as Trenchless methods or use of Horizontal Directional Drill (“HDD”), for the installation of the onshore export cable will also be reviewed by the construction contractors to determine whether there are any opportunities to reduce areas within Pembrokeshire Coast National Park required for long-term works;
- Areas of the Pembrokeshire Coast National Park will be restored to the same condition as they were in prior to construction; and
- To reduce the interface between the construction activity and the tourist season in the area, programme the activities that can be undertaken in the winter, outside of the tourist season.

Disruption/reduced access for coastal recreational users:

- Public access to beaches will be maintained at all times (although some sections of beach may be inaccessible during construction works. These areas will be signposted for the public).

Disruption/reduced access for terrestrial recreational users:

- Temporary diversions would be in place on the Wales Coast Path and will be designed to avoid adding substantial distance to the journey length of the route and pedestrian access will be retained at all times; and
- A traffic light system will be used within the construction phase for a two-lane road, to control traffic flows so that only a single lane is closed (when constructing the trenches to lay the onshore export cable) when and where possible. For single-lane roads, the road will be fully closed when work is being undertaken. Signage advising detours would be erected at the road outlets. Afterwards the area will be fully reinstated.

6.42 Chapter 27 of the ES confirms that no significant impacts are anticipated on tourism and recreation, businesses or chartered boat tours during the operation or decommissioning of the Project. With the application of the mitigation measures set out above, the Project complies with Objective 5 of the WNMP and Policy 38 of PCNPA LDP2 by recognising and taking steps to safe-guard coastal tourism and recreation.

Socio-economic

6.43 The Pembrokeshire Recovery and Regeneration Strategy (2020-2030) combines the Council’s economic restart and recovery plans in response to the Covid-19 pandemic with a longer term renewal and regeneration approach. The Strategy supports the Applicant’s investment within the Pembrokeshire area and its role in unlocking the significant potential for FLOW development in the Celtic Sea. Page 22 of the Strategy states (in respect of the Project), *“this project will launch a new chapter in the development of offshore energy in the South West; a new industry that can deliver significant benefits for the local supply chain and the coastal community of Pembrokeshire, Wales and the wider UK. “*

6.44 Policy SOC_02 (Well-being of coastal communities) recognises that the development and use of the marine environment has the potential to affect the socio-economic

future of coastal communities and decision makers should ensure that opportunities to contribute positively to the future well-being of coastal communities are taken.

- 6.45 Policy 1 of the PCNPA LDP2 states that *“in determining proposals, due regard will be paid to the need to foster the economic and social well-being of the local communities within the Park provided this is compatible with the statutory National Park purposes”*
- 6.46 Policy SP1 of the PCC LDP states that:
- “All development proposals must demonstrate how positive economic, social and environmental impacts will be achieved and adverse impacts minimised.”*
- 6.47 Energy Low Carbon Sector Objective 2 of the WNMP states that it will develop Wales as an exemplar of marine renewable energy by developing the skill base, infrastructure and technical knowledge to support the industry over the next 20 years.
- 6.48 The Project is expected deliver significant socio-economic benefits to the local area, as well as spin-off benefits across Wales and the UK. The Project will support the current supply chain and encourage businesses to relocate to the local area, creating additional jobs in compliance with Objective 2. This will create spin-off economic benefits within the area. The additional levels of employment created will also generate further demand across the new businesses’ supply chains, which in turn creates additional economic growth and jobs.
- 6.49 The construction phase of the Project will support and increase the number of professional roles in the local area and throughout Pembrokeshire. The construction phase and all the works associated with it will support a number of highly skilled, professional roles across a range of activities. These will include specialist engineering roles as well as professional management and supervisory roles during construction. Chapter 27 of the ES confirms that The Project will result in a temporary minor beneficial effect at the local level contributing positively to well-being of communities by providing an increase in skilled jobs as required by Policy SOC-02.
- 6.50 The increase in direct employment generated by the Project would have a noticeable impact on the size of the energy sector locally, creating new employment opportunities. Chapter 27 of the ES confirms that the effect will be of moderate beneficial significance. During its operational phase, the Project will support a number of highly skilled, professional roles across a range of activities. Operational activities will include maintenance, repair / replacement and specialist engineering tasks and other management and supervisory roles.
- 6.51 The Applicant will implement a range of measures (where possible) to maximise the potential for the workforce and supply chain to be locally sourced. These measures could include:
- Working with local people and local business to ensure that, where practicable, investment is retained within Pembrokeshire at a local level and Wales at a national level;

- Engaging with Jobcentre Plus to ensure local job opportunities, where practicable are advertised to local unemployed people and identifying opportunities to help people get back into employment through work placements, education and skills training;
- Providing opportunities for up-skilling individuals working on the Project, where practicable through experience, training and development programmes; and

6.52 The Applicant has demonstrated its commitment to delivering long term socio-economic benefits to the local area through delivering a STEM focussed education programme in local schools. The programme delivers offshore wind and climate change lessons as part of the National Curriculum, promoting jobs for future generations.

6.53 Overall, the Project will provide significant benefits in terms of GVA and jobs created to the local Pembrokeshire economy and wider area, through the provision of direct jobs created by the Project. Additionally, indirect jobs will be created in the supply chain or through the significant GVA benefits the Project will bring. The Project therefore complies with the objectives of Pembrokeshire Recovery and Regeneration Strategy (2020-2030), the relevant policies of the PCC LDP, PCNPA LDP2 and the WNMP.

Human Health

6.54 Existing health issues in Pembrokeshire include obesity, an ageing population and a reported reduction in happiness and wellbeing levels.

6.55 Minor beneficial effects on health are therefore anticipated during construction and operation from employment, in addition to benefits to well-being from green energy provision during operation.

6.56 Current scientific evidence does not identify health effects from exposure to low level electromagnetic fields. However, a population may still retain some element of fear of EMF which can lead to negative health impacts upon a population brought about by anxiety. The technical specifications will require that the onshore export cable and substation will be designed to keep EMF below the public and occupational exposure limits. This includes shielding of onshore cables within a metal sheath that prevents exposure. There will be a few members of the population that may still experience anxiety, although this is anticipated to reduce over time when no health impacts are realised.

6.57 The Project is considered to have a minor beneficial impact on the health outcomes of the population, due to the increased employment opportunities and income levels. These improvements may improve health by improving incidents of depression, improved mental health and social contact as well as improved household financial stability.

Summary

6.58 Where significant adverse impacts have been identified as a result of the Project, additional mitigation measures are proposed to seek to reduce residual impacts to non-significant levels. These additional measures relevant to recreation and

tourism, socio-economics and human health, are outlined within Section 27.7 of the ES.

- 6.59 The Project has the potential to deliver significant socio-economic benefits to the local area, and beyond. It aligns with national and local policy objectives, placing Wales (and Pembrokeshire) at the forefront of FLOW development on a global level. The knowledge, skills and supply chain that the Project will develop will enhance the local economy and creating new opportunities for economic growth. In turn, this will assist in retaining a skilled workforce in the local area, with numerous spin-off economic and social benefits.

Local Ownership

- 6.60 The Applicant is fully aware of Welsh Government's position in relation to the need for energy projects within Wales (including Welsh waters) to include an element of local ownership (and its Policy Statement on this topic). The Applicant has engaged with Welsh Government on this matter.
- 6.61 The Project proposes a demonstration scale FLOW development. Its intent is to test and demonstrate the capability of FLOW in the Celtic Sea. In this regard, the scale and viability of the Project is limited. The Applicant intends to progress commercial scale FLOW development in the Celtic Sea in the 2030s.
- 6.62 As the Project is at demonstration scale only, it is not currently appropriate to offer an element of local ownership at this stage. The Applicant is committed to working with Welsh Government and relevant community groups to secure appropriate levels of local ownership in future when promoting commercial scale FLOW development.

Environmental Impacts

Heritage, Seascape and Landscape & Visual Impact

Landscape and Seascape

Relevant Policy

- 6.63 Whilst the Project is not seeking a DCO due to its size (up to 100 MW), it is considered that certain NPS are relevant to the Project and decision-making.
- 6.64 In the case of seascape, landscape and visual impact, the following paragraphs of NPS EN-1 are important in setting the policy and decision making context for the Project.
- 6.65 NPS EN-1 Paragraph 5.9.7 states "*Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.*"

- 6.66 NPS EN-1 Paragraph 5.9.12 and Paragraph 5.9.13 state *“The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation and such projects should be designed sensitively given the various siting, operational, and other relevant constraints.”* ... and paragraph 5.9.13 advises *“The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent.”* (Our emphasis)
- 6.67 NPS EN-1 Paragraph 5.9.14 states *“Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be paid particular attention. However, local landscape designations should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.”* (Our emphasis)
- 6.68 The following national and local landscape/seascape policies are also relevant to the Project.
- 6.69 FW Policy 17 advises that applications for large-scale wind and solar will not be permitted in National Parks and Areas of Outstanding Natural Beauty (“AONB”) and all proposals should demonstrate that they will not have an unacceptable adverse impact on the environment.
- 6.70 It does, however, emphasise that the Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet Wales’ future energy needs. It requires decision-makers to give significant weight to the need to meet Wales’ international commitments and the target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency.
- 6.71 PPW Section 6.3.5 confirms that LPAs have a statutory duty to have regard to all activities affecting National Parks and AONBs, whether those activities lie within, or in the setting of, the designated areas. Designated landscapes should be drivers of the sustainable use and management of natural resources in their areas, and LPAs should have regard to their identified special qualities.
- 6.72 Section 6.3.6 requires LPAs to give great weight to the statutory purposes of National Parks, which are to conserve and enhance their natural beauty, wildlife and cultural heritage, and to promote opportunities for public understanding and enjoyment of their special qualities. It also encourages LPAs to foster the social, economic and cultural well-being of their local communities.
- 6.73 PPW (Paragraph 5.9.16) is clear that the decision maker should take into account: the contribution a proposal will make to meeting Welsh, UK and European targets; the contribution to cutting greenhouse gas emissions; and the wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development. The decision maker should also give significant weight to the Welsh Government’s targets to increase renewable and low carbon energy generation, as part

of our overall approach to tackling climate change and increasing energy security (PPW Paragraph 5.9.17).

6.74 WNMP Paragraph 340 states:

“This Plan’s Energy – Low Carbon Supporting Policies therefore support the development of renewable energy activities and seek to ensure that the Plan area’s potential for energy generation from renewable sources is achieved (in line with climate and energy targets), giving due regard to relevant environmental, social and cumulative impact considerations. In relation to Policy SOC_07, it is accepted that the development of marine renewable energy infrastructure will result in changes to the seascape character of Wales and that these changes are an inevitable result of our ambition for marine renewable energy to make an increasingly significant contribution to the overall energy mix.”

6.75 WNMP Policy SOC_6 requires the Project to demonstrate how potential impacts on the purposes and special qualities for which National Parks or Areas of Outstanding Natural Beauty have been designated have been taken into consideration and should, in order of preference:

- avoid adverse impacts on designated landscapes; and/ or
- minimise impacts where they cannot be avoided; and/ or
- mitigate impacts where they cannot be minimised.

6.76 If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

6.77 MPS Policy SOC_06 also recognises that resilient, diverse, multifunctional landscapes supported by sustainable management practices can provide a range of services and opportunities with the potential to contribute to the achievement of social objectives and improve health and well-being as well as delivering economic benefit.

6.78 Under this policy, proposals should demonstrate appropriate consideration of the potential impacts of developments and activities on designated landscapes. This policy also encourages opportunities to contribute positively to the protection or enhancement of these areas. National Parks and AONBs are of equal status in terms of landscape and scenic beauty and both should be afforded protection from inappropriate developments.

6.79 PCC Policy GN.1 states that development will be permitted where the characteristics of a development are compatible with the characteristics of the site and the area within which it is located; it would not result in a significant detrimental impact on local amenity in terms of visual impact, loss of light or privacy, odours, smoke, fumes, dust, air quality or an increase in noise or vibration levels; and it would not adversely affect landscape character, quality or diversity, including the special qualities of the PCNP and neighbouring authorities.

- 6.80 PCNPA Policy 8 requires the special qualities of the PCNP to be conserved and enhanced to ensure that the sense of remoteness and tranquillity is not lost and is wherever possible enhanced; the pattern and diversity of the landscape is protected and wherever possible enhanced; the historic environment is protected and where possible enhanced; and development of the undeveloped coast is avoided and sites within stretches of the developed coast are protected for uses that need a coastal location. In assessing the impact upon the special qualities of the National Park, matters of detail and cumulative impact will be given special consideration.
- 6.81 PCNPA Policy 9 states that proposals that are likely to result in a significant level of external artificial lighting being emitted will be permitted where the lighting proposed relates to its purpose; and where there is no unacceptable adverse effect on the character of the area, local residents, vehicle users, pedestrians, biodiversity and the visibility of the night sky. Wherever possible opportunities to mitigate potential cumulative impacts on the night sky should be explored.
- 6.82 PCNPA Policy 14 states that development will not be permitted where this would have an unacceptable adverse effect on the qualities and special landscape and seascape character of the PCNP.
- 6.83 PCNPA Policy 33 states that renewable and low carbon energy development including projects relating to wind, will be permitted subject to meeting the following criteria: Small and medium scale schemes would not individually or cumulatively have an unacceptable adverse effect on the visual amenities, landscape character and/or nature conservation value of the local area; large scale schemes would not individually or cumulatively have an unacceptable adverse effect on the special qualities of the National Park; onshore connections to offshore renewable energy generators would not have an unacceptable adverse effect on the visual amenities, landscape character or nature conservation of the developed and undeveloped coast. Where an undeveloped coastal location is required, proposals must demonstrate why the location is necessary with the least obtrusive approach to design being taken; all proposals will be required to demonstrate that measures have been taken to minimise impacts on the landscape and natural environment of the National Park and there will be no unacceptable impacts on residential amenity.
- 6.84 The thrust of the relevant policy is that projects should seek to avoid adverse impacts on the landscape but where this is not possible, appropriate mitigation should be provided. There is also a clear acknowledgement at both a national and local policy level that:
- (i) all developments of this scale are likely to give rise to some effects on landscape character and visual amenity but that this should not in itself be a reason for refusing consent; and
 - (ii) whilst appropriate weight should be given to the statutory purposes of National Parks, the decision maker should balance that against the potential social, economic and cultural well-being benefits that such projects can deliver.

Assessment / Landscape and Visual Impact

6.85 The Landscape and Visual Impact Assessment (“LVIA”) considered the potential effects that the Project may have on the existing landscape resource of the onshore LVIA Study Area and the visual amenity of its receptors. The assessment concludes as follows:

- The Project will give rise to significant construction effects:
 - For the onshore cable corridor these significant construction effects are localised and are limited to close proximity visual effects of high sensitivity receptors; and
 - For the onshore substation these also occur for visual receptors at close proximity.
- The LVIA has assessed that there would be no residual significant effects to the landscape and visual resource as a result of the onshore cable corridor; and
- Whilst the LVIA has found there would be no significant landscape character effects as a result of the Project, it found that the onshore substation would give rise to very localised significant residual visual effects.

Proposed Mitigation

- 6.86 As set out above in NPS EN-1, it is important to understand that all developments of this scale are likely to give rise to some effects on landscape character and visual amenity and it is considered that for the Project, all of the effects experienced would be localised and that significant effects would be limited in both extent and number.
- 6.87 Within this context, Paragraph 5.9.12 and Paragraph 5.9.13 of NPS EN-1 are clear that *“The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent.”*
- 6.88 Paragraph 5.9.7 of NPS EN-1 is also clear that whilst virtually all energy projects of scale will have effects on the landscape, those projects need to be *...“designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.”*
- 6.89 Mitigation measures will be designed in detail post-consent as part of the discharge of consent conditions. A Landscape and Ecological Management Plan (“LEMP”) will be provided which will include the detailed mitigation measures with regard to the re-establishment of hedgerows and planting of mitigation landscaping. A summary of the landscape and visual mitigation strategy is set out below:
- **Primary mitigation** – ensuring the sensitive siting and design of the onshore infrastructure during site selection, to avoid or reduce potential impacts. The close proximity of existing electricity overhead lines and a wind turbine to the onshore substation and the relatively close proximity of existing industrial development to the north at the Pembroke Power Station provide a context of electrical infrastructure in the area within the immediately surrounding context

of the site. Whilst there is a locally intensification of such industrial/ electrical development, it is considered, in this instance, that this is beneficial compared to possible options which may have spread such developments more widely across the landscape and visual resource.

- **Construction phase mitigation** - Mitigation opportunities during the construction phase of works will be limited and primarily relate to the restrictions imposed on the working areas and measures identified in Volume 3 Technical Appendix 4.3 Outline Construction Environmental Management Plan (“CEMP”) or in the avoidance or damage to landscape features where possible.
- **Proposed onshore substation mitigation** - The position of the onshore substation site on the south facing slopes of an incised, wooded valley provides an element of visual screening and for many visual receptors in the Study Area provides a degree of mitigation of landscape and visual effects from the outset. Landscape mitigation principles have been developed for the onshore substation to further mitigate landscape and visual effects for those areas where visibility is found. In the consultation meeting with NRW and PCC (02/09/2021) NRW agreed with the mitigation principles discussed at the meeting including the outline planting at the substation. These mitigation principles include proposed woodland and hedgerow planting and areas of proposed meadow grassland for ecological mitigation. The proposed landscape mitigation is presented in Volume 2 Figure 21.16 and is also shown at the predicted height after 15 years' establishment on the LVIA visualisations. The mitigation strategy and approach agreed in principle with consultees includes the following key aspects:
 - Proposed woodland to the south of the onshore substation to help mitigate visual effects from Goldborough Road and nearby properties to the south;
 - Proposed woodland to the east of the onshore substation to help mitigate visual effects from the east in particular from Pennar to the northeast;
 - Proposed areas of meadow grassland habitat to improve biodiversity;
 - Proposed native species hedgerows along the minor road to Lambeeth to complement existing hedgerows which along with additional woodlands along this edge would help to mitigate views of the onshore substation from the minor road to Lambeeth;
 - Increased connectivity of existing hedgerows and woodlands particularly with the riparian woodland to the south of the onshore substation site;
 - Complimentary building materials and finish for the substation that are consistent with large scale agricultural buildings and in line with the Greenlink proposals;
 - Reinstatement of removed sections of hedgerows; and

- Restoration of all temporary works and construction areas in relation to re-establishment of ground cover and where practicable.
- **Onshore cable corridor and landfall mitigation** - The precise location of the cable trenches within the onshore cable corridor will not be finalised until later detailed design stages. However, the location of the onshore cable corridor is not ambiguous in relation to landscape features and the potential disruption that may be caused as a result of the cable installation. Taking this into account, the following principles are considered to form an appropriate landscape and visual mitigation strategy for the onshore export cable and landfall:
 - Where practicable, reducing hedgerow and tree loss along the onshore cable corridor;
 - Reinstatement of removed sections of hedgerows;
 - Restoration of all temporary works and construction areas in relation to re-establishment of ground cover; and
 - Protection of trees during the construction phase where practicable.
 - The Ecological Landscape Strategy will make a positive contribution to the character of the landscape whilst encouraging biodiversity at a local level, enhancing the environment and creating and enhancing habitat throughout the onshore cable corridor. Vegetation and habitat loss across the cable corridor would be kept to a minimum and proposed landscape mitigation planting will ensure that the character of the local area is retained and enhanced for future benefit. As the proposed landscape matures, the degree of adverse effect would reduce.
- **Additional Mitigation** - In addition to the mitigation outline above it is considered that additional mitigation measures could be developed at detailed design stage, including - detailed planting proposals for the onshore substation; detailed design and materials selection for the onshore substation; and detailed consideration of the onshore substation building colour and finish.

Associated Project Benefits

- 6.90 As set out above, policy at both national and local level is clear that the decision maker should balance the weight afforded to the statutory purposes of National Parks against the potential social, economic and cultural well-being benefits that projects of this scale can deliver.
- 6.91 With this in mind, it is important to consider the benefits associated with the Project when weighing the overall planning balance:
- The WNMP establishes the principle of FLOW developments in the Celtic Sea and aims to utilise the marine environment to deliver renewable energy and reduce the reliance on fossil fuels. The Project enables this and also constitutes sustainable economic development (in line ECON_01) by creating employment opportunities for coastal communities. The Project will contribute towards

minimising climate change (SOC_10) and will increase Wales' resilience to climate change (SOC_11);

- The Project directly accords with the recently published Net Zero Strategy and is necessary if we are to achieve the Strategy's targets, such as generating 70% of consumed electricity by renewable means by 2030 and reach net zero greenhouse gas emissions by 2050;
- The Project accords with the seven well-being goals of the WoFGA (Table 6.1 above);
- The Project will deliver 2,059 gross jobs or 1,665 net jobs (Table 27.26 of Chapter 27 of the ES); and
- The Project will deliver a total indirect/induced GVA of approximately £320.6 million compared to £232.4 million of Direct GVA.

6.92 With the mitigation proposed, the landscape impacts from the Project would be acceptable and therefore the need for the Project and the significant benefits that the Project would deliver would far outweigh the adverse effects. On balance, the Project therefore complies with the relevant policies set out above.

Seascape and Visual Impact

6.93 The special qualities of the PCNP are defined in the Background Paper: Special Qualities of PCNP report (PCNPA, 2018) are as follows:

- Coastal Splendour;
- Diverse Geology;
- Diversity of Landscape;
- Distinctive Settlement Character;
- Rich Archaeology;
- Cultural Heritage;
- Richness of Habitats and Biodiversity;
- Islands;
- Accessing the Park;
- Space to Breathe;
- Remoteness, Tranquillity & Wildness; and
- Diversity and Combination of Special Qualities.

- 6.94 Special qualities that are relevant to seascape/landscape character and visual amenity that have been scoped in to the SLVIA as having potential to be significantly affected by the Project are: Coastal splendour; Diversity of landscape; Islands; Space to breathe; Remoteness, tranquillity and wilderness; and Diversity and combination of special qualities.
- 6.95 Special qualities that were scoped out of the SLVIA are: Diverse Geology; Distinctive settlement character; Rich archaeology; Cultural heritage (both considered in ES Chapter 23: Onshore Archaeology and Cultural Heritage); Richness of habitats and biodiversity (considered in ES Chapter 9: Marine and Coastal Ecology, ES Chapter 11: Offshore Ornithology and ES Chapter 12: Marine Mammals and Reptiles); and Accessing the park.
- 6.96 An assessment of the magnitude of change and residual effects arising from the operation and maintenance of the Project on the defined special qualities of the PCNP is set out in respect of each special quality that has potential to be affected, as identified in Table 13.18 of Chapter 13 of the ES. This assessment of special qualities is informed by assessments of representative viewpoints and visual receptors (in Section 13.7.2 to 13.7.17 of the ES) and SCAs within the PCNP (in Section 13.8.2 to 13.8.6 of the ES). In these sections, the effects on special qualities evident from representative viewpoints are assessed, as well as the residual effects on the perceived qualities of each SCA within the PCNP.
- 6.97 The assessment identified that the Project will result in zero change and no effects on many of the PCNP's special qualities, including its diverse geology, distinctive settlement pattern and access to the PCNP. Those special qualities that have been assessed in more detail regarding 'coastal splendour', 'diversity of landscape', 'islands', 'space to breathe' and 'remoteness, tranquillity and wildness' have been assessed as being subject to low levels of change and not significant effects as a result of the Project. The visual aspects of the perceived qualities of the PCNP have been assessed, as they convey the 'sights of the sea' qualities referred to in 'diversity and combination of special qualities' and have been found to be of low magnitude and not significant. Other qualities referred to as contributing to the diversity and combination of special qualities, including the 'sounds of the sea, the rolling landscapes, wooded valleys and upland plateaus of the PCNP' and the 'distinctive combination of colour, contrast and change' will not be affected by the Project.
- 6.98 The potential impacts on the special qualities for which the PCNP has been designated have been taken into consideration and adverse impacts on the designated landscape of the PCNP have been avoided. The sense of remoteness and tranquillity will not be lost, the pattern and diversity of the landscape will remain, and significant effects on undeveloped coastline are avoided due to the distance of the Project outside the PCNP. The Project will not adversely affect seascape character, landscape character, quality or diversity, including the special qualities of the PCNP.
- 6.99 The SLVIA has identified that the Project will result in no significant seascape, landscape or visual effects, therefore additional mitigation is not required. The residual effects arising as a result of the construction of the Project are assessed as being of the same magnitude and significance on all seascape, landscape and visual receptors as

those arising from its operation (summarised in Table 13.36 of ES Chapter 13), however the residual effects will be short-term and temporary during the length of the construction phase and differ mainly due the influence of construction vessels in the seascape that will not be present during the operational phase.

- 6.100 Taking all of the above in to consideration, the Project complies with the relevant policies set out above.

Heritage and Archaeology

Relevant Policy

- 6.101 FW Policy 32 requires LPAs to consider the contribution an energy proposal will make to decarbonising energy supplies, the impacts on the landscape, seascapes, natural and historic environment and the economic benefits they would bring to the region.
- 6.102 Paragraph 6.1.5 of PPW states that the planning system must take into account the Welsh Government’s objectives to protect, conserve, promote and enhance the historic environment as a resource of present and future generations.
- 6.103 TAN 24: The Historic Environment supplements PPW and provides guidance on considering the historic environment in the planning system, including World Heritage Sites, Scheduled Monuments, Archaeological remains, Listed buildings, Conservation areas, Historic parks and gardens, historic landscapes and historic assets of special local interest. This advocates the use of The Conservation Principles for the Sustainable Management of the Historic Environment in Wales (Conservation Principles) (2011) in assessing potential impacts of development upon the historic environment. When assessing impacts upon designated assets Cadw have produced additional guidance in the form of Heritage Impact Assessment in Wales (2017) and Setting of Historic Assets in Wales (2017).
- 6.104 PCC LDP references the historic environment throughout the document in numerous policies, emphasising its significance to the county.
- 6.105 PCC LDP Policy GN.38 states that *development that affects sites and landscapes of architectural and/or historical merit or archaeological importance, or their setting, will only be permitted where it can be demonstrated that it would protect or enhance their character and integrity.*
- 6.106 PCNPA LDP2 Policy 8 also considers the historic environment. The aim of this part of the policy is:
- “To conserve, enhance and promote the historic environment of the National Park, its archaeological resource, historic buildings and landscapes, parks and gardens”*
- 6.107 WNMP Policy SOC_05 identifies that proposals which may affect historic assets should demonstrate that they will, in order of preference: a) avoid, b) minimise, c) mitigate, d) if it is not possible to mitigate, to state the case, such as reasoning the greater public benefit, for proceeding, and that opportunities to enhance historic assets are encouraged.

- 6.108 WNMP Policy SOC_06 identifies that proposals which may affect designated landscapes should demonstrate that they will, in order of preference: a) avoid, b) minimise, c) mitigate, d) if it is not possible to mitigate, to state the case, such as reasoning the greater public benefit, for proceeding, and that opportunities to enhance designated landscapes are encouraged.
- 6.109 WNMP Policy SOC_07 identifies that proposals which may affect seascapes should demonstrate that they will, in order of preference: a) avoid, b) minimise, c) mitigate, d) if it is not possible to mitigate, to state the case, such as reasoning the greater public benefit, for proceeding, and that opportunities to enhance seascapes are encouraged.
- 6.110 Paragraph 2.6.6.3 of the MPS recognises that heritage assets are a finite and irreplaceable resource, and should be *“conserved in a manner appropriate and proportionate to their significance”*. The same paragraph also states that non-designated heritage sites should be considered subject to the same policy principles as applied to designated heritage assets.
- 6.111 Paragraph 2.6.6.8 of the MPS further states that there should be a presumption in favour of preservation in situ, and *“The more significant the asset, the greater should be the presumption in favour of its conservation. Substantial loss or harm to designated assets should be exceptional”*.
- 6.112 Paragraph para 2.6.6.9 of the MPS continues:
- 6.113 *“Where the loss of the whole or a material part of a heritage asset’s significance is justified, the marine plan authority should identify and require suitable mitigating actions to record and advance understanding of the significance of the heritage asset before it is lost”*.

Assessment

Onshore

- 6.114 Chapter 23 of the ES assesses the likely significance of the effect of the Project upon the archaeological and cultural heritage resource within the Project and surrounding area.
- 6.115 The assessment identified potential impacts on up to 47 receptors, of which 17 are considered high value sites, 6 medium value sites, 20 low value sites, and 4 of negligible value.
- 6.116 Standard mitigation has included regular consultation to avoid known sites of significance, and monitoring of geotechnical works. Further standard mitigation will include identification and protection of archaeological sites where practicable within the construction programme, to be included within the CEMP, and an archaeological watching brief during groundworks.
- 6.117 The assessment identified the following effects:
- During the construction phase, a negligible effect has been identified for 4 receptors;

- A negligible to slight impact, resulting in a minor adverse effect, has been identified for 15 receptors of low value, 2 receptors of medium value and 3 receptors of high value. With standard mitigation measures in place these effects are not considered significant in the context of EIA regulations;
- A moderate impact, but still resulting in a minor adverse effect, has been identified for a further 5 receptors of low value. With standard mitigation measures in place these effects are not considered significant in the context of EIA regulations;
- A slight impact, largely of a temporary nature, resulting in a minor adverse effect has been identified on the setting of 11 receptors of high value. With standard mitigation measures in place these effects are not considered significant in the context of EIA regulations;
- A moderate impact, resulting in a moderate adverse effect, has been identified for 4 receptors of medium value. A moderate adverse impact is considered significant, and additional mitigation will need to be applied. Such mitigation could take the form of geophysical surveying, and subsequent trenched archaeological evaluation, which should provide sufficient information to either allow the effects to be reduced through standard mitigation, or to inform whether any further additional mitigation would be required to reduce effects. Such additional mitigation should result in a minor adverse effect (not significant); and
- During the operational phase a slight impact, resulting in a moderate adverse effect, has been identified on the setting of 4 receptors of high value. A moderate adverse impact is considered significant, and additional mitigation will need to be applied. Such mitigation relates specifically to the proposed substation, and should include considerations of size, materials, distribution, lighting and screening in the final design. This should result in a minor adverse effect (not significant).

6.118 The assessment demonstrates that with standard mitigation measures in place the environmental effects at the majority of the receptors are not considered significant in the context of EIA regulations. Where significant effects (moderate adverse) have been identified at 8 receptors (4 medium value and 4 high value) the assessment has recommended additional mitigation that should be applied which would result in a minor adverse effect (not significant) at all eight receptors. As a result, the Project will have no unacceptable impact on the historic environment and therefore accords with the relevant national and local planning policies set out above.

Offshore

6.119 Chapter 14 provides an assessment of the known and potential archaeological remains and historic assets and identifies the potential risks, impacts, and effects to these resources posed by the Project.

6.120 The assessment identified a series of known and potential remains relating to offshore archaeology, regarding submerged prehistory and paleolandscapes, maritime and aviation archaeology and maritime infrastructure, intertidal and coastal sites.

Notwithstanding this, the assessment concludes that, following mitigation, the Project would result in no significant effects to known and potential archaeological remains.

6.121 The Project therefore complies with the relevant planning policies set out above.

Onshore and Offshore Ecology

Relevant Policies

6.122 FW Policy 9 refers to indicative maps produced by NRW which illustrate national natural resources themes including ecological networks, biodiversity hotspots, ecosystem services and opportunities for habitat creation. The Pembrokeshire coast is identified as a biodiversity hotspot.

6.123 FW Policy 29 recognises the importance of development and sustainable growth in Carmarthen and the Pembrokeshire Haven Towns (Haverfordwest, Milford Haven, Pembroke and Pembroke Dock) and notes the importance of the south-west's tourism industry.

6.124 The Welsh Government wishes to see biodiversity enhanced and ecosystems become more resilient across the South West. These policies require consideration be given to the type of action necessary at regional and local levels and how this can be facilitated through Strategic and LDPs

6.125 WNMP Policy EN_01 requires proposals to demonstrate how they contribute to the protection, restoration and/or enhancement of marine ecosystems.

6.126 WNMP Policy EN_02 requires proposals to demonstrate how they:

- avoid adverse impacts on individual MPAs and the coherence of the network as a whole;
- have regard to the measures to manage MPAs;
- avoid adverse impacts on non-marine designated sites.

6.127 WNMP Policy EN_03 requires proposals to include biosecurity measures to reduce the risk of introducing and spreading invasive non-native species.

6.128 WNMP Policy EN_05 requires proposals to demonstrate that they have considered man-made noise impacts on the marine environment and, in order of preference: a) avoid adverse impacts; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be adequately addressed, proposals should present a clear and convincing justification for proceeding.

6.129 WNMP Policy EN_07 requires proposals potentially affecting important feeding, breeding (including spawning & nursery) and migration areas or habitats for key fish and shellfish species of commercial or ecological importance to demonstrate how they, in order of preference:

- Avoid adverse impacts on those areas; and/or

- Minimise adverse impacts where they cannot be avoided; and/or
 - Mitigate adverse impacts where they cannot be minimised.
- 6.130 If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.
- 6.131 PCNPA LDP2 Policy 1 states that development within the National Park must be compatible with the conservation or enhancement of the natural beauty, wildlife and cultural heritage of the Park and the public understanding and enjoyment of those qualities.
- 6.132 PCNPA LDP2 Policy 10 states that development likely to have a significant effect on a European Site, when considered alone or in combination with other projects or plans will only be permitted where it meets a number of criteria.
- 6.133 PCNPA LDP2 Policy 11 states that development likely to have an adverse effect either directly or indirectly on the conservation value of nationally protected sites will only be permitted where it meets a number of criteria.
- 6.134 PCC LDP Policy GN.37 states that all development should demonstrate a positive approach to maintaining and, wherever possible, enhancing biodiversity. Development that would disturb or otherwise harm protected species or their habitats, or the integrity of other habitats, sites or features of importance to wildlife and individual species, will only be permitted in exceptional circumstances where the effects are minimised or mitigated through careful design, work scheduling or other appropriate measures.

Assessment - Onshore

- 6.135 The Project site (onshore) does not overlay any statutory or non-statutory nature conservation designation, although three statutory sites designated for their ecological features lie within 5km of the onshore site boundary. Mitigation is proposed to avoid potential impacts from the Project on the features associated with the sites and so are not considered to be significant.
- 6.136 Desk study, external data and field studies for the onshore site identified all of the habitats and more sensitive areas within the Survey Area. Further study of the vegetation present was completed by National Vegetation Classification survey. Ornithological studies included breeding bird and wintering bird surveys. Protected species surveys identified areas where both badger and otter were found to be active and confirmed that bats were not using identified potential features for roosting.
- 6.137 Mitigation measures are proposed to ensure compliance with protected species legislation prior to and during construction, as well as to ensure enhancement of the hedgerow and field margin habitats. Dormice are presumed to be present within all hedgerows along the onshore cable corridor and a Dormouse Mitigation Strategy is presented to ensure their protection throughout the Project's operational lifetime.
- 6.138 Best practice measures are proposed that aim to prevent, reduce or offset potential impacts on the ecological and ornithological receptors present at the Project site. It is

proposed that such measures be incorporated into the CEMP and any Species Protection Plans (in addition to the Dormouse Mitigation Strategy) that an Ecological Clerk of Works (“ECoW”) may identify at the time of construction. These documents would be developed to reflect the seasonality of the receptors present at the Project site and the eventual development programme, including pre-construction or enabling works, the construction phase, and the operational phase. The habitat enhancement measures are anticipated to have an overall significant beneficial effect on the protected species and habitats of interest that are present within and near the onshore site boundary.

- 6.139 The potential for adverse impacts resulting from the Project on wildlife has been assessed as not significant in terms of the EIA Regulations.
- 6.140 The above demonstrates that with consideration of the Standard Mitigation measures, the Project will maintain and protect onshore biodiversity and ornithology and not generate any significant adverse effects. The Project therefore complies with the relevant planning policies set out above.

Assessment - Offshore

- 6.141 In respect offshore Ornithology (ES Chapter 11), key impacts from the Project arise during the operational phase and include the risk of birds fatally striking the turbine blades (collision risk) or avoiding the wind farm area (displacement).
- 6.142 Assessments have also been undertaken for impacts arising from the disturbance and displacement of seabirds from vessel activity and underwater noise during all phases of the Project; indirect impacts through effects on habitats and prey; the aggregating effects of WTGs; entanglement from ghost fishing gear and the attraction of nocturnal seabirds to lighting on the Project infrastructure. These impacts have been assessed as minor or negligible adverse significance for all species.
- 6.143 Assessment of cumulative effects considered all other OWF projects within the wider region and within species specific foraging range of the same colonies. The CEA determined that impacts associated with the Project cumulatively with other OWF projects will not result in risk greater than for the Project alone for any effect on any seabird species. The assessment concluded minor or negligible adverse significance for all species.
- 6.144 Turning to Fish and Shellfish Ecology (ES Chapter 10), it was determined that the array area and ECC was located within a region representative of the wider Study Area, with no areas of unique habitat or active spawning ground identified.
- 6.145 Potential pressures considered by the assessment included loss of habitat (both temporary and long-term); sediment suspension and deposition; noise; Fish Aggregating Device (“FAD”) effects; EMF effects; and fisheries displacement effects. With consideration of the standard and additional mitigation measures, the effect of all pressures was assessed as minor adverse or negligible, even when assessed with worst-case scenarios. The standard and additional mitigation measures will be implemented to ensure that the risks to fish and shellfish are managed effectively over the lifetime of the Project. The EIA concluded that the significance of effect was not significant, as outlined in ES Table 10.14.

- 6.146 No significant cumulative effects on fish and shellfish were identified.
- 6.147 In terms of Marine and Coastal Ecology (ES Chapter 9), with consideration of the Standard Mitigation measures, the effect of all pressures was assessed as minor adverse, even when assessed with worst-case scenarios. Standard Mitigation measures will be implemented to ensure that the risks to benthic ecology are managed effectively over the lifetime of the Project. The assessment concluded that the significance of effect was not significant (ES Table 9.44).
- 6.148 With consideration of all other projects and plans that may interact with the Project during its lifetime, no significant cumulative impacts on benthic ecology have been identified (ES Table 9.45). Accordingly, no additional mitigation has been proposed to that already embedded in the existing Project.
- 6.149 An outline Invasive Non Native Species Plan (“INNS”) has been developed that will be submitted as part of this application (Volume 3, Technical Appendix 9.4: Invasive Non-Native Species Plan). The assessment concludes that in terms of potential introduction of INNS, the negligible magnitude of the effect combined with the medium sensitivity of the receptor results in a minor adverse effect, which is not significant in EIA terms.
- 6.150 The above demonstrates that with consideration of the Standard Mitigation measures, the Project will maintain and protect marine biodiversity and not generate any significant adverse effects. The Project therefore complies with the relevant planning policies set out above.

Other Environmental Impacts

Amenity and pollution

Relevant Policies

- 6.151 PPW Section 6.7, states that:

“Clean air and an appropriate soundscape, contribute to a positive experience of place as well as being necessary for public health, amenity and well-being. They are indicators of local environmental quality and integral qualities of place which should be protected through preventative or proactive action through the planning system. Conversely, air, noise and light pollution can have negative effects on people, biodiversity and the resilience of ecosystems and should be reduced as far as possible.”

- 6.152 In proposing new development, LPAs and developers must, therefore:
- *address any implication arising as a result of its association with, or location within, air quality management areas, noise action planning priority areas or areas where there are sensitive receptors;*
 - *not create areas of poor air quality or inappropriate soundscape; and*
 - *seek to incorporate measures which reduce overall exposure to air and noise pollution and create appropriate soundscapes”.*

- 6.153 PCNPA LDP2 Policy 30 states that development will not be permitted where it has an unacceptable adverse effect on amenity, including where the development leads to an increase in traffic or noise or odour or light which has a significant adverse effect.
- 6.154 PCNPA LDP2 Policy 33 states that proposals for renewable and low carbon energy development such as wind will be permitted subject to a number of criteria, including demonstrating that there will be no unacceptable impacts on residential amenity.
- 6.155 PCNPA LDP2 Policy 60 states that impacts of traffic development will not be permitted where: *“appropriate access cannot be achieved; or traffic is likely to generate an unacceptable adverse effect on congested areas or at times of peak traffic flows; or traffic is likely to be generated at inappropriate times such as late at night in residential areas; or where there is an unacceptable adverse effect on road safety; or where significant environmental damage would be caused and cannot be mitigated; or the proposal would undermine the vitality and viability of a Centre.*

A Transport Assessment will be required for proposals likely to have significant trip generation or where the National Park Authority has significant concerns about the possible transport impact of the proposed development.”

- 6.156 PCC LDP Policy GN.1 states that development will be permitted where a number of criteria are met, including not resulting in a significant detrimental impact on local amenity in terms of visual impact, loss of light or privacy, odours, smoke, fumes, dust, air quality or an increase in noise and vibration levels.
- 6.157 Paragraph 6.22 of the supporting text to PCC LDP Policy GN.3 states that it is also important that provision is made for the mitigation of potential adverse impacts (including noise, air quality and traffic congestion) of new development upon biodiversity and cultural heritage.
- 6.158 WNMP Policy ENV_05 requires proposals to demonstrate that they have considered man-made noise impacts on the marine environment and, in order of preference:
- avoid adverse impacts; and/or
 - minimise impacts where they cannot be avoided; and/or
 - mitigate impacts where they cannot be minimised.
- 6.159 If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding

Assessment

Noise

- 6.160 Chapter 22 of the ES considers potential noise and vibration impacts upon human receptors within a defined Study Area.
- 6.161 The assessment includes a detailed baseline noise survey, prediction of construction and operational phase impacts, recommendations for mitigation and an assessment of residual impacts.

6.162 The assessment concludes that:

- Subject to appropriate specific mitigation, the effects of the construction and decommissioning phases on human receptors are temporary negligible adverse and not significant;
- With the inclusion of specific mitigation, the effects of the operational phase are negligible adverse at human receptors and are not significant; and
- Overall, the residual effect of the Project due to noise and vibration is not significant.

6.163 The above demonstrates that the noise impacts associated with the Project are not significant and will not cause an unacceptable adverse effect on amenity. As such, the Project accords fully with the relevant national and local planning policies set out above.

Underwater Noise

6.164 The potential effects of underwater noise are assessed within Chapter 12 of the ES (Marine Mammals), which draws on the accompanying Underwater Noise and Vibration Technical Report (ES Volume 3 Technical Appendix 12.2).

6.165 Noise sources expected during the construction phase include ground preparation activities such as dredging, trenching, cable laying, and rock placement, turbine mooring activities such as the installation of ground embedment anchors, drilling and suction piling, and vessel movements. Impact piling is considered unlikely but has been included to cover the worst-case scenario. Clearance of unexploded ordnance (“UXO”) may also be required, and the noise this could produce has also been assessed using both high-order and low-order techniques.

6.166 The assessment concludes that throughout the construction, operation and decommissioning phases of the Project all underwater noise effects assessed were found to have either negligible, or minor effects on all marine mammal receptors and therefore was not considered to be significant in EIA terms.

6.167 The applicant’s assessment of man-made noise impacts on the marine environment demonstrates that it has minimised any adverse impacts and the Project therefore complies with WNMP Policy ENV_05.

Air Quality

6.168 Chapter 26 of the ES considers potential air quality impacts upon human and ecological receptors within defined Study Areas.

6.169 The assessment has included a review of baseline air quality within the Study Area which shows that existing levels of the pollutants of concern are low, and significantly below the relevant Air Quality Standards.

6.170 The assessment concludes that:

- The effects of the operational and decommissioning phases on ecological and human receptors are temporary negligible adverse and not significant;
- With the inclusion of standard mitigation and some location-specific mitigation, the effects of the construction phase are temporary negligible adverse at designated ecological receptors and are not significant; and
- The residual effect of the Project on air quality is not significant.

6.171 The Project complies with the relevant national and local planning policies set out above on the basis that the Project does not give rise to any significant effects in respect of air quality.

Traffic and Transportation

6.172 Chapter 25 of the ES considers potential Traffic and Transport impacts within a defined Study Area for the construction, operation and decommissioning phases of the Project.

6.173 The Project is forecast to generate a minimal number of trips associated with its operation, with a greater number of trips generated by construction and decommissioning activities.

6.174 The rural nature of the area results in there being a limited number of sensitive receptors located in the vicinity of the sites or close to the route to be used for construction traffic between Pembroke and the sites. Construction activities will also generate a minimal number of additional trips over the course of an average day and will therefore have a negligible effect on key traffic and transportation criteria identified within the IEMA Guidelines.

6.175 The implementation of measures identified within the Construction Traffic Management Plan (“CTMP”) (ES Volume 3 Technical Appendix 25.2) will further mitigate the impact of traffic generated by the onshore substation's construction and onshore export cable's installation. The Contractor will also liaise with others operating in the area to minimise the potential cumulative impacts generated by construction activities.

6.176 A Transport Assessment (ES Volume 3 Technical Appendix 25.1) has been prepared, which concludes as follows:

- the majority of workers will access the construction sites prior to the morning peak hour of highway network operation and leave after the evening peak.
- Whilst construction vehicles will also be accessing and leaving the sites throughout the 12 hour working day, it is expected that the activities will generate no more than 4 vehicle trips an hour at any one location, equating to one trip every 15 minutes.
- Construction of the Project will therefore have a negligible impact on the operation of the local and wider highway network, with the impact further managed through implementation of the measures identified within the outline CTMP.

- 6.177 Taking all of the above in to consideration, the Project complies with PCNPA LDP2 Policy 60.

Flooding and Water Quality

Relevant Policies

- 6.178 FW Policy 8 states that flood risk management that enables and supports sustainable strategic growth and regeneration in National and Regional Growth Areas will be supported. Projects must ensure that they do not have adverse impacts on international and national statutory designated sites for nature conservation and the features for which they have been designated
- 6.179 Paragraph 6.6.17 of PPW requires new developments where the area covered by construction work equals or exceeds 100 square metres also require approval from the SuDS Approval Body (“SAB”) before construction can commence.
- 6.180 Paragraph 6.6.25 of PPW is clear that development should reduce, and must not increase, flood risk arising from river and/or coastal flooding on and off the development site itself. The priority should be to protect the undeveloped or unobstructed floodplain from development and to prevent the cumulative effects of incremental development.
- 6.181 Paragraph 6.6.26 of PPW states that in areas of flood plain currently unobstructed, where water flows in times of flood, built development should be wholly exceptional and limited to essential transport and utilities infrastructure. Such infrastructure should be designed and constructed so as to remain operational even at times of flood, to result in no net loss of floodplain storage, to not impede water flows and to not increase flood risk elsewhere.
- 6.182 PCC LDP Policy GN.1 states that development will be permitted where a range of criteria are met including not having a significant adverse impact on water quality.
- 6.183 PCC LDP Policy GN.2 states that development will be permitted where a range of criteria are met including incorporating a resource efficient and climate responsive design through location, orientation, density, layout, land use, materials, water conservation and the use of sustainable drainage systems and waste management solutions
- 6.184 The relevant section of PCNPA LDP2 Policy 34 states that development will be directed away from those areas which are at risk from flooding now or as predicted for the future by TAN15 Development Advice Maps or Shoreline Management Plan 2 unless there are sound social or economic justifications in accordance with the advice set out in TAN 15.
- 6.185 WNMP Policy SOC_03 requires proposals to demonstrate how they minimise their risk of causing or contributing to marine pollution incidents.
- 6.186 WNMP Policy ENV_04 requires proposals to demonstrate how they avoid the deliberate introduction of litter into the marine plan area and minimise the risk of accidental release of litter.

6.187 WNMP Policy ENV_06 requires proposals to demonstrate that they have considered their potential air and water quality impacts and, in order of preference:

- avoid adverse impacts; and/or
- minimise adverse impacts where they cannot be avoided; and/or
- mitigate adverse impacts where they cannot be minimised.

6.188 If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

Assessment

Onshore - Flooding and Water Quality

6.189 The Water Framework Directive (WFD 2000/60/EC) groundwater body in the area is the Pembrokeshire Carboniferous Limestone. This groundwater body currently has good status for qualitative, chemical and overall status.

6.190 No WFD surface water bodies have been identified within the zone of effect for the onshore cabling activities. The closest WFD surface water body to the proposed route is the Castlemartin Corse which has an overall classification of Moderate. The area is coastal and watercourses within the vicinity of the onshore export cable are generally fed by springs. The area is subdivided into numerous small surface water catchments which discharge directly to tidal headwaters.

6.191 A Schedule of Watercourse Crossings has been undertaken and is included as Volume 3, Technical Appendix 19.2. This report provides details of observations at specific watercourses where the onshore export cable crossings are expected and recommends crossing types based on these observations.

6.192 All potential sources of flooding to the site have been considered and it is confirmed that once operational, no material flood risk sources have been identified that will impact the Project.

6.193 During the construction phase, the Project could be vulnerable to several types of flooding. However, taking into account of the standard mitigation measures detailed in the Flood Consequence Assessment (“FCA”) (ES Volume 3, Technical Appendix 19.3) and the appropriate design of watercourse crossing detailed in the Schedule of Watercourse Crossing, flood risk is considering to be negligible to low.

6.194 A range of standard mitigation measures have been applied to the Project in order to minimise potential impacts on onshore geology, hydrogeology and hydrology receptors. This includes a pre-development, construction and post-development groundwater sampling and monitoring schedule to be carried out with NRW. An Outline Onshore CEMP (ES Volume 3 Technical Appendix 4.3) will also be in place to control potentially polluting activities and to prevent adverse impact to downstream people, properties and environments during the construction phase. All earthmoving works or similar operations would be carried out in accordance with BSI Code of

Practice for Earth Works BS6031:2009 and all necessary permits would be sought from NRW prior to the commencement of operations on-site.

- 6.195 The increased discharge rates and flood risk of the substation compound have been considered and mitigated through the Outline Drainage Assessment (ES Volume 3, Technical Appendix 19.4), as required by Paragraph 6.6.17 of PPW. This also details the proposed foul and surface water drainage strategy.
- 6.196 One private water supply (“PWS”) has been identified to be at risk from the Project. PWS01 South Studdock Farm is considered to be in hydraulic continuity with the construction zone. Once the additional mitigation measures are considered the residual effect is deemed minor adverse and not significant.
- 6.197 The potential effects on watercourses during both construction and operation, considering standard mitigation measures, is assessed as negligible to minor adverse and not significant, prior to the implementation of any additional mitigation measures. The residual effect remains the same.
- 6.198 The potential effects on groundwater during both construction and operation, considering standard mitigation measures, is assessed as minor adverse and not significant, prior to the implementation of any additional mitigation measures. The residual effect remains the same.
- 6.199 At the end of the Project's operational life, the onshore substation will either be retendered for continued use or the site will be decommissioned. Prior to decommissioning, a Decommissioning Environmental Management Plan (“DEMP”) will be produced to reflect the current legislation and policy and will be agreed with the relevant statutory authorities. Should PWS01 and PWS03 still be serving as PWS's at the time of decommissioning the onshore export cable will be left in situ within 250m of the supply to minimise the risk to the PWS.
- 6.200 The above demonstrates that the Project almost exclusively lies within Flood Zone 1 for rivers and sea. The FCA confirms that once operational, no material flood risk sources have been identified that will impact the Project or the surrounding areas, thereby not increasing the risk of flooding elsewhere. Furthermore, once mitigation measures are in place, any effects on the PWS at South Studdock Farm South are deemed to be minor adverse and not significant and therefore avoid any significant adverse impact on water quality. The Project therefore complies fully with the relevant national and local planning policies set out above.

Offshore - Marine Seabed and Water Quality

- 6.201 Chapter 7 of the ES provides an assessment or potential for impacts to marine sediment and water quality receptors due to construction, operation and decommissioning of the Project. A number of different assessments were undertaken, including:
- The extent and duration of sediment plumes associated with construction activities such as mooring system installation;
 - Potential for mobilisation of contaminated sediments;

- Changes in wave, tides and sediment transport arising from the presence of semi-submersible floating platforms and their mooring systems.

6.202 The assessments conclude that even with realistic worst case assumptions for the project design parameters, no impacts on identified receptors are found to be significant in EIA terms. The assessment also finds that there is very low potential for significant cumulative impacts resulting from interactions with other planned projects. Accordingly, no additional mitigation has been proposed to that already embedded in the existing Project.

6.203 By virtue of the fact that the Project does not give rise to any significant effects and will not cause an unacceptable adverse effect on water quality, the Project complies with the relevant policies set out above.

Marine Operations and Infrastructure

Relevant Policies

6.204 The MPS outlines the potential environmental impacts relating to shipping and navigation and outlines key issues for consideration. Specific to shipping and navigation, these include:

- Accidental pollution from ships, for example through physical damage caused by groundings or collisions;
- Changes in the available sea space available for the safe navigation of ships;
- Impacts on shipping activity, freedom of navigation and navigational safety; and
- Efficiency and resilience of continuing port operations and further port development.

6.205 Requirements from the MPS relevant to the Project with regards to commercial fisheries include: having regard to the impacts of displacement and whether it is possible for vessels to relocate to other fishing grounds; considering the potential impacts of this displacement on the viability of fish stocks; encouraging opportunities for co-existence between fishing and other activities.

6.206 The WNMP seeks to ensure marine resources are used in a sustainable way, in line with the high-level marine objectives over its 20- year lifespan. It provides guidance in relation to cumulative effects and coexistence with other compatible sectors

6.207 The WNMP is also relevant to the consideration of potential impacts on commercial fisheries and provides guidance in relation to cumulative effects and coexistence with other compatible sectors.

6.208 The WNMP aims to safeguard established shipping routes and support sustainable development in the shipping and ports sector. A number of safeguarding policies (SAF_01 a and b) seek to minimise negative impacts on shipping activity, ensure freedom of navigation and navigational safety which are provided under

international law, and protect the efficiency and resilience of continuing port operations, including their economic interests.

Assessment

Coastal and Marine Infrastructure

- 6.209 Chapter 18 characterises coastal and marine infrastructure and other users in the Study Area and presents the assessment of the potential impacts of the Project which may arise.
- 6.210 The review of existing baseline concluded the Study Area is of significant importance to shipping, with the Port of Milford Haven playing a key role in delivering shipping and navigational services. The offshore area is of interest to other marine renewable project developers - currently only smaller test sites, although larger projects are anticipated in the Celtic Sea in the future under a 300 MW Crown Estate leasing round for early commercial scale FLOW projects (TCE, 2021). A defined and regularly used firing range is present within the Study Area, which heavily influences the use of the marine environment, with military exercises limiting activities at key times of the year. Multiple subsea cables are also present in the region.
- 6.211 The potential impacts considered by this assessment include the disturbance and obstruction to other marine renewable project activities and military activities arising from the use of the Port of Milford Haven, construction, O&M and decommissioning vessels, and associated safety zones during all phases of the Project; and damage or disturbance to existing cables during all phases of the Project.
- 6.212 With consideration of the Standard Mitigation measures, the effect of these pressures was assessed as minor or negligible, even when assessed with the worst case scenario. Accordingly, the Project complies with the relevant policies set out above.

Commercial Fisheries

- 6.213 Chapter 15 of the ES characterises commercial fisheries activity in the study area and presents the assessment of the potential impacts of the Project on commercial fisheries which may arise.
- 6.214 The assessment concludes that the offshore array area is an area of relatively low importance for commercial fishing activity in comparison to other areas of Welsh waters within the Celtic Sea. It also concludes that the offshore cable corridor is of moderate importance to mobile gear vessels and static gear vessels.
- 6.215 The potential pressures considered by the assessment included loss of access to fishing grounds, displacement of fishing activity, increased steaming times and snagging risks. With consideration of the Standard and Additional Mitigation measures, the effect of these pressures was assessed as minor or negligible, even when assessed with the worst case scenario. Accordingly, the Project complies with the relevant policies set out above.

Shipping and Navigation

- 6.216 Chapter 16 of the ES presents the results of the potential impacts of the Project on shipping and navigation. Specifically, this chapter considers the potential impacts of the

Project below the High Water Mark (“HWM”). The chapter draws upon information presented within the Navigation Risk Assessment (“NRA”) (ES Volume 3 Technical Appendix 16.1).

- 6.217 The shipping and navigation assessment considers potential impacts to all vessel types that operate within and around the array area and cable route, including cargo vessels, fishing vessels, passenger vessels, recreational vessels, project-related vessels, tug and service vessels and tankers.
- 6.218 A number of potential impacts on shipping and navigation, associated with the construction, operation and maintenance, and decommissioning of the Project, were identified. These included: vessel-to-vessel collision due to the presence of project-related vessels, and displacement of vessels from the project area; vessel contact with offshore Project structures; and snagging and damage to anchors and/or fishing gear on offshore Project structures. With the proposed embedded mitigation measures in place, all of these impacts result in effects of broadly acceptable or tolerable (if As Low as Reasonably Practicable (“ALARP”)) significance.
- 6.219 Cumulative impacts from other projects were assessed and predicted to result in effects of broadly acceptable or tolerable (if ALARP) significance (not significant in EIA terms) upon shipping and navigation.
- 6.220 Accordingly, the Project complies with the relevant policies set out above.

7. Conclusions

- 7.1 This Planning Statement is prepared in support of an application under Section 36 of the Electricity Act 1989 and Part 4 of the Marine and Coastal Access Act 2009 for the construction, operation and decommissioning of a demonstration scale FLOW development in the Celtic Sea, along with the associated deemed planning consent for the requisite onshore infrastructure for grid connection at Pembroke Power Station.
- 7.2 The Project aims to test and demonstrate the deployment of FLOW technology and progress investment towards commercial scale deployment in the Celtic Sea region. This aligns with Welsh Government's aim for Wales to become a world leader in renewable energy technologies, support investment and reduce carbon emissions.
- 7.3 As detailed within Section 2 of this Statement, there is overwhelming support for the development of a renewable, low carbon, sustainable energy supply at all levels of planning policy.
- 7.4 The UK has committed to net zero carbon emissions by 2050 through the Climate Change Act 2008 (as amended). The Welsh Government has also set a legal commitment to achieve net zero by 2050, with a push to *"get there sooner"* (Welsh Government, 2021).
- 7.5 Renewable energy is seen as a primary method of reducing emissions of GHG, in particular CO₂. FLOW plays a key part in this with the UK Government announcing a target for FLOW to deliver 1 GW of energy by 2030 (BEIS, 2020).
- 7.6 Indigenous energy production has fallen year on year since 1999 and the reliance on importing energy is an unsustainable energy model. The UK faces a challenge of increasing energy supply and security whilst also reducing carbon and greenhouse gas emissions.
- 7.7 Decision makers at all levels are encouraged to take account of the wider social and economic benefits and opportunities when considering renewable energy projects. PPW states that *"in determining applications for the range of renewable and low carbon energy technologies, planning authorities should take into account: the contribution a proposal will make to meeting Welsh, UK and European targets; the contribution to cutting greenhouse gas emissions; and the wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development"* (Paragraph 5.9.16, PPW). Furthermore, paragraph 5.9.17 states that *"planning authorities should give significant weight to the Welsh Government's targets to increase renewable and low carbon energy generation, as part of our overall approach to tackling climate change and increasing energy security"*.
- 7.8 The accompanying ES considers the potential environmental impacts and likely significant environmental effects of the Project during the construction, operation and maintenance and decommissioning phases. It takes into account the mitigation and enhancement measures that are being committed to by the Applicant, including measures that have been integrated into the planning and design of the Project to prevent, reduce and, where possible, offset significant adverse effects. Where

significant adverse impacts have been identified, additional mitigation is proposed to reduce residual impacts to non-significant levels. The ES Non-Technical Summary provides a non-technical overview and summarises the environmental effects and sets out relevant and appropriate mitigation measures across all ES topic areas.

7.9 The Project delivers the following benefits:

- The WNMP establishes the principle of FLOW developments in the Celtic Sea and aims to utilise the marine environment to deliver renewable energy and reduce the reliance on fossil fuels. The Project enables this and also constitutes sustainable economic development (in line ECON_01) by creating employment opportunities for coastal communities. The Project will contribute towards minimising climate change (SOC_10) and will increase Wales' resilience to climate change (SOC_11);
- The Project directly accords with the recently published Net Zero Strategy and is necessary if we are to achieve the Strategy's targets, such as generating 70% of consumed electricity by renewable means by 2030 and reach net zero greenhouse gas emissions by 2050;
- The Project will deliver 2,059 gross jobs or 1,665 net jobs (Table 27.26 of Chapter 27 of the ES) and therefore contributes to the achievement of the relevant objectives of FW, WNMP, PCC LDP and PCNPA LDP2; and
- The Project will deliver a total indirect/induced GVA of approximately £320.6 million compared to £232.4 million of Direct GVA.

7.10 The Project accords with the seven well-being goals of the WoFGA as summarised in the table below and in doing so enables the decision maker to compliantly grant consent.

WoFGA Goal	Assessment
A prosperous Wales	It is anticipated that the Project will be operational for 25 years, with an additional period for construction and decommissioning. This will provide high-quality, long-term jobs for local coastal communities. A skilled energy sector supply chain already exists in the area, however, its current resilience is weakening with the closure of refineries.
A resilient Wales	The Project will enable a resilient and self-sufficient supply energy chain to develop. The proposed development will create sustainable employment in local rural coastal communities and help to tackle regional socio-economic inequalities.
A healthier Wales	The Project will have no significant adverse impacts on human health and well-being. It is expected that the Project will have in-direct beneficial impacts on health by contributing to the reduction of reliance on fossil fuels.

A more equal Wales	An assessment of the impact of the Project on socio-economics is provided in Chapter 27 of the ES. The Project will attract inward investment and enable and maintain viable, productive, rural communities, through investment and job creation.
A Wales of more cohesive communities	The employment opportunities provided by the Project will reduce the current outward migration from local communities and help support a stronger, more diverse community.
A Wales of vibrant culture and thriving Welsh language	The Project will help retain the local labour force and support the sustainability of local communities by providing employment opportunities and will thus encourage the retention of the Welsh language in this area. The Applicant will implement appropriate measures to embed the Welsh language in to its operations (as set out above).
A globally responsible Wales	The Project will provide an important opportunity to support Wales in tackling global climate change. The Project seeks to generate clean, renewable energy, in an effort to reduce the reliance on fossil fuels for electricity, and to reduce the impacts of climate change.

7.11 In summary:

- The Project directly accords with the objectives of legislation and policy set out in section 5 of this report;
- The Project constitutes sustainable development, in accordance with national and local policies;
- It furthers Wales' progress towards a more resilient and equitable low-carbon economy;
- The Project will enable FLOW technology to be tested at demonstration scale within Welsh waters;
- Its supports Welsh Government's aspiration to unlock the energy potential of Wales' marine environment, whilst also developing exemplar skills, experience and a supply chain which will place Wales at the forefront of the development of FLOW technology; and
- The Project is supported, in-principle, at all levels of national and local policy.

7.12 As demonstrated in this Statement, the Project will deliver the opportunity to test and demonstrate FLOW technology within the Celtic Sea. The Project will make a significant contribution to reducing GHG emissions and provides a wide range of environmental, social and economic benefits and opportunities, in line with the definition of sustainable development. Accordingly, significant weight should be attached to the provision of a renewable and low carbon energy source.

7.13 The Project presents a well-considered development, which responds positively to the relevant planning policy context at the local, national and European levels, including the Local Development Plans, Future Wales, Planning Policy Wales and the Well-being of Future Generations Act. In light of the overwhelming policy support at all levels, the planning balance weighs heavily in favour of granting consent for the Project.

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