Morecambe Offshore Windfarm: Generation Assets

Environmental Statement

Volume 5

Chapter 2 Need for the Project

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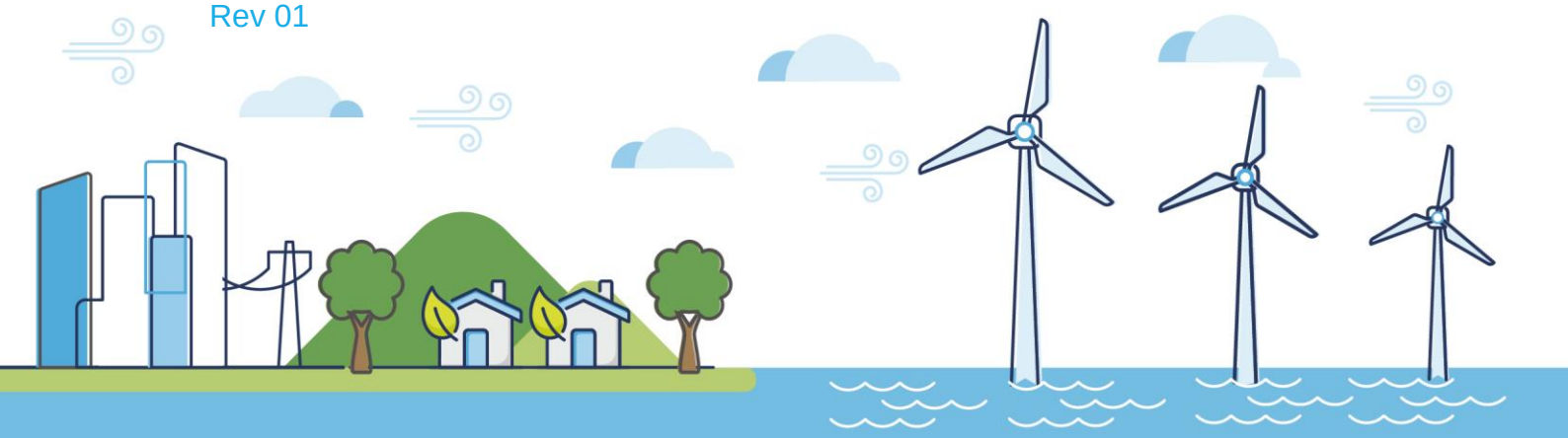

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Contents

Glossary of Acronyms

BEIS	Department for Business, Energy and Industrial Strategy[1]
BESS	British Energy Security Strategy
CCC	Climate Change Committee
CNP	Critical National Priority ("CNP Infrastructure")
CO_2	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
COP	Conference of the Parties
DCO	Development Consent Order
DESNZ	Department for Energy Security and Net Zero
ES	Environmental Statement
GHG	Greenhouse Gases
GVA	Gross Value Added
HM	His Majesty's
IPCC	Intergovernmental Panel on Climate Change
NASA	National Aeronautics and Space Administration
NDC	Nationally Determined Contribution
NOAA	National Oceanographic and Atmospheric Administration
NPS	National Policy Statement
OSP	Offshore substation platform
OWGP	Offshore Wind Growth Partnership
OWIC	Offshore Wind Industry Council
PINS	Planning Inspectorate
SDG	Sustainable Development Goals
UK	United Kingdom
UNFCCC	United Nations Framework Convention on Climate Change
WTG	Wind Turbine Generator

[1] As of February 2023, the Department of Business, Energy and Industrial Strategy (BEIS) is known as the Department for Energy Security and Net Zero (DESNZ).

Glossary of Unit Terms

°C	Degrees Celsius
GW	Gigawatts
GWh	Gigawatt hours
MW	Megawatts

Glossary of Terminology

Applicant	Morecambe Offshore Windfarm Ltd
Application	This refers to the Applicant's application for a Development Consent Order (DCO). An application consists of a series of documents and plans which are published on the Planning Inspectorate's (PINS) website.
Contracts for Difference	Market support scheme supporting investments in low-carbon electricity generation where developers are paid a flat (indexed) rate for the electricity they produce over a 15-year period.
Generation Assets (the Project)	Generation assets associated with the Morecambe Offshore Windfarm. This is infrastructure in connection with electricity production, namely the fixed foundation wind turbine generators (WTGs), inter-array cables, offshore substation platform(s) (OSP(s)) and possible platform link cables to connect OSP(s).
Inter-array cables	Cables which link the WTGs to each other and the OSP(s).
Landfall	Where the offshore export cables would come ashore.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The transmission assets for the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm. This includes the (OSP(s))[2], interconnector cables, Morgan offshore booster station, offshore export cables, landfall site, onshore export cables, onshore substations, 400 kilovolts (kV) cables and associated grid connection infrastructure such as circuit breaker infrastructure. Also referred to in this chapter as the Transmission Assets, for ease of reading.
Offshore substation platform(s) (OSP(s))	A fixed structure located within the windfarm site, containing electrical equipment to aggregate the power from the WTGs and convert it into a more suitable form for export to shore.
Platform link cable	An electrical cable which links one or more OSP(s).
Net Zero	A target of completely negating the amount of Greenhouse Gases (GHG) produced by human activity, to be achieved by reducing emissions and implementing methods of absorbing carbon dioxide from the atmosphere
Windfarm site	The area within which the WTGs, inter-array cables, OSP(s) and platform link cables will be present.
Wind turbine generator (WTG)	A fixed structure located within the windfarm site that converts the kinetic energy of wind into electrical energy.

[2] At the time of writing the Environmental Statement (ES), a decision had been taken that the Offshore Substation Platforms (OSP(s)) would remain solely within the Generation Assets application and would not be included within the Development Consent Order (DCO) application for the Transmission Assets. This decision post-dated the Preliminary Environmental Information Report (PEIR) that was prepared for the Transmission Assets. The OSP(s) are still included in the description of the Transmission Assets for the purposes of this ES as the Cumulative Effects Assessment (CEA) carried out in respect of the Generation/Transmission Assets is based on the information available from the Transmission Assets PEIR.

MORECAMBE

2 The future of renewable energy

A leading developer in Offshore Wind Projects

2 Need for the Project

2.1 Introduction

2.1 This chapter sets out a summary of the need for the development of the Morecambe Offshore Windfarm Generation Assets (hereafter referred to as 'the Project'), including its contribution towards meeting the United Kingdom (UK) Net Zero commitments by providing renewable energy, and how this contributes to the wider policy objectives for the UK around energy security, decarbonisation and economic growth. Further details on the need for the Project are provided in the Planning Development Consent and Need Statement (Document Reference 4.8) which accompanies the Development Consent Order (DCO) Application.

2.2 In 2020, the UK government issued its Nationally Determined Contribution (NDC) under the Paris Agreement to the United Nations Framework Convention on Climate Change (UNFCCC). The NDC updated the targets set out in the 2015 Paris Agreement and commits the UK to reducing economy-wide Greenhouse Gas (GHG) emissions by at least 68% by 2030, when compared to 1990 levels. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 sets a UK target for at least a 100% reduction of GHG emissions (compared to 1990 levels) by 2050. The overarching National Policy Statements (NPS) objectives are to reduce GHG emissions to Net Zero by 2050, decarbonise the power sector, have a secure energy supply and promote sustainable development.

2.3 Generation of energy from renewable sources has been recognised by the UK government as fundamental to UK energy policy and development of a low-carbon economy. The Clean Growth Strategy (Department for Business, Energy and Industrial Strategy (BEIS), 2017) outlined the UK government's goals to develop industries which are key to economic development whilst simultaneously reducing the emission of GHG. Offshore wind is recognised as having a beneficial impact towards both goals. This contributed to the commitment within the Sector Deal[3] (His Majesty's (HM) Government, 2019) to increase offshore wind capacity. By 2030 the aim is to produce 40 Gigawatt (GW) of offshore wind generated electricity (a target increased to 50GW in the British Energy Security Strategy (BESS), 2022). This ambitious target will only be met by the crucial contribution of developments such as the Project, and is a substantial increase from the 14GW of offshore wind farms either fully commissioned or under construction, as of March 2021 (Gray, 2021).

[3] In March 2019, the UK Government and offshore wind industry agreed a Sector Deal, securing offshore wind's position at the heart of the future UK energy mix as a large-scale, low-carbon form of electricity.

2.4 The wider policy and legislation relevant to the Project is provided in **Chapter 3 Policy and Legislation** (Document Reference 5.1.3), and details of policy and legislation relevant to this chapter are also presented here.

2.2 The need for renewable energy

2.5 National Policy Statements (NPSs) from the UK government set objectives for the development of nationally significant infrastructure. The NPS for Energy sets out the Government's policy for the delivery of energy infrastructure. This includes the Energy NPS (EN-1) (Department for Energy Security and Net Zero (DESNZ, 2023a) which set out the overarching requirements for energy infrastructure, and further statements on key areas of energy infrastructure, including for renewables (EN-3) (DESNZ, 2023b). The NPSs were updated in November 2023, and adopted in 2024, to reflect the significant policy changes since their previous publication in 2011. The revised EN-1 highlights the urgent need to move away from fossil fuels and the delivery of renewable energy infrastructure. Specifically EN-1 outlines the need to reduce emissions by at least 100% by 2050 compared to 1990 levels and the urgent need for new electricity generating capacity to meet this objective. EN-3 details the Government's target to have 50GW of offshore wind by 2030, with an expectation that there will be a need for substantially more installed offshore capacity beyond this to achieve Net Zero by 2050.

2.6 Togther the EN-1 and EN-3 note that there is a Critical National Priority (CNP) for the provision of nationally significant new offshore wind development and supporting onshore and offshore network infrastructure and related network reinforcements (CNP infrastructure).

2.7 In 2020, the UK government published its Energy White Paper which set out how the UK government will make the transition to Net Zero carbon emissions by 2050. This included updates to the targets set out in the Sector Deal, aiming to increase the offshore wind capacity by 2030, to 40GW. The more recent 2022 BESS has strengthened this commitment by setting an ambition to deliver up to 50GW of offshore wind by 2030.

2.8 In 2020, the Climate Change Committee (CCC), which advises the UK Government, published an important 'roadmap to achieve Net Zero emissions by 2050'. The roadmap recognised the role of offshore wind in delivering power-station scale carbon free energy with comparatively short deployment times.

2.9 Key reasons set out in EN-1 regarding the need for new nationally significant electricity infrastructure projects directly relevant to the Project are:

- The need to reduce GHG emissions, Net Zero by 2050 (**Section 2.2.1**)
- The need for security of energy supplies (**Section 2.2.2**)

- The need for sustainable development (**Section 2.2.3**)
- The need for new nationally significant energy infrastructure projects (**Section 2.2.4**)

2.2.1 The need to reduce GHG emissions, Net Zero by 2050

2.10 In the Annual 2023 Global Climate Report National Oceanographic and Atmospheric Administration (NOAA) recorded 2023 as the highest global temperature among all years in NOAA climate record (1850-2023). Other scientific organisations, including National Aeronautics and Space Administration (NASA) and the Met Office have conducted a separate analysis and also ranked 2023 as the warmest on record. NOAA predicts that there is a one-in-three chance that 2024 will be warmer than 2023, and a 99% chance that 2024 will rank among the top five warmest years.

2.11 The CCC Progress Report contains an assessment of the UK's progress in reducing emissions and an assessment of progress on adapting to climate change. In 2022 the report estimated that global human-induced warming has now reached around 1.2ºC above 1850-1900 levels (an approximation for pre-industrial levels), with all present-day warming observed estimated to be due to human activities (CCC, 2022). Human-induced warming is rising at around 0.25ºC per decade. At this present rate of increase, human-induced warming would exceed 1.5ºC above preindustrial levels (the lowest level referred to in the Paris Agreement long-term temperature goal) by the early 2030s.

2.12 Emissions of GHG are a significant contributing source of anthropogenic climate change (Intergovernmental Panel on Climate Change (IPCC), 2018). A key objective of the UK government efforts is to increase offshore wind capacity with the aim to reduce GHG emissions by reducing or eliminating the reliance upon fossil fuels to generate energy.

2.13 The UK Climate Change Risk Assessment in 2022 HM Government (2022) identified eight priority risk areas with high magnitude of risk requiring urgent action:

- Risks to the viability and diversity of terrestrial and freshwater habitats and species
- Risks to soil health from increased flooding and drought
- Risks to natural carbon stores and sequestration leading to increased emissions
- Risks to crops, livestock, and commercial trees
- Risks to supply of food, goods, and vital services due to climate-related collapse of supply chains and distribution networks

- Risks to people and the economy from climate-related failure of the power system
- Risks to human health, wellbeing, and productivity from increased exposure to heat in homes and other buildings
- Multiple risks to the UK from climate change impacts overseas

2.14 These priority risk areas are of growing importance across the UK and the UK Climate Change Risk Assessment notes that there are identifiable opportunities to act in the next two years, and that decarbonisation of the energy sector represents a significant opportunity to mitigate these risks.

2.15 Sustained Net Zero anthropogenic emissions of GHG over a multi-decade period may present an opportunity to slow or even halt global warming. The energy generation sector is the source of approximately 21% of GHG emissions in 2020 (BEIS, 2022b) and moving away from a reliance on fossil fuels for energy may hold the key to delaying predicted warming.

2.16 In 2020, the UK government set in law the world's most ambitious climate change target to cut emissions by 78% by 2035 compared to 1990 levels in the UK's Sixth Carbon Budget. This pathway meets the Paris Agreement stipulation of 'highest possible ambition', adapted as global efforts in 2019 were not on track to meet the long-term temperature goal set out in the Paris Agreement. The low carbon investment is to scale up to £50billion per year to deliver Net Zero, and generate substantial fuel savings, as cleaner, more-efficient technologies replace fossil fuels.

2.17 At the 26th Conference of the Parties (COP26) held in Glasgow in 2021 a review of the Paris Agreement was held, instigating the completion of the "Paris Rulebook". Four goals were identified ahead of the meeting:

- Secure global Net Zero by mid-century and keep 1.5 Degrees Celcius (°C) within reach by accelerating the phase-out of coal, curtailing deforestation, speeding up the switch to electric vehicles and encouraging investment in renewables
- Adapt to protect communities and natural habitats
- Mobilise at least $100 billion in climate finance per year
- Work together to deliver; finalising the Paris Rulebook and accelerate action to tackle the climate crisis through collaboration between governments, businesses, and civil society

2.18 At COP26 the Glasgow Climate Pact was agreed, which is a "series of decisions and resolutions that build on the Paris accord", setting out what needs to be done to tackle climate change. The "Paris Rulebook" which holds

the guidelines for how the Paris Agreement is delivered, was also completed, and ratified at the meeting.

2.19 COP27 took place in November 2022 and agreed an overarching “cover decision”, known as the Sharm el-Sheikh implementation plan, reusing language on 1.5°C and phasing down coal from last year’s Glasgow Climate Pact. Members also committed to review their NDCs and report back with more stringent reductions.

2.20 The most recent COP (COP28) was held in Dubai in November/December 2023. Some of the most significant outcomes of COP28 included a consensus being reached on the need for a global transition away from fossil fuels (however this did not amount to a commitment to phase them out completely), in addition to the Global Renewables and Energy Efficiency Pledge, the latter being a commitment to triple the worlds renewable energy generation capacity by 2030.

2.21 The Queen's Speech in May 2021 (HM Government, 2021) confirmed that the UK will continue to take steps to meet the world-leading target of Net Zero GHG emissions by 2050 and will continue to lead the way in tackling global climate change. The target of 40GW of offshore wind capacity by 2030 was noted also, demonstrating the UK’s recognition of the need to accelerate progress towards Net Zero emissions. In 2022, the Queen's Speech (HM Government, 2022) highlighted the need to deliver the transition to cheaper, cleaner, and more secure energy, as well as the Energy Security Bill (which was introduced to Parliament on 6 July 2022 as the Energy Bill) which aims to deliver a cleaner, more affordable, and more secure energy system. The Bill, given Royal Assent on the 26 October 2023, is now an Act of Parliament (the Energy Act 2023) aims to source energy from more diverse sources and reduce dependency on fossil fuels by accelerating the growth of low carbon technologies. The CCC has also released the Sixth Carbon Budget which sets limits of allowed UK territorial GHG emissions from 2033 to 2037 (CCC, 2020). This included the UK path to Net Zero and provides recommendations for delivering on the Paris Agreement which includes targets on electricity generation to increase low-carbon renewable energy generation.

2.22 In the BESS the government emphasised the importance of the accelerated development of offshore wind in the UK. Offshore wind is key to the strategy, with an ambition to deliver up to 50GW by 2030. The Government has also vowed to cut the approvals process from four years to one and set up a fast-track approvals route for CNPs. However, the details of how this will be achieved were not provided. Further international and UK legislation in place to secure reduced emissions relevant to the Project is provided in **Chapter 3 Policy and Legislation**.

2.23 The Project would make a significant contribution to the UK aim of reducing carbon emissions. The Project's anticipated nominal capacity of 480 Megawatts (MW) is expected to generate approximately 2,500 Gigawatt hours (GWh) per year - enough to power over 500,000 UK homes. Over the lifespan of the Project, which is estimated at 35 years, approximately 86,000GWh could be generated, saving the equivalent of around 36 million tonnes of carbon dioxide (CO_2e) from non-renewable sources[4].

2.2.2 The need for security of energy supplies

2.24 Energy security is about ensuring secure, reliable, uninterrupted supplies to consumers, and having an energy generation and transmission system that can effectively and efficiently respond and adapt to changes in supply. It is made up of three characteristics: flexibility, adequacy, and resilience (BEIS, 2017).

2.25 NPS EN-1 recognises that it is critical that the UK continues to have secure and reliable supplies of electricity as the transition to a low carbon economy is made. NPS EN-1 policy in paragraphs 3.2.6 and 3.2.7 establishes the need for the Project and the urgency of that need, as well as the substantial weight that should be attributed to that need in the planning balance, regardless of the individual contribution to energy generation made.

2.26 The UK Government recognises the importance to businesses and households of access to an affordable, secure, and sustainable supply of energy and the importance of this is set out in the Energy White Paper (BEIS, 2020).

2.27 The BESS Policy Paper (BEIS Prime Minister's Office, 2022) highlights the need to address our underlying vulnerability to international oil and gas prices by reducing our dependence on imported oil and gas. Further, that the efficiency of this transition is based on the delivery of renewable projects to reduce exposure to volatile fossil fuel markets. The paper details the government's 'Ten-point plan for a green industrial revolution', together with the 'Net Zero strategy', and the intention is that the Energy Strategy should drive initiatives to ensure the UK is far more self-sufficient in generating its own energy from UK renewable energy sources into the future. The Strategy is aimed at driving an unprecedented £100 billion of private sector investment by 2030 into new UK industries including offshore wind and supporting around 480,000 clean jobs by the end of the decade.

2.28 Many of the UK's older fossil fuel and nuclear plants have either reached the end of their operational life span, are no longer economical to run, and/or do

[4] Carbon saving calculations are detailed in **Chapter 21 Climate Change** (Document Reference 5.1.21).

not meet legal air quality limits. Closure of fossil fuel generators, most notably coal, and nuclear plants, is expected to intensify by 2025 (BEIS, 2018).

2.29 The development of the Project would help to counteract these losses of energy by generating clean, sustainable, and secure energy from within the UK, working towards meeting the UK's energy demand and need for greater security. The Project would have an anticipated nominal capacity of up to 480MW. This would therefore contribute to meeting the UK Government's target of 40GW of generating offshore wind energy by 2030 and the ambition set out in the 2022 BESS and EN-3 to deliver up to 50GW of offshore wind by 2030. Development of the Project, as part of the UK's energy transition would contribute towards the UK achieving the target of Net Zero GHG emissions by 2050.

2.2.3 The need for sustainable development

2.30 EN-1 establishes the need to deliver affordable decarbonisation, along with the need for new significant energy projects.

2.31 Noted in the CCC's Net Zero report (2019), regarding the UK's contribution to stopping global warming, is the potential that the acceleration of the global action to cut emissions will also play a key role in the United Nation's Sustainable Development Goal (SDG) of ending poverty in all its forms, zero global hunger and affordable and clean energy for all. Governments are aiming to achieve SDGs by 2030, and many are directly or indirectly affected by the state of the global climate system. The development of renewable energy industries in the UK can alter the reliance on importing fossil fuels, creating self-sufficient energy markets that may be less impacted by wholesale energy price increases and the record household energy bill increase that followed the energy price cap increase in 2022 (UK Parliament, 2022).

2.32 The UK Clean Growth Strategy (HM Government, 2017, amended 2018) recognises that actions and investments will be needed to meet the Paris Agreement commitments, and that the shift to clean growth will be at the forefront of policy and economic decisions made by governments and businesses in the coming decades. This creates significant potential economic opportunity – an estimated $13.5 trillion of public and private investment in the global energy sector alone will be required between 2015 and 2030, if the signatories to the Paris Agreement are to meet their national targets (BEIS, 2017), and as the industries develop and further targets are introduced this market is rapidly expanding.

2.33 According to the Office of National Statistics electricity generation from wind power in the UK has increased by 715% from 2009 to 2020. Turnover from wind energy was nearly £6 billion in 2019. Employment in offshore wind in the

UK has increased significantly, with 26,093 total UK offshore wind jobs in direct and indirect roles in 2020. Research by the Offshore Wind Industry Council (OWIC) show that projections of the number of people in direct and indirect jobs in the UK's world-leading offshore wind industry is set to rise significantly to over 69,800 by 2026 (RenewableUK Project Intelligence Database, 2021a and 2021b). The development of the offshore wind supply chain is a key commitment in the Sector Deal which seeks to maximise advantages of the offshore wind industry with government support by providing long term certainty to underpin investment.

2.34 The deal details that the government will make up to £557 million available for future Contracts for Difference[5] creating a pathway to the capacity target by 2030, delivered in a sustainable way. A new Offshore Wind Growth Partnership (OWGP) is being developed, and over the next 10 years the sector will be contributing up to £250 million into delivering a stronger, more competitive UK supply chain to deliver target capacity. Ongoing government support will include targeted programmes to help provide growing firms access to international markets, trade and foreign direct investment promotion, supporting supplier competitiveness and productivity, and working with developers and suppliers to access new markets.

2.35 The energy sector in the UK plays a central role in the economy and renewable energy can play a major part in boosting the economy and providing new jobs and skills. The British Energy Security Strategy Policy Paper (BEIS and Prime Minister's Office, 2022) aims to attract private investment through the Contracts for Difference scheme, sharing the risks of new technologies. The aim for the sector is to grow to support 90,000 jobs by 2030.

2.36 The offshore wind industry in the UK provides important employment opportunities. Low carbon businesses and their supply chain have created over 430,000 skilled jobs in the UK with 7,200 jobs directly in offshore wind (HM Government, 2019).

2.37 Development of the Project, as part of the UK's energy transition would contribute to help alleviate the priority risks associated with climate change such as flooding, water supply shortages and risks to health, food security and productivity and trade. The Project would also provide investment and would also support the development of the supply chain, a skilled workforce and provide employment, see **Section 2.4**. Further details of the anticipated expenditure from the construction, and operation and maintenance of the

[5] Detail on the Contracts for Difference scheme can be found at: https://www.gov.uk/government/publications/contracts-for-difference/contract-for-difference#:~:text=CfDs%20incentivise%20investment%20in%20renewable,when%20electricity%20prices%20are%20high.

Project (direct and indirect) are provided in **Section 2.4** and **Chapter 20 Socio-economics, Tourism and Recreation** (Document Reference 5.1.20).

2.2.4 The need for new nationally significant energy infrastructure projects

2.38 The recent updates to NPS EN-1 and EN-3 reinforce the significant role offshore wind will play in meeting demand and decarbonising the energy system. As detailed in the Planning Development Consent and Need Statement (Reference Document 4.8), the failure to meet the need established in the 2011 NPS EN-1 for an additional 59GW of new installed generation capacity in order to achieve 113GW of total UK generation capacity by 2025 has meant greater reliance on gas and other fossil fuels than was anticipated, with commensurate failures to reduce emissions as fast as the former NPS projected. The rate of deployment will need to follow an exponentially upward curve of significant steepness if the 50GW target is to be achieved. Such rates of deployment, necessary to meet the NPS EN-1 electricity demand scenario and offshore wind ambition, would mean the maximum number of projects would need to be consented, including the Project.

2.39 In order to avoid any further damage to the continuing clean energy ambitions, the UK will need to approach undeveloped projects very carefully. In order to ensure that these projects are built and connected, their now marginal business cases, cast in a different economic era, dictate that design decisions must be extremely cost-conscious. Equally, the extent to which environmental benefits can be offered will need to be set in the context of continuing focus on delivering affordable energy.

2.40 The Project would contribute to the UK goal of establishing new nationally significant energy projects and creating affordable clean energy by continuing to drive technology and development costs down, making use of low-cost renewable technologies and creating a self-sufficient energy market.

2.3 Project contribution to meeting climate targets

2.41 The Project would make a significant contribution to the achievement of both the national renewable energy targets and to the UK's contribution to global efforts to reduce the effects of climate change. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 sets a UK target for at least a 100% reduction of GHG emissions (compared to 1990 levels) by 2050. This ambitious Net Zero target will only be met by the crucial contribution from the offshore wind industry including the Project.

2.42 The Project has a design life of approximately 35 years and would have an anticipated nominal export capacity of 480MW, enough to power over 500,000 UK homes. This would therefore contribute to reaching national targets on

carbon dioxide (CO_2) reduction to Net Zero GHG emissions by 2050 and renewable energy production growth. As described in **Section 2.2.1**, this would save approximately 36 million tonnes CO_2e from non-renewable sources.

2.4 Economic benefits from development of the Project

2.43 As well as the benefits of the Project towards meeting climate targets, construction, operation and maintenance would provide a valuable contribution to employment. During the construction of the Project, it is estimated a peak of around 1,300 jobs could be created in the UK. During the operation and maintenance phase it is expected that the Project could support 80 jobs in the local economic area and a further 140 jobs in the UK. The Project would also contribute to the development of the supply chain and skilled workforce and the associated economic benefits. The indirect effects from employment and expenditure, such as from the workforce, would contribute to the local economy.

2.44 The estimated overall construction cost of the Project is projected to be in the order of £1.3 billion (in 2023 pricing). Operation and maintenance amounts to around £19 million per annum and over the operational lifetime (35 years) is expected to be £665 million, making a significant contribution on the national level. In total, the Gross Value Added (GVA) of the Project over the project lifetime (35 years) is estimated make a large contribution at the national level (£259 million GVA across the UK) and £10 million GVA locally in the local economic area.

2.45 Further detail is provided in **Chapter 20 Socio-economics, Tourism and Recreation**.

2.5 Summary

2.46 There is a clear and urgent need for the development of the Project to help to meet the UK government's aims for renewable energy capacity with the 2022 Energy Security Strategy setting out an ambition to deliver up to 50GW of offshore wind generated electricity by 2030.

2.47 The need for the Project is established by National Policy against the key objectives listed below:

- The need to reduce GHG emissions, Net-Zero by 2050
- The need for security of energy supplies
- The need for sustainable development
- The need for new nationally significant energy infrastructure projects

2.48 The Project would make a significant contribution to the UK's aim of reducing carbon emissions and Net Zero by 2050 target, with the Project having a direct and measurable effect on climate change and in meeting the UK's climate change and emissions reduction targets.

2.49 The Project would provide secure, reliable, affordable renewable energy supply in the UK, powering over 500,000 homes, helping to provide an affordable option for decarbonisation, as well as providing alternatives to fossil fuel powered energy generation plants as these are phased out. The Project would generate clean, sustainable, and secure energy from within the UK, working towards meeting the UK's increasing energy demand and need for greater energy security.

2.50 The Project would reduce carbon emissions and significantly contribute to the economy by providing substantial investment locally and nationally, as well as employment. This would enhance the sustainable development of the local community. The Project would contribute to the continuing aim to drive technology and development costs down, making use of low-cost renewable technologies and creating a self-sufficient energy market.

2.51 The Project would contribute to the UK's goal of establishing new nationally significant energy projects and creating affordable clean energy The recent updates to NPS EN-1 and EN-3 reinforces the significant role offshore wind will play in meeting demand and decarbonising the energy system. The Project directly aligns with the key drivers in National Policy and supports the offshore wind targets in the UK; clearly establishing the need for the Project.

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