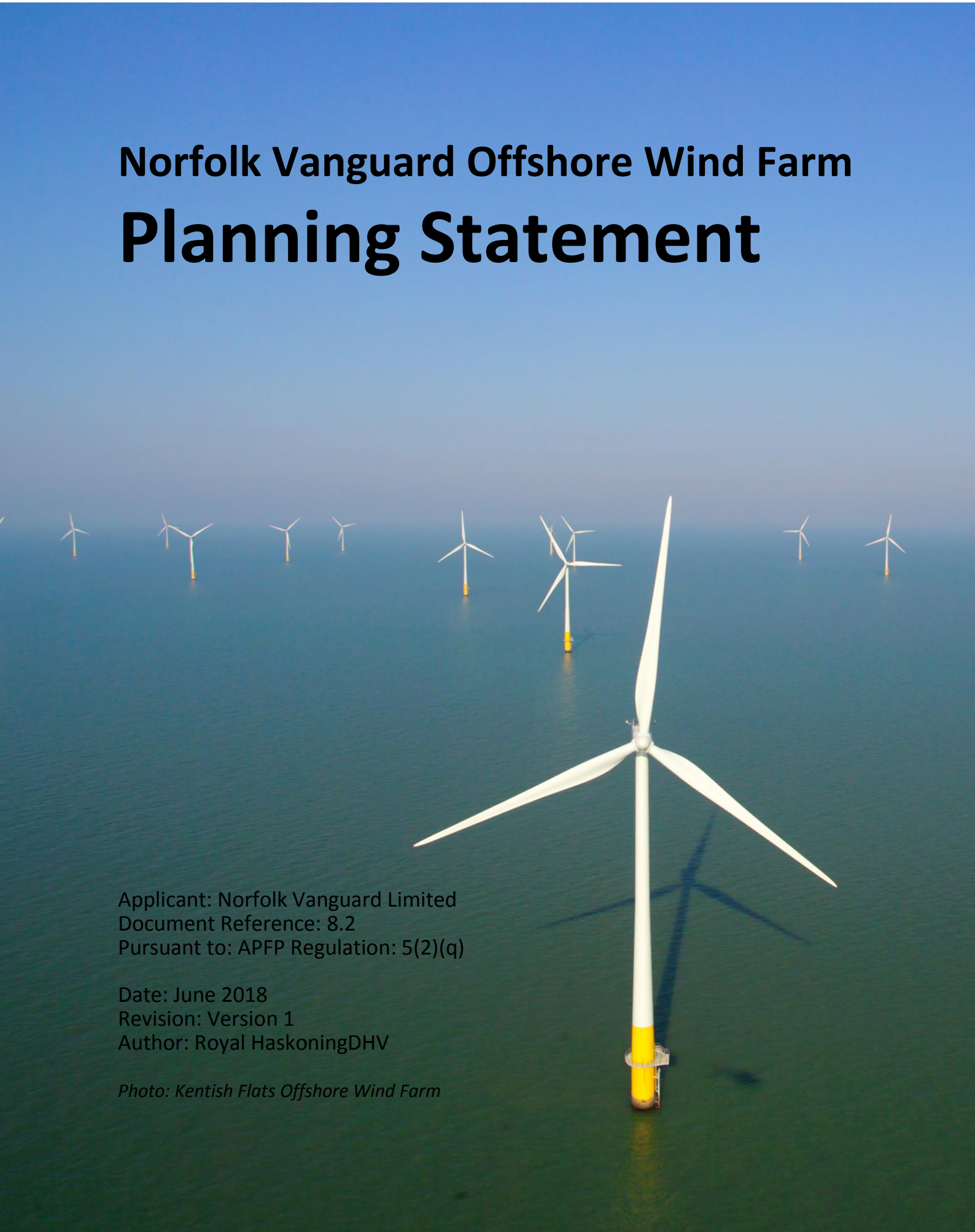
Norfolk Vanguard Offshore Wind Farm

Planning Statement



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Glossary

AfL	Agreement for Lease
ALARP	As Low as Reasonably Practicable
ALC	Agricultural Land Classification
BEIS	Department for Business, Energy & Industrial Strategy
CCC	Committee on Climate Change
CIA	Cumulative Impact Assessment
CMS	Construction Method Statement
DCO	Development Consent Order
DECC	Department for Energy and Climate Change (now BEIS)
DPD	Development Plan Document
EIA	Environmental Impact Assessment
EMF	Electromagnetic Field
ES	Environmental Statement
HMR	Helicopter Main Route
HPA	Health Protection Agency
HRA	Habitats Regulations Assessment
LDF	Local Development Framework
MMO	Marine Management Organisation
MPS	Marine Policy Statement
MPS1	Minerals Policy Statement 1
nm	Nautical Mile
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
PHE	Public Health England
PPG	Planning Practice Guidance
PPS	Planning Policy Statement
SAR	Search and Rescue
SIP	Site Integrity Plan
VWPL	Vattenfall Wind Power Limited
WSI	Written Scheme of Investigation
ZDA	Zone Development Agreement

Terminology

Array cables	Cables which link the wind turbines and the offshore electrical platform.
Export capacity	Maximum power transfer from the wind farm into the National Electricity Transmission System (NETS) (i.e. at the offshore transmission entry point)
Indicative mitigation planting	Areas identified for mitigation planting at the onshore project substation and Necton National Grid substation.
Interconnector cables	Buried offshore cables which link the offshore electrical platforms

Jointing pit	Underground structures constructed at regular intervals along the cable route to join sections of cable and facilitate installation of the cables into the buried ducts
Landfall	Where the offshore cables come ashore at Happisburgh South
Landfall compound	Compound at landfall within which HDD drilling would take place
Link boxes	Underground chambers or above ground cabinets next to the cable trench housing low voltage electrical earthing links.
Mobilisation area	Areas approx. 100 x 100m used as access points to the running track for duct installation. Required to store equipment and provide welfare facilities. Located adjacent to the onshore cable route, accessible from local highways network suitable for the delivery of heavy and oversized materials and equipment.
Mobilisation zone	Area within which the mobilisation area will be located.
National Grid new / replacement overhead line tower	New overhead line towers to be installed at the National Grid substation.
National Grid overhead line modifications	The works to be undertaken to complete the necessary modification to the existing 400kV overhead lines
National Grid substation extension	The permanent footprint of the National Grid substation extension
National Grid temporary works area	Land adjacent to the Necton National Grid substation which would be temporarily required during construction of the National Grid substation extension.
Necton National Grid substation	The existing 400kV substation at Necton, which will be the grid connection location for Norfolk Vanguard
Offshore accommodation platform	A fixed structure (if required) providing accommodation for offshore personnel. An accommodation vessel may be used instead
Offshore cable corridor	The corridor of seabed from the Norfolk Vanguard OWF sites to the landfall site within which the offshore export cables would be located.
Offshore electrical platform	A fixed structure located within the wind farm area, containing electrical equipment to aggregate the power from the wind turbines and convert it into a more suitable form for export to shore.
Offshore export cables	The cables which bring electricity from the offshore electrical platform to the landfall.
Offshore project area	The overall area of Norfolk Vanguard East, Norfolk Vanguard West and the offshore cable corridor
Onshore 400kV cable route	Buried high-voltage cables linking the onshore project substation to the Necton National Grid substation
Onshore cable corridor	200m wide onshore corridor within which the onshore cable route would be located as submitted for PEIR.
Onshore cable route	The 45m easement which will contain the buried export cables as well as the temporary running track, topsoil storage and excavated material during construction.
Onshore cables	The cables which take the electricity from landfall to the onshore project substation

Onshore project area	All onshore electrical infrastructure (landfall; onshore cable route, accesses, trenchless crossing technique (e.g. Horizontal Directional Drilling (HDD)) zones and mobilisation areas; onshore project substation and extension to the Necton National Grid substation and overhead line modification)
Onshore project substation	A compound containing electrical equipment to enable connection to the National Grid. The substation will convert the exported power from HVDC to HVAC, to 400kV (grid voltage). This also contains equipment to help maintain stable grid voltage.
Onshore project substation temporary construction compound	Land adjacent to the onshore project substation which would be temporarily required during construction of the onshore project substation.
Running track	The track along the onshore cable route which the construction traffic would use to access workfronts
Safety zones	A marine zone outlined for the purposes of safety around a possibly hazardous installation or works / construction area under the Energy Act 2004.
Scour protection	Protective materials to avoid sediment being eroded away from the base of the foundations as a result of the flow of water.
The Applicant	Norfolk Vanguard Limited
The OWF sites	The two distinct offshore wind farm areas, Norfolk Vanguard East and Norfolk Vanguard West
The project	Norfolk Vanguard Offshore Wind Farm, including the onshore and offshore infrastructure
Transition pit	Underground structures that house the joints between the offshore export cables and the onshore cables within the landfall
Trenchless crossing zone (e.g. HDD)	Temporary areas required for trenchless crossing works.
Workfront	The 150m length of onshore cable route within which duct installation would occur

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1 INTRODUCTION

1.1 This Document

1. This Planning Statement has been prepared in support of the Development Consent Order (DCO) application for the Norfolk Vanguard Offshore Wind Farm (hereafter 'the project'). The purpose of the Planning Statement is to set out the planning context applicable to the project and identify those policy considerations that will be material to the decision-making process.

1.2 Project Description

2. The full project description is provided in Chapter 5 Project Description of the ES.

3. In December 2009 as part of the UK Offshore Wind Round 3 tender process, The Crown Estate awarded the joint venture company, East Anglia Offshore Wind (EAOW) Ltd., the rights to develop Zone 5 (later called the 'East Anglia zone'). These rights were granted through a Zone Development Agreement (ZDA). EAOW Ltd. is a 50:50 joint venture owned by Vattenfall Wind Power Limited (VWPL) and ScottishPower Renewables (UK) Limited (SPR). Under the ZDA, the joint venture consented East Anglia ONE and commenced the Environmental Impact Assessments (EIAs) for East Anglia THREE (prior to the project being taken forward to submission by SPR) and East Anglia FOUR (up to submission of a request for Scoping Opinion in 2012).

4. In December 2014, a decision was taken to split the zone, with VWPL having development rights within the north of the former East Anglia Zone and SPR continuing to develop the southern part. In agreement with The Crown Estate, the ZDA was effectively dissolved in 2016. New Agreement for Lease (AfL) areas have been awarded by The Crown Estate within the former Zone, separately to VWPL/its affiliate companies and SPR/its affiliates. The Norfolk Vanguard Offshore Wind Farm (hereafter 'Norfolk Vanguard' or 'the project') is the first of the projects to be brought forward by VWPL.

5. VWPL's subsidiary Norfolk Vanguard Limited is now undertaking the EIA for Norfolk Vanguard.

6. VWPL also has an AfL for a second development, Norfolk Boreas, which will be the subject of a separate DCO application. Norfolk Boreas will be considered further within the EIA as part of the Cumulative Impact Assessment (CIA). Norfolk Vanguard and Norfolk Boreas each have a capacity of up to 1800MW, providing a total potential offshore wind farm generation capacity of 3600MW (3.6GW).

7. The key offshore components of the project, as per Chapter 5 Project Description, are as follows:

- Up to 200 wind turbines;
- Up to two offshore electrical platforms;
- Up to two accommodation platforms;
- Up to two met masts;
- Up to two LiDAR;
- Up to two wave buoys
- Array cables;
- Inter-connector cables; and
- Export cables.

8. The key onshore components of the project are as follows:

- Landfall;
- Onshore cable route, including trenchless crossing zones (e.g. Horizontal Directional Drilling (HDD)) and mobilisation areas;
- Onshore project substation;
- National Grid substation extension; and
- National Grid new / replacement overhead line tower and temporary works.

9. The DCO application includes all offshore and onshore infrastructure associated with the project, including an extension to the existing Necton National Grid substation and laying of cable ducts for Norfolk Boreas (subject to Norfolk Boreas consent) within the onshore cable route.

10. The project will consist of between 90 and 200 wind turbines, each having a rated capacity of between 9MW and 20MW, with a total export capacity of up to 1,800MW. The offshore wind farm comprises two distinct areas, NV East and NV West which are approximately 70km and 47km from the coast of Norfolk, respectively (at the nearest points).

11. Construction of the project would be anticipated to commence between 2020 and 2021 for the onshore works, and around 2024 for the offshore works.

1.2.1 Site selection and Assessment of Alternatives

12. Norfolk Vanguard Limited has undertaken extensive community and stakeholder consultation to inform the project design of Norfolk Vanguard, in particular the site selection. The Consultation Report (document 5.1) details all consultation undertaken on the project and Chapter 4 Site Selection and Assessment of Alternatives of the ES outlines the consultation that has been taken into account during the onshore and offshore site selection.

13. Norfolk Vanguard Limited has reviewed consultation received during informal and formal consultation and, in light of the feedback, has made a number of key

decisions in relation to the project design. Key design decisions following PEIR in Q4 2017 include the decision to deploy HVDC cable technology. This removes the need for a cable relay station, reduces the onshore cable route width from 100m to 45m (see section 5.5 of Chapter 5 Project Description of the ES) and reduces the number of offshore export cable trenches from six to two. Another key commitment Norfolk Vanguard Limited has made in response to consultation is to use long HDD at the landfall in order to avoid any works on the beach and any material impacts on the cliffs (see section 5.5.1 of Chapter 5 Project Description of the ES).

1.3 Need for the Project

14. The key drivers underpinning the need for renewable energy within the UK are noted below (and discussed further in sections 1.3.1 to 1.3.3):

- The need to reduce greenhouse gas emissions, including increasing energy generation from low carbon sources to replace high carbon energy sources such as burning coal and gas;
- The need for energy security, including:
    - The need to secure safe, affordable, reliable energy, preferably generated in the UK for the UK market;
    - The need to replace existing ageing energy generation infrastructure;
    - The need to meet expected electricity demand whilst meeting climate change commitments; and
    - The need to maximise social and economic opportunities for the UK from energy infrastructure investment, as noted in the Clean Growth Strategy (Department for Business, Energy & Industrial Strategy (BEIS), 2017) and the UK offshore wind sector deal (Renewable UK, 2018) which aims to create 27,000 skilled jobs across the UK (up from 11,000 today) mainly in coastal areas by 2030.

15. Norfolk Vanguard would be one of the largest offshore wind projects in the world and would make a large contribution to the achievement of both the national renewable energy targets (see section 2.2 of Chapter 2 Need for the Project of the ES) and to the UK's contribution to global efforts to reduce the effects of climate change.

1.3.1 The Need to Reduce Greenhouse Gas Emissions

16. In the Overarching National Policy Statement for Energy (Department of Energy and Climate Change (DECC), 2011), predictions are made that a continuation of global emission trends, including emissions of greenhouse gases such as carbon dioxide, could lead average global temperatures to rise by up to 6°C by the end of this

century. The potential impacts associated with such a global temperature rise include (DECC, 2014):

- Increased frequency of extreme weather events such as floods and drought;
- Reduced food supplies;
- Impacts on human health;
- Increased poverty; and
- Ecosystem impacts, including species extinction.

17. The UK Committee on Climate Change (CCC)[1] (2017) reported that 2016 was the hottest year on record, which represents the fifth time in the 21st century a new record high annual temperature has been set (along with 2005, 2010, 2014, and 2015) (NOAA, 2016).

18. A commitment by the UK was made during the 21st Conference of the Parties (COP) in Paris in 2015 to pursue efforts to limit the global temperature increase to within 2°C of the pre-industrial average temperature, with an aspiration for an improved limit of 1.5°C.

19. Power sector emissions fell 17% in 2015 to 50% below 1990 levels. This follows an average annual decrease of 5% in the years between 2009 and 2014. This reduction is largely due to an increase in renewable and nuclear generation, equating to almost half of the UK's electricity demand in 2015 (CCC, 2016a). In order to achieve necessary ongoing reductions in emissions, the CCC recommended that the UK government should set out an intention to support 1-2GW of offshore wind per year, provided costs continue to fall, with a view to phasing out subsidies in the 2020s (CCC, 2015a).

20. The EU and UK legislation that has been put in place to secure a reduction in emissions is outlined in the ES Chapter 3 Policy and Legislative Context.

21. Norfolk Vanguard and Norfolk Boreas together have the potential, at today's level of UK carbon emissions from the power sector, to prevent more than 4,000,000 tCO_2 from entering the atmosphere.

1.3.1.1 The Role of Offshore Wind

22. The UK CCC, in its advice on the Fifth Carbon Budget, identifies that the amount of renewable electricity generated in the UK must double by 2030 if it is to meet its legally-binding climate change targets. The role of offshore wind in delivering this additional capacity of low carbon energy is highlighted by the committee reports

[1] The Committee on Climate Change is an independent, statutory body established to advise the UK Government on emissions targets and report on progress made in reducing greenhouse gas emissions and preparing for climate change.

which recognise that the sector is now maturing and showing very significant cost reductions.

23. A dataset produced by the CCC (2016b) calculated cumulative deployment figures (TWh/year) for different forms of electricity generation in the UK from 2015 through to 2030. For offshore wind, the fifth carbon budget target for 2020 is 36.6 TWh/year which doubles in 10 years to 72.4 TWh/year for 2030. Calculations show that Norfolk Vanguard will generate approximately 7.0 TWh/year based on the calculation below:

1800MW x 8760h/year x 50% capacity factor[2] x 90% availability[3]

24. Therefore, Norfolk Vanguard alone would meet nearly 10% of the UK cumulative deployment target for 2030. Considering Norfolk Boreas alongside this with an additional capacity of 1.8GW, almost 20% of the UK cumulative deployment target for 2030 could be fulfilled by the two proposed offshore wind farms.

1.3.2 The Need for Energy Security

25. The UK has been a net importer of electricity since 2010 and imported around 6% of its electricity in 2016 (DECC, 2016).

26. Key issues associated with energy security in the UK are:

- The decline in fossil fuel reserves (in particular North Sea oil and gas);
- The required ongoing closure and decommissioning of existing elderly fossil fuel and nuclear electricity generating infrastructure; and
- The need for replacement sources.

27. 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 not meet legal air quality limits. The UK Energy Security Strategy estimated that around a fifth of the energy capacity available in 2011 will close by 2020 (DECC, 2012).

28. The Clean Growth Strategy (BEIS, 2017) states that the UK Government will continue to invest in electrification of transport, heating and industry. The demands on the UK's energy infrastructure will change as low carbon heating technologies take over from fossil fuels, with a greater dependence on electricity and potentially new infrastructure needed for system balancing and the generation of low carbon gases (BEIS, 2017). The National Policy Statement for Energy (EN-1) estimates that

[2] Capacity factor = Energy produced during period (MWh) / { Peak rated capacity (MW) x Total duration of period (h) }
[3] Availability = Time (within period) when the turbine is able to produce energy (h) / Total duration of period (h)

additional electricity generating infrastructure to ensure adequate supplies will require net new capacity of approximately 59GW by 2025, of which up to 33GW will need to be from renewable sources (DECC, 2011). UK renewable electricity capacity was 33.4GW at the end of 2016 Q3 (DECC, 2016).

29. Reliance on global markets for imported energy leaves the UK vulnerable to spikes in world energy market prices, political pressure and potentially, to physical supply disruptions. The DECC (2012) Energy Security Strategy outlines the approach to ensuring that consumers have access to energy to meet their demand, and security requirements at prices which are resilient to volatile prices such as those experienced for fossil fuels (price security).

30. The CCC identifies the amount of energy capacity that will be needed to fill the future predicted UK generation gaps, taking into consideration retirement of high-carbon energy sources and some nuclear sources.

31. If there was no growth in demand during the 2020s, around 25GW of new electricity capacity would be needed, however as demand grows, more capacity will be needed. CCC suggests that if demand grows by 23% (as in the CCC central scenario for demand growth), a total of 40GW of de-rated electricity capacity would be needed (CCC, 2015b).

1.3.3 The Need to Maximise Economic Opportunities

32. The UK is able to continue growth in the offshore wind sector; maximising domestic energy resources and utilising the vast offshore wind resource to which the UK has access. An assessment in June 2017 of Europe's offshore wind resources found that the UK has the greatest potential for offshore wind of all assessed EU member states in the Atlantic, North Sea and Baltic Sea areas. The assessment looked at gross resource potential, technical resource potential and economically attractive resource potential, and found that the UK topped all other countries in all three categories (Wind Europe, 2017).

33. A key commitment within the UK's Industrial Strategy (developed by the Department for Business, Energy & Industrial Strategy) is to "*lead the world in delivering clean energy technology*" and to support innovation in this area. The aim is for "*the UK to be a global leader in innovation, science and research and our Industrial Strategy will help us to deliver our ambitious CO_2 reduction targets while, creating jobs and opportunities for people across the country*" (HM Government, 2017). 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.

34. The Centre for Economics and Business Research (CEBR, 2012) estimates that by 2030, offshore wind could increase the Gross Domestic Product (GDP) value by 0.6%

and support 173,000 jobs. In contrast, The Stern Report (Stern, 2006) concludes that if no action is taken to prevent climate change, the economic impacts could be equivalent to losing at least 5% of global GDP each year.

35. During Greg Clark's (Secretary of State for Business, Energy and Industrial Strategy) speech at Energy UK in November 2016 he made clear that "*the debate about whether to reduce emissions is over"* and that there is "*huge economic opportunity of climate change action for UK businesses*". He particularly referenced the East Coast of England as an area where the offshore wind industry is contributing, and will continue to contribute, to the local economy.

36. The UK has a strong supply chain for offshore wind. The UK Government has recently issued a Green Paper: Building our Industrial Strategy (UK Government, 2017). This paper focusses on delivering affordable energy and green growth. The offshore wind supply chain, for example the Siemens' factory in Hull, plays a key role in delivering this growth strategy.

37. According to the 2017 Report on Offshore Wind UK Content (RenewableUK, 2017), 48% of the total expenditure associated with UK offshore wind farms was spent in the UK in 2015. The UK content of expenditure during the development stage and operation of offshore wind projects was 73% and 75%, respectively in 2015, whereas during manufacturing and construction the UK content was 29% (RenewableUK, 2017). The higher expenditure during the development and operational stages is a result of the specialist skills required for both stages.

38. The offshore wind industry presents an opportunity to utilise and further develop the UK's maritime engineering skills as other industries decline (such as shipbuilding and North Sea oil) in order to secure supply chain and other employment opportunities in the UK. The importance of maximising opportunities for the involvement of local businesses and communities in offshore wind has been highlighted as a key success factor for the sector in the UK (The Crown Estate, 2014).

39. The replacement of existing infrastructure with new technologies also represents significant investment in the UK economy.

40. Offshore clean energy is supported by the New Anglia Local Enterprise Partnership (LEP) for Norfolk and Suffolk (New Anglia LEP, 2015) (the relevant LEP for Norfolk Vanguard and Norfolk Boreas) due to the economic benefit the sector brings to Norfolk and Suffolk, as their aim is to lead economic growth and job creation in these areas by 2026.

1.4 The Application

41. Development consent is required under the provisions of the Planning Act 2008 (as amended) (the Act) for development that is, or forms part of, a Nationally Significant Infrastructure Project (NSIP).

42. As a project that will generate energy, Norfolk Vanguard falls within the definitions of Section 15(3) of the Act as it will have an installed capacity of more than 100MW. Accordingly, Norfolk Vanguard Limited has submitted a DCO application to The Planning Inspectorate under the Act for both the onshore and offshore elements of the project.

43. The draft DCO also includes four deemed marine licences under the Marine and Coastal Access Act 2009 to authorise the marine activities associated with the project.

44. Following submission of the DCO application and a period of examination and resultant recommendation made by The Planning Inspectorate, a decision will be made by the Secretary of State for Business, Energy and Industrial Strategy on whether to grant development consent for the project to proceed.

45. In addition to the DCO, Norfolk Vanguard Limited will make a number of separate applications for other consents and licences that are required to allow construction and operation of Norfolk Vanguard; this is provided in document 5.4.

46. Subject to consent being granted, it is anticipated that the construction of the offshore windfarm will take up to seven years to complete, with the earliest start date for onshore construction anticipated to be 2020.

1.5 The Planning Statement

47. This Planning Statement has been prepared in support of Norfolk Vanguard Limited's DCO application, the purpose of which is to set out the planning context applicable to the project and identify those policy considerations that will be material to the decision-making process.

48. The Planning Statement forms part of the suite of DCO application documentation submitted to The Planning Inspectorate. The application documents set out how appropriate consideration has been given to the relevant issues and how, where reasonable and/or practicable to do so, likely significant effects of the project been mitigated.

49. The project has been subject to formal EIA procedures, the outcomes of which have been reported in the ES that accompanies the DCO application. The project is also subject to Habitats Regulations Assessment (HRA) (see the Information to Support

HRA Report, document reference 5.3) to determine its potential effects on European Designated Sites.

50. Aspects concerning the need for the project, the site selection process, and alternative designs and technologies considered by Norfolk Vanguard Limited during the design-development process are explained fully in Volume 1 of the ES, and presented in summary form within this Planning Statement, where applicable. The full legislative and policy context relating to renewable energy within which the project would be progressed is presented in Chapter 3 Policy and Legislative Context of the ES.

51. The outcomes of the EIA and HRA have informed the content of this Planning Statement, specifically in relation to assisting the determination of compliance between the project and the overarching planning framework.

52. The Planning Statement is structured in the following manner:

- Section 2: This section presents an overview and appraisal of the planning framework against which the application will be examined and tested, identifying policies with a clear focus on promoting the development of onshore and offshore renewable energy infrastructure.
- Section 3: This section presents a detailed assessment of the relationship between the project and individual planning policies relating to subject specific issues at the national, regional and local level.
- Section 4: This section draws together the various policies and tests set out within the Statement, summarising how the application accords with key planning policy.

2 PLANNING POLICY CONTEXT AND APPRAISAL

2.1 Planning Policy Framework

53. The key factors that have been given due regard as part of the project decision-making process comprise the following:

- Relevant National Policy Statements (NPSs) for energy;
- Local Impact Report(s) prepared and submitted by local authorities covering areas encompassing the application site;
- Matters prescribed in relation to development of the description to which the application relates, as set out in The Infrastructure Planning (Decisions) Regulations 2010; and
- Any other matter(s) that the decision-maker considers both 'important' and 'relevant' to their decision.

54. The following sub-sections set out the national, regional and local position specifically in relation to policies that support the provision of renewable energy. Compliance (or otherwise) with specific policies and policy objectives concerning other matters such as environmental protection is set out in Section 3 of this Planning Statement.

2.2 National Policy Statements

55. NPSs form primary planning policy documents that are specifically provided under the Act to guide decision-making on NSIP applications.

56. Designated NPSs constituting the principal basis for the determination of the project are as follows;

- Overarching National Policy Statement for Energy (EN-1);
- National Policy Statement for Renewable Energy Infrastructure (EN-3); and
- National Policy Statement for Electricity Networks Infrastructure (EN-5).

57. As is provided for by Section 104(3) of the Act, the decision-maker will therefore be required to determine the application in accordance with the above NPSs, except to the extent that one or more of the matters set out in Section 104(4) to 104(8) of the Act apply.

"section 104:

(3) The Secretary of State must decide the application in accordance with any relevant national policy statement, except to the extent that one or more of subsections (4) to (8) applies.

(4) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations.

(5) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the Secretary of State being in breach of any duty imposed on the Secretary of State by or under any enactment.

(6) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment.

(7) This subsection applies if the Secretary of State is satisfied that the adverse impact of the proposed development would outweigh its benefits.

(8) This subsection applies if the Secretary of State is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met."

58. The key test is therefore to assess on balance, whether the application is in accordance with the relevant NPSs. The wider benefits of renewable energy must be weighed against any adverse impacts that have been identified. The presumption is in favour of the application, given the need for renewable energy infrastructure, so long as any adverse effects outweigh the benefits.

2.2.1 National Policy Statement EN-1

59. EN-1 provides an overarching general policy to apply to all NSIP proposals for energy generating technologies.

60. EN-1 sets out the need for energy NSIPs, noting that the UK requires a mix of energy infrastructure types if it is to achieve security of supply, reduce greenhouse gas emissions and meet legally binding targets. The continued development of offshore wind energy projects is therefore of vital importance to ensure the UK is able to meet its targets.

61. EN-1 lists a range of generic impacts associated with nationally significant energy infrastructure that need to be given due regard in applications, covering topics such as the Historic Environment, Land Use and Traffic and Transport.

62. The document makes clear that decision-making should be done on the basis that the urgent need for energy infrastructure has already been demonstrated by the Government, and in determining applications the decision-maker should give

substantial weight to the contribution that a development project would make towards satisfying this need.

63. There is, therefore, a presumption in favour of granting consent for energy NSIPs unless other more specific or relevant policies indicate that consent should be refused. The consideration of energy NSIP applications does, however, need to compare the benefits of a proposal against its potential adverse effects.

64. EN-1 makes clear that in the event of conflict between an energy NSIP and policies set out in the Local Development Framework(s), the NPS takes precedence in the decision-making process.

65. Norfolk Vanguard Limited believes that the proposed project will make a valuable contribution to emissions reduction by helping shift reliance away from traditional fossil fuels and represents a significant opportunity towards ensuring security of the UK's future energy supplies.

2.2.2 National Policy Statement EN-3

66. In conjunction with EN-1, EN-3 provides the primary basis for decision-making on renewable energy infrastructure applications.

67. The document sets out the assessment requirements for renewable energy infrastructure (including offshore wind energy) and also presents a range of technology specific information.

68. EN-3 reiterates the basic assessment principle as set out in EN-1 that the national need for energy infrastructure has already been demonstrated and acknowledges that offshore wind has the potential to form a considerable proportion of the UK's renewable energy generating capacity up to the year 2020 and beyond.

69. Policies specific to the process of EIA are presented within EN-3. These cover a range of topics which the decision-maker will give due regard to as part of the examination and determination process.

70. Norfolk Vanguard Limited has accordingly undertaken a detailed assessment of the project's likely effects against a range of environmental topics, the findings of which are reported in the project ES which has been submitted with the DCO application.

2.2.3 National Policy Statement EN-5

71. In conjunction with EN-1, EN-5 provides the principal guidance for decision-making on nationally significant electricity network infrastructure.

72. It is expected that EN-5 will provide the primary guidance document for decision-making in relation to the onshore elements of the project as these will comprise of transmission and electrical network infrastructure only.

73. The document sets out a principle that generic impacts listed in EN-1 are likely to be applicable to electricity networks infrastructure and additionally identifies technology specific considerations such as Electric and Magnetic Fields (EMFs).

74. Due regard has been given by Norfolk Vanguard Limited to the environmental effects on the associated onshore project components as part of the EIA process. Chapters 19 to 31 of the ES provide a detailed assessment of the impacts of the onshore elements of the project.

2.3 Marine Policy

75. The Marine and Coastal Access Act (MCAA) 2009 provides the legal mechanism to help ensure clean, healthy, safe, productive and biologically diverse oceans and seas by putting in place a new system for improved management and protection of the marine and coastal environment. The MCAA also established the Marine Management Organisation (MMO), the authority tasked with ensuring the delivery of sustainable development in the marine area.

76. The Marine Policy Statement (MPS) adopted by all UK administrations in March 2011 provides the policy framework for the preparation of marine plans, establishing how decisions affecting the marine area should be made in order to enable sustainable development. The MPS also provides an overview and summary of national policy relevant to marine planning and decision-making in the marine area. Marine plans are intended to guide developments and activities to ensure maximisation of the economic worth of the marine area in a sustainable way.

77. The first Marine Plans include the East Inshore and East Offshore Marine Plans which were formally adopted on 2nd April 2014. The East Inshore Marine Plan area covers 6,000km^2 of sea, from mean high water springs out to the 12 nautical mile limit from Flamborough Head in the north to Felixstowe in the south. The East Offshore Marine Plan covers 49,000km^2 of area from the 12 nautical mile limit to the border with The Netherlands, Belgium and France.

78. Public authorities, including the MMO, must consider the adopted marine plan for all authorisations - *"any approval, confirmation, consent, licence, permission or other authorisation (however described), whether special or general"* (MCAA 2009, section 58 (6)) - or enforcement decisions that may affect the plan area, unless relevant considerations indicate otherwise. A relevant consideration includes whether or not an application relates to a NSIP as set out in the Planning Act 2008. Decision making

in relation to NSIP projects in English waters should have regard to the appropriate marine policy document be it the MPS or an adopted marine plan.

79. The MPS acknowledges that sustainable, secure and affordable energy is central to the economic and social wellbeing of the UK, and identifies that marine planning is important in the contribution to securing the UK's energy objectives.

80. The document contains policies of specific relevance to the offshore components of the project that support renewable energy and acknowledges the beneficial environmental effects (e.g. air quality) that such developments can generate when compared to those associated with the use of fossil fuels.

81. The MPS recognises that marine sources of energy will play a key role in meeting national and international emissions targets, with offshore wind forming the largest single contribution. Norfolk Vanguard Limited considers that the project is in general accordance with the objectives and policies set out in the MPS concerning the planning and development of offshore electricity generation in the marine environment.

2.4 National, Regional and Local Planning Policy

2.4.1 National Planning Policy Framework

82. In addition to NPSs, a policy hierarchy exists at the national, regional and local level that is of relevance to the onshore and offshore elements of the application. Such policy is considered potentially 'important' and 'relevant' to the decision-making process (DECC, 2011, National Policy Statement EN-1, pp.44).

83. The NPPF was published in March 2012, replacing the pre-existing hierarchy of Planning Policy Statements (PPSs) and Planning Practice Guidance (PPG) that formerly provided guidance on land-based planning and development control.

84. Although the NPPF does not contain specific policies for NSIPs, the document makes clear that NPSs form part of the overall framework of national planning policy.

85. The NPPF sets out the national position on the delivery of sustainable development through the planning process, and identifies a series of core principles covering the protection and conservation of the natural, built and historic environment, and the promotion of sustainable growth and development which are considered relevant to the project.

86. One of the core principles underpinning decision-making in the NPPF relates to supporting the transition to a low carbon future in a changing climate by encouraging the use of renewable resources, for example by the development of renewable energy.

87. A draft revised NPPF was consulted on from March to May 2018 by the Ministry of Housing, Communities and Local Government, and although the draft does not materially alter any current policies and does not materially alter the NSIP process, section 14 'Meeting the challenge of climate change, flooding and coastal change', paragraph 150 states:

"To help increase the use and supply of renewable and low carbon energy and heat, plans should:

a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);

b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and

c) identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers."

2.4.2 Regional Policy

88. The East of England Plan, published in May 2008, was the relevant Regional Spatial Strategy setting out the broad development strategy for the region. The East of England Plan was revoked on the 3rd January 2013.

2.4.3 Local Policy

89. Local authorities are required to prepare and maintain up to date Local Development Plans which set out their objectives for the use and land development within their jurisdiction, and general policies for implementation. Where a conflict might arise between the NPS and local policy, the NPS will supersede local policy.

90. Prior to the Planning and Compulsory Purchase Act 2004, local planning policy was set out in a single document, the Local Plan. These Plans are now being replaced by Local Development Frameworks (LDFs), which comprise a suite of Development Plan Documents (DPD) including a Core Strategy DPD, Site Allocations DPD, Area Action Plans and a Proposals Map. Taken together, the LDFs can be thought of as the 'new' Local Plan. For the majority of local authorities these documents are still in development but where drafts are available, these have been considered.

91. The onshore cable route falls under the jurisdiction of Norfolk County Council and the following local authorities:

- Broadland District Council; and
- Breckland Council; and
- North Norfolk District Council.

92. These local authorities have in place a host of local planning documents of direct relevance to the project, as set out below in Table 2.1.

Table 2.1 Development Plans and Emerging Local Development Frameworks

Council	Planning Documents of Relevance
Norfolk County Council	Core Strategy and Minerals and Waste Development Management Policies 2010-2026 • DM1 Nature Conservation • DM2 Core River Valleys • DM3 Groundwater and surface water • DM4 Flood Risk • DM8 Design, local landscape and townscape character • DM 9 Archaeological sites • DM10 Transport • DM13 – Air quality • DM16 – Soils Norfolk County Council are preparing a Norfolk Minerals and Waste Local Plan Review, in order to consolidate the Development Plan Documents and Policy Map into one Local Plan and to ensure all documents are up to date and to extend the period to the end of 2036. The initial public consultation document was published on 18 May 2018.
Broadland District Council	Joint Core Strategy Development Management DPD. The Joint Core Strategy for Broadland, Norwich and South Norfolk (JCS) was adopted in March 2011, with amendments adopted in January 2014, and forms part of the current Local Plan. Relevant polices are: • Policy 1: Addressing climate change and protecting environmental assets • Policy 3: Energy and water • Policy 5: The Economy Development Management DPD The Development management DPD was adopted in August 2015, the document guides planning officers and applicants on how planning is decided upon in Broadland. Relevant policies are: • Policy GC1 – Presumption in favour of sustainable development • Policy GC2 – Location of new development • Policy GC4 - Design • Policy GC5 - Renewable Energy • Policy EN1 - Biodiversity and Habitats • Policy EN2 - Landscape • Policy EN3 - Green Infrastructure • Policy EN4 - Pollution
Breckland Council	Breckland Local Development Framework Breckland Council (2009) Adopted Core Strategy and Development Control Policies DPD are of relevance to the proposed Norfolk Vanguard project.

Council	Planning Documents of Relevance
	Breckland Council are in the process of developing a new Local Plan which will replace the Core Strategy. A pre-submission document was released in August 2017 but the policies listed in this document may be subject to change and no adoption timeframe has been provided. Relevant polices include: • Policy CP 8 Natural Resources • Policy CP 9 Pollution and Waste • Policy CP 10 Natural Environment • Policy CP 11 Protection and Enhancement of the Landscape • Policy CP 12 Energy • Policy DC 1 Protection of Amenity • Policy DC 12 Trees and Landscape • Policy DC 13 Flood Risk • Policy DC 14 Energy Generation and Efficiency • Policy DC 15 Renewable Energy • Policy DC 16 Design • Policy DC 17 Historic Environment
North Norfolk District Council	<u>Core Strategy and Development Control Policies</u> The Core Strategy was adopted in September 2008 and forms part of the current Local Plan. Relevant polices are: • Policy SS 2 Development in the Countryside • Policy SS 4 Environment • Policy EN 2 Protection and Enhancement of Landscape and Settlement Character • Policy EN 3 Undeveloped Coast • Policy EN 4 Design • Policy EN 6 Sustainable Construction and Energy Efficiency • Policy EN 7 Renewable Energy • Policy EN 8 Protecting and Enhancing the Historic Environment • Policy EN 9 Biodiversity and Geology • Policy EN 10 Development and Flood Risk • Policy EN 11 Coastal Erosion • Policy EN 13 Pollution and Hazard Prevention and Minimisation The Emerging Local Plan aims to provide context for developments across North Norfolk for the period 2016-2036. However, the plan is still in the early stages, and at the time of this DCO application, there are no draft policies available. The emerging Local Plan is due for adoption in December 2018 at the earliest

93. The policies presented above are discussed in more detail below in Table 2.2.

94. In drafting their Local Impact Reports, the above local authorities may give regard to the compatibility between the project and the existing local planning framework. This in turn will be given due regard by the Planning Inspectorate and the Secretary of State as part of the decision-making process on the project.

Table 2.2 Relevant Policies

Policy	Summary	Policy Assessment
Broadland District Council Local Development Framework		
Joint Core Strategy Policy 1: Addressing climate change and protecting environmental assets	To address climate change and promote sustainability, all development will be located and designed to use resources efficiently, minimise greenhouse gas emissions and be adapted to a changing climate and more extreme weather.	The project is a renewable energy project and therefore accords with this policy.
Joint Core Strategy Policy 3: Energy and Water	Development in the area will, where possible, aim to minimise reliance on non-renewable high-carbon energy sources and maximise the use of decentralised and renewable or low-carbon energy sources and sustainable construction technologies.	The project is a renewable energy project and therefore, its nature accords with the relevant energy aspects of this policy related to maximising renewable energy sources.
Joint Core Strategy Policy 5: The economy	The local economy will be developed in a sustainable way to support jobs and economic growth both in urban and rural locations.	The project will create jobs and investment in the local and UK economy, which has been assessed within the ES (Chapter 31 Socio-economics)
DPD Policy GC1 – Presumption in favour of sustainable development	When considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the NPPF. It will always work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.	The project is a renewable energy project, contributing to the UKs renewable energy target of 30% electricity from renewable sources, therefore, the nature of the project as a sustainable source of energy accords with this.
DPD Policy GC4 - Design	Development will be expected to achieve a high standard of design and avoid any significant detrimental impact. Schemes which are of an innovative nature or which reduce reliance on centralised, non-renewable energy sources will be particularly encouraged.	Landscape and visual impacts have been considered within the Environmental Statement (ES) (Chapter 29 Landscape and Visual Impact Assessment). Landscaping mitigation is detailed within the ES and will follow the principles within the Outline Landscape and Environmental Management Strategy (OLEMS). The OLEMS (document reference 8.7) is being submitted as part of the DCO application and will form the basis for the requirements in the DCO (Requirement 24). The Design and Access Statement (document reference 8.3) is submitted as part of the DCO application and outlines the principles that will ensure the development is suitable for the site and setting.

Policy	Summary	Policy Assessment
DPD Policy GC5 – Renewable Energy	Proposals for renewable energy technology, associated infrastructure and integration of renewable technology will be encouraged where its impacts are (or can be made) acceptable	The project is a renewable energy project and therefore accords with this policy.
DPD EN1 – Biodiversity and Habitats	Development proposals will be expected to protect and enhance the biodiversity of the district, avoid fragmentation of habitats, and support the delivery of a co-ordinated green infrastructure network throughout the district.	Biodiversity has been considered within the ES (Chapter 22 Onshore Ecology), and potential impacts upon all notable species and habitats have been addressed through the project design and mitigation proposed. Furthermore, opportunities for restoring, enhancing and connecting habitats have been considered in the ES (Chapter 22 Onshore Ecology) and habitat enhancements proposed. For example, all hedgerows to be removed will be replanted using a native species mix and including standards / headland strips to improve ecological value. This would improve hedgerow biodiversity with a more diverse mix of locally-important species, and double planting of hedgerows. The project therefore accords with this policy.
DPD EN 2 Landscape	In order to protect the character of the area, development proposals should have regard to the Landscape Character Assessment	Landscape character has been considered in the ES (Chapter 29 Landscape and Visual Impact Assessment) and impacts have been addressed through the project design; optimising the location of the project and the proposed mitigation. The project therefore accords with this policy.
DPD EN3 – Green Infrastructure	All development will be expected to maximise opportunities for the creation of a well-managed network.	Ecological networks have been considered within the ES (Chapter 22 Onshore Ecology), and potential impacts upon habitat fragmentation have been addressed through the project design and mitigation proposed. For example, all hedgerows to be removed will be replanted using a native species mix and including standards / headland strips to improve ecological value. The

Policy	Summary	Policy Assessment
		project therefore accords with this policy.
DPD EN4 - Pollution	Development proposals will be expected to include an assessment of the extent of potential pollution.	Pollution pathways have been considered in the ES and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy (Chapter 19 Ground Conditions and Contamination, Chapter 25 Noise and Vibration, Chapter 26 Air Quality).
Breckland Council (2009) Adopted Core Strategy and Development Control Policies DPD		
Policy CP8 Natural Resources	All development must be consistent with the principles of the proper management of natural resources. Development will only be supported where it will enhance, or protect against the non-essential loss of the natural resources of the District. Whilst mechanisms are in place to ensure that the development needs of the District are met, development should nevertheless avoid the unnecessary loss of high-grade agricultural land which is a finite resource and is important to the rurality of Breckland. Development must not cause deterioration in water quality or air quality. All new development will be located in such a way as to minimise its own risk of flooding and new development should not materially increase the flood risk to other areas or increase the risk of flooding to European Habitats which are water sensitive. This will be minimised through the installation of infiltration and attenuation measures to dispose of surface water (Sustainable Drainage System (SuDS)). In considering proposals for development regard will be had to national Planning Policy and the Development Control Policy on Flood Risk.	Natural resources have been considered in the ES and impacts have been addressed through the project design and mitigation proposed (Chapter 1 – 31). The onshore project substation is located in Agricultural Land Classification (ALC) Grade 2 and 3 land and will not result in the loss of ALC Grade 1 agricultural land. Water quality, air quality and flood risk have all been considered in the ES and impacts have been addressed through the project design and mitigation proposed (Chapter 20 Water Resources and Flood Risk, Chapter 26 Air Quality). The project therefore accords with this policy.
Policy CP9 Pollution and Waste	The high quality management of the District's environment will be encouraged and supported through the careful appraisal of development proposals to ensure that they do not damage the environment. Management of the environment will require the emission of pollutants in terms of noise, odour, light or other waste materials or by-products to be minimised. Appropriate construction technologies and design principles are required to minimise waste generation.	Water quality, air quality and pollution (e.g noise, dust etc) pathways have all been considered in the ES and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy (Chapter 19 Ground Conditions and Contamination, Chapter 20 Water Resources and Flood Risk, Chapter 25 Noise and Vibration, Chapter

Policy	Summary	Policy Assessment
		26 Air Quality).
Policy CP10 Natural Environment	There is an expectation that development will incorporate biodiversity or geological features where opportunities exist. Open spaces and areas of biodiversity interest will be protected from harm. Development that may have an adverse impact upon a Site of Special Scientific Interest (SSSI), either directly or indirectly, will need to be accompanied by a suitable environmental assessment which identifies the impact of the development on the SSSI and potential mitigation measures that may be incorporated to assuage any impact. A full environmental appraisal will be required for development that may have a direct or indirect impact upon any site of regional or local biodiversity, or geological interest identified on the Proposals Map. The Council will require that an appropriate assessment is undertaken of all proposals for development that are likely to have a significant effect on the Breckland Special Protection Area (SPA) and will only permit development that will not adversely affect the integrity of the SPA Where development is likely to have an impact upon a species that is not protected by other legislation, and in particular where that species is identified in the Norfolk and UK Biodiversity Action Plan, there will be an expectation that the development proposal will be accompanied by an impact study commensurate with the scale of the impact and the importance of the species. Wherever a proposed development may have a detrimental impact upon a designated site or protected species, conditions and/or planning obligations will be used to ensure that appropriate mitigation measures are utilised, where appropriate.	Biodiversity, geodiversity and designated sites have all been considered in the ES and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy (Chapter 19 Ground Conditions and Contamination, Chapter 21 Land Use and Agriculture, Chapter 22 Onshore Ecology).
Policy CP11 Protection and Enhancement of the Landscape	Development should have particular regard to maintaining the aesthetic and biodiversity qualities of natural and man-made features within the landscape, including a consideration of individual or groups of natural features such as trees, hedges and woodland or rivers, streams or other topographical features.	Landscape and biodiversity have been considered in the ES and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy (Chapter 22Onshore Ecology, Chapter 29 Landscape and Visual Impact Assessment).
Policy CP12 Energy	Commercial scale renewable energy generation developments will be supported throughout the	The project is a renewable energy project and has been

Policy	Summary	Policy Assessment
	District. Large scale developments of this type will be subject to a comprehensive environmental assessment which will be based on the individual and unique circumstances of the case. When considering such assessments, regard will be given to the wider environmental benefits of providing energy from renewable sources as well as effects on amenities and the local environment.	comprehensively assessed in accordance with this policy.
Policy DC1 Protection of Amenity	For all new development consideration will need to be given to the impact upon amenity. Development will not be permitted where there are unacceptable effects on the amenities of the area or the residential amenity of neighbouring occupants, or future occupants of the development site	Impacts on amenity and socio economics has been considered in the ES (Chapter 31 Socio-economics) and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy.
Policy DC12 Trees and Landscape	Any development that would result in the loss of or the deterioration in the quality of, an important natural feature, including protected trees and hedgerows will not normally be permitted. In exceptional circumstances where the benefit of development is considered to outweigh the benefit of preserving natural features, development will be permitted subject to adequate compensatory provision being made. The retention of trees, hedgerows and other natural features in situ will always be preferable. Where the loss of such features is unavoidable, replacement provision should be of a commensurate value to that which is lost. Appropriate landscaping schemes to mitigate against the landscape impact of and complement the design of new development will be required, where appropriate. Conditions and/or planning obligations will be used to secure landscaping schemes and the replacement of trees, hedgerows or other natural features or their protection during the course of development. Where necessary maintenance payments for new landscaping may be sought via planning obligation.	Trees and hedgerows as part of landscape and biodiversity have been considered in the ES (Chapter 22 Onshore Ecology) and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy. Landscape and visual impacts have been considered within the ES (Chapter 29 Landscape and Visual Impact Assessment) and any impacts related to permanent above ground infrastructure such as the onshore project substation will be addressed at the post-consent detailed design stage. Indicative landscaping and planting has been proposed as part of the mitigation for permanent above ground infrastructure. The OLEMS (document reference 8.7) is submitted as part of the DCO application and forms the basis for the requirements in the DCO. This details specific mitigation measures and the principles of the landscaping proposals. The Design and Access

Policy	Summary	Policy Assessment
		Statement (document reference 8.3) is submitted as part of the DCO and outlines the principles that will ensure the development is suitable for the site and setting.
Policy DC13 Flood Risk	New development should be located in areas at least risk of flooding. New development will be expected to minimise flood risk to people, property and places. New development will only be permitted in Environment Agency Flood Zones 2 & 3 and those areas deemed at risk from flooding by the District's Strategic Flood Risk Assessment, where subject to the successful application of the sequential test: • In Zone2- Uses are water compatible, less vulnerable, more vulnerable and essential infrastructure • In Zone 3a - Uses are water compatible, or less vulnerable • In Zone 3b - Uses are water compatible only. All development proposals in areas at risk of flooding will be expected to provide a Flood Risk Assessment commensurate with the scale of the flood risk and recognising all likely sources of flooding.	Flood risk has been considered in the ES through a Flood Risk Assessment (Chapter 20 Water Resources and Flood Risk Appendix 20.1), and impacts have been addressed through the project design and mitigation proposed. The onshore project substation falls within Flood Zone 1 with a low probability of flooding. The project therefore accords with this policy.
Policy DC15 Renewable Energy	Proposals for renewable energy development will be supported in principle. Permission will be granted for these developments unless it, or any related infrastructure such as power lines or access roads etc., has a significant detrimental impact or a cumulative detrimental impact upon: • Sites of international, national or local nature and heritage conservation importance; • The surrounding landscape and townscape; • Local amenity as a result of noise, fumes, electronic interference or outlook through unacceptable visual intrusion; • Highway safety. Where development is permitted, mitigation measures will be required as appropriate to minimise any environmental impacts, such measures will be secured via condition or legal agreement. All development proposals for a renewable energy generation scheme should, as far as is practicable, provide for the site to be reinstated to its former condition should the development cease to be operational.	Heritage, landscape, amenity, water quality, air quality, pollution pathways and highway safety have all been considered in the ES and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy (Chapter 19 Ground Conditions and Contamination, Chapter 20 Water Resources and Flood Risk, Chapter 21 Land Use and Agriculture, Chapter 24 Traffic and Transport, Chapter 25 Noise and Vibration, Chapter 26 Air Quality, Chapter 28 Onshore Archaeology and Cultural Heritage, Chapter 29 Landscape and Visual Impact Assessment, Chapter 30 Tourism and Recreation)..
Policy DC16 Design	All new development should achieve the highest standards of design. Local Character: All design proposals must preserve or enhance the existing character of an area.	Landscape and visual impacts have been considered within the ES and any impacts related to permanent above ground infrastructure such as the onshore project substation will

Policy	Summary	Policy Assessment
	Form and Character: Development should complement the natural landscape, natural features and built form that surround it. Density, Height, Massing and Scale: In considering new development, consideration will be given to the density of buildings in a particular area and the landscape/townscape effect of any increased density. The real or perceived heights and scales of buildings relative to each other and their surround will be a key consideration as will the relationship of the density, scale and height. Landscaping, Boundary Treatments and Enclosure: For all new developments consideration will be given to the, incorporation, preservation and enhancement of natural features on a site. Building Detailing and Materials: Detailing and materials should be a key part of the building design, stemming directly from functional needs of the building.	be addressed at the post-consent detailed design stage (Chapter 29 Landscape and Visual Impact Assessment). Indicative landscaping and planting has been proposed as part of the mitigation for permanent above ground infrastructure. The OLEMS (document reference 8.7) is submitted as part of the DCO application and forms the basis for the requirements in the DCO. This will detail specific mitigation measures and the principles of the landscaping proposals. The Design and Access Statement (document reference 8.3) is submitted as part of the DCO and outlines the principles that will ensure the development is suitable for the site and setting.
Policy DC17 Historic Environment	New development will be expected to preserve and enhance the character, appearance and setting of Conservation Areas, Scheduled Monuments, Historic Parks and Gardens and other areas of historic interest. Where a proposed development will affect the character or setting of a Listed Building, particular regard will need to be given to the protection, preservation and enhancement of any features of historic or architectural interest. Sites of archaeological interest and their setting will be protected, enhanced and preserved; development which has an unacceptable impact upon a site of archaeological interest will not be permitted. Where it is considered appropriate in cases where development coincides with the location of a known or suspected archaeological interest an archaeological field evaluation will be required. Where the benefits of a particular development are considered to outweigh the importance of retaining archaeological remains *in situ* satisfactory excavation and recording of remains will be required before development is begun.	Heritage, landscape and relevant designations have all been considered in the ES and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy (Chapter 28 Onshore Archaeology and Cultural Heritage, Chapter 29 Landscape and Visual Impact Assessment).
North Norfolk District Council (2008) Core Strategy and Development Control Policies		
Policy SS2 Development in the Countryside	In areas designated as countryside, development which requires a rural location will be limited to certain project types, including renewable energy projects.	The project is a renewable energy project and land use has been comprehensively assessed in accordance with

Policy	Summary	Policy Assessment
		this policy.
Policy SS4 Environment	All development proposals will contribute to the delivery of sustainable development, ensure protection and enhancement of natural and built environmental assets and geodiversity and be located and designed so as to reduce carbon emissions and mitigate and adapt to future climate change. Renewable energy proposals will be supported where impacts on amenity, wildlife and landscape are acceptable. Opportunities to improve river water quality and minimise air, land and water pollution will be taken where possible. Open spaces and areas of biodiversity interest will be protected from harm, and the restoration, enhancement, expansion and linking of these areas to create green networks will be encouraged. New development will incorporate open space and high quality landscaping to provide attractive, beneficial environments for occupants and wildlife and contribute to a network of green spaces. Where there is no conflict with biodiversity interests, the quiet enjoyment and use of the natural environment will be encouraged and all proposals should seek to increase public access to the countryside. The Built Environment and designated Public Realm areas will be conserved and enhanced through the protection of buildings and structures which contribute to their surroundings, the encouragement of high quality maintenance and repair and enhancement of public spaces. Innovative and locally distinctive design will be encouraged in all new development.	The project is a renewable energy project, contributing to the UKs renewable energy target of 30% electricity from renewable sources. Therefore, this project accords with this policy. Amenity, wildlife and landscape character have been considered in the ES and impacts addressed through project design and proposed mitigation. Landscape and visual impacts have been considered within the ES. Landscaping mitigation is detailed within the ES (Chapter 29 Landscape and Visual Impact Assessment) and will follow the principles within the OLEMS (document reference 8.7). The OLEMS is submitted as part of the DCO application and will forms basis for the requirements in the DCO. The Design and Access Statement (document reference 8.3) is submitted as part of the DCO and will outline the principles that will ensure the development is suitable for the site and setting.
Policy EN 2 Protection and Enhancement of Landscape and Settlement Character	Proposals for development should be informed by, and be sympathetic to, the distinctive character areas identified in the North Norfolk Landscape Character Assessment and features identified in relevant settlement character studies. Development proposals should demonstrate that their location, scale, design and materials will protect, conserve and, where possible, enhance: • The special qualities and local distinctiveness of the area (including its historical, biodiversity and cultural character); • Gaps between settlements, and their landscape setting; • Distinctive settlement character; • The pattern of distinctive landscape features, such as watercourses, woodland, trees and field	Heritage, landscape and relevant designations have all been considered in the ES (Chapter 29 Landscape and Visual Impact Assessment, Chapter 28 Onshore Archaeology and Cultural Heritage) and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy.

Policy	Summary	Policy Assessment
	boundaries, and their function as ecological corridors for dispersal of wildlife; • Visually sensitive skylines, hillsides, seascapes, valley sides and geological features; • Nocturnal character; • The setting of, and views from, conservation areas and historic parks and gardens; and The defined Setting of Sheringham Park, as shown on the Proposals Map.	
Policy EN3 Undeveloped Coast	In the Undeveloped Coast only development that can be demonstrated to require a coastal location and that will not be significantly detrimental to the open coastal character will be permitted.	Elements of the project require a coastal location (i.e. landfall infrastructure) but will not have above ground infrastructure and therefore there will be no impacts beyond the construction phase.
Policy EN4 Design	All development will be designed to a high quality, reinforcing local distinctiveness. Innovative and energy efficient design will be particularly encouraged. Design which fails to have regard to local context and does not preserve or enhance the character and quality of an area will not be acceptable. Proposals should not have a significantly detrimental effect on the residential amenity of nearby occupiers and new dwellings should provide acceptable residential amenity.	Landscape and visual impacts have been considered within the ES (Chapter 29 Landscape and Visual Impact Assessment). Landscaping mitigation is detailed within the ES and will follow the principles within the OLEMS (document reference 8.7). The OLEMS is submitted as part of the DCO application and forms the basis for the requirements in the DCO. The Design and Access Statement (document reference 8.3) is submitted as part of the DCO and outlines the principles that will ensure the development is suitable for the site and setting.
Policy EN7 Renewable Energy	Renewable energy proposals will be supported and considered in the context of sustainable development and climate change, taking account of the wide environmental, social and economic benefits of renewable energy gain and their contribution to overcoming energy supply problems in parts of the District. Proposals for renewable energy technology, associated infrastructure and integration of renewable technology on existing or proposed structures will be permitted where individually, or cumulatively, there are no significant adverse effects on; • The surrounding landscape, townscape and historical features / areas; • Residential amenity (noise, fumes, odour,	Heritage, landscape, amenity, water quality, noise, air quality, pollution pathways and highway safety have all been considered in the ES and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy (Chapter 19 Ground Conditions and Contamination, Chapter 20 Water Resources and Flood Risk, Chapter 21 Land Use and Agriculture, Chapter 24 Traffic and Transport, Chapter 25 Noise

Policy	Summary	Policy Assessment
	shadow flicker, traffic, broadcast interference); and • Specific highway safety, designated nature conservation or biodiversity considerations. In areas of national importance large scale renewable energy infrastructure will not be permitted unless it can be demonstrated that the objectives of the designation are not compromised. Small-scale developments will be permitted where they are sympathetically designed and located, include any necessary mitigation measures and meet the criteria above. Large scale renewable energy proposals should deliver economic, social, environmental or community benefits that are directly related to the proposed development and are of reasonable scale and kind to the local area.	and Vibration, Chapter 26 Air Quality, Chapter 28 Onshore Archaeology and Cultural Heritage, Chapter 29 Landscape and Visual Impact Assessment, Chapter 30 Tourism and Recreation). Norfolk Vanguard Limited is committed to exploring ways to maximise the value of their investment to the community. Norfolk Vanguard Limited is currently in dialogue with potentially affected local communities to consider effective ways that the Project can deliver local benefits. An example of work already underway is with local education and skills providers. This work responds to both community interests as highlighted by pre-application consultation, and local policies (Chapter 31 Socio-economics).
Policy EN8 Protecting and Enhancing the Historic Environment	Where required, development proposals affecting sites of known archaeological interest will include an assessment of their implications and ensure that provision is made for the preservation of important archaeological remains. The character and appearance of Conservation Areas will be preserved, and where possible enhanced, and, in consultation with all relevant stakeholders, area appraisals and management plans will be prepared and used to assist this aim and to encourage the highest quality building design, townscape creation and landscaping in keeping with the defined areas.	Heritage has been considered in the ES (Chapter 28 Onshore Archaeology and Cultural Heritage) and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy.
Policy EN 9 Biodiversity & Geology	All development proposals should: • Protect the biodiversity value of land and buildings and minimise fragmentation of habitats; • Maximise opportunities for restoration, enhancement and connection of natural habitats; and Incorporate beneficial biodiversity conservation features where appropriate.	Biodiversity has been considered within the ES (Chapter 22 Onshore Ecology), and potential impacts upon all notable species and habitats have been addressed through the project design and mitigation proposed. Furthermore, opportunities for restoring, enhancing and connecting habitats have been considered in the ES and habitat enhancements proposed. For example, all hedgerows to be removed will be replanted using a native

Policy	Summary	Policy Assessment
		species mix and including standards / headland strips to improve ecological value. The project therefore accords with this policy.
Policy EN10 Development and Flood Risk	The sequential test will be applied rigorously across North Norfolk and most new development should be located in Flood Risk Zone 1. New development in Flood Risk Zones 2 and 3a will be restricted to the following categories: • Water compatible uses; • Minor development; • Changes of use (to an equal or lower risk category in the flood risk vulnerability classification) where there is no operational development (xl); and • 'Less vulnerable' uses where the sequential test has been passed. New development in Flood Zone 3b will be restricted to water compatible uses only. The Strategic Flood Risk Assessment defines zones 2, 3a and 3b in parts of North Norfolk and this will be used to inform the application of the sequential test. Where this information is not available, the Environment Agency Flood Risk Zones and a site specific Flood Risk Assessment will be used to apply the sequential test. A site-specific Flood Risk Assessment which takes account of future climate change must be submitted with appropriate planning applications in Flood Zones 2, 3a and 3b and for development proposals of 1 hectare or greater in Flood Zone 1. Land in Flood Zone 1 that is surrounded by areas of Flood Zones 2 or 3 will be treated as if it is in the higher risk zone and a Flood Risk Assessment will be required to prove that safe access / egress exists for the development or that the land will be sustainable for the duration of the flood period. Appropriate surface water drainage arrangements for dealing with surface water runoff from new development will be required. The use of Sustainable Drainage Systems will be the preference unless, following an adequate assessment, soil conditions and / or engineering feasibility dictates otherwise.	Flood risk has been considered in the ES through a Flood Risk Assessment (Chapter 20 Water Resources and Flood Risk Appendix 20.1), and impacts have been addressed through the project design and mitigation proposed. The infrastructure at the landfall falls predominantly within Flood Zone 1, with trenchless techniques (e.g. HDD) employed at key Flood Zone 2 or 3 crossings. The project therefore accords with this policy.
Policy EN 11 Coastal Erosion	In the Coastal Erosion Constraint Area new development, or the intensification of existing development or land uses, will not be permitted, except where it can be demonstrated that it will result in no increased risk to life or significant increase in risk to property. In any location, development proposals that are likely to increase coastal erosion as a result of changes in surface water run-off will not be permitted.	Coastal erosion has been assessed in the ES (Chapter 4 Site Selection), and has been considered in the design and location of the project, through the setback of the HDD compound at the landfall, and the employment of HDD

Policy	Summary	Policy Assessment
		to bring the export cables onshore. The project is out with the Coastal Erosion Constraint Area. The project therefore accords with this policy.
Policy EN 13 Pollution and Hazard Prevention and Minimisation	All development proposals should minimise, and where possible reduce, all emissions and other forms of pollution, including light and noise pollution, and ensure no deterioration in water quality.	Water quality, air quality, noise, pollution pathways and highway safety have all been considered in the ES and impacts have been addressed through the project design and mitigation proposed. The project therefore accords with this policy (Chapter 19 Ground Conditions and Contamination, Chapter 20 Water Resources and Flood Risk, Chapter 24 Traffic and Transport, Chapter 25 Noise and Vibration, Chapter 26 Air Quality)

3 ASSESSMENT OF POLICY COMPLIANCE

3.1 Strategic Need

95. EN-1 sets out the Government's position regarding the need to respond to the challenges of climate change and future energy security, clearly stating a need for significant change in the UK's energy infrastructure. It also identifies a range of energy infrastructure that the Government considers to be necessary to address these challenges.

96. The UK has substantial potential renewable energy resources. EN-1 states that offshore wind is expected to provide the largest single contribution towards the 2020 renewable energy generation targets, although construction on Norfolk Vanguard will not commence until after 2020.

97. EN-1 sets out electricity demand forecasts for the year 2025, stating that 59GW of demand will need to be delivered by new infrastructure. In order to meet renewable energy commitments, some 33GW of this has been identified as having to come from renewable sources such as offshore wind.

98. Through the strategic framework of EN-1, it has been demonstrated that there is a growing need and urgency for new infrastructure on a national scale. The NPPF makes clear that the planning process plays a pivotal role in securing radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure.

99. The document states that the decision-maker should give substantial weight to the contribution that projects will make towards satisfying the need for new infrastructure when considering applications made under the Act.

100. Similar policies exist at the local level to support the development and use of renewable energy technologies.

101. Norfolk Vanguard Limited considers that the strategic need for the project has already been tested and accepted up to national level. Through the delivery of an export capacity of up to 1,800MW, it is considered that the project will make a significant positive contribution to meeting the UK's renewable energy commitments, as well as to assist in shifting the UK's economic reliance away from fossil fuels, and will help meet the UK's growing energy demands.

3.2 Marine Policy

102. It is considered that the matters set out in the MPS strongly align with those contained in the NPSs, specifically in relation to those matters which decision-

makers should be examining and taking account of in determining energy infrastructure applications. These include acknowledging the national need for energy infrastructure and the positive benefits associated with low carbon electricity generation.

103. Norfolk Vanguard Limited considers that the project is in general accordance with the objectives and policies set out in the MPS concerning the planning and development of offshore electricity generation in the marine environment.

3.3 Site Selection, Alternatives and Design Development

104. EN-3 identifies a number of factors that applicants are required to consider as part of the site selection process; these include a range of technical and economic considerations such as predicted wind speed, proximity to dwellings, access, and electricity grid network connectivity. Environmental factors of specific relevance to offshore wind energy developments are also set out on a topic by topic basis.

105. EN-5 similarly identifies a number of factors in relation to new electricity network infrastructure; these include the location of the existing network, land ownership, and environmental considerations such as noise, landscape and visual impact, and biodiversity.

106. In relation to the consideration of alternatives, EN-1 provides guidance on their relevance in the decision-making process, stating that potential alternatives should be identified prior to the making of any application wherever possible.

107. The design-development process for the project has considered the relevant NPSs from the outset of the site selection, and has accordingly taken account of various constraining factors in the region. Full details of the site selection process undertaken by Norfolk Vanguard Limited, and the subsequent consideration of alternative designs, layouts and technologies, is set out in Chapter 4 Site Selection and Assessment of Alternatives of the ES.

108. EN-1 acknowledges that connection to the electricity network is an important consideration for applicants wanting to construct or extend generation plant, stating a preference for related infrastructure to be contained in a single application. In preparing the draft DCO for submission to The Planning Inspectorate, Norfolk Vanguard Limited has applied for consent for both the offshore and onshore elements of the project. The EIA process has also considered the project as a single entity, in order to assess the impacts of the project as a whole to meet the requirements set out in EN-3.

109. Accordingly, Norfolk Vanguard Limited believe that the open and transparent development process followed for the project fully aligns with the requirements of

relevant energy NPSs. Norfolk Vanguard Limited also considers that the process followed in determining the final design and layout of the onshore project components accords with local policies that seek to achieve good design and environmental integration. Through the site selection process and provision for appropriate landscaping and other mitigation, onshore infrastructure will meet the requirements of Policy GC2, GC4, EN1 and EN2 of the Broadland District Council Local Development Framework, Policy CP8, CP11, DC1 and DC 16 of Breckland Council Adopted Core Strategy and Development Control Policies PDP, and Policy SS2, SS4, EN2, and EN4 of the North Norfolk District Council Core Strategy and Development Control Policies (see Table 2.2).

3.4 Topic Specific Assessment

110. EN-1 guides decision-making to start with a presumption in favour of granting consent for energy NSIPs, unless more specific and relevant policies clearly indicate that consent should be refused. EN-1 provides guidance within Part 5 of the document on generic impacts likely to apply to energy projects.

111. Part 2 of both EN-3 and EN-5 provide further topic specific guidance on the potential impacts of offshore windfarms and onshore electricity infrastructure respectively.

112. Collectively, these documents set out the extent of assessment expected of NSIP applicants and the primary basis on which judgements will be made as part of the decision-making process.

113. Full details of the policies and statements against which the project will be tested are set out in preceding sections of this Planning Statement. The following sections assess the overall compliance of the topics considered in the project EIA against the requirements of applicable NPSs and the wider policy framework, where considered relevant. The results of the assessment carried out in respect of these topics can be found in the ES.

3.4.1 Marine Geology, Oceanography and Physical Processes

114. EN-3 sets out the ways in which offshore energy infrastructure can affect elements of the physical environment (including waves and tides, scour effect, sediment transport and suspended solids).

115. As part of the EIA process, Norfolk Vanguard Limited has undertaken a detailed assessment of the project to determine its environmental impacts on the receiving physical environment during all stages of development (i.e. construction, operation and decommissioning). Full details of the assessment and potential impacts on the marine physical environment can be found in Chapter 8 Marine Geology, Oceanography and Physical Processes of the ES.

116. In meeting the requirements of EN-1 and EN-3, **negligible** impacts have been predicted on the seabed, coastal environment or designated sites through the construction, operation and decommissioning of Norfolk Vanguard. Norfolk Vanguard Limited has committed to embedded mitigation in the project design with regards to effects on Annex I Sandbanks protected under the Habitats Directive (outlined in the Schedule of Mitigation (document 6.5).

117. Norfolk Vanguard Limited considers that the project accords with policies set out in EN-1 and EN-3 in relation to this topic area.

3.4.2 Marine Water and Sediment Quality

118. EN-1 contains a series of generic impacts associated with water and hydrological resources, noting the potential for energy NSIPs to generate adverse effects on the water environment and coastal waters.

119. No significant impacts on marine water and sediment quality have been identified in the assessment, and through the implementation of the embedded mitigation, all potential impacts are considered to be **negligible** or **minor adverse**, which are not significant in EIA terms. Full details of the EIA and potential impacts can be found in Chapter 9 Marine Water and Sediment of the ES.

120. Norfolk Vanguard Limited accordingly considers that the outcomes of the EIA process confirm compatibility with water policies contained in EN-1.

3.4.3 Benthic and Intertidal Ecology

121. The national policy position acknowledges the wide range of legislative provisions that exist at the national and international level which seek to protect and conserve marine based species and habitats. EN-1 sets out the national position with regard to Electromagnetic Fields (EMF) associated with energy NSIPs. EN-5 explains how EMFs arise from generation, transmission, distribution and use of electricity. It is acknowledged that national policy concerning EMFs is mainly directed towards that associated with onshore overhead power cables.

122. The EIA has recorded that the principal impacts will derive from the construction of the offshore project components. Considerable effort has been directed into minimising potential impacts on ecological resources and receptors through embedded mitigation including careful design and avoidance of designated sites where possible through site selection. Full details of the EIA and potential impacts (including potential impacts of EMFs) on benthic and intertidal ecology can be found in Chapter 10 Benthic and intertidal Ecology.

123. The effects of Norfolk Vanguard would mostly be temporary, small scale and localised and are anticipated to result in impacts of **negligible** or **minor adverse** significance. Micro-siting of foundations and cables would be employed to avoid Habitats of Principal Importance as far as is practicable. The marine ecological significance of the predicted EMFs has been assessed as **negligible** based on evidence from available literature.

124. Norfolk Vanguard Limited accordingly considers that impacts of the project avoid causing 'significant harm' to benthic and intertidal ecology, a key test set out in EN-1, thus complying with and satisfying national policy. Norfolk Vanguard Limited also considers the project to accord with national policy concerning EMFs.

3.4.4 Fish and Shellfish Ecology

125. The national policy position acknowledges the wide range of legislative provisions that exist at the national and international level which seek to protect and conserve marine based species and habitats. EN-1 sets out the national position with regard to EMFs associated with energy NSIPs. EN-5 explains how EMFs arise from generation, transmission, distribution and use of electricity.

126. The EIA has recorded that the principal impacts will derive from the construction of the offshore project components. Considerable effort has been directed into minimising potential impacts on ecological resources and receptors through careful design and avoidance of designated sites through micro-siting. Full details of the EIA and potential impacts (including potential impacts of EMFs) on fish and shellfish can be found in Chapter 11 Fish and Shellfish Ecology.

127. Impacts on fish and shellfish ecology are anticipated to be **negligible** or **minor adverse** and localised, small scale and temporary in nature. In addition, with regards to EMFs, elasmobranchs have been highlighted as potentially vulnerable taxa owing to their acute sensitivity to EMFs, however assessment suggests that significant avoidance reactions are unlikely to occur. Impacts on fish and shellfish species are considered **minor adverse**.

128. Norfolk Vanguard Limited accordingly considers that impacts of the project avoid causing 'significant harm' to fish and shellfish ecology, a key test set out in EN-1, thus complying with and satisfying national policy. Norfolk Vanguard Limited also considers the project to accord with national policy concerning EMFs.

3.4.5 Marine Mammals

129. The national policy position acknowledges the wide range of legislative provisions that exist at the national and international level which seek to protect and conserve marine based species and habitats. EN-1 sets out the national position with regard

to EMFs associated with energy NSIPs. EN-5 explains how EMFs arise from generation, transmission, distribution and use of electricity.

130. The EIA has recorded that the principal impacts will derive from the construction of the offshore project components. Considerable effort has been directed into minimising potential impacts on ecological resources and receptors through careful design and embedded mitigation in the project design. Furthermore, mitigation for cumulative disturbance effects will be discussed with Natural England and the Marine Management Organisation. A Norfolk Vanguard Southern North Sea candidate Special Area of Conservation (cSAC) Site Integrity Plan (SIP) would be developed in accordance with the In Principle Norfolk Vanguard Southern North Sea cSAC SIP (document reference 8.17) which has been submitted with the DCO application.

131. Full details of the EIA and potential impacts (including potential impacts of EMFs) on marine mammals can be found in Chapter 12 Marine Mammals of the ES.

132. At a project level, the impacts from the proposed Norfolk Vanguard project on marine mammals are assessed as **minor adverse**.

133. The marine ecological significance of the predicted EMFs has been assessed using available literature. **No impacts** are expected on marine mammals.

134. Norfolk Vanguard Limited accordingly considers that impacts of the project avoid causing 'significant harm' to marine mammals, a key test set out in EN-1, thus complying with and satisfying national policy. Norfolk Vanguard Limited also considers the project to accord with national policy concerning EMFs.

3.4.6 Offshore Ornithology

135. EN-3 sets out the potential effects offshore energy infrastructure can have on ornithological interests. Norfolk Vanguard Limited has undertaken an assessment of the project's likely impacts on ornithology across all stages of development. This has included consideration issues including collision risk, habitat loss, and disturbance. Full details of the EIA and potential impacts on offshore ornithology can be found in Chapter 13 Offshore Ornithology of the ES.

136. In meeting the requirements of EN-3, **minor adverse** impacts from displacement and collision risk have been predicted on offshore ornithology for Norfolk Vanguard alone, and when assessed cumulatively with other wind farm developments.

137. Norfolk Vanguard Limited considers that the project also accords with relevant local policy concerning the protection of wildlife and habitats as outlined in Chapter 13 Offshore Ornithology of the ES.

3.4.7 Commercial Fisheries

138. The potential impacts of offshore wind farms on commercial fisheries are presented in EN-3, which states that the construction and operation of offshore wind farms can have positive and negative effects on fish and shellfish stocks.

139. As part of the EIA, Norfolk Vanguard Limited undertook an assessment to determine the impacts of the project on commercial fishery interests. Specific consideration was given in the EIA to aspects including safety, access, interference and impacts on commercially exploited species. Full details of the assessment and the potential impacts can be found in Chapter 14 Commercial Fisheries of the ES.

140. For the Norfolk Vanguard offshore wind farm sites there are no significant impacts predicted, as closure of the sites will be localised to areas of active construction and the sites will be open to fisheries during operation. All commercial fishing may be impacted in the construction and operation stages with possible safety issues for fishing vessels and obstacles on the seabed post construction; however, both of these impacts are within acceptable limits. Therefore, the impacts are assessed to be at worst **minor adverse**, and as such no significant impacts are expected to result from any phase of the project.

141. Norfolk Vanguard Limited accordingly considers that the project accords with policies set out in EN-3 in relation to this topic area.

3.4.8 Shipping and Navigation

142. EN-3 requires applicants to undertake a Navigational Risk Assessment in accordance with relevant Government guidance. EN-3 requires applicants to consider impact on recreational craft. EN-3 states that where there is a possibility that safety zones will be sought around offshore infrastructure, potential effects should be assessed based on a worst case scenario where the exact locations of the safety zones are unknown.

143. In line with EN-3, within Chapter 15 Shipping and Navigation of the ES, a risk based assessment has been carried out supported by the Navigation Risk Assessment presented in Appendix 15.1 of the ES.

144. Identified impacts included vessel displacement, an increase in vessel to vessel collision risk, the potential for a vessel to interact with the wind farm structures or subsea infrastructure (cables and mooring lines), and a potential diminishment of Search and Rescue resources. A Formal Safety Assessment was undertaken, which indicated that each impact was considered to be within acceptable or tolerable risk levels.

145. Overall, given the separation distance from Rounds 1 and 2 wind farms and consideration of cumulative routing with regards to other Round 3 sites cumulative impacts are considered to be broadly acceptable for the Norfolk Vanguard sites and therefore within 'as low as reasonably practicable' (ALARP) parameters and either **tolerable**, **acceptable** or **no residual impacts** predicted.

146. Norfolk Vanguard Limited accordingly considers that the project accords with policies set out in EN-3 in relation to this topic area.

3.4.9 Aviation and Radar

147. EN-1 requires that where a proposed development may have an effect on civil or military aviation and/or other defence assets an assessment of potential effects should be set out in the ES. The design and mitigation measures presented must consider safety to other offshore industry. Chapter 16 Aviation and Radar of the ES addresses the potential effects on aviation, military and communication receptors.

148. It is predicted that the wind turbines will be detectable and have the potential to affect the National Air Traffic Services (NATS) Primary Surveillance Radar located at Cromer and the Norfolk and the Ministry of Defence (MoD) Air Defence Radar located at Trimingham, Norfolk. A radar mitigation scheme has been agreed with NATS which will successfully mitigate the impact to Cromer. The employment of appropriate mitigation measures is under discussion with the MoD and will be implemented prior to construction commencing, which will ensure impacts are mitigated. Agreed mitigation will remain in place during the decommissioning process until the turbines are removed resulting in the impact of Norfolk Vanguard being **not significant**.

149. Accordingly, Norfolk Vanguard Limited considers that the project complies with EN-1.

3.4.10 Offshore and Intertidal Archaeology and Cultural Heritage

150. EN-1 and EN-3 acknowledge that energy infrastructure holds potential to generate adverse effects on assets within the offshore historic environment.

151. EN-3 states that the decision-maker needs to be satisfied that development of the type proposed (including associated infrastructure) has been designed sensitivity, taking account of known heritage assets. Accordingly, Norfolk Vanguard Limited has undertaken detailed assessments as part of the EIA to identify the potential impacts of the project on offshore archaeology and cultural heritage. Full details of the EIA and potential impacts can be found in Chapter 17 Offshore and Intertidal Archaeology and Cultural Heritage of the ES.

152. During construction, operation and decommissioning, impacts upon known offshore archaeological receptors will be avoided through avoidance by design where possible or appropriate mitigation and will therefore be of **minor adverse** or **negligible** significance. There is potential for impacts to potential archaeological receptors (i.e. those as yet unidentified), however, the significance of any effects will be reduced by adherence to appropriate mitigation strategies.

153. Norfolk Vanguard Limited is committed to an archaeological Offshore Written Scheme of Investigation (WSI), an outline of which is provided with the DCO submission (document reference 8.6). This mitigation strategy would ensure that any further geophysical and geotechnical investigations associated with the project are subject to archaeological input, review, recording, sampling publication, conservation and archiving. This would result in impacts of **minor adverse** or **negligible** significance.

154. Norfolk Vanguard Limited accordingly considers that the project accords with policies set out in EN-1 and EN-3 in relation to this topic area.

3.4.11 Infrastructure and Other Users

155. In respect of other infrastructure and users, EN-3 sets out policies relevant to oil and gas as well as other offshore infrastructure activities.

156. In accordance with EN-3, Norfolk Vanguard Limited has undertaken an assessment of marine human activities as part of the EIA process. Full details of the assessment can be found in Chapter 18 Infrastructure and Other Users of the ES. The assessment identified other wind farm developments, existing cables and pipelines, oil and gas activities, disposal sites, marine aggregate dredging, Coal Mining Reporting Areas, military practice areas and unexploded ordnance.

157. Impacts would largely be avoided as there is a requirement for industries to cooperate and operate in a safe manner. For instance, Norfolk Vanguard Limited will be required to undertake crossing agreements with operators of other cables and pipelines to ensure that these crossings are made safely and without damage to other infrastructure. It is therefore predicted that there will be **minor adverse** to **negligible** impacts upon other users.

158. No significant impacts were identified for Norfolk Vanguard in respect of infrastructure or human activities within the offshore environment. Norfolk Vanguard Limited accordingly considers that the project accords with policies set out in EN-3 in relation to this topic area.

3.4.12 Ground Conditions and Contamination

159. EN-1 notes the potential for energy NSIPs to generate adverse effects on designated sites of geological conservation importance and contains a series of generic impacts associated with water and hydrological resources. No specific mention is given in the document to ground conditions. The national minerals policy in Minerals Policy Statement 1: Planning and Minerals (MPS1) aims to secure adequate and steady supplies of the minerals needed by society and the economy.

160. Full details of the EIA and potential impacts on the terrestrial physical environment can be found in Chapter 19 Ground Conditions and Contamination of the ES. In meeting the requirements of EN-1 and MSP1, **negligible** to **minor adverse** significant impacts have been predicted on ground conditions through construction, operation and decommissioning of Norfolk Vanguard.

161. Norfolk Vanguard Limited accordingly considers that the outcomes of the EIA process confirm compatibility with EN-1 and MPS1.

3.4.13 Water Resources and Flood Risk

162. EN-1 contains a series of generic impacts associated with water and hydrological resources, noting the potential for energy NSIPs to generate adverse effects on the water environment and coastal waters.

163. The River Bure and River Wensum, designated as a Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI), and several of their tributaries, including the King's Beck, North Walsham and Dilham Canal, Wendling Beck and Blackwater Drain will be crossed by the proposed onshore cable route. The proposed grid connection at the existing Necton National Grid substation will be located within the River Wissey headwaters. Due to the designated status of the River Bure and River Wensum these watercourses and their tributaries are considered to be receptors of high value.

164. The impact assessment considered potential impacts upon receptors including direct disturbance of surface water bodies, increased surface water runoff and flood risk, increased sediment supply, and accidental release of fuels, oils, lubricants, foul waters and construction materials. Full details of the EIA and potential impacts can be found in Chapter 20 Water Resources and Flood Risk of the ES.

165. Mitigation measures have been identified including a commitment to trenchless crossing techniques for a number of sensitive watercourses, sediment management, development of a Surface Water Drainage Plan, and implementation of best practice measures set out in a Code of Construction Practice ((CoCP) an outline of which is submitted with the DCO application, (OCoCP) document reference 8.1). With the

implementation of these measures, the magnitude of potential impacts is reduced to low to negligible in all cases. However, these remain impacts of **moderate adverse** significance for high value receptors. It is important to note that these will be a short term impacts, limited to the duct installation period (works will be undertaken in 150m sections, and would typically take a maximum of two weeks for each 150m section), and reversible once activities have been completed. This assessment is based on the cumulative effect of multiple crossings within each sub-catchment, rather than the impacts associated with any single crossing, i.e. the magnitude of effect is larger in those sub-catchments with a larger number of crossings. Furthermore, this assessment is based on the worst case assumption that it will be necessary to install permanent culverts at a proportion of the trenched watercourse crossings in each sub-catchment (where the channel dimensions introduce this as an alternative trenched crossing option to dam and divert). However, every effort will be made to avoid the use of permanent culverts and use the alternative dam and divert crossing technique. Whilst the worst case of permanent culverts are considered to result in some significant impacts, as identified above, where permanent culverts can be avoided any changes occur as a result of temporary crossings (to maintain the running track during construction only) will be temporary and reversible and, with the mitigation identified above, would not result in significant residual impacts.

166. Potential environmental effects have been mitigated as far as is possible, and these short-term effects should be balanced against the significant benefit of the project in the delivery of renewable energy. Norfolk Vanguard Limited accordingly considers that the outcomes of the EIA process confirm compatibility with water policies contained in EN-1.

167. The presence of new permanent above ground infrastructure has the potential to increase flood risk. The onshore project substation and Necton National Grid substation extension are located in Flood Zone 1. The risk of flooding associated with the introduction of this new above ground infrastructure has been assessed and a suite of mitigation measures have been incorporated into the design to mitigate any potential risk. This includes surface water storage systems to manage surface water during heavy rain and aligning with greenfield runoff rates when discharging surface water back. With these measures in place the risk of flooding associated with the introduction of new above ground infrastructure has been assessed as **negligible**.

3.4.14 Land Use and Agriculture

168. EN-1 requires applicants to identify existing and proposed land uses potentially affected by the project and consider potential effects of the proposal.

169. Full details of the EIA and potential impacts can be found in Chapter 21 Land Use and Agriculture of the ES.

170. The onshore electrical transmission works including associated access would cross land in agricultural use. Soils across the onshore project area range from ALC Grades 1 to 4.

171. With embedded mitigation incorporated in the design, impacts to land take are **minor adverse**, with **negligible** to **no impacts** to drainage, degradation and erosion of soil, and Environmental Stewardship Schemes during construction or operation. Following adherence to a CoCP (an outline of which is submitted with the DCO application, (OCoCP) document reference 8.1), **minor adverse** to **negligible** impacts are predicted to soils as a result of the project.

172. During operation, impacts were considered to be no greater than **minor adverse**.

173. Accordingly, Norfolk Vanguard Limited considers that the project is in general accordance with EN-1. Norfolk Vanguard Limited also considers the onshore project components will comply with policies concerning land use.

3.4.15 Onshore Ecology

174. The national policy position described in EN-1 acknowledges the wide range of legislative provisions that exist at the national and international level which seek to protect and conserve terrestrial species and habitats. Full details of the EIA and potential impacts can be found in Chapter 22 Onshore Ecology of the ES.

175. The EIA has recorded that the principal impacts will derive from the construction of the onshore project components. Considerable effort has been directed into minimising potential impacts on ecological resources and receptors through careful design and avoidance of designated sites through micro-siting.

176. For those areas which have been surveyed to date for terrestrial ecology, **minor adverse** impacts are predicted to statutory designated sites, watercourses and ponds, water vole, otter, great crested newts, reptiles, fish and invasive non-native species during construction. **No impacts** are predicted to coastal habitats, white-clawed crayfish, other invertebrates and protected flora for surveyed sites.

177. Great crested newts have been identified in four water bodies to date. Approximately 40% of the water bodies in the study area, (130 water bodies) could not be surveyed due to landowner restrictions. Taking a precautionary approach there is the potential for significant impacts to great crested newts without mitigation in these unsurveyed areas. However, these remaining water bodies will be surveyed post-consent. Should great crested newts be discovered within these

waterbodies, mitigation would be developed in consultation with Natural England to avoid significant impacts to great crested newt populations. Following implementation of mitigation measures, the magnitude of effect remains negligible, and an impact of **minor adverse** significance will be expected following mitigation.

178. **Moderate adverse** impacts upon hedgerows and foraging bats were predicted for the construction stage, due to the extent of temporary hedgerow loss. Norfolk Vanguard Limited has committed to reducing the working width at hedgerows from 45m to 20m and hedges will be replaced as soon as possible following the completion of work. Whilst the effects are reversible, it will take several years for the replacement hedges to establish.

179. Potential environmental effects on ecology have been mitigated as far as is possible, and these reversible effects should be balanced against the significant benefit of the project in the delivery of renewable energy. Norfolk Vanguard Limited accordingly considers that impacts of the project avoid causing 'significant harm' to non-avian ecology, a key test set out in EN-1, thus complying with and satisfying national policy.

180. Norfolk Vanguard Limited also considers the project accords with local policy, specifically Policies 1 and 2 of Norfolk County Council's Environmental Policy (2016) SS1, CP10 and DC2 of Breckland Council Adopted Core Strategy and Development Control Policies Development Plan Document (2009), Policy 1 of the Joint Core Strategy for Broadland, Norwich and South Norfolk (2011; updated 2014) and SS1, SS2, EN3, EN7 and EN9 of the North Norfolk Local Development Framework: Core Strategy (2008, updated 2011) as the project will not result in a significant loss or alteration to habitats or threaten protected species.

3.4.16 Onshore Ornithology

181. EN-1 and EN-3 set out the potential effects renewable energy projects and their associated infrastructure both offshore and onshore can have on ornithological interests. Norfolk Vanguard Limited has undertaken an assessment of the project's likely impacts on onshore ornithology across all stages of development. This has included consideration of issues including habitat loss, and disturbance. Full details of the EIA and potential impacts on terrestrial ornithology can be found in Chapter 23 Onshore Ornithology of the ES.

182. As with terrestrial ecology, the principal impacts will derive from the construction of the onshore project components and considerable effort has been directed into minimising potential impacts on ornithological resources and receptors through careful design and avoidance of designated sites through micro-siting.

183. Wintering and breeding bird species will be subject to temporary habitat loss of arable, hedgerow, coastal floodplain grazing marsh, lowland fen, lowland mixed deciduous woodland habitats during construction, and long term visual, noise and light disturbance of bird species utilising these habitats for loafing, foraging and breeding. The residual impacts would be of **minor adverse** significance following mitigation identified in the OLEMS (document reference 8.7).

184. Potential environmental effects on onshore ornithology have been mitigated as far as is possible, and these reversible effects should be balanced against the significant benefit of the project in the delivery of renewable energy. Norfolk Vanguard Limited accordingly considers that impacts of the project avoid causing 'significant harm' to ornithological interests, thus complying with and satisfying national policy (EN-1 and EN-3).

185. Norfolk Vanguard Limited also considers that the project would accord with relevant local policy including Norfolk County Council's Core Strategy and the local policies of Broadland, Breckland and North Norfolk, concerning the protection of wildlife and habitats as outlined in Chapter 23 Onshore Ornithology of the ES.

3.4.17 Traffic and Transport

186. The generic requirements for the assessment of effects arising from traffic and transport associated with all stages of an energy NSIP are set out in EN-1. Specific reference is made to these matters within EN-3 in relation to offshore wind.

187. As part of the EIA, Norfolk Vanguard Limited undertook an assessment of the impacts on the existing traffic and transport context associated with the onshore project components; this considered a number of factors such as severance, pedestrian amenity, road safety and driver delay in line with established national guidance and methodologies. Full details of the assessment can be found in Chapter 24 Traffic and Transport of the ES.

188. With the exception of Link 69 (a section of local highway), the detailed assessment concluded all impacts being of either **minor adverse** or **negligible** levels. Link 69 has been mitigated to a residual impact of **moderate adverse** and is considered to reflect the traffic impact and sensitive nature of the route. This is balanced against the significant benefit of the project in the delivery of renewable energy. Norfolk Vanguard Limited would manage the traffic impacts through mitigation which would be implemented through a Traffic Management Plan and Travel Plan post-consent (DCO requirement 21). On the basis that potential environmental effects have been mitigated as far as is possible, Norfolk Vanguard Limited accordingly considers that the outcomes of the EIA process confirm compatibility with water policies contained in EN-1.

189. Accordingly, the decision-maker can be satisfied that there are no major conflicts with national policy. They can also be satisfied that policy considerations at the local level, such as those set out in Policy CT5 in North Norfolk District Council Local Development Framework – Core Strategy, will be met by the project.

3.4.18 Noise and Vibration

190. EN-1 makes specific reference to noise and vibration, and EN-3 notes the potential effect of offshore windfarm noise associated with land-based activities and traffic. EN-5 highlights the potential for noise to be generated by electricity transmission infrastructure such as substations.

191. Relevant NPS policy requires an assessment of noise and vibration, in accordance with relevant methodologies. As part of the EIA process, Norfolk Vanguard Limited undertook onshore and offshore assessments for the project for all key stages in the development process. The EIA identified **negligible** to **minor adverse** impacts during construction and operation. A Construction Noise Management Plan will be produced and submitted post-consent (DCO requirement 20), the principles of which are included in the OCoCP (document number 8.1). Norfolk Vanguard Limited will ensure that noise attributable to the onshore project substation does not exceed the noise limit imposed on the existing Necton substation. This commitment is secured through DCO requirement 27.

192. Norfolk Vanguard Limited anticipate that the decision-maker can be satisfied by the evidence presented in the EIA that the project accords with noise policy at the local and national level (EN-1, EN-3 and EN-5).

3.4.19 Air Quality

193. EN-1 contains policy addressing air quality and dust; other energy NPSs make no specific reference to the topic.

194. With embedded mitigation measures incorporated in the design and following of Institute of Air Quality Management best practice guidance during construction, the EIA process concluded there will be **no significant impacts** during the construction, operation and decommissioning phases of the onshore project components. Full details of the EIA process can be found in Chapter 26 Air Quality of the ES.

195. Norfolk Vanguard Limited anticipate that the decision-maker can be satisfied by the evidence presented in the EIA that the project accords with air quality policy at the local and national level.

3.4.20 Human Health

196. EN-1 sets out the national position with regard to EMFs associated with energy NSIPs. EN-5 explains how EMFs arise from generation, transmission, distribution and use of electricity. Guidance published by the Health Protection Agency (HPA) (now Public Health England (PHE)) in 2008 states that there is no conclusive evidence linking wind farms and their associated infrastructure with adverse health effects from chemical emissions. Full details of the EIA and potential impacts (including potential impacts of EMFs) can be found in Chapter 27 Human Health of the ES.

197. There are predicted to be impacts no worse than **negligible to minor adverse** on physical or mental health as a result of the project.

198. It is therefore considered that Norfolk Vanguard is in accordance with national and local policy. Norfolk Vanguard Limited also considers the project to accord with national policy concerning EMFs.

3.4.21 Onshore Archaeology and Cultural Heritage

199. EN-1 and EN-3 acknowledge that energy infrastructure holds potential to generate adverse effects on assets within the onshore historic environment.

200. EN-3 states that the decision-maker needs to be satisfied that development of the type proposed (including associated infrastructure) has been designed sensitively, taking account known heritage assets. Accordingly, Norfolk Vanguard Limited has undertaken detailed assessments as part of the EIA to identify the potential impacts of the project on archaeology and built heritage. Full details of the EIA and potential impacts can be found in Chapter 28 Onshore Archaeology of the ES.

201. With the inclusion of embedded mitigation measures and additional site-specific mitigation measures the significance of any impacts, where relevant, will be reduced or offset to levels considered **non-significant** in EIA terms.

202. A project-specific draft (outline) Written Scheme of Investigation (WSI) (Onshore) has been submitted as part of the DCO application, (document number 8.5), which outlines a commitment to undertake the initial informative stages of mitigation post-consent.

203. As the project will not result in any significant adverse impacts on known assets within the historic environment, Norfolk Vanguard Limited considers the project to be in compliance with relevant local policy that seeks to protect the physical and visual qualities of archaeology and built heritage.

3.4.22 Landscape and Visual Impact Assessment

204. Within national policy, landscape and visual amenity interests are identified within EN-1, EN-3 and EN-5. Policy within these documents requires an assessment of potential effects in line with accepted guidance.

205. EN-1 acknowledges that virtually all energy NSIPs will render effects on the landscape. The design of the onshore and offshore project components has accordingly taken account of the potential effect on the receiving landscape and seascape environment.

206. Due to the nature and location of the receiving environment, Norfolk Vanguard Limited undertook extensive consultation as part of the EIA process to identify and understand existing landscape and visual relationships and sensitivities including designated areas of acknowledged value and quality. Full details of the EIA and potential impacts can be found in Chapter 29 Landscape and Visual Impact Assessment of the ES.

207. Embedded mitigation has reduced significant impacts in many aspects of the proposed project. Careful site selection for the landfall location and onshore project substation, and sensitive routing of the onshore cable at the design stage has ensured that especially sensitive landscapes and landscape features have largely been avoided. It has also ensured that existing landscape features, have been used to best effect, as well as providing for additional planting.

208. The majority of the landscape and visual receptors assessed would experience effects which would be **not significant**. Where significant impacts would arise, they would typically be short term, localised and reversible. Potential long term impacts relating to the onshore project substation and National Grid substation extension would be reduced to medium term by the effects of mitigation planting. These impacts would also be localised and reversible.

209. As the project includes embedded mitigation and targeted landscape mitigation (the principles of which are captured within the OLEMS (document reference 8.7)), Norfolk Vanguard Limited considers that the project complies with national policy and local policies that seek to protect and/or enhance residential amenity, local character, and features and elements within the countryside.

3.4.23 Tourism and Recreation

210. NPS EN-1 indicates that the construction, operation and decommissioning of energy infrastructure may have effects on maintaining coastal recreation sites and features and tourism. Details of the assessment that has been carried out for the proposed

Norfolk Vanguard project can be found in Chapter 30 Tourism and recreation of the ES.

211. **Negligible** or **minor adverse** impacts on tourism and recreation are predicted as a result of the proposed Norfolk Vanguard project, either offshore or onshore.

212. Tourism and recreation receptors will experience minimal visual impacts and only temporary physical obstruction, noise and traffic impacts. With mitigation measures in place, Norfolk Vanguard Limited considers that the project does accord with national and local policy.

3.4.24 Socio-economics

213. EN-3 indicates that the construction, operation and decommissioning of energy infrastructure may have socio-economic impacts at local and regional levels, which may include the creation of jobs and training opportunities, effects on tourism, the impact of a changing influx of workers and cumulative impacts if a DCO were to be granted for a number of projects within a region in a similar timeframe.

214. Details of the assessment that has been carried out for the proposed Norfolk Vanguard project can be found in Chapter 31 Socio-economics of the ES.

215. The assessment concludes that the proposed Norfolk Vanguard project would provide a **moderate beneficial** impact for direct and indirect job creation and **major beneficial** supply chain job creation during construction. A **minor adverse** impact is predicted for effects on community infrastructure during construction but this is localised, small scale and temporary in nature, and a **minor adverse** impact for effects on community infrastructure during operation (see Chapter 25 Noise and Vibration and Chapter 29 Landscape and Visual Impact Assessment of the ES for mitigation measures). The operation and maintenance phase is likely to result in a **minor beneficial** impact on direct employment and supply chain job creation with **negligible** impacts predicted for effects on community infrastructure.

216. Norfolk Vanguard Limited considers that the project does accord with socio-economic considerations set out in EN-3.

4 CONCLUSIONS

4.1 The Planning Balance

217. In determining applications for nationally significant energy projects of the type proposed by Norfolk Vanguard Limited, the wider benefits of offshore wind energy must be reviewed against local issues and concerns. This balancing exercise must also consider the context of national, UK and European policies and obligations that seek to tackle climate change, deliver security of the UK's energy supply, and promote a shift to renewable energy.

218. The fundamental test to be applied in the decision-making process is whether, on balance, the project is in accordance with the relevant NPSs (except to the extent that one or more of the matters set out in Section 104(4) to 104(8) applies, as detailed in section 2.2).

219. Norfolk Vanguard would be one of the largest offshore wind projects in the world and would make a large contribution to both the achievement of the national renewable energy targets (see section 2.2 of Chapter 2 Need for the Project of the ES) and to the UK's contribution to global efforts to reduce the effects of climate change.

220. Norfolk Vanguard and Norfolk Boreas together have the potential, at today's level of UK carbon emissions from the power sector, to prevent more than 4,000,000 tCO_2 from entering the atmosphere.

221. Norfolk Vanguard alone would meet nearly 10% of the UK cumulative deployment target for 2030. Considering Norfolk Boreas alongside this, with an additional capacity of 1.8GW, almost 20% of the UK cumulative deployment target for 2030 could be fulfilled by the two proposed offshore wind farms.

222. This Planning Statement has accordingly drawn together the pertinent strands of information to aid decision-makers in their determination of the extent to which the project accords with relevant planning policy, referencing the outcomes of environmental and other assessments reported elsewhere in the DCO application.

223. It is clear from the policy appraisal and assessment that Norfolk Vanguard Limited considers the application to fully accord with EN-1, EN-3 and EN-5.

5 REFERENCES

Committee on Climate Change (2015a). The Fifth Carbon Budget Advice – The next steps towards a low-carbon economy. Available at: https://www.theccc.org.uk/wp-content/uploads/2015/11/Committee-on-Climate-Change-Fifth-Carbon-Budget-Report.pdf. [Accessed 27/06/2017]
Committee on Climate Change (2015b). Power sector scenarios for the fifth carbon budget. October 2015. Available at: https://www.theccc.org.uk/wp-content/uploads/2015/10/Power-sector-scenarios-for-the-fifth-carbon-budget.pdf [Accessed 29/09/2017]
Committee on Climate Change (2016a). Meeting Carbon Budgets – 2016 Progress Report to Parliament. Available at https://www.theccc.org.uk/publications/ [Accessed 23/06/2017]
Committee on Climate Change (2016b). CCC Fifth carbon budget: Central scenario data. July 2016. Available at: https://www.theccc.org.uk/publication/fifth-carbon-budget-dataset/ [Accessed 29/09/2017]
Committee on Climate Change (2017). Reducing emissions and preparing for climate change: 2017 Report to Parliament Summary and recommendations. June 2017. Available at: https://www.theccc.org.uk/wp-content/uploads/2017/06/Reducing-emissions-and-preparing-for-climate-change-2017-Report-to-Parliament-Summary-and-recommendations.pdf [Accessed 16/10/2017]
Centre for Economics and Business Research (2012). Economic Impact of Offshore Wind. Available at: http://www.cebr.com/reports/economic-impact-of-offshore-wind/
Department of Energy and Climate Change (2011). Overarching National Policy Statement for Energy (EN-1). July 2011
Department of Energy and Climate Change (2012). Energy Security Strategy
Department of Energy and Climate Change (2014). Climate Change Explained. Available at: https://www.gov.uk/guidance/climate-change-explained
Department of Energy and Climate Change (2016). Energy Trends in December 2016. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/579542/ET_Dec_16.pdf [Accessed 22/03/17]
Department for Business, Energy and Industrial Strategy (2016). Digest of UK Energy Statistics, (DUKES) 2016. Chapter 5: Electricity. Available at: https://www.gov.uk/government/statistics/digest-of-united-kingdom-energy-statistics-dukes-2016-main-chapters-and-annexes [Accessed 20/06/17]
Department for Business, Energy and Industrial Strategy (2017). The Clean Growth Strategy. Leading the way to a low carbon future. October 2017. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/651916/BEIS_The_Clean_Growth_online_12.10.17.pdf [Accessed 16/10/2017]
HM Government (2017). Building our Industrial Strategy. Green Paper. January 2017.
New Anglia Local Enterprise Partnership for Norfolk and Suffolk (New Anglia LEP) (2015) Innovation in New Anglia; Recommendations to the LEP Board Available at: http://www.newanglia.co.uk/wp-content/uploads/2015/02/New-Anglia-Innovation-Final-Report-11-09-15.pdf
RenewableUK (2017). Offshore Wind Industry Investment in the UK 2017 Report on Offshore Wind UK Content. Available at:

http://c.ymcdn.com/sites/www.renewableuk.com/resource/resmgr/publications/Offshore_Wind_Investment_V4.pdf
Renewable UK (2018). UK Offshore Wind Industry Reveals Ambitious 2030 Vision. Press Release. Available at: http://www.renewableuk.com/news/391723/UK-Offshore-Wind-Industry-Reveals-Ambitious-2030-Vision.htm [Accessed 09/04/2018]
Stern, N. (2006). The Stern Review: The Economics of Climate Change
The Crown Estate (2014). Available at https://www.thecrownestate.co.uk/media/389763/owic-uk-offshore-wind-supply-chain-review-opportunities-barriers.pdf
UK Government (2017). Green Paper: Building our Industrial Strategy. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/611705/building-our-industrial-strategy-green-paper.pdf [Accessed 27th June 2017].
Wind Europe (2017). Offshore Wind in Europe, Key trends and statistics 2017. Available online at: www.windeurope.org Accessed 24/05/2018