



**Vattenfall Wind Power Ltd**

**Thanet Extension Offshore Wind Farm**

## **Planning Statement**

June 2018

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Vattenfall Wind Power Ltd

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June 2018

Drafted By:	Vattenfall Wind Power Ltd / Womble Bond Dickinson (UK) LLP
Approved By:	Helen Jameson
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## 1 Introduction

1.1.1 This Planning Statement has been prepared by and on behalf of Vattenfall Wind Power Ltd ('VWPL'). The Planning Statement is submitted as part of the Development Consent Order ('DCO') application.

1.1.2 This Planning Statement is one of a series of documents that accompanies the application to the Secretary of State for a DCO ('the Application') submitted in accordance with Section 37 of the Planning Act 2008 and Regulations 5 and 6 of the Infrastructure Planning (Application: Prescribed Forms and Procedures) Regulations 2009 (the 'APFP Regulations'). The APFP Regulations do not require a Planning Statement to support applications for Development Consent; however, in order to assist the Secretary of State to determine the application, it is considered helpful to bring all the principal matters together into one statement in order to consider them in the context of relevant policy.

1.1.3 This Planning Statement is structured as follows:

### *Section 2: About Vattenfall*

1.1.4 This section describes VWPL's relationship with its parent company, Vattenfall AB, and the ambitions of both companies for a fossil free future. This section also sets out VWPL's existing relationship with the local area in proximity to Thanet Extension.

### *Section 3: Project description and location*

1.1.5 This section summarises the project description (as set out in detail at Volumes 2 and 3, Chapter 1: Project Description, of the Environmental Statement), describing all of the main onshore and offshore project components necessary to deliver Thanet Extension Offshore Wind Farm ('Thanet Extension') and connect the project to the National Grid Transmission System. This section of the Planning Statement does not replace Volumes 2 and 3, Chapter 1: Project Description, of the Environmental Statement (ES) (Documents 6.2.1 and 6.3.1), which remains the main reference point for confirmation of the project description.

1.1.6 This section also confirms the location and spatial extent of the onshore and offshore project components.

### *Section 4: Relevant legislation and decision-making framework*

1.1.7 This section confirms the legislation and policy context for Thanet Extension, where it is considered to be relevant to the determination of the application.

### *Section 5: The Need for the Scheme*

1.1.8 This section of the Planning Statement sets out the need case for Thanet Extension, in the context of national, European and international policy and legislation.

### *Section 6: Planning assessment*

- 1.1.9 This section considers the relationship with Thanet Extension against the topic specific planning policy set out in National Policy Statements EN-1, EN-3 and EN-5. Consideration of other planning policy including, where relevant, the NPPF and local planning policy (as identified and confirmed in Section 3), are described under 'Other Policy' for each topic.

## **2 About Vattenfall**

### **2.1 Vattenfall's role in offshore wind**

- 2.1.1 Vattenfall AB ('Vattenfall') is a Swedish state-owned utility and one of Europe's largest generators of electricity and heat, of which VWPL is a subsidiary. Vattenfall is also the second largest player in the global offshore wind sector. It is Vattenfall's ambition to 'power climate smarter living' and be fossil fuel free within a generation – by being at the forefront of the low carbon transition. The company is strongly committed to significant growth in wind energy, onshore and offshore, as well as energy storage, nuclear, solar and hydroelectric. Vattenfall currently operate around 1,100 wind powered turbines with an installed capacity of 2,751 MW. Vattenfall has invested nearly £3 billion in onshore and offshore wind farms in the UK since 2008. The company and will have nearly 1 GW of wind farms in operation onshore and offshore by the end of 2018 in the UK and in 2017 Vattenfall invested £46 million on research and development within the energy sector. Vattenfall plans to invest £5 billion in renewables, mainly in offshore wind, in Northern Europe by 2020 and has ambitions that the UK will continue to be a growth market for Vattenfall.
- 2.1.2 VWPL has world leading experience in offshore wind, as owner of Kentish Flats, Kentish Flats Extension, Ormonde and Thanet Offshore Wind Farms (OWFs), which are currently operational in the UK and have a combined capacity of 590 MW. The VWPL owned European Offshore Wind Deployment Centre in Aberdeen is expected to be operational in 2018. VWPL has started developing plans for the northern half of the former East Anglia Round 3 zone, which is split into two proposed offshore wind projects. Norfolk Vanguard has submitted their PEIR and will submit an application to PINS in summer 2018, and a second project, Norfolk Boreas, is in the early stages of development.
- 2.1.3 VWPL is also developing a number of European OWFs outside of the United Kingdom (UK), including recently announced successes including being awarded a zero subsidy permit for the up to 750 MW Dutch project Hollandse Kust Zuid and in securing Danish competitive tender projects Danish Kriegers Flak and Danish Nearshore (totalling 950 MW). In addition, Vattenfall has recently undertaken the world's first decommissioning of an OWF, Yttre Stengrund in Kalmar Sound, Sweden.

## 2.2 Vattenfall in Kent

2.2.1 In addition to the three operating offshore wind farms in Kent (Kentish Flats, Kentish Flats Extension and Thanet) VWPL also have their operations and maintenance base in Ramsgate. The Ramsgate base employs over 70 full time staff and makes significant contributions to the local economy through both direct employment and the local supply chain. Having been present in the area for 8 years, VWPL has a long track record of engaging with the local community including local schools, businesses and charities. Thanet Extension represents an opportunity to build on that strong foundation and provide further benefits to the area through jobs, skills development, the local supply chain and community investment.

## 3 Project Description (Summary) and Project Location

### 3.1 Project description summary

3.1.1 The full Project Description is provided in Document 6.2.1 (Volume 2, Chapter 1 (Project Description (Offshore)) of the ES) and Document 6.3.1 (Volume 3, Chapter 1 (Project Description (Onshore)) of the ES). These chapters provide a detailed explanation of all onshore and offshore project components, and matters relevant to the construction, operation and maintenance, and decommissioning of Thanet Extension.

3.1.2 The Planning Statement provides a high-level summary of the project components, and the following paragraphs in this section should not be relied upon as a definitive Project Description.

3.1.3 Thanet Extension will have a maximum of 34 turbines. The ultimate capacity of the project will be determined based on available technology as constrained by the project envelope and maximum design scenarios presented in Document 6.2.1. (Offshore Project Description) and Document 6.3.1. (Onshore Project Description).

3.1.4 The key offshore components of Thanet Extension for which consent is sought include:

- WTGs and their associated foundations;
- An Offshore Substation (OSS) (if required) and its associated foundation;
- A Meteorological Mast (if required) and its associated foundation;
- Inter-array subsea cables between the WTGs;
- Subsea export cables between the OWF and the shore;
- Mattresses or other protective substrate associated with cable crossings (if required); and
- Scour protection around foundations and on array and export cables (if required).

3.1.5 The key onshore components of Thanet Extension comprise the following:

- Landfall site with associated transition joint bays (TJBs) to connect the offshore and onshore cables;
- Onshore underground cables with jointing bays situated at intervals along the onshore cable route as necessary;
- Temporary construction areas;
- Onshore substation in proximity to the grid connection location at Richborough; and
- An onward connection to the National Grid Transmission Network at Richborough Energy Park

#### **Landfall options**

3.1.6 Three landfall installation options have been assessed at the intertidal area and coming onshore to Pegwell Bay Country Park as part of the Environmental Statement and form part of the Application. These are as follows:

3.1.7 Option 1 – Horizontal Directional Drilling (HDD) from the TJBs onshore would exit beyond the intertidal saltmarsh, a minimum of 100m offshore. The TJBs would be buried underground and from that point cables would run underground to the onshore substation.

3.1.8 Option 2 – Cables would be installed above ground to avoid disturbing the historic landfill at Pegwell Bay Country Park. To enable this a new permanent extension to the seawall would be created to allow cables to be brought above ground from the intertidal area prior to reaching the landfill. TJBs would be above ground covered by a berm up to 2.3m in height. Cables would then be installed in a berm up to 1.2m high through Pegwell Bay Country Park, before being buried for the remaining distance to the onshore substation.

3.1.9 Option 3 – As with option 1, TJBs and cables would be installed underground, however in this option cables would be trenched through the intertidal area and through the seawall, as opposed to using HDD.

## Construction and Operation

3.1.10 It is likely that the Thanet Extension components will be fabricated at a number of manufacturing sites across Europe or elsewhere, to be determined as part of a competitive tendering process upon award of consent and the completion by VWPL of a Final Investment Decision (FID). A construction base (port facility) may be used to stockpile some components, such as foundations and turbines, before delivery to the Thanet Extension array area for installation. Other components, such as pre-fabricated offshore substation units, may be delivered directly to the Thanet Extension array area when required. An onshore operations and maintenance base may be provided to support the operating wind farm after construction. This onshore operations and maintenance base is not included in this application and any consent will be secured at a later date when the location and requirements for this are known.

## 3.2 Project Location

3.2.1 The Thanet Extension array area (i.e. the area in which the turbines are located) is approximately 70 km<sup>2</sup>, and is located approximately 8 km north-east of the Isle of Thanet. The array area encircles the existing Thanet Offshore Wind Farm (TOWF), which has a similar physical environment.

3.2.2 The Thanet Extension Offshore Export Cable Corridor (OECC) extends from the south-western boundary of the Thanet Extension array area in a south-westerly direction to Pegwell Bay on the Kent coast. The OECC will be approximately 20 km in length.

3.2.3 The electricity generated from Thanet Extension will be transmitted via buried High Voltage Alternating Current (HVAC) cables. From the proposed landfall at Pegwell Bay, underground onshore cables will connect the wind farm to an onshore substation at Richborough Port, which will in turn connect to a National Grid 400 kV substation within the Richborough Energy Park. The onshore export cable corridor will be approximately 2.5 km in length.

## 4 Relevant Legislation and Policy

### 4.1 Introduction

4.1.1 This section outlines the legislative and policy framework for determining applications for Development Consent, the matters to which the Secretary of State will have regard and the weight which should be ascribed to those matters in the decision-making process.



## 4.2 International obligations on climate change and National climate change and energy legislation

4.2.1 Section 2 of Volume 1, Chapter 2 (Policy) of the ES (Document 6.1.2) references international and national climate change legislation, and whilst this wider need is not reproduced in full in this Planning Statement, key legislation pertinent to the matters to which the Secretary of State will have regard and the weight which should be ascribed includes that described below.

### International obligations

4.2.2 In 2015 the Annual Conference of the Parties (COP) was held in Paris. The conference negotiated a global agreement with the key goal of limiting increases of global temperatures to “well below 2°C compared to pre-industrial levels”. The parties will also “pursue efforts to” limit the temperature increase to 1.5°C. This was the first agreement for a binding and universal agreement on climate from all the parties to that global agreement. The agreement became legally binding when 55 parties, who produce over 55% of the world’s GHG, ratified the Agreement. On 5th October 2016, the threshold for entry into force for the Paris Agreement was achieved and it entered into force on 4th November 2016.

4.2.3 In 2009, the European Union enacted into legislation the ‘2020’ targets package (also known as the “20-20-20 targets”), in order to comply with the Kyoto Protocol to the United Nations Framework Convention on Climate Change. The 2020 package includes three targets to be met by the year 2020, including:

- A 20% cut in greenhouse gas emissions compared to 1990 levels);
- At least 20% of EU energy to come from renewables; and;
- A 20% improvement in energy efficiency.

4.2.4 In October 2014 EU countries agreed on a 2030 framework for climate and energy, which included targets and policy objectives for the period between 2020 and 2030 (the period when Thanet Extension would be constructed and start operation). These targets included:

- A 40% cut in greenhouse gas emissions compared to 1990 levels;
- At least a 27% share of renewable energy consumption; and
- At least 27% energy savings compared with the business-as-usual scenario.

## UK climate change and energy legislation

- 4.2.5 National climate change and energy legislation, including the Climate Change Act 2008, which commits the UK to a net reduction in GHG emissions (against the 1990 baseline) of 80% by 2050 through a system of carbon budgets and the Energy Act 2013. The latter makes provisions to incentivise investment in low carbon electricity generation, ensure security of supply, and help the UK meet its emission reduction and renewables targets. The Energy Act 2013 also contains provisions from the Department of Energy and Climate Change (DECC) (now BEIS) for Electricity Market Reform (EMR), which sets out the framework for replacing Renewables Obligation Certificates (ROCs), granted under the Renewables Obligation (RO), with Contracts for Difference (CfDs) to provide stable financial incentives to encourage investment in low carbon electricity generation.

## 4.3 Relevant national legislation and decision-making framework

### Legislation

- 4.3.1 Section 15 of the Planning Act 2008 (as amended) (The Act) sets out the categories of development that qualify as a Nationally Significant Infrastructure Project (NSIP). Section 15(3) confirms offshore electricity generating stations with a capacity greater than 100 MW qualify as an NSIP. Thanet Extension, with a generating capacity greater than this, therefore qualifies.
- 4.3.2 The statutory framework for determining applications for Development Consent such as Thanet Extension is provided by the Act. Section 104 of the Act confirms the matters the Examining Authority must have regard to in decision making where a national policy statement has effect, such as for Thanet Extension. Section 104 (2) of the Act (as amended) states that:

*“In deciding the application, the Secretary of State must have regard to—*

*any national policy statement which has effect in relation to development of the description to which the application relates (a “relevant national policy statement”),*

*(aa) the appropriate marine policy documents (if any), determined in accordance with section 59 of the Marine and Coastal Access Act 2009,*

*any local impact report (within the meaning given by section 60(3)) submitted to the Secretary of State before the deadline specified in a notice under section 60(2),*

*any matters prescribed in relation to development of the description to which the application relates, and*

*other matters which the Secretary of State thinks are both important and relevant to the Secretary of State's decision."*

4.3.3 Section 104 (3) provides that the Secretary of State must decide applications for Development Consent in accordance with any National Policy Statement (NPS) except to the extent that the Secretary of State is satisfied one or more of the following exceptions apply:

- 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;
- 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 enactment;
- That deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment;
- That the Secretary of State is satisfied that the adverse impact of the proposed development would outweigh its benefits; or
- That 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.

## Policy

4.3.4 In deciding the application for Development Consent for Thanet Extension, the relevant NPSs to which the Secretary of State must have regard in accordance with Sections 104(2) and 104(3) of the 2008 Act, are:

- Overarching National Policy Statement for Energy EN-1 (NPS EN-1) which sets out the Government's policy for the delivery of and the position in relation to the need for new Energy NSIPs, and the assessment principles and consideration generic impacts in relation to such projects;
- National Policy Statement for Renewable Energy Infrastructure EN-3 (NPS EN-3) which covers technology specific matters including offshore wind; and
- National Policy Statement for Electricity Networks Infrastructure EN-5 (NPS EN-5) which covers technology specific matters but mostly relates to the provision of overhead lines and as such, is of limited relevance as no new overhead lines are proposed as part of the Thanet Extension application.

4.3.5 NPS EN-1 confirms that the above NPSs:

- Provide the primary basis for determining DCO applications (paragraph 1.1.1);

- Support the requirements of the Renewable Energy Directive, stating that new projects are urgently needed in order to ensure that this target is met (Paragraph 3.4.1);
  - Advise that offshore wind is expected to provide the largest single contribution towards the 2020 renewable energy generation targets (Paragraph 3.4.3);
  - Confirm that the UK needs the different types of energy infrastructure that are set out in the NPS [EN-1], and these include offshore wind generation (Paragraph 3.1.10). The NPS further states that the Secretary of State should assess all applications for development consent for energy infrastructure covered by NPS EN-1 on the basis that the Government has shown there is a need for those types of projects (Paragraph 3.1.3);
  - Indicate that given the level and urgency of need for nationally significant energy infrastructure projects there is a presumption in favour of granting Development Consent for applications for such development unless more specific and relevant policy within the NPS indicate that consent should be refused (paragraph 4.1.2);
  - Indicate that in the event of a conflict between development plan documents and a NPS, the NPS prevails (paragraph 4.1.5); and similarly,
  - Indicate that in the event of a conflict between a marine policy document (Marine Policy Statement or relevant Marine Plan) and a NPS, the NPS prevails given the national significance of the infrastructure (paragraph 4.1.6).
- 4.3.6 Throughout the remainder of this statement, extracts from the NPS have been presented. Where the NPS series refer to the 'IPC', this has been replaced in this statement by 'Secretary of State' (for clarity, as when the NPS were adopted, a body known as the IPC was the decision maker for NSIP projects, which has now been replaced in this role by the Secretary of State). Where references to specific sections and paragraphs of the NPS series have been provided, or are cross referred to, the relevant section or paragraph numbers are presented afterwards in closed brackets.

## 4.4 National Policy Statements: Generic Impacts (NPS EN-1) and Technology Specific Impact Policy (NPS EN-3 and NPS EN-5)

### Overarching Matters

- 4.4.1 NPS EN-1 sets out the policy framework for assessing the generic impacts of all types of energy infrastructure, for example biodiversity, cultural heritage and transport considerations. NPS EN-3 identifies certain technology-specific policy considerations that the Secretary of State must give due regard during the examination and determination, including offshore wind projects. NPS EN-5 identifies certain policy considerations specific to 'Electricity Network Infrastructure' relevant to electricity cables transmission and substations, as required by NPS EN-3 (paragraph 2.6.41).
- 4.4.2 NPS EN-3 requires that an EIA should assess the effects of the cable where a precise cable route from the wind farm to the definite location of the onshore substation and connection to the network is known (paragraph 2.6.37). Where the precise locations are unknown a corridor should be identified in which the cable and offshore substation are likely to be located. In this case the EIA should assess the effects of the development within the corridor (paragraph 2.6.38). If the exact point of the onshore connection is unknown when the application is submitted, a corridor from the wind farm to shore in which infrastructure is likely to be located should be assessed (paragraph 2.6.39).
- 4.4.3 It is acknowledged by NPS EN-3 that due to the complex nature of offshore wind farm development many elements of the scheme may be unknown at the time of submission (paragraph 2.6.42).
- 4.4.4 It is further accepted by NPS EN-3, and in accordance with Section 4.2 of NPS EN-1, that wind farm operators are unlikely to know the precise details of turbines to be used on site prior to consent being granted. Where details are not known, it should be explained which elements of the scheme are not finalised and this may lead to a degree of flexibility in the consent. Under these circumstances, it needs to be ensured that the proposal has been properly assessed to identify any potential impacts (the 'Rochdale Envelope'). This will allow the maximum adverse case scenario to be assessed and this uncertainty should be allowed in the consideration of the application and consent (paragraph 2.6.41).
- 4.4.5 The Environmental Statement, and Report to Inform Appropriate Assessment (RIAA) (Document 5.2) assess the impacts in terms of those covered in the NPSs. Section 7 of this Planning Statement outlines the relevant policies and assess the extent of Thanet Extension's conformity with these policy requirements based on the findings of the Environmental Statement and RIAA.

## 4.5 Other Relevant Policy

- 4.5.1 Whilst the NPSs are the primary policy framework for the assessment and determination of NSIPs, other planning policy may be relevant where it does not conflict with the NPSs.
- 4.5.2 The extent to which other planning policy including the NPPF, marine policy documents and local planning policy has been considered (where it is relevant and does not conflict with the NPSs) is set out under 'Other Policy' for each topic in Section 6 of this Planning Statement.

### National Planning Policy Framework (NPPF)

- 4.5.3 The National Planning Policy Framework (NPPF) was adopted in March 2012 and acts as guidance for local planning authorities and decision-takers for both drawing up development plans and making decisions regarding planning applications. The NPPF confirms that it does not contain specific policies for NSIPs for which particular considerations apply (paragraph 3). The NPPF (paragraph 3) and development plan documents (paragraph 4.1.5 of NPS EN-1) may however be matters that are important and relevant to determining DCO applications.
- 4.5.4 A draft revised NPPF was published for consultation on 9th March 2018. The consultation period closed on 10th May 2018. Importantly the draft revised NPPF maintains an overarching support (paragraph 150) for plan making to help increase the use and supply of renewable and low carbon energy, and requires local planning authorities to plan positively to deliver that objective, ensuring that adverse impacts are addressed satisfactorily.
- 4.5.5 Until the revised draft NPPF is published in its final form, it will carry little weight in decision making. Should the draft revised NPPF be finalised during the course of the examination on Thanet Extension however, it will need to be considered more fully in the decision-making process, if there are material changes to policy relevant to Thanet Extension.

### Marine Policy Documents

- 4.5.6 Section 59 of the Marine and Coastal Access Act 2009 (MCAA) sets out that both the UK-wide Marine Policy Statement (MPS) (September 2011) and the East Inshore and East Offshore Marine Plans (April 2014) are the appropriate marine policy documents for the purposes of Section 104 of the 2008 Act. The MPS provides the policy framework for the preparation of marine plans, and the basis for decisions affecting the marine areas. The MCAA requires that all public authorities taking decisions regarding the marine area should do so in accordance with the MPS, unless relevant considerations indicate otherwise. Once adopted, marine plans carry the same weight.

- 4.5.7 The MPS sets out (at paragraph 3.3.4) that when decision makers are examining and determining applications for energy infrastructure (and marine plan authorities are developing Marine Plans) they should take into account, inter alia:
- The national level of need for energy infrastructure, as set out in the Overarching National Policy Statement for Energy (EN-1), which applies in England and Wales;
  - The positive wider environmental, societal and economic benefits of low carbon electricity generation and carbon capture and storage as key technologies for reducing carbon dioxide emissions;
  - That the physical resources and features that form oil and gas fields or suitable sites for gas or carbon dioxide storage occur in relatively few locations and need first of all to be explored for and can then only be exploited where they are found. Similarly, renewable energy resources can only be developed where the resource exists and where economically feasible; and
  - The potential impact of inward investment in offshore wind, wave, tidal stream and tidal range energy related manufacturing and deployment activity; as well as the impact of associated employment opportunities on the regeneration of local and national economies. All of these activities support the objective of developing the UK's low carbon manufacturing capability.
- 4.5.8 It accepts that renewable energy infrastructure can potentially have adverse effects on fish, mammals, and birds but at the same time recognises at paragraph 3.3.19 that "the UK has some of the best wind resources in the world and offshore wind will play an important and growing part in meeting our renewable energy and carbon emission targets and improving energy security by 2020, and afterwards towards 2050" and that "offshore wind has the potential to have the biggest impact in the medium-term on security of energy supply and carbon emission reductions through its commercial scale output".
- 4.5.9 Thanet Extension is in line with the vision and objectives of the MPS by virtue of its substantial contribution to renewable energy targets, thereby helping in the development of a low carbon economy and as a sustainable economic development. As demonstrated by the assessment contained in the Environmental Statement, potential likely significant effects of Thanet Extension have been or will be avoided or reduced as far as possible and the societal benefits of the marine area will be retained, in line with the requirements of the MPS.
- 4.5.10 The relevant marine plan policies have been taken into account in preparing the application.

## Local Planning Policy

4.5.11 Where it is deemed relevant and important, existing and emerging local-level planning policy and guidance may carry some weight in the consideration of an application for development consent, according to the stage of preparation, the extent which there are unresolved objections to relevant policies and the degree of consistency of the relevant policies to the policies in the NPPF. Nevertheless, it is the NPSs that provide national policy for a DCO application and provide the primary basis for decision-making under the Act.

4.5.12 In principle, the following existing local plans for the district and borough in which Thanet Extension will be located may be relevant for the EIA.

- Thanet Local Plan Saved Policies (original plan expired June 2009);
- Kent County Council Minerals and Waste Local Plan 2013-2030 (adopted July 2016);
- Kent County Council Kent Environment Strategy (2016); and
- Dover District Local Development Framework Core Strategy (adopted February 2010).

4.5.13 The Thanet Local Plan includes:

- Thanet Local Plan 2006 Saved Policies;
- Cliftonville Development Plan Document; and
- Kent Waste and Mineral Local Plan Saved Policies.

4.5.14 However, Thanet District Council are developing and consulting on a new draft Local Plan at the time of writing. The Local Plan will replace the 2006 Local Plan and will cover development up to 2031.

4.5.15 For Dover the following are primary policy documentation:

- Saved Policies of the Local Plan 2002;
- Dover District Local Development Framework Core Strategy 2010;
- Dover District Land Allocations Local Plan 2015; and
- Dover District Emerging Local Plan 2037 (under early stages of drafting).

4.5.16 In addition, Dover District Local Plan to 2037 as an emerging local plan may also be relevant for the determination of the DCO application.



## 5 The Need for Thanet Extension

### 5.1 Overview

5.1.1 The NPSs establish to the policy need for new renewable energy generation and this is set out in Section 5.2. The key drivers underpinning the need for renewable energy within the UK are (discussed further in Sections 5.2 to 5.5):

- 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.

### 5.2 National Policy Statements: The Need for New Nationally Significant Energy Infrastructure Projects and Offshore Wind Projects

5.2.1 Part 3 of NPS EN-1 establishes an indisputable and urgent policy need for all types of energy infrastructure in order to achieve energy security and dramatically reduce carbon emissions (paragraph 3.1.1). It is not therefore necessary, when determining applications for offshore wind, to demonstrate a specific need for the principle of offshore wind development in England. Part 3 also explains that, without significant amounts of new large-scale energy infrastructure, the Government's energy and climate change objectives cannot be fulfilled and this will not be possible without some significant residual adverse impacts (paragraph 3.2.3).

5.2.2 In particular, NPS EN-1 sets out that electricity meets a significant proportion of overall energy demand and reliance upon it is likely to increase in the period leading up to 2050. When combined with the UK Government's legal obligation to reduce the UK's greenhouse gas emissions by at least 80% (from 1990 levels), an urgent need for new NSIPs to deliver electricity has been established (paragraph 3.3.1).

5.2.3 Section 4 of NPS EN-1 sets out a number of assessment principles that should be taken into account when considering proposals for new energy infrastructure. Where appropriate, these considerations have been addressed in each topic chapter of the Environmental Statement.

### 5.3 The Need to Reduce Greenhouse Gas Emissions

5.3.1 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.

5.3.2 The UK Committee on Climate Change (CCC) (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).

5.3.3 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.

5.3.4 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).

5.3.5 The EU and UK legislation that has been put in place to secure a reduction in emissions is outlined in the Environmental Statement (ES) Chapter 3 Policy and Legislative Context (Document 6.1.3).

## The Role of Offshore Wind

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

## 5.4 The Need for Energy Security

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

5.4.2 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.

5.4.3 There is a need to ensure energy security while seeking to meet carbon reduction objectives. In respect of energy security, EN-1 identifies that there needs to be sufficient electricity generating capacity to meet maximum peak demand whilst allowing for a safety margin to accommodate unexpectedly high demand, unexpected plant closure or extreme weather events (paragraph 3.3.2). This objective also helps to protect businesses and consumers from rising and volatile prices and supply interruptions (paragraph 3.3.3).

5.4.4 There are also benefits of having a diverse mix of all types of power generation to reduce dependency and so ensure a security of supply (paragraph 3.3.4), as such, Government policy is to bring forward new low carbon developments within the next 10 to 15 years to meet climate change obligations whilst achieving energy security (paragraph 3.3.5).

### The Urgency of the Need for New Electricity Capacity

5.4.5 NPS EN-1 concludes that there is an urgent need for new (and particularly low carbon) energy NSIPs to be brought forward as soon as possible and certainly in the 10-15 years (from 2011) given the crucial role of electricity in decarbonising the UK's energy sector (paragraph 3.3.15). Thanet Extension would be expected to be delivered within this timeframe.

- 5.4.6 When published in 2011 NPS EN-1 identified that at least 22 GW of existing electricity capacity will need to be replaced (about a quarter of the UK's electricity generating capacity (paragraph 3.3.7).
- 5.4.7 Furthermore, it is clear that a failure to meet the 2050 carbon reduction target would result in the UK becoming locked into a system of high carbon generation, something that cannot afford to happen (paragraph 3.3.16). Targets are set for the period leading up to 2025 with at least 113 GW of total electricity capacity being required. In order to minimise the risks to energy security by increasing resilience, the Government considers it to be prudent to plan for a minimum need of 59 GW of new build electricity capacity by 2025, including approximately 33 GW of new renewable capacity to meet renewable energy commitments (paragraphs 3.3.22 and 3.3.23).
- 5.4.8 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, 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).
- 5.4.9 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 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).
- 5.4.10 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).
- 5.4.11 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.
- 5.4.12 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).

## The Role of Offshore Wind

- 5.4.13 The UK Government is committed to dramatically increasing the amount of renewable electricity generation, with much of this likely to be onshore and offshore wind in the short to medium term (paragraph 3.3.10).
- 5.4.14 In terms of renewable electricity generation, although the Government does not consider it appropriate for planning policy to set targets for, or limits on, different technologies (paragraph 3.1.2), the UK Renewable Energy Strategy commits to sourcing 15% of the UK's total energy from renewable sources by 2020 (paragraph 3.4.1). The large-scale deployment of renewables will help the UK to reduce its emissions of carbon dioxide by over 750 million tonnes by 2020 (paragraph 3.4.2) with offshore wind expected to provide the largest single contribution towards the 2020 renewable energy targets (paragraph 3.4.3). Furthermore, in order to significantly decarbonise the power sector by 2030, NPS EN-1 indicates that it is necessary to bring forward renewable energy projects as soon as possible (paragraph 3.4.5).
- 5.4.15 NPS EN-3 recognises that offshore wind farms will deliver a significant proportion of the UK's renewable energy generating capacity up to 2020 and towards 2050 (paragraph 2.6.1). It also refers to the Offshore Energy Strategic Environmental Assessment (SEA) which concludes that there are no overriding environmental considerations preventing the plans for 25 GW of new offshore wind capacity, if mitigation measures are implemented to prevent, reduce and offset significant adverse effects (NPS EN-3, paragraph 2.6.15).

## 5.5 The Need to Maximise Economic Opportunities

- 5.5.1 The UK is able to continue growth in the offshore wind sector by 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).

5.5.2 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 CO2 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.

### Cost Reduction in Offshore Wind

5.5.3 The reduction in the cost of offshore wind is a key driver for the industry and one that has seen radical progress in recent years. Evidence of this progress can be seen in the sharp fall in the strike prices agreed for offshore wind as part of awards of 'Contracts for Difference' (CfDs). CfDs provide subsidy support to low carbon generations whereby a fixed price (or 'strike price') is paid for each megawatt/hour (MWh) of electricity produced. As recently as 2014 CfDs were awarded with a strike price between £140-150/MWh in comparison to the most recent CfDs coming in at £57.5/MWh. With costs continuing to fall, offshore wind is now extremely cost competitive and in many cases cheaper than alternative energy sources including nuclear and gas making it the technology of choice for the move to low carbon electricity generation.

5.5.4 Vattenfall has been at the forefront of cost reduction in offshore wind across Europe culminating in the recent award of the zero subsidy permit for the Dutch project Hollandse Kust Zuid, an offshore wind farm located off the west coast of the Netherlands with a capacity of up to 705 MW. The bid for Hollandse Kust Zuid was based on a 'zero subsidy' offer demonstrating the steps taken by Vattenfall to reduce costs throughout the supply chain.

5.5.5 The result of this is that offshore wind is now extremely cost competitive and in many cases cheaper than alternative energy sources including nuclear and gas making it the technology of choice for the move to low carbon electricity generation.

5.5.6 Further demonstration of the importance of offshore wind for future electricity generation in the UK can be seen by the recent announcement from The Crown Estate in November 2017 that future leasing rounds for offshore sites are being considered. This follows the UK Government's backing for offshore wind in the Clean Growth Strategy (BEIS, 2017) and is indicative of the appetite for further offshore wind development.

## The Role of Offshore Wind

- 5.5.7 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.
- 5.5.8 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.
- 5.5.9 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. Working closely with BEIS is the Offshore Wind Investment Organisation (OWIO), part of UK Trade and Investment (UKTI). OWIO work to help overseas investors and UK suppliers to increase investment in the UK's offshore wind supply chain.
- 5.5.10 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.
- 5.5.11 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).
- 5.5.12 The replacement of existing infrastructure with new technologies also represents significant investment in the UK economy.

## Local Support for the Economic Benefits of Offshore wind

- 5.5.13 The Thanet District Local Plan (Thanet District Council, 2015) states that the district has already seen above average development of wind farms and other renewable sources of energy. Furthermore, it also argues in favour of developing the green sector whilst also capturing the economic benefits from the wind farms surrounding Thanet and spin off businesses as opportunities arise. This echoes the Dover District Council's (adopted) Core Strategy (Dover District Council, 2010) which identifies offshore wind and biomass as the primary renewable energy sources within the district.
- 5.5.14 The SE LEP's Strategic Economic Plan (SEP) (SE LEP, 2014) identifies the importance of the offshore wind sector and acknowledges the role the Local Enterprise Partnership (LEP) plays in making it a key location for the offshore renewables industry. The SE LEP is currently refreshing its SEP, and in September 2017 published an updated evidence base as part of the process (SE LEP, 2017). The evidence base outlines the same themes highlighted in the current SEP, including an overarching aspiration to improve prosperity and productivity through the creation of higher value jobs as well as the creation of more jobs.
- 5.5.15 Despite the current review, the SE LEP's ambitions in the SEP remain unchanged; i.e. aiming to create 200,000 private sector jobs, and leveraging £10 billion of investment by 2021. The SEP identifies several priority sectors across the LEP area which are of relevance to the offshore wind sector. These include advanced manufacturing, transport and logistics, as well as environmental technologies and energy. Furthermore, through its SEP, the SE LEP indicates that it will seek to promote innovation across these sectors, and to strengthen their supply chains whilst also increasing activity for specialised sectors such as offshore wind.

## 5.6 Apportioning Weight to the Need Established in the Planning Balance & Decision Making

- 5.6.1 All applications seeking Development Consent for energy NSIPs should be assessed by the Secretary of State on the basis there is a demonstrated need for those types of infrastructure and that the scale and urgency of that need is as described in NPS EN-1 (paragraph 3.1.3) and summarised above.
- 5.6.2 Furthermore, substantial weight should be given to the contribution which projects would make towards satisfying that need (paragraph 3.1.4). In this policy context, Thanet Extension would make a substantial contribution towards the delivery of renewable energy in line with the need to significantly decarbonise the power sector by 2030 and should therefore be ascribed substantial weight in the balance of considerations and the presumption in favour of such developments (paragraph 4.1.2).



5.6.3 The principle need for Thanet Extension is therefore established.

## 6 Habitats Regulations Assessment

- 6.1.1 During the drafting of the Report to Inform Appropriate Assessment (RIAA, Document Ref 5.2 and associated Annexes at 5.2.1 and 5.2.2) it was noted that a recent (May 2018) ruling by the European Court of Justice, referred to as Sweetman II, would have implications for the assessment of Likely Significant Effects (LSE) on European designated sites. The ruling relates to how screening for LSE is carried out, specifically in relation to the way in which mitigation is considered in the LSE screening process. The ruling was issued shortly before finalisation of the RIAA; however following discussion and agreement with Natural England (See EIA Evidence Plan Report, Document Ref: 8.5) on the approach to take, the screening for Thanet Extension was revisited and, where relevant, conclusions on LSE revisited.
- 6.1.2 The changes made are clearly highlighted in sections 7 and 8 of the Report (screening for the project alone and in-combination) and, where relevant, followed through into sections 11 and 12 (determination of potential adverse effect). Guidance has yet to be issued by Natural England regarding the ruling but an approach was agreed with them in May 2018 as recorded within the EIA Evidence Plan Report (Document Ref: 8.5).
- 6.1.3 The Screening report for the RIAA was submitted for approval both in advance of the PEIR in November 2017 and prior to that under the auspices of the EIA Evidence Plan process (Document 8.5). It was noted in discussion with Natural England (May 2018) that whilst the screening report marked a point in time and was agreed at that stage, screening needed to be revisited in light of the Sweetman II ruling. As noted above Thanet Extension has updated the RIAA itself to clearly identify where Sweetman II has been considered. Further to this, in order to present a clear and transparent narrative Thanet Extension have produced a detailed table at Appendix I to the 2017 screening report (Document 5.2.1). The table presents a review of the original screening in light of the Sweetman II ruling.
- 6.1.4 The purpose of the table is to revisit the original screening undertaken in 2017, to confirm that all effects originally screened out for LSE remain screened out for LSE post Sweetman II, i.e. that they are not dependent on project specific mitigation to be screened out. The table confirms that the conclusions of the screening report remain valid and all relevant effects are taken forward from the LSE stage before having project specific mitigation applied. In this context, and as agreed with Natural England, project specific mitigation means measures that would not otherwise required, in the absence of a European designated site.

## 7 Planning Assessment

### 7.1 Overview

7.1.1 This section identifies the policy requirements and decision-making considerations set out in the NPSs and, where relevant, other planning policy.

7.1.2 Each topic is structured as follows:

- National Policy Statements
  - Describes the requirements set out in the relevant NPSs for the assessment of the topic, how the project has met these requirements and had regard to the policy.
- Other Policy Considerations
  - Where relevant planning policy or legislative requirements have been identified beyond the NPSs, consideration of the regard to this is set out in this section.
- Considerations for the Secretary of State
  - Identifies key considerations for the Secretary of State when having regard to Thanet Extension's compliance with relevant policy and the weight that project effects should be given in determining the overall planning balance.

### 7.2 Assessment of Alternatives

7.2.1 This topic is assessed in Volume 1, Chapter 4 (Site Selection and Alternatives) of the ES (Document 6.1.4).

#### National Policy Statements: NPS EN-1

##### *EN-1 Policy: Paragraph 4.4.1*

- “As in any planning case the relevance or otherwise to the decision making process of the existence (or alleged existence) of alternatives to the proposed development is in the first instance a matter of law, detailed guidance on which falls outside the scope of this NPS. From a policy perspective this NPS does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option”.
- “in some circumstances, there are specific legislative requirements, notably under the Habitats Directive, for the [Secretary of State] to consider alternatives. These should also be identified in the Environmental Statement by the applicant.”

*How has this been addressed?*

- 7.2.2 The Site Selection and Alternatives ES Chapter (Document 6.1.4) considers alternatives as required by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regs 2017).
- 7.2.3 Requirements to assess alternatives under the Habitats Regulations and the Offshore Habitats Regulations are addressed in the Report to Inform Appropriate Assessment (Document Ref: 5.2) submitted as part of this Application, and were also detailed in the Habitats Regulations Screening Report, which accompanied both the PEIR for consultation and this final application for development consent.

**National Policy Statements: NPS EN-3***EN-3 Policy: Paragraph 2.6.81*

- 7.2.4 The applicant should include an assessment of the effects of installing cable across the intertidal zone which should include information, where relevant, about:
- “any alternative landfall sites that have been considered by the applicant during the design phase and an explanation for the final choice”; and
  - “any alternative cable installation methods that have been considered by the applicant during the design phase and an explanation for the final choice.”

*How has this been addressed?*

- 7.2.5 Alternative landfall sites have been considered and this assessment is set out in the Site Selection and Alternatives ES Chapter (Document 6.1.4), along with the rationale for the final choice.
- 7.2.6 Cable installation methods have been considered and assessed as part of the EIA. Some flexibility has been retained for cable installation both offshore and in the intertidal zone due to uncertainties on ground conditions. Where optionality remains in the Application, this has been fully assessed throughout the EIA.

**Other Policy Considerations**

- 7.2.7 Paragraphs 4.2.9 et seq of volume 1, chapter 4 of the ES: Site Selection and Consideration of Alternatives identify the guidance provided by EN-5 in respect of site selection. Although the NPS does not set a general requirement to consider alternatives, it is recognised within EN-5 that there is a need to consider alternatives to overhead lines, and accordingly EN-5 provides guidance for applicants to consider, where those other legislative requirements exist. Specifically, EN-5 states (at para 2.8.7):

7.2.8 The [Secretary of State] should recognise that the Holford Rules, and any updates, form the basis for the approach to routing new overhead lines and take them into account in any consideration of alternatives and in considering the need for any additional mitigation measures.

7.2.9 *It further states that alternative technologies should be considered, including consideration of undergrounding cables, as is the case for the proposed project. Specifically, EN-5 identifies that alternatives be considered for overhead lines but that consent should only be refused (for overhead lines) if:*

7.2.10 *“the alternative will clearly outweigh any extra economic, social and environmental impacts and the technical difficulties are surmountable”.*

*How has this been addressed?*

7.2.11 Thanet Extension has considered alternatives to overhead lines and made the design decision to underground the onshore cables, either under the existing ground or within a ground level berm.

7.2.12 VWPL has, as demonstrated at para 4.4.1 *et seq* of Volume 1, chapter 4: Site Selection and Alternatives, considered other relevant policy and guidance including the Horlock Rules. The Horlock Rules are a set of guidelines produced by National Grid to assist those responsible for siting and designing substations to mitigate the environmental effects of such developments. The project has demonstrably complied with the Horlock Rules through inter alia consideration of designated sites, sensitive ecological receptors and considered the availability of sites that benefit from existing screening, looking at existing landscaping, landform, and existing built development.

*Infrastructure Planning (Environmental Impact Assessment) Regulations 2017*

7.2.13 The EIA Regs 2017 state (at 14(2)(d)) that the ES must provide a description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment.

*How has this been addressed?*

7.2.14 The Thanet Extension Site Selection and Alternatives chapter (Volume 1, chapter 4: site selection and alternatives; Document Ref: 6.1.4, and associated technical annex at 6.1.4.1) clearly demonstrates that the requirement of the EIA Regs 2017 is met by the Thanet Extension project. The chapter provides a chronological account of the alternatives considered during the evolution of the project across 7 clearly defined stages. These stages range from pre-scoping engineering led consideration of alternatives, through to scoping wherein two alternatives were submitted for consultation (subject to ongoing engineering reviews), and on to formal submission of preliminary environmental information (PEI) as required under Section 42 of the Act. The alternatives brought forward as part of the PEI were both directly requested as a result of consultation responses, and put forward for formal consultation and consideration.

**Considerations for the Secretary of State**

7.2.15 Paragraph 4.4.3 of EN-1 states that *'Where there is a policy or legal requirement to consider alternatives, this paragraph highlights other guiding principles that the Secretary of State should consider when deciding what weight should be given to alternatives, specifically:'*

- *'the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner;'*
  - The ES chapters sets out in significant detail the approach to and consideration of alternatives. Thanet Extension has provided further technical assessment in Document 6.1.4.1 going above and beyond the policy requirement.
- *'the [Secretary of State] should be guided in considering alternative proposals by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security and climate change benefits) in the same timescale as the proposed development;'*
  - As an extension project, Thanet Extension by its nature is required to be adjacent to the existing Thanet Offshore Wind Farm and consideration as to the alternative design of the wind farm array area is set out in the ES Chapter. Being an extension project there are certain benefits including an existing detailed knowledge of site characteristics, construction and operational considerations and relationships with local stakeholders which may enable Thanet Extension to be brought forward earlier and more efficiently than other non-extension offshore wind farms.
- *'where (as in the case of renewables) legislation imposes a specific quantitative target for particular technologies or (as in the case of nuclear) there is reason to suppose that the number of sites suitable for deployment of a technology on the*

*scale and within the period of time envisaged by the relevant NPSs is constrained, the [Secretary of State] should not reject an application for development on one site simply because fewer adverse impacts would result from developing similar infrastructure on another suitable site, and [they] should have regard as appropriate to the possibility that all suitable sites for energy infrastructure of the type proposed may be needed for future proposals;'*

- *'alternatives not among the main alternatives (noting that as required under the 2017 EIA Regulations reasonable alternatives are described within this chapter) studied by the applicant (as reflected in the Environmental Statement), should only be considered to the extent that the [Secretary of State] thinks they are both important and relevant to [their] decision;'*
  - All of the main alternatives are described and assessed in the ES chapter.
- *'as the [Secretary of State] must decide an application in accordance with the relevant NPS (subject to the exceptions set out in the Planning Act 2008), if the [Secretary of State] concludes that a decision to grant consent to a hypothetical alternative proposal would not be in accordance with the policies set out in the relevant NPS, the existence of that alternative is unlikely to be important and relevant to the [Secretary of State's] decision;'*
- *'alternative proposals which mean the necessary development could not proceed, for example because the alternative proposals are not commercially viable or alternative proposals for sites would not be physically suitable, can be excluded on the grounds that they are not important and relevant to the [Secretary of State's] decision;'*
  - The ES chapter identifies where alternatives are considered to either not be commercially viable or physically/technically unsuitable to the extent that they carry significant risk to the implementation of the project.
- *'alternative proposals which are vague or inchoate can be excluded on the grounds that they are not important and relevant to the [Secretary of State's] decision; and'*
- *'it is intended that potential alternatives to a proposed development should, wherever possible, be identified before an application is made to the [Secretary of State] in respect of it (so as to allow appropriate consultation and the development of a suitable evidence base in relation to any alternatives which are particularly relevant). Therefore, where an alternative is first put forward by a third party after an application has been made, the [Secretary of State] may place the onus on the person proposing the alternative to provide the evidence for its suitability as such and the [Secretary of State] should not necessarily expect the applicant to have assessed it.'*

- Thanet Extension has considered relevant potential alternatives including a proportionate approach to assessment. Where additional alternatives have been identified by stakeholders during the course of the development of the project these have also been considered and are set out in the ES Chapter.
- 7.2.15.1 There are five elements of legislation and policy compliance with regards the consideration of site selection and alternatives. Namely the EIA Regs 2017, The Habitats Regulations, EN-1, EN-3, and EN-5.
- 7.2.16 The assessment of alternatives has had regard to the relevant requirements for assessment set out in all relevant policy and regulations, and been carried out in accordance with those requirements.
- 7.2.16.1 VWPL has also, as demonstrated at paragraph 4.2.5 *et seq* of the ES that consideration of Paragraph 4.4.2 of the NPS EN-1 which requires inter alia consideration of alternatives under the Habitats Regulations and Offshore Habitats Regulations, undertaken consideration of suitable alternatives with regards minimising or avoiding designated sites, and/or the specific features within the designated sites. Thanet Extension is in compliance therefore with all requirements of the Habitats Regulations.
- 7.2.16.2 Therefore, it is clear that the project has complied with all policy and legislation requirements with regards consideration of alternatives. Cognisance of the relevant policy and legislative requirements has resulted in specific design considerations, such as the commitment to underground cables instead of employing overhead lines. This design commitment is considered important in the context of mitigating potential landscape and visual and electromagnetic field emissions, and directly complies with the requirements within EN-5.
- 7.2.16.3 With regards the overall process of site selection and consideration of alternatives Thanet Extension has presented in Volume 1, Chapter 4 and the associated technical annex a detailed and comprehensive assessment which takes account of reasonable alternatives. The potential effects on the environment are clearly considered. The influence that consultation has had on the process is presented. The chapter presents a clearly defined staged process and identifies the main reasons for each of the options that have been progressed from one stage to a subsequent stage of the design evolution process. The chapter contains more detail than would ordinarily be found in other DCOs, accompanied by a technical report where appropriate to evidence decision making. It contains a carefully worded narrative to explain as clearly as possible a complex site selection process undertaken over the course of three years.

7.2.17 The environmental information and assessment carried out for Thanet Extension demonstrate that there is no conflict with any of the tests set out in the EIA Regs 2017, The Habitats Regulations or the requirements of EN-1 and EN-3 such that the assessment of alternatives should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

## 7.3 Consideration of Good Design

### National Policy Statement: NPS EN-1

#### *EN-1 Policy: Paragraph 4.5.4*

7.3.1 For the [Secretary of State] to consider the proposal for a project, applicants should be able to demonstrate in their application documents how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected. In considering applications the [Secretary of State] should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy.

#### *How has this been addressed?*

7.3.2 Design decisions in terms of project infrastructure and location are set out in the Site Selection and Alternatives ES Chapter (Document 6.1.4).

7.3.3 Further design considerations are set out in the Design and Access Statement (Document 8.16) which describes layouts, landscaping and appearance of the proposed infrastructure including the onshore cable route and onshore substation. Additional detail of the potential reinstatement of the onshore cable route and screening proposals for the onshore substation can be found in the Outline Landscape and Ecological Management Plan (OLEMP) (Document 8.7).

### National Policy Statement: NPS EN-3

#### *EN-3 Policy: Paragraph 2.4.2*

7.3.4 Proposals for renewable energy infrastructure should demonstrate good design in respect of landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology.

#### *How has this been addressed?*

7.3.5 Proposals for minimising the effects on landscape and visual amenity from the onshore infrastructure are set out in the OLEMP (Document 8.7). Design considerations are set out in the Design and Access Statement (Document 8.16).



### Considerations for the Secretary of State

- 7.3.6 As set out above, Thanet Extension has considered design throughout the development of the project and has provided details of that process as part of the Application.
- 7.3.7 The Planning Act (2008) Section 183 requires that regard is had to the desirability of achieving good design.
- 7.3.8 NPS EN-1 states that *“given the importance which the Planning Act 2008 places on good design and sustainability, the IPC needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable and adaptable including taking account of natural hazards such as flooding) as they can be.”*
- 7.3.9 Where appropriate climate change resilience and flooding has been factored into the ES and design choices, particularly when identifying onshore substation locations.
- 7.3.10 Furthermore, *“the Secretary of State should satisfy itself that the applicant has taken into account both functionality (including fitness for purpose and sustainability) and aesthetics (including its contribution to the quality of the area in which it would be located) as far as possible. Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area.”*
- 7.3.11 The design of offshore wind turbines and other offshore infrastructure such as offshore substations and meteorological masts have very limited scope in terms of physical appearance. However, consideration has been had with regard to the siting of turbines, for example by ensuring there are sufficient visual gaps between Thanet Extension and other existing offshore wind farms to avoiding merging multiple projects from particular viewpoints.
- 7.3.12 For the onshore infrastructure a key design choice made at the start of the project was the decision to install cables rather than overhead lines to convey electricity from the offshore wind farm to the onshore substation. Further consideration has been had when proposing possible above ground laying of cables, identifying potential reinstatement measures and enhancements for the surrounding area.

- 7.3.13 The onshore substation does not lead to any significant visual effects (as assessed in the Landscape and Visual Impact ES Chapter (Document 6.3.2) and this is largely due to considerations made during site selection. The onshore substation is located on a brownfield site in an existing industrial area, as such the infrastructure is consistent with its surroundings. Regardless of the lack of significant visual effects, the potential for additional screening and planting is set out in the OLEMP and the Design and Access Statement, which would provide enhancements to the local area.
- 7.3.14 Consideration of good design has been had throughout the development of Thanet Extension and has been incorporated into the site selection, project design evolution and set out in the mitigation proposals included in the Application. This demonstrate compliance with the tests set out in the Planning Act (2008) and the NPSs.
- 7.3.15 The consideration of good design has been positively undertaken for the project and should form part of the overall package of the benefits Thanet Extension delivers when considering the planning balance.

## 7.4 Marine Geology, Oceanography and Physical Processes

- 7.4.1 This topic is assessed in Volume 2, Chapter 2 (Marine Geology, Oceanography and Physical Processes) of the ES (Document 6.2.2).

### National Policy Statement: NPS EN-1

#### *EN-1 Policy: Paragraph 5.5.6*

- 7.4.2 Where relevant, applicants should undertake coastal geomorphological and sediment transfer modelling to predict and understand impacts and help identify relevant mitigating or compensatory measures.

#### *How has this been addressed?*

- 7.4.3 Predictions of change to physical processes that could arise from construction, O&M and decommissioning of Thanet Extension are presented in Sections 10 and 12 of the ES Chapter.

#### *EN-1 Policy: Paragraph 5.5.7*

- 7.4.4 The Environmental Statement should include an assessment of the effects on the coast. In particular, applicants should assess:
- The impact of Thanet Extension on coastal processes and geomorphology, including by taking account of potential impacts from climate change. If the development will have an impact on coastal processes the applicant must demonstrate how the impacts will be managed to minimise adverse impacts on other parts of the coast;

- The implications of the proposed project on strategies for managing the coast as set out in Shoreline Management Plans (SMPs), any relevant Marine Plans...and capital programmes for maintaining flood and coastal defences;
- The effects of Thanet Extension on marine ecology, biodiversity and protected sites;
- The effects of the Thanet Extension on maintaining coastal recreation sites and features; and
- The vulnerability of the proposed development to coastal change, taking account of climate change, during the project's operational life and any decommissioning period.

*How has this been addressed?*

- 7.4.5 The impact of the proposed project on coastal processes and geomorphology is considered in Sections 10, 11 and 12 of the ES Chapter for the construction, operations and maintenance (O&M) and decommissioning phases respectively. The implications of the proposed project on strategies for managing the coast are considered within the landfall assessment, presented in Volume 4, Annex 2-1: Marine Geology, Oceanography and Physical Processes Technical Annex (Document Ref: 6.4.2.1).
- 7.4.6 The effects of the proposed project on marine ecology, biodiversity and protected sites is set out elsewhere in the ES, in particular in Volume 2, Chapter 5: Benthic Ecology (Document 6.2.5).
- 7.4.7 The effects of the proposed project on maintaining coastal recreation sites and features are set out in Volume 2, Chapter 11: Other Marine Users (Document 6.2.11).
- 7.4.8 The vulnerability of the proposed development to coastal change is considered in the context of landfall infrastructure, in Volume 4, Annex 2-1: Marine Geology, Oceanography and Physical Processes Technical Annex (Document 6.4.2.1).

*EN-1 Policy: Paragraph 5.5.9*

- 7.4.9 The applicant should be particularly careful to identify any effects of physical changes on the integrity and special features of Marine Conservation Zones (MCZs), candidate marine Special Areas of Conservation (cSACs), coastal SACs and candidate coastal SACs, coastal Special Protection Areas (SPAs) and potential Sites of Community Importance (SCIs) and Sites of Special Scientific Interest (SSSI).

*How has this been addressed?*

7.4.10 Designated nature conservation sites within the physical processes study area have been described in Section 7 of the ES Chapter for the array area and for the OECC. The predicted changes to physical processes have been considered in relation to indirect effects on other receptors elsewhere in the ES, in particular in Volume 2, Chapter 5: Benthic Ecology (Document 6.2.5) and within the Thanet Extension MCZ assessment (Volume 4, Annex 5-3 (Document 6.4.5.3)).

*EN-1 Policy: Section 4.8*

7.4.11 The resilience of the project to climate change (such as increased storminess) should be assessed in the Environmental Statement accompanying an application.

*How has this been addressed?*

7.4.12 Potential changes in climate are described in the existing environment section (Section 7 of the ES Chapter) and are considered alongside predicted changes described in the assessment sections (Section 10).

**National Policy Statements: NPS EN-3***EN-3 Policy: Paragraph 2.6.81*

7.4.13 An assessment of the effects of installing cable across the intertidal zone should include information, where relevant, about:

- Any alternative landfall sites that have been considered by the applicant during the design phase and an explanation for the final choice;
- Any alternative cable installation methods that have been considered by the applicant during the design phase and an explanation for the final choice;
- Potential loss of habitat;
- Disturbance during cable installation and removal (decommissioning);
- Increased suspended sediment loads in the intertidal zone during installation; and
- Predicted rates at which the intertidal zone might recover from temporary effects.

*How has this been addressed?*

7.4.14 Details regarding alternative landfall sites that have been considered during the design phase and an explanation for the final choice are provided in Volume 1, Chapter 4: Site Selection and Alternatives (Document Ref: 6.1.4). As set out in Section 3 of this Planning Statement, three cable installation methodologies at the landfall have been fully assessed and this optionality is included as part of the Application.

7.4.15 Assessment of the potential loss of habitat and disturbance during cable installation and removal, as well as expected rates of recovery, are set out in Volume 2, Chapter 5 (Benthic, Subtidal and Intertidal Ecology (Document 6.2.5)) and in Volume 2, Chapter 8 (Offshore Designated Sites (Document 6.2.8)). Habitat mitigation for works in the intertidal has been set out in the Saltmarsh Mitigation, Reinstatement and Monitoring Plan (Document 8.13).

7.4.16 Suspended sediment loads during installation have been assessed in the Marine Water and Sediment Quality ES Chapter (Document 6.2.3)

7.4.17 Predictions of change to physical processes that could arise from the construction, and O&M of Thanet Extension are presented in Sections 10 and 11 of the ES Chapter respectively. A cable landfall assessment is also presented in Volume 4, Annex 2-1: Marine Geology, Oceanography and Physical Processes Technical Annex (Document 6.4.2.1). This assessment considers the nature of ongoing shoreline change at the landfall and the potential for cables and other project infrastructure to impact coastal processes.

*EN-3 Policy: Paragraph 2.6.113*

7.4.18 Where necessary, assessment of the effects on the subtidal environment should include:

- Environmental appraisal of array and cable routes and installation methods;
- Habitat disturbance from construction vessels' extendible legs and anchors; Increased suspended sediment loads during construction; and
- Predicted rates at which the subtidal zone might recover from temporary effects.

*How has this been addressed?*

7.4.19 Predictions of change to physical processes that could arise from the construction, O&M and decommissioning of Thanet Extension are presented in paragraph 2.10.3 to 2.12.12 of the ES Chapter.

7.4.20 Assessment of the potential effects on subtidal ecology and disturbance during cable installation and removal, as well as expected rates of recovery, are set out in Volume 2, Chapter 5 (Benthic, Subtidal and Intertidal Ecology (Document 6.2.5)). This includes consideration of the effects jack-up barge legs and vessel anchor spreads, as described in the Project Description (Offshore) ES Chapter (Document 6.2.1).

7.4.21 A cable landfall assessment is also presented in Volume 4, Annex 2-1: Marine Geology, Oceanography and Physical Processes Technical Annex (Document Ref: 6.4.2.1). This assessment considers the nature of ongoing shoreline change at the landfall and the potential for cables and other project infrastructure to impact coastal processes.

7.4.22 Details regarding alternative landfall sites that have been considered during the design phase and an explanation for the final choice are provided in Volume 1, Chapter 4: Site Selection and Alternatives (Document Ref: 6.1.4).

*EN-3 Policy: Paragraph 2.6.190*

7.4.23 Assessment should be undertaken for all stages of the lifespan of the proposed wind farm in accordance with the appropriate policy for offshore wind farm EIAs.

*How has this been addressed?*

7.4.24 The impact of the proposed project on coastal processes and geomorphology is considered in the ES Chapter under Section 10 (for the construction phase), Section 11 (for the O&M phase) and Section 12 onwards (for the decommissioning phase).

*EN-3 Policy: Paragraph 2.6.191 and 2.6.192*

7.4.25 The Applicant should consult the Environment Agency, Marine Management Organisation (MMO) and Centre for Environment, Fisheries and Aquaculture Science (Cefas) on methods for assessment of impacts on physical processes.

*How has this been addressed?*

7.4.26 Consultation on approach to assessment for physical processes has been carried out with the Environment Agency, MMO, Cefas and Natural England. Details of the approach to consultation are provided in Table 2.2 in the ES Chapter.

*EN-3 Policy: Paragraph 2.6.192*

7.4.27 Mitigation measures which the [Secretary of State] should expect the applicants to have considered include the burying of cables to a necessary depth and using scour protection techniques around offshore structures to prevent scour effects around them. Applicants should consult the statutory consultees on appropriate mitigation.

*How has this been addressed?*

7.4.28 Embedded mitigation relating to cable burial and scour are set out in section 2.9 of the ES Chapter in includes the requirement to produce a cable burial risk assessment for approval under the Deemed Marine Licence. Use of scour protection and methods of cable protection are set out in the Project Description (Offshore) as assessed throughout the Volume 2 (Offshore) of the ES. Consultation has been undertaken and is ongoing with statutory consultees and other interested parties.

*EN-3 Policy: Paragraph 2.6.193*

7.4.29 Geotechnical investigations should form part of the assessment as this will enable the design of appropriate construction techniques to minimise any adverse effects.

*How has this been addressed?*

7.4.30 Geotechnical data has informed the assessment and project design of Thanet Extension. Details are provided in Table 2.4 in the ES Chapter.

*EN-3 Policy: Paragraph 2.6.194*

- 7.4.31 The assessment should include predictions of the physical effect that will result from the construction and operation of the required infrastructure and include effects such as the scouring that may result from the proposed development.

*How has this been addressed?*

- 7.4.32 Predictions of change to physical processes that could arise from the construction, and O&M of Thanet Extension are presented in paragraph 2.10.3 - 2.11.106 of the ES Chapter.

**Other Policy Considerations**

- 7.4.33 No other relevant planning policy was identified for this topic.
- 7.4.34 Paragraph 4.1.6 of EN-1 requires that *'The Secretary of State must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails for purposes of Secretary of State decision making given the national significance of the infrastructure'*.
- 7.4.35 Thanet Extension is located within the South East Marine Plan Area. The plan is currently under development (with final drafts due by May 2019) and therefore no specific policies have currently been put forward, which require consideration within the ES.

**Considerations for the Secretary of State**

- 7.4.36 As set out above, Thanet Extension has had full regard to the relevant sections of NPSs EN-1 and EN-3 when carrying out the assessment of impacts on marine physical processes.
- 7.4.37 Paragraph 5.5.11 of EN-1 states that *the [Secretary of State] should not normally consent new development in areas of dynamic shorelines where the proposal could inhibit sediment flow or have an adverse impact on coastal processes at other locations. Impacts on coastal processes must be managed to minimise adverse impacts on other parts of the coast. Where such proposals are brought forward consent should only be granted where the Secretary of State is satisfied that the benefits (including need) of the development outweigh the adverse impacts.*

- 7.4.38 The assessment concludes that the effect of the project on coastal processes would be negligible to minor adverse which is not significant in EIA terms. Minor adverse effects are predicated for construction and decommissioning activities but are short term and local in scale. Minor adverse effects from cable laying and protection will be controlled through conditions requiring approval of an assessment of cable burial depths and a cable installation method statement. Therefore, the effects on coastal processes do not weigh against the substantial benefits of the scheme.
- 7.4.39 Paragraph 2.6.195 of EN-3 considers that *"The direct effects on the physical environment can have indirect effects on a number of other receptors. Where indirect effects are predicted, the [Secretary of State] should refer to relevant Sections of this NPS and EN-1."* The predicted changes to the physical environment have been considered in relation to indirect effects on other receptors elsewhere in the ES, in particular within Volume 2, Chapter 5: Benthic Ecology (Document Ref: 6.2.5) and in Volume 2, Chapter 3: Marine Water and Sediment Quality (Document Ref: 6.2.3).
- 7.4.40 EN-3 Policy: Paragraph 2.6.196 sets out that *"the methods of construction, including use of materials should be such as to reasonably minimise the potential for impact on the physical environment"* and that *"Mitigation measures which the [Secretary of State] should expect the applicants to have considered include the burying of cables to a necessary depth and using scour protection techniques around offshore structures to prevent scour effects around them. Applicants should consult the statutory consultees on appropriate mitigation."*
- 7.4.41 Thanet Extension has proposed designs and installation methods that seek to minimise significant adverse effects on the physical environment where possible. Where necessary, the assessment has set out mitigation to avoid or reduce significant adverse effects. Details of construction methods including cable burial are controlled by conditions in the Deemed Marine Licences.
- 7.4.42 Part 5.5 of EN-1 sets out matters relevant to Coastal Change at a national level. It is recognised that *"The Government's aim is to ensure that our coastal communities continue to prosper and adapt to coastal change"*. It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.
- 7.4.43 Part 4 of EN-1 sets out a series of general principles that will be taken in account when reaching a decision. Paragraph 4.1.6 requires that the following matters relevant to Marine Geology, Oceanography and Physical Processes are taken in to account when considering any proposed development:
- 7.4.44 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.



- 7.4.45 Paragraphs 5.5.10 to 5.5.16 of NPS EN-1 set out matters the Secretary of State should have regard to in reaching a decision. This includes, inter alia, proposed mitigation, specifically in respect of matters relating to marine processes. It is confirmed that the Secretary of State should be satisfied that the proposed development will be resilient to coastal erosion and deposition, taking account of climate change, during the project's operational life and any decommissioning period.
- 7.4.46 Table 2.22 of volume 2, chapter 2: Marine Geology, Oceanography and Physical Processes of the Environmental Statement provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, operation and maintenance phase, and decommissioning phase.
- 7.4.47 The assessment of Marine Geology, Oceanography and Physical Processes has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.
- 7.4.48 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS's and other identified material planning policy matters. The environmental assessment carried out demonstrates that effects on Marine Geology, Oceanography and Physical Processes should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

## 7.5 Marine Water and Sediment Quality

- 7.5.1 This topic is assessed in Volume 2, Chapter 4 (Marine Water and Sediment Quality) of the ES (Document 6.2.3).

### National Policy Statements: NPS EN-1

#### *EN-1 Policy: Paragraph 5.15.3*

- 7.5.2 The existing quality of waters affected by the proposed project and the impacts of the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges. Existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics; and any impacts of the proposed project on waterbodies or protected areas under the Water Framework Directive.

*How has this been addressed?*

- 7.5.3 A baseline of the existing water quality for the area which may be affected by the proposed activities is presented in section 3.7 of the ES chapter. The impacts of the proposed activities on marine water quality are assessed in sections 3.10 to 3.14 of the ES chapter. There will be no proposed changes or new discharges as a result of Thanet Extension. A full WFD assessment is presented in Volume 4, Annex 3-1: Water Framework Directive (Document Ref: 6.4.3.1) which details the impacts on coastal and transitional waterbodies and protected areas under WFD. Potential changes to the physical environment, including hydrodynamics, waves and sediment pathways, are presented in Volume 2, Chapter 2: Marine Geology, Oceanography and Physical Processes (Document Ref: 6.2.2).

**National Policy Statements: NPS EN-3***EN-3 Policy: Paragraph 5.15.2*

- 7.5.4 Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the Environmental Statement or equivalent.

*How has this been addressed?*

- 7.5.5 Sections 3.10 to 3.14 of the ES chapter present the assessment of the proposed development on water quality. An assessment of the physical characteristics is presented in Volume 2, Chapter 2: Marine Geology, Oceanography and Physical Processes (Document Ref: 6.2.2). An assessment of fresh water resources and quality is presented in Volume 3, Chapter 6: Ground Conditions, Land Use and Flood Risk (Document Ref: 6.3.6).

**Other Policy Considerations**

- 7.5.6 No other policy considerations were identified for marine water and sediment quality.

**Considerations for the Secretary of State**

- 7.5.7 Paragraphs 5.15.2 to 5.15.3 of EN-1 sets out a series of principles that will be taken into account when reaching a decision on marine water quality. EN-1 (5.15.3) requires an assessment of the proposed project on water quality and considerations of the proposed project on waterbodies or protected areas under the Water Framework Directive.
- 7.5.8 The assessment of Water Quality and Sediment Quality has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.

- 7.5.9 Table 3.14 of Volume 2, Chapter 3: Water Quality and Sediment Quality (Document Ref: 6.2.3) of the Environmental Statement provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, operation and maintenance phase, and decommissioning phase. No significant effects in EIA terms have been identified. A full WFD assessment is presented in Volume 4, Annex 3-1: Water Framework Directive (Document Ref: 6.4.3.1) which details the impacts on coastal and transitional waterbodies and protected areas under WFD.
- 7.5.10 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS's and other identified material planning policy matters.
- 7.5.11 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects and therefore effects on marine water and sediment quality should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

## 7.6 Offshore Ornithology

- 7.6.1 This topic is assessed in Volume 2, Chapter 4 (Offshore Ornithology) of the ES (Document 6.2.4).

### National Policy Statements: NPS EN-1

#### *EN-1 Policy*

- 7.6.2 NPS EN-1 requires the Environmental Impact Assessment (EIA) to include effects on, opportunities to enhance and mitigation for biodiversity.

#### *How has this been addressed?*

- 7.6.3 Potential effects, opportunities and mitigation on birds are considered through the assessment in Sections 4.11 to 4.14 of the ES Chapter.

### National Policy Statements: NPS EN-3

#### *EN-3 Policy: Paragraphs 2.6.102 - 105*

- 7.6.4 NPS EN-3 requires the EIA to include all project stages, consultation over surveys and Collision Risk Model (CRM).

#### *How has this been addressed?*

- 7.6.5 Potential effects at all stages and CRM are addressed in the assessment in Sections 4.11 to 4.14 of this ES chapter, and consultation over surveys in Section 4.3 of the ES Chapter.

## Other Policy Considerations

### *NPPF*

- 7.6.6 The NPPF requires minimise impact on biodiversity, to provide net gains where possible and to contribute to halting decline.

### *How has this been addressed?*

- 7.6.7 Potential effects, opportunities and mitigation on birds considered through the assessment in Sections 4.11 to 4.14 of the ES chapter.

## Considerations for the Secretary of State

- 7.6.8 Part 5.3 of EN-1 sets out the policy for the Secretary of State in relation to generic biodiversity impacts. Paragraphs 2.6.58 to 2.6.71 of NPS EN-3 sets out offshore wind-specific biodiversity policy.

- 7.6.9 It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.

- 7.6.10 Part 4 of EN-1 sets out a series of general principles that will be taken in to account when reaching a decision. Paragraph 4.1.6 requires that the following matters are taken in to account when considering any proposed development:

*‘The Secretary of State must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails for purposes of Secretary of State decision making given the national significance of the infrastructure’.*

- 7.6.11 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to “*environmental, social and economic benefits and adverse impacts, at national, regional and local levels*”.

- 7.6.12 Paragraph 2.6.106 of EN-3 relates to the Secretary of State’s decision making, and sets out that:

*‘In addition to Section 5.3 of EN-1 the offshore wind-specific biodiversity considerations set out in paragraphs 2.6.58 to 2.6.71 above should inform Secretary of State decision making’.*

- 7.6.13 The requirements of the aforementioned paragraphs (specifically 2.6.68 to 2.6.71) have been assessed and are presented in Table 4.40 of volume 2, chapter 4: Offshore Ornithology of the Environmental Statement. Table 4.40 provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, operation and maintenance phase, and decommissioning phase.
- 7.6.14 The assessment of Offshore Ornithology has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.
- 7.6.15 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS's and other identified material planning policy matters.
- 7.6.16 With the exception of minor to moderate adverse cumulative effects to Red-throated diver, the environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regards to the EIA Regulations, or effects that would be considered to be unacceptable or in conflict with regards to planning considerations.
- 7.6.17 Given that the minor to moderate cumulative effect on red-throated diver is an existing effect not one caused by Thanet Extension, the environmental assessment demonstrates that effects on offshore ornithology should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

## 7.7 Benthic Subtidal and Intertidal Ecology

- 7.7.1 This topic is assessed in Volume 2, Chapter 5 (Benthic Subtidal and Intertidal Ecology) of the ES (Document 6.2.5).

### National Policy Statements: NPS EN-1

#### *EN-1 Policy: Paragraphs 5.3.10 and 5.3.11*

- 7.7.2 Sites of Special Scientific Interest (SSSIs) that are not incorporated within internationally designated sites should be provided with a high degree of protection. Where a proposed development within or outside a SSSI is likely to have an adverse effect on an SSSI (alone or together with other developments) development consent should not normally be granted. If after mitigation an adverse effect is still likely then consent should only be given where the benefits (including need) for a development outweighs the impacts on the SSSI in question and also the wider SSSI network. The Secretary of State (Secretary of State) should use requirements and/ or planning obligations to mitigate the harmful aspects of the development, and where possible, ensure the conservation of the site's biodiversity or geological interest.

*How has this been addressed?*

- 7.7.3 Sandwich Bay to Hacklinge Marshes SSSI is partially within Thanet Coast and Sandwich Bay Special Protection Area (SPA) and Sandwich Bay Special Area of Conservation (SAC) and Thanet Coast SAC. Where the features within the SSSI are a feature of the Natura 2000 sites (SAC, SPA or Ramsar), those features have been considered as part of that Natura 2000 site in this assessment. Where a SSSI or the features of a SSSI are not included within a Natura 2000 site, the SSSI (or features) have been considered individually within the chapter. Appropriate mitigation has been secured in the form of a Saltmarsh Mitigation, Reinstatement and Monitoring Plan (Document 8.13).

*EN-1 Policy: Paragraph 5.3.12*

- 7.7.4 The Secretary of State is bound by the duties in relation to Marine Conservation Zones (MCZs) imposed by sections 125 and 126 of the Marine and Coastal Access Act 2009.

*How has this been addressed?*

- 7.7.5 A MCZ assessment is being undertaken separately (Report to Inform Appropriate Assessment (Document Ref: 6.4.5.3) with a summary of the relevant habitats presented within the chapter for completeness.

**National Policy Statements: NPS EN-3***EN-3 Policy: Paragraph 2.6.64*

- 7.7.6 Applicants should assess the effects on the offshore ecology and biodiversity for all stages of the lifespan of the proposed OWF.

*How has this been addressed?*

- 7.7.7 The potential effects associated with the construction, operation and decommissioning of Thanet Extension have been assessed (section 5.10 - 5.12) of the chapter.

*EN-3 Policy: Paragraph 2.6.65*

- 7.7.8 Consultation on the assessment methodologies should be undertaken at an early stage with the statutory consultees as appropriate.

*How has this been addressed?*

- 7.7.9 Consultation has been undertaken through the scoping process and is ongoing with the relevant consultees through the Evidence Plan process (Table 5.5) in the ES Chapter.

*EN-3 Policy: Paragraph 2.6.66*

- 7.7.10 Any relevant data that has been collected as part of post-construction ecological monitoring from existing, operational OWFs should be referred to where appropriate.

*How has this been addressed?*

- 7.7.11 Relevant data collected as part of post-construction monitoring from other OWFs (primarily TOWF) has informed the assessment of Thanet Extension (section 5.7 and within sections 5.10 - 5.12) of the chapter. The Marine Management Organisation (MMO) have produced a review (MMO, 2012) on post-construction monitoring that has been undertaken for OWFs within which it is noted that there have been limited effects arising on benthic communities from certain impacts. Where appropriate the chapter cross refers to those studies either individually or through reference to the MMO review.

*EN-3 Policy: Paragraph 2.6.67*

- 7.7.12 Applicants should assess the potential for the scheme to have both positive and negative effects on marine ecology and biodiversity (paragraph).

*How has this been addressed?*

- 7.7.13 Both the positive and negative effects of Thanet Extension have been assessed (sections 5.10 - 5.12) of the chapter.

*EN-3 Policy: Paragraphs 2.6.113 and 2.6.81*

- 7.7.14 Applicants should assess the effects on the subtidal environment from habitat loss due to foundations and seabed preparation, predicted scour, scour protection and altered sedimentary processes and effects on the intertidal zone.

*How has this been addressed?*

- 7.7.15 The assessment has considered effects from all development phases on benthic and intertidal habitats and species in the vicinity of Thanet Extension. These assessments included all likely effects from temporary and long-term habitat loss and the effects of changes in physical processes (sections 5.10 - 5.12) of the chapter.

*EN-3 Policy: Paragraphs 2.6.113 and 2.6.81*

- 7.7.16 Applicants should assess the effects on the benthic environment from extendible legs and anchors of construction vessels and habitat disturbance in the intertidal zone during cable installation and removal (decommissioning).

*How has this been addressed?*

- 7.7.17 The Thanet Extension assessment has considered the effects of benthic and intertidal disturbances throughout the whole of the development (sections 5.10 - 5.12), with specific reference to construction vessels and anchors in paragraph 5.10.1 *et seq* and habitat disturbance within the intertidal zone in paragraph 5.10.15 *et seq*.

*EN-3 Policy: Paragraphs 2.6.113 and 2.6.81*

- 7.7.18 Applicants should assess the effects of increased suspended sediment loads during construction on subtidal habitats and intertidal habitats.

*How has this been addressed?*

- 7.7.19 Specific effects of increased suspended sediment load and the associated sediment deposition on benthic and intertidal ecology have been assessed with regards to the construction phase (paragraphs 5.10.1 and 5.10.15 *et seq* respectively).

*EN-3 Policy: Paragraphs 2.6.113 and 2.6.81*

- 7.7.20 Applicants should assess the predicted rates for subtidal habitat recovery (paragraph 2.6.113) and intertidal habitats (paragraph 2.6.81).

*How has this been addressed?*

- 7.7.21 The likely rates of recovery of benthic and intertidal habitats/species have been presented for each impact discussed, based on the recorded recovery of the local area (and the same habitats and species) from the TOWF post-construction benthic and saltmarsh surveys (Marine Ecological Surveys Ltd (MESL) 2012) and have been used to inform the assessment of the significance of the effect (sections 5.10 - 5.12).

*EN-3 Policy: Paragraph 2.6.114*

- 7.7.22 If it is proposed to install offshore cables to a depth of at least 1.5 metres below the seabed, the Applicant should not have to assess the effects of the cables on intertidal and subtidal habitat during the operational phase of the OWF.

*How has this been addressed?*

- 7.7.23 The target burial depth below the long-term stable seabed level of between 0 - 3 metres, is anticipated for the majority of the OECC, as such, the effects of Electromagnetic Fields (EMF) on benthic or intertidal receptors are assessed in paragraphs 5.11.29 *et seq*.

**Other Policy Considerations**

- 7.7.24 No other policy considerations have been identified for benthic and intertidal ecology.

**Considerations for the Secretary of State**

- 7.7.25 Part 5.3 of EN-1 sets out matters relevant to Biodiversity and geological conservation at national level. It is recognised that 'Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part'. It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.
- 7.7.26 Part 4 of EN-1 sets out a series of general principles that will be taken in to account when reaching a decision. Paragraph 4.1.6 requires that the following matters relevant to benthic subtidal and intertidal ecology are taken in account when considering any proposed development:



*‘The Secretary of State must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails for purposes of Secretary of State decision making given the national significance of the infrastructure’.*

- 7.7.27 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to “*environmental, social and economic benefits and adverse impacts, at national, regional and local levels*”.
- 7.7.28 Paragraph 2.6.68 of NPS EN-3 sets out matters the Secretary of State should have regard to in reaching a decision. The Secretary of State should consider the effects of a proposal on marine ecology and biodiversity taking into account all relevant information made available to it. Paragraphs 2.6.84 to 2.6.87 and 2.6.115 to 2.6.118 of NPS EN-3 set out matters the Secretary of State should have regard to when considering impacts on subtidal and intertidal environments.
- 7.7.29 Table 5.18 of volume 2, chapter 5: Benthic Subtidal and Intertidal Ecology of the Environmental Statement provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, operation and maintenance phase, and decommissioning phase.
- 7.7.30 The assessment of Benthic Subtidal and Intertidal Ecology has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.
- 7.7.31 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS’s and other identified material planning policy matters. The environmental information and assessment carried out for Thanet Extension demonstrate that there is no conflict with any of the conditions set out by the NPS’s which would lead to a refusal of development consent on Benthic Subtidal and Intertidal Ecology grounds.
- 7.7.32 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regards to the EIA Regulations and therefore demonstrates that effects on benthic, subtidal and intertidal ecology should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

## **7.8 Fish and Shellfish Ecology**

- 7.8.1 This topic is assessed in Volume 2, Chapter 6 (Fish and Shellfish Ecology) of the ES (Document 6.2.6).

**National Policy Statements: NPS EN-1**

- 7.8.2 No relevant policy requirements for fish and shellfish ecology have been identified in EN-1.

**National Policy Statements: NPS EN-3***EN-3 Policy: Paragraph 2.6.64*

- 7.8.3 Assessment of offshore ecology and biodiversity should be undertaken by the applicant for all stages of the lifespan of the proposed Offshore Wind Farm (OWF) and in accordance with the appropriate policy for OWF EIAs.

*How has this been addressed?*

- 7.8.4 This assessment considers effects on fish and shellfish receptors at all stages of the lifespan of the project, including the construction, O&M and maintenance, and decommissioning phases (see Table 6-7 and paragraphs 6.10.16.10.1 *et seq*).

*EN-3 Policy: Paragraph 2.6.65*

- 7.8.5 Consultation on the assessment methodologies should be undertaken at early stages with the statutory consultees as appropriate.

*How has this been addressed?*

- 7.8.6 Consultation with relevant statutory and non-statutory stakeholders has been carried out from the early stages of Thanet Extension (see Table 6-3: for a summary of consultation with regard to fish and shellfish).

*EN-3 Policy: Paragraph 2.6.66*

- 7.8.7 Any relevant data that has been collected as part of post-construction ecological monitoring from existing, operational OWFs should be referred to where appropriate.

*How has this been addressed?*

- 7.8.8 Relevant data collected as part of post-construction monitoring from other OWF projects has informed the assessment of Thanet Extension (see paragraph 6.7.9 *et seq*).

*EN-3 Policy: Paragraph 2.6.67*

- 7.8.9 The assessment should include the potential of the scheme to have both positive and negative effects on marine ecology and biodiversity.

*How has this been addressed?*

- 7.8.10 The assessment methodology includes the provision for assessment of both positive and negative effects (see Table 6-6).

*EN-3 Policy: Paragraph 2.6.74*

7.8.11 The applicant should identify fish species that are the most likely receptors of impacts with respect to:

- Spawning grounds;
- Nursery grounds;
- Feeding grounds;
- Over-wintering areas for crustaceans; and
- Migration routes.

*How has this been addressed?*

7.8.12 Particular attention has been given to impacts on fish species at key life stages such as during spawning or on known nursery habitats (see paragraph 6.7.23 et seq).

*EN-3 Policy: Paragraph 2.6.68*

7.8.13 The Secretary of State should consider the effects of a proposal on marine ecology and biodiversity taking into account all relevant information made available to it.

*How has this been addressed?*

7.8.14 This has been described and considered throughout the assessment of Thanet Extension.

*EN-3 Policy: Paragraph 2.6.69*

7.8.15 The designation of an area as Natura 2000 site does not necessarily restrict the construction or operation of OWFs in or near that area (see also Section 4.3 of EN-1).

*How has this been addressed?*

7.8.16 Natura 2000 sites have been considered during the Thanet Extension assessment (Volume 2, Chapter 8: Designated Sites (Document Ref: 6.2.8)).

*EN-3 Policy: Paragraph 2.6.70*

7.8.17 Mitigation may be possible in the form of careful design of the development itself and the construction techniques employed.

*How has this been addressed?*

7.8.18 Mitigation has been considered during the design and development of Thanet Extension (see Table 6-8).

*EN-3 Policy: Paragraph 2.6.71*

- 7.8.19 Ecological monitoring is likely to be appropriate during the construction and operational phases to identify the actual impact itself so that, where appropriate, adverse effects can then be mitigated and to enable further useful information to be published relevant to future projects.

*How has this been addressed?*

- 7.8.20 Where appropriate, and through reference to the MMO's review of post-construction monitoring (MMO, 2011) monitoring has been considered during the assessment of potential effects associated with Thanet Extension.

*EN-3 Policy: Paragraph 2.6.75*

- 7.8.21 Where it is proposed that mitigation measures of the type set out in paragraph 2.6.76 below are applied to offshore export cables to reduce Electromagnetic Fields (EMF) the residual effects of EMF on sensitive species from cable infrastructure during operation are not likely to be significant. Once installed, operational EMF impacts are unlikely to be of sufficient range or strength to create a barrier to fish movement.

*How has this been addressed?*

- 7.8.22 EMF effects are considered within the Thanet Extension assessment (see paragraphs 6.11.33 *et seq*).

*EN-3 Policy: Paragraph 2.6.76*

- 7.8.23 EMF during operation may be mitigated by use of armoured cable for inter-array and export cables which should be buried at a sufficient depth. Some research has shown that where cables are buried at depths greater than 1.5 m below the seabed impacts are likely to be negligible. However, sufficient depth to mitigate impacts will depend on the geology of the seabed.

*How has this been addressed?*

- 7.8.24 Mitigation of EMF through cable burial (and cable armouring, where appropriate) is considered within the Thanet Extension EIA (see Table 6-8 Table 6-7).

*EN-3 Policy: Paragraph 2.6.77*

- 7.8.25 During construction, 24 hour working practices may be employed so that the overall construction programme and the potential for impacts to fish communities is reduced in overall time.

*How has this been addressed?*

- 7.8.26 The duration of the proposed works is given due weight within the Thanet Extension assessment process (see Table 6-7).

## Other Policy Considerations

7.8.27 No other relevant policy considerations were identified for fish and shellfish ecology.

## Considerations for the Secretary of State

7.8.28 Part 5.3 of EN-1 sets out the policy for the Secretary of State in relation to generic biodiversity impacts. Paragraphs 2.6.58 to 2.6.71 of NPS EN-3 sets out offshore wind-specific biodiversity policy. In addition, there are specific considerations set out in EN-3 (2.6.73) which apply to the effect of offshore wind energy infrastructure proposals on fish and shellfish as set out below:

*“There is potential for the construction and decommissioning phases, including activities occurring both above and below the seabed, to interact with seabed sediments and therefore have the potential to impact fish communities, migration routes, spawning activities and nursery areas of particular species. In addition, there are potential noise impacts, which could affect fish during construction and decommissioning and to a lesser extent during operation’.*

7.8.29 It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.

7.8.30 Part 4 of EN-1 sets out a series of general principles that will be taken in to account when reaching a decision. Paragraph 4.1.6 requires that the following matters relevant to fish and shellfish ecology are taken in to account when considering any proposed development:

*“The Secretary of State must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails for purposes of Secretary of State decision making given the national significance of the infrastructure”.*

7.8.31 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *“environmental, social and economic benefits and adverse impacts, at national, regional and local levels”*.

7.8.32 Paragraph 2.6.75 of NPS EN-3 sets out matters the Secretary of State should have regard to in reaching a decision. Where it is proposed that mitigation measures are applied to offshore export cables to reduce EMF (e.g. Armoured cabling and cable burial at sufficient depths) the residual effects of EMF on sensitive species from cable infrastructure during operation are not likely to be significant. Once installed, operational EMF impacts are unlikely to be of sufficient range or strength to create a barrier to fish movement.

- 7.8.33 Table 6.16 of volume 2, chapter 6: Fish and Shellfish of the Environmental Statement provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, operation and maintenance phase, and decommissioning phase.
- 7.8.34 The assessment of Fish and Shellfish has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.
- 7.8.35 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS's and other identified material planning policy matters. The environmental information and assessment carried out for Thanet Extension demonstrate that there is no conflict with any of the conditions set out by the NPS's which would lead to a refusal of development consent on fish and shellfish grounds.
- 7.8.36 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regards to the EIA Regulations and therefore the effects on fish and shellfish ecology should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

## 7.9 Marine Mammals

- 7.9.1 This topic is assessed in Volume 2, Chapter 7 (Marine Mammals) of the ES (Document 6.2.7).

### National Policy Statements: NPS EN-1

- 7.9.2 No relevant policy requirements for marine mammals have been identified in EN-1.

### National Policy Statements: NPS EN-3

#### *EN-3 Policy: Paragraph 2.6.92*

- 7.9.3 The assessment of the effects on marine mammals should include details of: likely feeding areas; known birthing areas/haul-out sites; nursery grounds; known migration or commuting routes; duration of disturbing activity including cumulative/ in-combination effects; baseline noise levels; predicted noise levels in relation to mortality, PTS and TTS; soft-start noise levels; and operational noise.

#### *How has this been addressed?*

- 7.9.4 All of the specified marine mammal ecology details are included in the chapter. This assessment also considers the cumulative impacts of Thanet Extension and other relevant plans or projects (Section 7.14).

*EN-3 Policy Paragraph 2.6.93*

- 7.9.5 The Applicant should discuss any proposed piling activities with the relevant body. Where assessment shows that noise from offshore piling may reach noise levels likely to lead to an offence, the Applicant should look at possible alternatives or appropriate mitigation before applying for an EPS licence.

*How has this been addressed?*

- 7.9.6 In discussion with the Offshore Ecology Technical Expert Panel, the marine mammal assessment has considered the environmental impact of piling noise over a range of hammer energies and foundation types. The results of this assessment are detailed in paragraphs 7.11.72 to 7.11.111. Mitigation adopted as part of Thanet Extension is outlined in Section 7.10.

**Other Policy Considerations***Habitats Directive:*

- 7.9.7 All cetaceans in Northern European waters are listed under Annex IV of the EU Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) as EPS of Community Interest and in need of strict protection. The harbour porpoise, bottlenose dolphin, harbour seal and grey seal have protection under Annex II as species of Community Interest whose conservation requires the designation of SACs. The Habitats Directive was transposed into UK law under the Conservation (Natural Habitats, &c) Regulations 1994. The Conservation of Habitats and Species Regulations 2010 consolidate the various amendments to the 1994 Regulations in respect of England and Wales.

*How has this been addressed?*

- 7.9.8 The potential impact to harbour porpoise as an EPS (risk of injury or disturbance) is assessed in Sections 7.11, 7.12, 7.13 and 7.

*ASCOBANS:*

- 7.9.9 ASCOBANS came into force in 1994. The aim of the Agreement is for member parties to cooperate to achieve and maintain a FCS for small cetaceans. ASCOBANS is applied in all UK waters in accordance with existing statutory protection for cetacean species.

*How has this been addressed?*

- 7.9.10 The effect of all potential impacts on the conservation status the harbour porpoise (the only relevant species of small cetacean) is assessed in Sections 7.11, 7.12, 7.13 and 7.14.

*Marine Strategy Framework Directive (MSFD):*

7.9.11 The overarching goal of the MSFD is to achieve 'Good Environmental Status' (GES) by 2020 across Europe's marine environment. To this end, Annex I of the Directive identifies 11 high level qualitative descriptors for determining GES. Those descriptors particularly relevant to the marine mammal assessment for Thanet Extension are Descriptors 4) Elements of marine food webs, 6) Sea floor integrity, 8) Contaminants, 11) Energy including underwater noise.

*How has this been addressed?*

7.9.12 The effects of the project on the abundance and distribution of marine mammals within the Thanet Extension site and wider regional area have been described and considered within the assessment for Thanet Extension alone and in the Cumulative Effects Assessment (CEA) (see sections 7.11 to 7.13 and 7.14, respectively).

7.9.13 The effect on marine mammal prey species as a result of impacts on the sea floor have been described and considered within the assessment for Thanet Extension alone and in the CEA. The effects of contaminants on marine mammal receptors were scoped out as agreed by Planning Inspectorate (PINS) in the scoping opinion (PINS, February 2017).

7.9.14 The effects of underwater noise from piling of Wind Turbine Generators (WTG) and substation foundations, other construction activities (e.g. cable installation) and vessel noise have been considered within the assessment for Thanet Extension alone (Section 7.11) and in the CEA (see Section 7.14).

**Considerations for the Secretary of State**

7.9.15 Part 5.3 of EN-1 sets out the policy for the Secretary of State in relation to generic biodiversity impacts. Paragraphs 2.6.58 to 2.6.71 of NPS EN-3 sets out offshore wind-specific biodiversity policy. In addition, there are specific considerations from piling noise which apply to offshore wind energy infrastructure proposals with regard to marine mammals.

7.9.16 It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.

7.9.17 Part 4 of EN-1 sets out a series of general principles that will be taken in to account when reaching a decision. Paragraph 4.1.6 requires that the following matters relevant to marine mammals are taken into account when considering any proposed development:

*"The Secretary of State must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails*



*for purposes of Secretary of State decision making given the national significance of the infrastructure".*

7.9.18 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.

7.9.19 Paragraph 2.6.94 to 2.6.96 of EN-3 relate to the Secretary of State's decision making, and sets out that:

*"the preferred methods of construction, in particular the construction method needed for the proposed foundations and the preferred foundation type, where known at the time of application, are designed so as to reasonably minimise significant disturbance effects on marine mammals. Unless suitable noise mitigation measures can be imposed by requirements to any development consent the Secretary of State may refuse the application.*

*The conservation status of marine European Protected Species and deals are of relevance to the Secretary of State. The Secretary of State should take into account the views of relevant statutory advisors.*

*Fixed submerged structures such as foundations are likely to pose little collision risk for marine mammals and the Secretary of State is not likely to have to refuse to grant consent for a development on the grounds that offshore wind farm foundations pose a collision risk to marine mammals".*

7.9.20 Different foundation options and hammer energies have been considered for Thanet Extension. The maximum design scenario has been defined as those that represent the realistic maximum design scenario that have the potential to occur. These have been assessed and are presented in Table 7.14 of volume 2, chapter 7: Marine Mammals of the Environmental Statement.

7.9.21 The conservation status of species has been factored into the assessment of significance in Table 7.3 of volume 2, chapter 7: Marine Mammals of the Environmental Statement.

7.9.22 Table 7.44 of volume 2, chapter 7: Marine Mammals of the Environmental Statement provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, operation and maintenance phase, and decommissioning phase.

7.9.23 The assessment of Marine Mammals has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.

7.9.24 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS's and other identified material planning policy matters. The environmental information and assessment carried out for Thanet Extension demonstrate that there is no conflict with any of the conditions set out by the NPS's which would lead to a refusal of development consent on marine mammal grounds.

7.9.25 With the exception of cumulative underwater noise impacts the environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regards to the EIA Regulations.

The impact caused by cumulative noise on Harbour Porpoise was assessed as moderate adverse but no significant long-term effect on the size or health of the population. Mitigation is not possible as the moderate adverse assessment would still be predicted if Thanet Extension was removed from the cumulative assessment. Taking this into account with the assessment of no long term significant effects on marine mammals, this should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

## 7.10 Offshore Designated Sites

7.10.1 This topic is assessed in Volume 2, Chapter 8 (Offshore Designated Sites) of the ES (Document 6.2.8).

### National Policy Statements: NPS EN-1

#### *EN-1 Policy: Paragraph 5.3.3*

7.10.2 Applicants should ensure that the Environmental Statement (ES) clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological importance, on protected species and on habitats and other species identified as being of principle importance for the conservation of biodiversity.

#### *How has this been assessed?*

7.10.3 The construction, O&M and decommissioning of Thanet Extension have been assessed as part of the EIA process for designated sites as well as for protected species and habitats (section 8.10 - section 8.12). This includes an assessment of impacts on the sites according to the EIA regulations.

#### *EN-1 Policy: Paragraph 5.3.4*

7.10.4 Applicants should demonstrate how the project has taken advantage of opportunities to conserve and enhance biodiversity (and geological) conservation interests (paragraph 5.3.4).

*How has this been addressed?*

- 7.10.5 Opportunities to conserve and enhance biodiversity have been explored and noted where relevant.

**National Policy Statements: NPS EN-3**

*EN-3 Policy: Paragraph 2.6.64*

- 7.10.6 Applicants should assess the effects on the offshore ecology and biodiversity for all stages of the lifespan of the proposed offshore wind farm.

*How has this been addressed?*

- 7.10.7 Construction, O&M and decommissioning phases of Thanet Extension have been assessed as part of the EIA process (section 8.10 - section 8.12).

*EN-3 Policy: Paragraph 2.6.67*

- 7.10.8 Applicants should assess the potential for the scheme to have both positive and negative effects on marine ecology and biodiversity.

*How has this been addressed?*

- 7.10.9 Both the positive and negative effects of Thanet Extension have been assessed (section 8.10 - section 8.12).

*EN-3 Policy: Paragraph 2.6.69*

- 7.10.10 The designation of an area a Natura 2000 site does not necessarily restrict the construction or operation of offshore wind farms in or near that area.

*How has this been addressed?*

- 7.10.11 Natura 2000 sites have been considered during the Thanet Extension EIA process (section 8.10 - section 8.12).

*EN-3 Policy: Paragraph 2.6.70*

- 7.10.12 Mitigation may be possible in the form of careful design of the development itself and the construction techniques employed.

*How is this being addressed?*

- 7.10.13 Mitigation embedded into the development is detailed in section 8.9.

*EN-3 Policy: Paragraph 2.6.71*

- 7.10.14 Ecological monitoring is likely to be appropriate during the construction and O&M phases to identify the actual impact so that, where appropriate, adverse effects can then be mitigated and to enable further useful information to be published relevant to future projects (paragraph 2.6.71).

*How is this being addressed?*

- 7.10.15 Pre-construction monitoring for potential Annex I habitat and saltmarsh monitoring (before, during and post construction) will be undertaken and is included as part of the embedded mitigation for Thanet Extension (section 8.9).

**Other Policy Considerations***Marine Policy Statement (MPS): Paragraph 2.6.1.3*

- 7.10.16 Development should aim to avoid harm to marine ecology, biodiversity and geological conservation interests (including geological and morphological features), including through location, mitigation and consideration of reasonable alternatives. Where significant harm cannot be avoided, then appropriate compensatory measures should be sought. Additional requirements apply in relation to developments affecting Natura 2000 sites.

*How has this been addressed?*

- 7.10.17 All relevant Natura 2000 sites have been considered and assessed as part of the ES process (sections 8.10 - 8.12). The reasons for each sites designation is outlined in section 8.7. These reasons include ecological and geological aspects. The individual ecology chapters consider habitats and species of principle importance.

*MPS: Paragraph 2.6.1.4*

- 7.10.18 It is also recognised that the benefits of development may include benefits for marine ecology, biodiversity and geological conservation interests and that these may outweigh potential adverse effects.

*How has this been addressed?*

- 7.10.19 Both positive and negative effects on the marine ecology and biodiversity have been assessed in the EIA process (sections 8.10 - 8.12).

*East Marine Plans: CAB1 (Cable Policy)*

- 7.10.20 Preference should be given to proposals for cable installation where the method of installation is burial. Where burial is not achievable, decisions should take account of protection measures for the cable that may be proposed by the applicant.

*How has this been addressed?*

- 7.10.21 Policy considerations detailed within the CAB1 Policy have been met through assessment of other cable installations in the area (see cumulative impact assessment in section 8.13) and appropriate cable protection. Cables will be buried where practicable to do so and appropriate protection installed.

*ECO1 (Environment Policy)*

- 7.10.22 Cumulative impacts affecting the ecosystem of the East Marine Plans and adjacent areas (marine, terrestrial) should be addressed in decision-making and plan implementation.

*How has this been addressed?*

7.10.23 Cumulative impacts are considered in the cumulative impact assessment (section 8.13).

*MPA1 (Environment Policy)*

7.10.24 Any impacts on the overall Marine Protected Area (MPA) network must be taken account of in strategic level measures and assessments, with due regard given to any current agreed advice on an ecologically coherent network.

*How has this been addressed?*

7.10.25 Regional MPAs are considered within the chapter and within the Habitats Regulation Assessment (HRA) documentation (Report to Inform Appropriate Assessment (Document Ref: 5.2)).

### Considerations for the Secretary of State

7.10.26 Part 5.3 of EN-1 sets out the policy for the Secretary of State in relation to generic biodiversity impacts. It is recognised that *"Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part"*. It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects. Paragraphs 2.6.58 to 2.6.71 of NPS EN-3 set out offshore wind-specific biodiversity policy.

7.10.27 Part 4 of EN-1 sets out a series of general principles that will be taken in to account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to Ecology and Nature Conservation are taken in to account when considering any proposed development:

- *"its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and*
- *its potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts"*.

7.10.28 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.

7.10.29 Paragraphs 5.3.5 to 5.3.8 sets out matters the Secretary of State should have regard to in determining an application for development consent. This includes, inter alia, the following:

- The Government's biodiversity strategy is to ensure a halting, and if possible a reversal, of declines in priority habitats and species, with wild species and habitats as part of healthy, functioning ecosystems; and

- The general acceptance of biodiversity's essential role in enhancing the quality of life, with its conservation becoming a natural consideration in all relevant public, private and non-governmental decisions and policies.

7.10.30 The Government must also take in account the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity (EN-1 paragraph 5.3.6).

7.10.31 Table 8.9 of volume 2, chapter 8: Designated Sites of the Environmental Statement provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, operation and maintenance phase, and decommissioning phase.

7.10.32 The assessment of Designated Sites has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.

7.10.33 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS's and other identified material planning policy matters. The environmental information and assessment carried out for Thanet Extension demonstrate that there is no conflict with any of the conditions set out by the NPS's which would lead to a refusal of development consent on designated sites grounds.

7.10.34 With the exception of cumulative underwater noise impacts on sites designated for Harbour Porpoise, the environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regards to the EIA Regulations.

The impact caused by cumulative noise on Harbour Porpoise was assessed as moderate adverse but with no significant long-term effect on the size or health of the population and therefore relevant designated sites. Mitigation is not possible as the moderate adverse assessment would still be predicted if Thanet Extension was removed from the cumulative assessment. Taking this into account with the assessment of no significant long term effects on designated sites, this should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

## 7.11 Commercial Fisheries

7.11.1 This topic is assessed in Volume 2, Chapter 9 (Commercial Fisheries) of the ES (Document 6.2.9).

**National Policy Statements: NPS EN-1**

7.11.2 No relevant policy requirements for commercial fisheries have been identified in EN-1.

**National Policy Statements: NPS EN-3***EN-3 Policy: Section 2.6.121-123*

7.11.3 Whilst the footprint of the OWF and any associated infrastructure may be a hindrance to certain types of commercial fishing activity such as trawling and longlining, other fishing activities may be able to take place within operational wind farms without unduly disrupting or compromising navigational safety. Consequently, the establishment of a wind farm can increase the potential for some fishing activities, such as potting, where this would not compromise any advisory safety area in place. The Secretary of State should consider adverse or beneficial impacts on different types of commercial fishing activity.

*How has this been addressed?*

7.11.4 This is addressed at Section 9.17 of the chapter.

*EN-3 Policy Section 2.6.124*

7.11.5 In some circumstances, transboundary issues may be a consideration as fishermen for other countries may fish in waters within which OWFs are sited.

*How has this been addressed?*

7.11.6 This is addressed at Section 9.23 of the chapter.

*EN-3 Policy: Section 2.6.127*

7.11.7 Early consultation should be undertaken with statutory advisors and with representatives of the fishing industry which could include discussion of impact assessment methodologies. Where any part of the proposal involves a grid connection to shore, appropriate inshore fisheries groups should also be consulted.

*How has this been addressed?*

7.11.8 This is addressed at Section 9.3 and Section 9.7 of the chapter.

*EN-3 Policy: Section 2.6.129*

7.11.9 The assessment by the applicant should include detailed surveys of the effects on fish stocks of commercial interest and any potential reduction in such stocks, as well as likely constraints on fishing activity within the project's boundaries. Robust baseline data should have been collected and studies conducted as part of the assessment.

*How has this been addressed?*

7.11.10 This is addressed in Fish and Shellfish Ecology (document reference 6.2.6) and Section 9.7 of the chapter.

*EN-3 Policy: Section 2.6.130*

7.11.11 Where there is a possibility that advisory safety areas will be sought around offshore infrastructure, potential effects should be included in the assessment on commercial fishing.

*How has this been addressed?*

7.11.12 This is addressed at Section 9.17 of the chapter.

*EN-3 Policy: Section 2.6.131*

7.11.13 Where the precise extent of potential advisory safety areas are unknown, a realistic worst-case scenario should be assessed. Applicants should consult the Maritime and Coastguard Agency (MCA). Exclusion of certain types of fishing. The assessment by the applicant should include detailed surveys of the effects on fish stocks of commercial interest and the potential reduction or increase in such stocks that will result from the presence of the wind farm development and the implementation of any advisory safety areas.

*How has this been addressed?*

7.11.14 This is addressed at Section 9.17 of the chapter.

**Other Policy Considerations***Marine Policy Statement*

7.11.1 The UK Marine Policy Statement explicitly expresses support for the fishing sector, and with regard to displacement, advocates 'seeking solutions such as co-location of activity wherever possible'. Paragraphs 3.8.1, 3.8.2 and 2.3.1.5 stipulate that the process of marine planning should 'enable the co-existence of compatible activities wherever possible' and supports the reduction of real and potential conflict as well as maximising compatibility and encouraging co-existence of activities.

*How has this been addressed*

7.11.2 A Fisheries Liaison and Coexistence Plan (Document 8.8) has been produced and consulted upon which sets out the measures for communication and coexistence during construction and operation phases of Thanet Extension.

**Considerations for the Secretary of State**

7.11.3 Paragraphs 2.6.132 and 2.6.133 of NPS EN-3 sets out the policy for the Secretary of State's decision making in relation to Commercial Fisheries.



7.11.4 It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.

7.11.5 Part 4 of EN-1 sets out a series of general principles that will be taken in account when reaching a decision. Paragraph 4.1.2 requires that:

*"The Secretary of State should start with a presumption in favour of granting consent to applications for energy NSIPs".*

7.11.6 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.

7.11.7 Paragraph 2.6.132 relates to the Secretary of State's decision making, and sets out that:

*"The Secretary of State should be satisfied that the site selection process has been undertaken in a way that reasonably minimises adverse impacts on fish stocks, including during peak spawning periods and the activity of fishing itself. The Secretary of State should consider the extent to which the proposed development occupies any recognised important fishing grounds and whether the project would prevent or significantly impede protection of sustainable Commercial Fisheries or fishing activities".*

7.11.8 Paragraph 2.6.33 states that:

*"The Secretary of State should be satisfied that the applicant has sought to design the proposal having consulted representatives of the fishing industry with the intention of minimising the loss of fishing opportunity taking into account effects on other marine interests".*

7.11.9 The effects arising from the proposed development have been and will be discussed with statutory bodies during pre- and post-application consultation. Thanet Extension is, and will continue to, take steps to minimise the effects upon the fishing industry in the area through appropriate mitigation where required. Designed in measures related to commercial fisheries and adopted as part of Thanet Extension are provided in section 9.16 of volume 2, chapter 9: Commercial Fisheries of the Environmental Statement.

7.11.10 Table 9.14 of volume 2, chapter 9: Commercial Fisheries of the Environmental Statement provides a summary of the potential environmental effects during the construction phase, operation and maintenance phase, and decommissioning phase.

- 7.11.11 The assessment of Commercial Fisheries has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.
- 7.11.12 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS's and other identified material planning policy matters. The environmental information and assessment carried out for Thanet Extension demonstrate that there is no conflict with any of the conditions set out by the NPS's which would lead to a refusal of development consent on commercial fisheries grounds.
- 7.11.13 With the exception of impacts on UK drift netters during the operation and maintenance phase, the environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regards to the EIA Regulations.
- 7.11.14 The impact on UK drift netters during the operational and maintenance phase is assessed in section 9.18.6-9.18.9. The impact was assessed as moderate to minor adverse. The fleet as a whole was considered minor, however the individuals who have demonstrated that their grounds are within Thanet Extension have been considered to be moderate. Mitigation measures may be discussed by VWPL and Thanet Fishermen's Association in relation to this activity.
- 7.11.15 Whilst isolated moderate effects on UK draft netters have been identified, this effect could be mitigated through discussions with Thanet Fishermen's Association and when considering that otherwise no significant effects are predicted this should only carry very limited weight against the substantial benefits of Thanet Extension, particularly when considering the local economic benefits predicted (see Section 7.16, Socio-economics, for further detail).

## 7.12 Shipping and Navigation

- 7.12.1 This topic is assessed in Volume 2, Chapter 10 (Shipping and Navigation) of the ES (Document 6.2.10).

### National Policy Statements: NPS EN-1

- 7.12.2 No relevant policy requirements for shipping and navigation have been identified in EN-1.

### National Policy Statements: NPS EN-3

#### *EN-3 Policy: Paragraph 2.6.153*

- 7.12.3 Stakeholders in the navigation sector should be engaged in the early stages of the development phase and this should continue throughout construction, operation and decommissioning.

*How has this been addressed?*

7.12.4 Section 10.3 of the ES chapter summarises key issues raised during consultation specific to shipping and navigation.

*EN-3 Policy: Paragraph 2.6.154*

7.12.5 Consultation should be undertaken with the Marine Management Organisation (MMO), MCA, relevant General Lighthouse Authority (GLA), relevant industry bodies and representatives of recreational users.

*How has this been addressed?*

7.12.6 The consultation summarised in section 10.3 includes issues raised by the organisations stated. The MMO did not respond directly on shipping and navigation impacts within the Scoping Opinion.

*EN-3 Policy: Paragraph 2.6.155*

7.12.7 Paragraph 2.6.155 states that information on internationally recognised sea lanes should be considered prior to undertaking assessments.

*How has this been addressed?*

7.12.8 Section 10.11 and 10.12 provide information on IMO Routeing measures within the vicinity of Thanet Extension.

*EN-3 Policy: Paragraph 2.6.158*

7.12.9 Where there is a possibility that safety zones will be sought around offshore infrastructure, potential effects should be included in the assessment on navigation and shipping.

*How has this been addressed?*

7.12.10 The effectiveness of safety zones is discussed within sections 10.7 to 10.15.

*EN-3 Policy: Paragraph 2.6.160*

7.12.11 The potential effect on recreational craft, such as yachts, should be considered in any assessment.

*How has this been addressed?*

7.12.12 The effect of Thanet Extension on recreational vessels has been analysed in Figure 10.9 and discussed within sections 10.7 to 10.15.

## Other Policy Considerations

Whilst not specifically items of policy, the following guidance may be of relevance to the Secretary of State's decision making and so has been included for completeness.

### *MGN 543 Guidance on UK Navigational Practice, Safety and Emergency Response Issues*

7.12.13 This MGN highlights issues to be considered when assessing the impact on navigational safety and emergency response, caused by OREI developments, including traffic surveys, consultation, structure layout, collision avoidance, impacts on communications/ radar/ positioning systems and hydrography.

#### *How has this been addressed?*

7.12.14 Section 10.3 provides an overview of consultation undertaken. Section 10.6 provides an overview of traffic surveys and analysis. Section 10.11 discusses impacts on shipping and navigation.

### *Department of Energy and Climate Change (DECC) Methodology for Assessing Marine Navigational Safety Risks of Offshore Wind Farms*

7.12.15 The DECC document provides a template for preparing NRA's for offshore wind farms.

#### *How has this been addressed?*

7.12.16 This guidance document has been used for drafting the full NRA, which is provided as an appendix to the ES (Document Ref: 6.4.10.1).

### *MGN 372 Guidance to Mariners Operating in the Vicinity of UK OREIs*

7.12.17 Issues to be taken into account when planning and undertaking voyages near OREI off the UK coast.

#### *How has this been addressed?*

7.12.18 Section 10.11 is informed by the impacts discussed in MGN 372.

### *International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA AISM) 0-139 the Marking of Man-Made Offshore Structures:*

7.12.19 Guidance to national authorities on the marking of offshore structures including wind farms.

#### *How has this been addressed?*

7.12.20 This is considered as part of section 10.15 on mitigation options.

### *International Maritime Organisation (IMO) Formal Safety Assessment*

7.12.21 Process for undertaking marine navigation risk assessments.

*How has this been addressed?*

7.12.22 This guidance document has been used for drafting the full NRA, which is provided as an appendix to the ES (Document Ref: 6.4.10.1).

7.12.23 Royal Yachting Association (RYA) Position on Offshore Energy Developments: Outlines recreational boating concerns for offshore renewable energy developments.

*How has this been addressed?*

7.12.24 Section 10.11 discusses impacts on shipping and navigation and is informed by this guidance.

**Considerations for the Secretary of State**

7.12.25 Part 5.8 of EN-1 sets out matters relevant to shipping and navigation at a national level. It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.

7.12.26 EN-3 contains more specific guidance, relevant to the Secretary of State's decision-making process with regard to shipping and navigation.

7.12.27 Table 10.11 of volume 2, chapter 10: Shipping and Navigation of the Environmental Statement provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, operation and maintenance phase, and decommissioning phase.

7.12.28 The assessment of Shipping and Navigation has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.

7.12.29 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS's and other identified material planning policy matters.

7.12.30 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regards to the EIA Regulations, therefore effects on shipping and navigation should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

**7.13 Infrastructure and Other Users**

7.13.1 This topic is assessed in Volume 2, Chapter 11 (Infrastructure and Other Users) of the ES (Document 6.2.11).

**National Policy Statements: NPS EN-1**

7.13.2 No relevant policy requirements for infrastructure and other users have been identified in EN-1.

**National Policy Statements: NPS EN-3***EN-3 Policy: Paragraph 2.6.179*

7.13.3 Applicants should undertake an assessment of the potential effect of the proposed development on existing or permitted offshore infrastructure or activities.

*How has this been addressed?*

7.13.4 This document includes an assessment of the potential effects of the proposed development on marine infrastructure and other users of the marine environment. (See section 11.9 *et seq*).

*EN-3 Policy: Paragraphs 2.6.180 – 2.6.181*

7.13.5 Applicants should establish stakeholder engagement with interested parties in the offshore sector in the development phase of the proposed OWF, with an aim to resolve as many issues as possible prior to the submission of an application. Such stakeholder engagement should continue throughout the life of the development.

*How has this been addressed?*

7.13.6 Consultation with potentially affected stakeholders has been carried out from the early stages of the project and continues through the pre-application consultation process. Details of consultation are presented in Table 11.3.

*EN-3 Policy: Paragraph 2.6.184*

7.13.7 Applicants should ensure site selection and site design of the proposed OWF has been made with a view to avoiding or minimising disruption or economic loss or adverse effect on safety to other offshore industries.

*How has this been addressed?*

7.13.8 The proposed development has been designed to avoid or minimise effects on infrastructure and other users of the marine environment. Embedded mitigation is described in Table 11.12.

*EN-3 Policy: Paragraph 2.6.183*

7.13.9 Where a wind farm potentially affects other offshore infrastructure or activity, a pragmatic approach should be employed by the Secretary of State. The Secretary of State should expect the applicant to minimise negative impacts and reduce risks to as low as reasonably practicable.

*How has this been addressed?*

7.13.10 The Thanet Extension impact assessment describes the steps that VWPL has taken to avoid or reduce the impacts of the development (Table 11.12).

*EN-3 Policy Paragraph 2.6.184*

7.13.11 The Secretary of State should be satisfied that site selection and site design of the wind farm has been made with a view to avoiding or minimising disruption or economic loss or any adverse effects on safety to other offshore industries. The Secretary of State should not consent applications, which pose unacceptable risks to safety after mitigation measures have been considered.

*EN-3 Policy Paragraph 2.6.186*

7.13.12 Where schemes have been carefully designed and the necessary consultation has been undertaken at an early stage, mitigation measures may be found that can negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the Secretary of State to grant consent.

*EN-3 Policy Paragraphs 2.6.187 and 2.6.188*

7.13.13 In relation to mitigation detailed discussions between the applicant and the relevant consultees should have progressed as far as reasonably possible prior to the submission of an application. As such, appropriate mitigation should be included in any application and ideally agreed between relevant parties. Paragraph 2.6.188 explains that in some circumstances, the Secretary of State may wish to consider the potential to use requirements involving arbitration as a means of resolving how adverse impacts on other commercial activities will be addressed.

*How has this been addressed?*

7.13.14 Thanet Extension has been sited to minimise conflicts with marine infrastructure and other users, where possible. In cases where conflict has been highlighted in early consultation, VWPL has, where appropriate and feasible, proposed mitigation measures to reduce or negate impacts (Table 11.12). See also Volume 1, Chapter 4: Site Selection and Alternatives (Document Ref: 6.1.4).

### **Other Policy Considerations**

7.13.15 No other policy considerations were identified for other infrastructure

### **Considerations for the Secretary of State**

7.13.16 Paragraphs 2.6.182 to 2.6.186 of NPS EN-3 sets out the policy for the Secretary of State's decision making in relation to Infrastructure.

7.13.17 It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.

7.13.18 Part 4 of EN-1 sets out a series of general principles that will be taken in account when reaching a decision. Paragraph 4.1.2 requires that:

*"The Secretary of State should start with a presumption in favour of granting consent to applications for energy NSIPs".*

7.13.19 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.

7.13.20 Paragraph 2.6.183 relates to the Secretary of State's decision making, and sets out that:

*"Where a proposed offshore wind farm potentially affects other offshore infrastructure or activity, a pragmatic approach should be employed by the Secretary of State. Much of this infrastructure is important to other offshore industries as is its contribution to the UK economy. In such circumstances the Secretary of State should expect the applicant to minimise negative impacts and reduce risks to as low as reasonably practicable".*

7.13.21 Paragraph 2.6.184 states that:

*"As such, the Secretary of State should be satisfied that the site selection and site design of the proposed offshore wind farm has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. The Secretary of State should not consent applications which pose unacceptable risks to safety after mitigation measures have been considered".*

7.13.22 Table 11.13 of volume 2, chapter 11: Infrastructure and Other Users of the Environmental Statement provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, operation and maintenance phase, and decommissioning phase.

7.13.23 The assessment of infrastructure and other users of the marine environment has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.

7.13.24 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS's and other identified material planning policy matters.



7.13.25 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regards to the EIA Regulations and therefore effects on infrastructure and other should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

## 7.14 Seascape, Landscape and Visual Impact Assessment

7.14.1 This topic is assessed in Volume 2, Chapter 12 (Seascape, Landscape and Visual Impact Assessment) of the ES (Document 6.2.12).

### National Policy Statements: NPS EN-1

#### *EN-1 Policy: Paragraph 5.9.5*

7.14.2 The applicant should carry out a landscape and visual assessment. This policy makes reference to the following documents:

- Landscape Institute and Institute of Environmental Management and Assessment (2002, 2nd edition): Guidelines for Landscape and Visual Impact Assessment; and
- Land Use Consultants (2002): Landscape Character Assessment – Guidance for England and Scotland.

#### *How has this been addressed?*

7.14.3 The Guidelines for Landscape and Visual Impact Assessment (GLVIA) (2002, 2nd edition) have been superseded by GLVIA Version 3 (GLVIA3). This SLVIA has been prepared following the more recent GLVIA3 as described in section 12.4: Scope and Methodology. Landscape Character Assessment guidance (2002) has also been superseded by Natural England (2014) guidance 'An Approach to Landscape Character Assessment'.

#### *EN-1 Policy: Paragraph 5.9.5*

7.14.4 The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England.

#### *How has this been addressed?*

7.14.5 The Seascape, Landscape Visual Impact Assessment (SLVIA) has been carried out with reference to published Landscape Character Assessments (LCAs). LCAs for the study area and policies are referred to in section 12.7 of this SLVIA.

#### *EN-1 Policy: Paragraph 5.9.6*

7.14.6 The applicant's assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character.

*How has this been addressed?*

7.14.7 The effect on landscape components and landscape character during construction and O&M are assessed in section 12.11 of this SLVIA.

*EN-1 Policy: Paragraph 5.9.7*

7.14.8 The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include light pollution effects, including on local amenity, and nature conservation.

*How has this been addressed?*

7.14.9 The visual effect of the project during construction and O&M is assessed in section 12.12 of this SLVIA.

*EN-1 Policy: 5.9.8*

7.14.10 Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.

*How has this been addressed?*

7.14.11 The quality, value and capacity of the landscape to accommodate change is a consideration of the landscape assessment in section 12.11. The design of the Offshore WTG Array has taken into account the potential impact on the landscape in order to minimise harm by mitigation of landscape effects as shown in section 12.9.

*EN-1 Policy Paragraph 5.9.12*

7.14.12 The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation and such projects should be designed sensitively given the various siting, operational, and other relevant constraints. Paragraph 5.9.13 advises "*The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent*".

*How has this been addressed?*

7.14.13 The effect of the Offshore WTG Array on nationally designated areas is assessed in section 12.11.

*EN-1 Policy Paragraph 5.9.14*

7.14.14 Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document in England has policies based on landscape character assessment, these should be paid particular attention. However, local landscape designations should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.

*How has this been addressed?*

7.14.15 The value of the local landscape is a consideration within the SLVIA, which is assessed as part of the landscape assessment in section 12.11 of this SLVIA.

*EN-1 Policy: Paragraphs 5.9.15 & 5.9.16*

7.14.16 The scale of such projects means that they will often be visible within many miles of the site of the proposed infrastructure. The Secretary of State should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project. The Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by reasonable mitigation.

*How has this been addressed?*

7.14.17 Volume 1 Chapter 4 'Site Selection and Alternatives' (Document Ref: 6.1.4) of the ES sets out the iterative process that has influenced the design of Thanet Extension. The mitigation of landscape and visual effects has been carefully considered in the SLVIA, to minimise 'harm to the landscape' or seascape where possible.

*EN-1 Policy: Paragraph 5.9.19 of EN-1*

7.14.18 In relation to visual impact, this paragraph advises that *"It may be helpful for applicants to draw attention, in the supporting evidence to their applications, to any examples of existing permitted infrastructure they are aware of with a similar magnitude of impact on sensitive receptors. This may assist the Secretary of State in judging the weight it should give to the assessed visual impacts of the Offshore WTG Array"*.

*How has this been addressed?*

7.14.19 The Thanet Offshore Wind Farm (TOWF) WTGs can be used as a scale comparison to assist with the magnitude assessment of the Offshore WTG Array.

*EN-1 Policy: Paragraph 5.9.21*

7.14.20 Reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design of a proposed energy infrastructure project may result in a significant operational constraint and reduction in function – for example, the electricity generation output. There may, however, be exceptional circumstances, where mitigation could have a very significant benefit and warrant a small reduction in function. In these circumstances, the Secretary of State may decide that the benefits of the mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function. Similarly, paragraph 2.6.210 of EN-3 advises – *"Neither the design nor scale of individual WTGs can be changed without significantly affecting the electricity generating output of the WTGs. Therefore, the Secretary of State should expect it to be unlikely that mitigation in the form of reduction in scale will be feasible. However, the layout of the WTGs should be designed appropriately to minimise harm, taking into account other constraints such as ecological effects, safety reasons or engineering and design parameters"*.

*How has this been addressed?*

7.14.21 The siting and design of the Offshore WTG Array has incorporated embedded mitigation to reduce the scale of the project and the resulting landscape and visual effects. This is described in section 12.9 of this SLVIA. Following section 42 consultation comments from stakeholders on the PEIR, the OWF area has been reduced at its north-western corner. This change to the OWF area has resulted in a new Rochdale Envelope WTG layout for the SLVIA, with the WTGs in the north-western part of the PEIR OWF area being moved to other areas within the OWF area. This change in the Rochdale Envelope WTG layout (Figure 12.1a) assessed in the Environmental Statement, provides further and partial mitigation of some seascape, landscape and visual effects assessed in the PEIR.

**National Policy Statements: NPS EN-3***EN-3 Policy: Paragraph 2.6.199*

7.14.22 Seascape is a discrete area within which there is shared inter-visibility between land and sea. (Definition taken from Appendix 3 of DTI (2005) Guidance on the Assessment of the Impact of Offshore Wind Farms: Seascape and Visual Impact Report). In some circumstances it may be necessary to carry out a seascape and visual impact assessment (SVIA) in accordance with the relevant offshore wind farm EIA policy.

*How has this been addressed?*

7.14.23 The effect of Thanet Extension on seascape character is assessed in section 12.10 of this SLVIA. The definitions of seascape have been more recently defined in Seascape Character Assessment guidance published by Natural England (NE) (NE, 2012).

*EN-3 Policy: Paragraph 2.6.200*

7.14.24 The seascape is an important resource and an economic asset. Coastal landscapes are often recognised through statutory landscape designations.

*How has this been addressed?*

7.14.25 The effect of Thanet Extension on Heritage Coasts is assessed in section 12.11 of this SLVIA.

*EN-3 Policy: Paragraph 2.6.202*

7.14.26 Where a proposed offshore wind farm will be visible from the shore, an SVIA should be undertaken which is proportionate to the scale of the potential impacts. Impact on seascape should be addressed in addition to the landscape and visual effects discussed in EN-1.

*How has this been addressed?*

7.14.27 An SLVIA has been undertaken as presented in the chapter 12. The scope of assessment was determined in consultation with the SLVIA technical group as part of the Evidence Plan process.

*EN-3 Policy: Paragraph 2.6.203*

7.14.28 Where necessary, assessment of the seascape should include an assessment of three principal considerations on the likely effect of Offshore Wind Farms (OWFs) on the coast:

- limit of visual perception from the coast;
- individual characteristics of the coast which affect its capacity to absorb a development; and
- how people perceive and interact with the seascape.

*How has this been addressed?*

7.14.29 The effect of Thanet Extension on seascape character, including the three principal considerations outlined above, is assessed in section 12.10 of this SLVIA.

*EN-3 Policy: Paragraph 2.6.204*

7.14.30 As part of the SVIA, photomontages are likely to be required. Viewpoints to be used for the SVIA should be selected in consultation with the statutory consultees at the EIA Scoping stage.

7.14.31 Viewpoints have been selected and agreed following scoping responses and in consultation with the SLVIA technical group as part of the Evidence Plan process.

*How has this been addressed?*

7.14.32 Photomontages of Thanet Extension are provided in ES Volume 6, Figures 5.27 – 5.55.

*EN-3 Policy: Paragraph 2.6.205*

7.14.33 Magnitude of change to both the identified seascape receptors (such as seascape units and designated landscapes) and visual receptors (such as viewpoints) should be assessed in accordance with the standard methodology for SVIA.

*How this been assessed?*

7.14.34 The magnitude of change to seascape receptors has been assessed in section 12.10 and on visual receptors in section 12.12 of this SLVIA.

**Other Policy Considerations***NPPF: Paragraph 115*

7.14.35 Great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important considerations in all these areas, and should be given great weight in National Parks and the Broads.

*How has this been addressed?*

7.14.36 Kent Downs Area of Outstanding Natural Beauty (AONB) is located at long distance to the south west of the Offshore WTG Array and is assessed in the section 12.1.1.

*Thanet District Council (TDC) 2006 Local Plan Saved Policies POLICY D7:*

7.14.37 Areas of high townscape value: This policy identifies areas of high townscape value and the policy seeks to conserve or enhance these areas stating that *"development will be allowed only where the design, scale of development, separation between buildings, use of materials and landscaping are complementary to the special character of the area"*.

*How has this been addressed?*

7.14.38 The primary aim of this policy is to protect these areas from unsuitable development occurring within them or within neighbouring areas, nevertheless, higher townscape value has been acknowledged as part of the baseline for landscape character areas assessed in sections 12.11 of this SLVIA.

*TDC 2006 Local Plan Saved Policies POLICY CC2 - Landscape character areas:*

7.14.39 Policy principles are outlined for development within the following areas: Pegwell Bay; Wantsum Channel; central Chalk Plateau; Quex Park and the Urban Coast. Most relevant to the Offshore WTG Array wind farm are the principles for Urban Coast – *"At the urban coast, development that does not reflect the traditional seafront architecture of the area, maintain existing open spaces and long sweeping views of the coastline will not be permitted"*.

*How has this been addressed?*

7.14.40 The SLVIA has assessed the effects on the urban coastline of Thanet within the seascape and landscape character assessments in sections 12.10 and 12.11 supported by the assessment of viewpoints located along this urban coastline in the visual assessment in section 12.12.

7.14.41 Draft Thanet Local Plan 2031 – Preferred Options Consultation (January 2015) Policy SP22 – Protection and Enhancement of Thanet’s Historic Landscapes: *“Development proposals should demonstrate that their location, scale, design and materials will protect, conserve and, where possible, enhance:*

*1) Thanet’s local distinctiveness including historical, biodiversity and cultural character;*

*2) Gaps between Thanet’s towns and villages; and*

*3) Visually sensitive skylines and seascapes.*

7.14.42 Policy principles are then outlined for development within the following areas: Pegwell Bay; Wantsum Channel; central Chalk Plateau; Quex Park and the Urban Coast. Most relevant to the Offshore WTG Array wind farm are the principles for Urban Coast – *‘At the urban coast, development that does not reflect the traditional seafront architecture of the area, maintain existing open spaces and long sweeping views of the coastline will not be permitted’.*

*How has this been addressed?*

7.14.43 The SLVIA has assessed the effects on the urban coastline of Thanet within the seascape and landscape character assessment in sections 12.10 and 12.11 supported by the assessment of viewpoints located along this urban coastline in the visual assessment in section 12.12. Following section 42 consultation comments from stakeholders on the PEIR the OWF area has been reduced at its north-western corner. This change in the Rochdale Envelope WTG layout (Figure 12.1a) provides further and partial mitigation of some seascape, landscape and visual effects assessed in the PEIR.

*Draft Thanet Local Plan 2031 – Preferred Options Consultation (January 2015) Policy CC05 – Renewable Energy Installations:*

7.14.44 Proposals for renewable energy installations incorporated in new developments or existing buildings will be permitted, subject to there being no unacceptable detrimental visual or environmental impact.

*How has this been addressed?*

7.14.45 The visual effects of the Offshore WTG Array are assessed in section 12.12 of the SLVIA.

7.14.46 Dover District Council (DDC) LDF Core Strategy 2010 Policy DM 16 - Landscape Character:

7.14.47 Development that would harm the character of the landscape, as identified through the process of landscape character assessment will only be permitted if:

- It is in accordance with allocations made in Development Plan Documents and incorporates any necessary avoidance and mitigation measures; or
- It can be sited to avoid or reduce the harm and/ or incorporate design measures to mitigate the impacts to an acceptable level.

*How has this been addressed?*

7.14.48 The magnitude of change to seascape receptors has been assessed in section 12.10 and on landscape receptors in section 12.11 of this SLVIA.

*DDC - Saved Policies POLICY CO5*

7.14.49 The principle aim of this policy relates to development within areas of Heritage Coast. Additional policy wording provided also states: "development will not be permitted if it would adversely affect the scenic beauty, heritage or nature conservation value of a Heritage Coast or the Undeveloped Coast".

*How has this been addressed?*

7.14.50 The effect of the Offshore WTG Array on Heritage Coasts is assessed in section 12.11 of the SLVIA.

### **Considerations for the Secretary of State**

7.14.51 Paragraphs 5.9.8 to 5.9.20 of EN-1 sets out a series of principles that will be taken into account when reaching a decision. Paragraph 5.9.8 of EN-1 advises *"Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate"*.

7.14.52 Sections 12.10, 12.11, 12.12, of Volume 2, Chapter 12: Seascape Landscape and Visual Impact Assessment (Document Ref: 6.2.12) provides a summary of the potential effects during the construction, O&M and decommissioning phases of Thanet Extension respectively, with embedded mitigation summarised in Section 12.9. The cumulative effects assessment is presented in Section 12.13.



- 7.14.53 The design of the Offshore WTG Array has taken into account the potential impact on the landscape in order to minimise harm by mitigation of landscape effects. During development, Thanet Extension has sought to refine the Red Line Boundary (RLB) to reduce the potential of visual merging of Thanet Offshore Wind Farm (TOWF) and London Array OWF in views from the north Kent coastline. Whilst also maintaining visual separation of the Thames Estuary from the North Sea beyond. The north-western corner of the array has been reduced, following S42 consultation, which provides partial mitigation by providing a larger separation between the coast and the WTGs, increasing the perception of the sea beyond and the impression that the Offshore WTG array is clearly offshore.
- 7.14.54 The SLVIA of the Offshore WTG Array has found that the introduction of the Offshore WTG Array to the seascape/landscape would not result in the key characteristics of the surrounding area being affected to such a degree by the Offshore WTG Array that it would become a 'wind farm seascape' (in addition to or in combination with other operational or consented wind farms), where wind turbines dominate the character, but that it would remain characterised locally as a 'seascape with wind farms'. This is an important distinction as it implies that the carrying capacity - as defined by its inherent landscape character - would not be exceeded by the Offshore WTG Array (in combination with other operational or consented OWFs).
- 7.14.55 EN-1 (Paragraph 5.9.9) considers the potential effects of development on nationally designated landscapes, such as AONBs, national parks and the Broads. The existing seascape can be broadly defined by the Dover Strait Channel North Seascape Character Area (SCA) (01A). The offshore array area is also located 5 km from the Broadstairs Knolls and Ramsgate Roads inshore SCA (I2A), and 8.7 km from the Broadstairs to North Foreland inshore SCA (C1E). The landscape character is defined at a national level by the North Kent Plain National Character Area (NCA) to the north of the study area and the North Downs NCA to the south. The offshore array area is located outside any areas subject to international, national or regional landscape designated intended to protect landscape quality, however a number of landscape and heritage designations occur in the wider landscape of the study area (45 km radius) including the Kent Downs Area of Outstanding Natural Beauty (AONB), the South Foreland and Dover-Folkstone Heritage Coasts, as well as a number of registered parks and gardens and local landscape designations.
- 7.14.56 EN-1 recognises that each of these designated landscape types have a specific statutory purpose, and that the Secretary of State should have regard to that in decision making. In such areas EN-1 requires that the conservation of the natural beauty of the landscape and countryside should be given substantial weight by the Secretary of State in deciding on applications for development consent. Thanet Extension has been assessed as having no significant effects on designated landscapes.

- 7.14.57 Projects should be designed carefully, taking account of environmental effects on the landscape and siting, operation and maintenance and other relevant constraints, to minimise the harm to the landscape by reasonable mitigation (5.9.17). Table 12.13 of Volume 2, Chapter 12: Seascape Landscape Visual Impact Assessment of the Environmental Statement (Document Ref: 6.2.12) outlines how Thanet Extension complies with this requirement. As stated above, design changes have been undertaken to minimise the effects of the proposed development.
- 7.14.58 EN-1 states that all proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The Secretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project. Coastal areas are particularly vulnerable to visual intrusion because of the potential high visibility of development on the foreshore, on the skyline and affecting views along stretches of undeveloped coast (5.9.18).
- 7.14.59 In response to this, the potential effects of the temporary and permanent elements of Thanet Extension on the Landscape and Seascape are assessed within the Environmental Statement (Document Ref: 6.2.12).
- 7.14.60 EN-3 requires applicants to undertake a Seascape and Visual Impact Assessment (SVIA) if the offshore wind farm will be visible from the shore. The Seascape, Landscape and Visual Impact Assessment (SLVIA) considers the effects of the offshore components of Thanet Extension as a result of changes to the seascape/landscape as an environmental resource in its own right, as well as on people's views and visual amenity. The assessment considers potential effects within a 45 km radius study area (the area that the tips of the WTGs are theoretically visible from) and uses a combination of seascape/landscape character assessment, and computerised visual representations from a variety of sensitive viewpoints within the Zone of Theoretical Visibility (ZTV) through a site specific survey to assess the potential effects. A full description of the assessment can be found within the ES (Document Ref: 6.2.12).
- 7.14.61 Limited and non-significant seascape, landscape and visual effects are assessed for the outer parts of the SLVIA study area, including from the Essex coastal districts of Maldon, Rochford, Tendring and unitary authority of Southend-on-Sea (the terrestrial areas of which are all located over 44.9 km from the Offshore WTG Array). Limited and non-significant effects also occur in Swale Borough (over 38.9 km), Shepway District (over 37.9 km) and Canterbury District (over 22.9 km). The Offshore WTG Array will not become a prevailing or defining visual element or seascape/landscape characteristic to these areas.

- 7.14.62 All significant seascape, landscape and visual effects will be ‘contained’ with the districts of Thanet and Dover, primarily within the terrestrial coastal areas of these districts with direct views of the open seas of the Outer Thames Estuary and northern Dover Strait Channel. In particular, significant seascape, landscape and visual effects are geographically contained within 20 km of the Offshore WTG Array and specific to the areas inshore waters and immediate coastal edge of the northern and eastern coastlines of the Isle of Thanet.
- 7.14.63 In the construction and decommissioning phases, seascape effects were predicted to be non-significant, with the exception of two Seascape Character Areas (SCAs) (Broadstairs Knolls and Ramsgate Road SCA, and Margate Roads SCA). Landscape effects were predicted to be non-significant, with the exception of three Landscape Character Areas (LCAs) (Foreness Point and North Foreland LCA, Ramsgate and Broadstairs Cliffs LCA, and North Thanet Coast LCA). Visual effects were assessed as being non-significant for 17 of the 29 viewpoints assessed, with significant visual effects being predicted for the remaining 12.
- 7.14.64 During the O&M phase, seascape effects were predicted to be non-significant, with the exception of two Seascape Character Areas (SCAs) (Broadstairs Knolls and Ramsgate Road SCA, and Margate Roads SCA). Landscape effects were predicted to be non-significant, with the exception of three Landscape Character Areas (LCAs) (Foreness Point and North Foreland SCA, Ramsgate and Broadstairs Cliffs LCA, and North Thanet Coast LCA). Visual effects of the Offshore WTG Array were assessed as being non-significant for 17 of the 29 viewpoints assessed, with significant visual effects being predicted for the remaining 12.
- 7.14.65 Having considered all of the issues, the conclusion reached in the SLVIA is that in seascape, landscape and visual terms, it is considered that although the Offshore WTG Array extends the influence of the existing wind energy characteristics of the seascape and results in some significant effects in combination with TOWF on the character and views from the north-eastern Thanet and Dover coasts, there is scope for the Offshore WTG Array to be accommodated in this location without unacceptable effects on seascape, landscape character and visual amenity as indicated determined by professional judgement of an experienced Landscape Architect (the SLVIA is not providing an assessment of the planning balance).
- 7.14.66 The cumulative impact upon seascape character, historic seascape character and visual receptors during the construction, operation and maintenance, and decommissioning phases of Thanet extension is presented in Table 12.26 of the SLVIA assessment (Document ref: 6.2.12). The assessment identified that the visual effects arising from additional cumulative changes, as a result of the Offshore WTG Array in combination with the cumulative projects will be not significant.

- 7.14.67 The assessment of Landscape and Seascape effects has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and been carried out in accordance with those requirements.
- 7.14.68 The proposals are in accordance with the relevant policies identified regarding landscape and seascape in Thanet and Dover Districts.
- 7.14.69 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for Thanet Extensions demonstrate that whilst significant effects are anticipated within the Thanet and Dover Districts these effects are considered to be 'acceptable' and can be accommodated within the seascape, landscape character and in visual terms.
- 7.14.70 NPS EN-1 acknowledges that "*Virtually all nationally significant energy infrastructure projects will have effects on the landscape*". No significant effects are predicted on landscape designations (to which the Secretary of State would give substantial weight) with significant effects limited to a localised area in proximity to Thanet Extension, not formally designated for its landscape character.
- 7.14.71 Whilst Thanet Extension would lead to some localised, reversible, significant adverse visual effects which should be afforded some weight in the planning balance, this is substantially outweighed by the benefits of and defined need case for the project.

## 7.15 Marine and Coastal Archaeology and Historic Seascape Characterisation

- 7.15.1 This topic is assessed in Volume 2, Chapter 13 (Marine and Coastal Archaeology and Historic Seascape Characterisation) of the ES (Document 6.2.13).

### National Policy Statements: NPS EN-1

#### *EN-1 Policy: Paragraph 5.8.9*

- 7.15.2 Where a development site includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation.

#### *How has this been addressed?*

- 7.15.3 A desk-based assessment has been undertaken to assess the archaeological interest of offshore heritage interests (Volume 4, Annex 13-1: Marine Archaeological Desk-based Assessment Technical Annex (Document Ref: 6.4.13.1)) and summarised in section 13.7 of the chapter.

*EN-1 Policy: Paragraph 5.8.10*

- 7.15.4 The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.

*How has this been addressed?*

- 7.15.5 The significance of the offshore heritage assets is included in section 13.7 of the chapter. The impact of the development is discussed in sections 13.11 - 13.14.

**National Policy Statements: NPS EN-3***EN-3 Policy: Paragraph 2.6.32*

- 7.15.6 The Planning Inspectorate (PINS) will need to be satisfied that the foundations will not have an unacceptable adverse effect on marine heritage assets.

*How has this been addressed?*

- 7.15.7 In order to address potential adverse effects, mitigation measures have been designed to protect any marine archaeological receptors of interest. With the implementation of the mitigation measures all effects should be reduced to minor negative significance or minor to moderate beneficial significance. (See sections 13.5 and 13.16 of the chapter, with Table 13.12).

*EN-3 Policy: Paragraph 2.6.139*

- 7.15.8 Heritage assets can be affected by Offshore Wind Farm (OWF) development in two principal ways: from the direct effect of the physical siting of the development itself and from indirect changes to the physical marine environment.

*How has this been addressed?*

- 7.15.9 These potential effects have been assessed in sections 13.11 - 13.14 of the chapter.

*EN-3 Policy: Paragraph 2.6.140*

- 7.15.10 Consultation with relevant statutory consultees (including English Heritage (now Historic England)) should be undertaken by the applicants at an early stage of the development.

*How has this been addressed?*

- 7.15.11 Consultation has been undertaken with Historic England (See Table 13.2 of the chapter).

*EN-3 Policy: Paragraph 2.6.141*

- 7.15.12 Assessment should be undertaken as set out in Section 5.8 of EN-1. Desk-based studies should take into account any geotechnical or geophysical surveys that have been undertaken to aid the wind farm design.

*How has this been addressed?*

7.15.13 An archaeological assessment of geophysical survey data was undertaken and the results for Volume 4, Annex 13-2: Archaeological Review of Geophysical and Geotechnical Data Technical Annex (Document Ref: 6.4.13.2) of this ES, and are summarised in Section 13.7 of the chapter.

*EN-3 Policy: Paragraph 2.6.142*

7.15.14 Assessment should include the identification of any beneficial effects on the historic marine environment, for example through improved access or the contribution to new knowledge that arises from investigation.

*How has this been addressed?*

7.15.15 Beneficial effects have been identified in paragraphs 13.11.7, 13.11.11, 13.12.5, 13.12.13, 13.14.23, 13.16.13, 13.16.23, 13.17.8 and Table 13.17 of the chapter.

*EN-3 Policy: Paragraph 2.6.143*

7.15.16 Where elements of an application (whether offshore or onshore) interact with features of historic maritime significance that are located onshore, the effects should be assessed in accordance with the policy at Section 5.8 in EN-1.

*How has this been addressed?*

7.15.17 The effects have been assessed in paragraphs 13.7.44 - 13.7.47 of the chapter.

*EN-3 Policy: Paragraph 2.6.144*

7.15.18 PINS should be satisfied that OWFs and associated infrastructure have been designed sensitively taking into account known heritage assets and their status (for example designated features).

*How has this been addressed?*

7.15.19 In order to address potential adverse effects, mitigation measures have been designed to protect any marine archaeological receptors of interest. With the implementation of the mitigation measures all effects should be reduced to minor negative significance or minor to moderate beneficial significance (see paragraphs 13.16.1 - 13.16.26 of the chapter, with Table 13.17).

*EN-3 Policy: Paragraph 2.6.145*

7.15.20 Avoidance of important heritage assets, including archaeological sites and historic wrecks, is the most effective form of protection and can be achieved through the implementation of AEZ around such heritage assets which preclude development activities within their boundaries.

*How has this been addressed?*

7.15.21 Avoidance will be achieved through the recommendation of AEZs, as outlined in the mitigation measures. The AEZs have been designed to protect any marine archaeological receptors of interest (see section 13.16 of the chapter, with Table 13.15 and Table 13.16).

*EN-3 Policy: Paragraph 2.6.146*

7.15.22 Where requested by applicants, PINS should consider granting consents that allow for micro-siting to be undertaken within a specified tolerance. This allows changing to be made to the precise location of infrastructure during the construction phase so that account can be taken of unforeseen circumstances such as the discovery of marine archaeological remains.

*How has this been addressed?*

7.15.23 Micro-siting is recommended in the mitigation measures, that have been designed to protect any marine archaeological receptors of interest. Paragraph 13.16.11 of the chapter provides information about micro-siting, and paragraph 13.16.20 of the chapter provides information about the ORPAD, to manage unexpected discoveries.

**Other Policy Considerations***NPPF: Section 12*

7.15.24 This section sets out the principle national guidance on the importance, management and safeguarding of heritage assets within the planning process.

*How has this been addressed?*

7.15.25 The mitigation measures have been designed to protect any marine archaeological receptors of interest (see paragraphs 13.16.1 - 13.16.26 of the chapter).

*Whilst not specifically items of policy, the following guidance may be of relevance to the Secretary of State's decision making and so has been included for completeness:**Protection of Wrecks Act 1973: Section One and Two*

7.15.26 This Act allows the Secretary of State to designate a restricted area around a wreck to prevent uncontrolled interference.

*How has this been addressed?*

7.15.27 There are no protected wrecks within the study area (see paragraphs 13.7.17 and 13.7.55 of the chapter). The mitigation measures have been designed to protect any marine archaeological receptors of interest (see paragraphs 13.16.1 - 13.16.26 of the chapter).

*Ancient Monuments and Archaeological Areas Act 1979 (as amended)*

7.15.28 Under this Act, the Secretary of State for Digital, Culture, Media and Sport (DCMS) can schedule any site which appears to be of national importance because of its historic, architectural traditional, artistic or archaeological interest. Additional controls are placed upon works affecting Scheduled Monuments and Areas of Archaeological Importance under the Act.

*How has this been addressed?*

7.15.29 There are no Scheduled Monuments or designated Areas of Archaeological Importance within the study area (see paragraphs 13.7.17, 13.7.47, and 13.7.55, of the chapter).

*Protection of Military Remains Act 1986:*

7.15.30 This Act provides protection for designated military vessels and for and for all aircraft that crashed while in military service. The Act provides two types of protection: Protected Places (wrecks designated by name even if the location is not known) and Controlled Sites (sites designated by location). It is illegal to disturb or remove anything from sites. For Controlled Sites, it is illegal to conduct any operations (including diving or excavation) within the Controlled Site unless licensed to do so by the Ministry of Defence.

*How has this been addressed?*

7.15.31 There is one aircraft crash site within the Offshore Export Cable Corridor (OECC), and a second reported within the OECC, but confirmed in the intertidal zone to the south. As they were lost while in military service, both would be protected under this Act (see paragraphs 13.7.52 and 13.7.53 of the chapter). In addition, aircraft material from an unidentified aircraft was discovered during the Nemo Link pre-disturbance survey (see paragraph 13.7.54 of the chapter). Until the identity of the aircraft can be confirmed, it should be assumed to be military, and therefore would be protected under this Act. The mitigation measure of Archaeological Exclusion Zones (AEZs) has been designed to protect the aircraft crash site with a confirmed location (see paragraphs 13.10.3, 13.16.8, and 13.16.9 of the chapter, with Table 13.15 and Table 13.16). Further fieldwork was undertaken to confirm the location of the second aircraft crash site (see paragraphs 13.7.53 and 13.16.10 of the chapter).

*Merchant Shipping Act 1995:*

7.15.32 This Act sets out the procedures for determining ownership of underwater finds that turn out to be 'wreck', including ship, aircraft, hovercraft, parts of these, their cargo or equipment. Any recovered material must be reported to the Receiver of Wreck.



### *How has this been addressed?*

7.15.33 The mitigation measures have been designed to protect any marine archaeological receptors of interest. All wreck sites have been recommended for AEZ (see paragraphs 13.10.3 and 13.16.4 - 13.16.9 of the chapter, with Table 13.15 and Table 13.16). Any discoveries of unexpected material will be reported through the Offshore Renewables Protocol for Archaeological Discoveries (ORPAD) and reported to the Receiver of Wreck (see paragraph 13.16.20 of the chapter).

### **Considerations for the Secretary of State**

7.15.34 Part 5.8 of EN-1 sets out matters relevant to the Historic Environment at national level. It is recognised that ‘the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment’. It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.

7.15.35 Part 4 of EN-1 sets out a series of general principles that will be taken in to account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to the Historic Environment are taken in to account when considering any proposed development:

*"potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts".*

7.15.36 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *“environmental, social and economic benefits and adverse impacts, at national, regional and local levels”*.

7.15.37 Paragraphs 5.8.11 to 5.8.18 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of matters relating to the Historic Environment. It is confirmed that the Secretary of State should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development, including by development affecting the setting of a heritage asset taking account, inter alia, of:

- Evidence provided with the application;
- Any designation records;
- The Historic Environment Record, and similar sources of information;
- The heritage assets themselves;
- The outcome of consultations with interested parties; and
- Where appropriate and when the need to understand the significance of the heritage asset demands it, expert advice.

- 7.15.38 Specifically, with regard to Offshore Archaeology and Cultural Heritage, EN-3 requires that the Secretary of State should be satisfied that Thanet Extension has been designed sensitively taking into account known heritage assets and their status, incusing features like protected wrecks (2.6.144).
- 7.15.39 Table 13.17 of volume 2, chapter 13: Offshore Archaeology and Cultural Heritage of the Environmental Statement provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, operation and maintenance phase, and decommissioning phase.
- 7.15.40 The assessment of Offshore Archaeology and Cultural Heritage has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.
- 7.15.41 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPS's and other identified material planning policy matters.
- 7.15.42 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant adverse effects but the potential for Moderate beneficial effects. The potential positive effect on offshore archaeology should therefore carry some additional weight to the benefits of Thanet Extension when considering the planning balance.

## **7.16 Onshore Landscape Visual Impact Assessment**

- 7.16.1 This topic is assessed in Volume 3, Chapter 2 (Landscape Visual Impact Assessment) of the ES (Document 6.3.2).

### **National Policy Statements: NPS EN-1**

- 7.16.2 Landscape and Visual matters, including the assessment of seascape effects, are considered within NPS EN-1 at Section 5.9 (Landscape and visual). Paragraphs 5.95 to 5.97 set out the matters which the assessment may include.
- 7.16.3 EN-1 requires that applicants carry out a landscape and visual assessment and report it in the Environmental Statement and have regard to guidance produced to assist in the assessment. The assessment should include the effects during construction, and operation and maintenance of the project on landscape components and landscape character (5.95 and 5.96).
- 7.16.4 EN-1 also states that the applicant's assessment should include the visibility and conspicuousness of the project and potential effects on local amenity and nature conservation (5.97).

*How has this been addressed?*

- 7.16.5 EN-1 is considered to be the primary policy with respect to the approach to the assessment of potential effects on Landscape, and VWPL has carried out an assessment that responds to and satisfies the guidance it provides in what an applicant should undertake and include in their assessment.
- 7.16.6 The assessment has characterised the relevant landscape baselines, drawing on relevant national and local planning policy, landscape character areas and physical landscape features. This has been supplemented through consultation with local planning authorities. Further information, including photomontages, has been obtained through field work. The methodology used to inform the baseline is set out in more detail in Volume 3, Chapter 2: Landscape and Visual Impact Assessment of the Environmental Statement (Document 6.3.2).

**National Policy Statements: NPS EN-3**

- 7.16.7 NPS EN-3 acknowledges that generic landscape and visual impacts are considered in EN-1 and provides further guidance on the assessment of seascape and visual effects (see Section 7.13 of this document). EN-3 does not set out any further guidance on landscape and visual assessment.

*How has this been addressed?*

- 7.16.8 The assessment has followed guidance set out in EN-1, as set out in the sections above.

**Other Policy Considerations***NPPF*

- 7.16.9 Paragraphs 81, 97, 109, 113, 114, 115 and 125 of the NPPF confirm the objectives to preserve and enhance the landscape.

*How has this been addressed?*

- 7.16.10 Where required appropriate mitigation measures including details of reinstatement and landscaping have been set out the ES Chapter and as part of the Outline Landscape and Ecological Management Plan (Document 8.7).

## Considerations for the Secretary of State

- 7.16.11 Paragraphs 5.9.8 to 5.9.20 of EN-1 sets out a series of principles that will be taken into account when reaching a decision. Paragraph 5.9.8 states that projects need to be designed carefully, taking account of the potential impact on the landscape and to minimise harm to the landscape by reasonable mitigation. Table 2.31 and 2.32 of Volume 3, Chapter 2: Onshore Landscape and Visual Impact Assessment (Document Ref: 6.3.2) provides a summary of the potential effects during the construction, O&M and decommissioning phases of Thanet Extension, with embedded mitigation summarised in Section 2.12. During development, VWPL has sought to bury cables where possible, including preference for burial the Pegwell Bay Country Park subject to Site Investigation works to determine feasibility.
- 7.16.12 EN-1 states that all propose energy infrastructure is likely to have visual effects for many receptors around proposed sites. The Secretary of State will have to judge whether the visual effects on sensitive receptors outweigh the benefits of the project. In response to this, the potential effects of the temporary and permanent elements of Thanet Extension on landscape and visual receptors have been assessed in the Environmental Statement.
- 7.16.13 During the construction phase, the assessment concluded that there would be significant, short-term, reversible landscape character effects on the Pegwell Bay landscape character area as a result of the cable route and landfall. The assessment also concluded that there would be significant, short-term, reversible visual effects on one viewpoint assessed as a result of the onshore substation, and one viewpoint as a result of the onshore cable route and landfall (in the case of landfall options 2 and 3). No significant physical landscape effects or effects to landscape character from the substation were predicted. During the O&M and decommissioning phases, no significant effects were predicted.
- 7.16.14 The assessment of Onshore Landscape and Visual Impacts has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.
- 7.16.15 The construction, operation and decommissioning of Thanet Extension will be carried out in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for Thanet Extension demonstrates that significant landscape effects are anticipated during the construction phase as a result of the cable route and landfall. Significant visual effects are also anticipated during the construction phase on two of the viewpoints assessed as a result of the landfall, cable route and onshore substation. No significant effects were identified during the O&M or decommissioning phases.

7.16.16 Whilst the onshore elements of Thanet Extension will give rise to landscape and visual effects within the onshore LVIA study area, the LVIA has assessed that there are no residual effects to the landscape and visual resource as a result of the O&M phase of the proposed substation over the long-term, and that the significant landscape and visual effects will be limited to localised effects during construction of the substation, cable route and landfall options. All developments of this scale are likely to give rise to some effects on landscape character and visual amenity. However, the LVIA has shown that the landscape has capacity to accommodate the proposed development without long-term significant adverse effects on the landscape and visual resource.

7.16.17 Whilst Thanet Extension may lead to temporary significant adverse effects during construction, this is balanced against the significant benefit of the project in the delivery of renewable energy. This combined with the basis of the effects being mitigated as far as reasonably practicable, it is concluded that overall this should not be given great weight against the substantial benefit of Thanet Extension when considering the overall planning balance.

## 7.17 Socioeconomics

7.17.1 This topic is assessed in Volume 3, Chapter 3 (Socioeconomics) of the ES (Document 6.3.3).

### National Policy Statements: NPS EN-1

#### *EN-1 Policy: Paragraph 5.12.3*

7.17.2 This assessment should consider all relevant socio-economic effects, which may include the creation of jobs and training opportunities.

#### *How has this been addressed?*

7.17.3 The effects of Thanet Extension's construction activity on employment are considered in section 3.20. Employment effects associated with O&M activity are assessed in section 3.21. The employment effects during the decommissioning phase are assessed in section 3.22.

#### *EN-1 Policy: Paragraph 5.12.3*

7.17.4 This assessment should consider all relevant socio-economic effects, which may include the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities.

#### *How has this been addressed?*

7.17.5 All relevant socio-economic effects during the construction phase are considered in section 3.20. Effects during the O&M phase are considered in section 3.21. Effects during the decommissioning phase are considered in section 3.22.

*EN-1 Policy: Paragraph 5.12.3*

7.17.6 This assessment should consider all relevant socio-economic effects, which may include effects on tourism.

*How has this been addressed?*

7.17.7 The effects on tourism and recreation are addressed under Volume 3, Chapter 4: Tourism and Recreation (Document Reference: 6.3.4).

*EN-1 Policy: Paragraph 5.12.3*

7.17.8 This assessment should consider all relevant socio-economic effects, which may include the impact of a changing influx of workers during the different construction, O&M and decommissioning phases of the energy infrastructure.

*How has this been addressed?*

7.17.9 All relevant socio-economic effects during the construction phase are considered in section 3.20. Effects during the O&M phase are considered in section 3.21. Effects during the decommissioning phase are considered in section 3.22.

*EN-1 Policy: Paragraph 5.12.3*

7.17.10 This assessment should consider all relevant socio-economic effects, which may include cumulative effects – if development consent were to be granted to for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example, a potential shortage of construction workers to meet the needs of other industries and major projects within the region.

*How has this been addressed?*

7.17.11 Addressed under the cumulative effects section of the chapter (see section 3.23).

*EN-1 Policy: Paragraph 5.12.6-5.12.7*

7.17.12 PINS should have regard to the potential socio-economic effects of new energy infrastructure identified by the applicant and from any other sources that PINS considers to be both relevant and important to its decision. It should be reasonable for PINS to conclude that little weight is to be given to assertions of socio-economic effects not supported by evidence (particularly in view of the need for energy infrastructure as set out in this NPS).

*How has this been addressed?*

7.17.13 The Thanet Extension assessment provides evidence for assessments of socio-economic effects as far as it is possible to do at this stage. All relevant socio-economic effects during the construction phase are considered in section 3.20. Effects during the O&M phase are considered in section 3.21. Effects during the decommissioning phase are considered in section 3.22.

*EN-1 Policy: Paragraph 5.12.8*

7.17.14 The assessment should consider any relevant positive provisions the applicant has made or is proposing to make to mitigate impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to socio-economic impacts.

*How has this been addressed?*

7.17.15 Provisions made to boost local capture of socio-economic effects are outlined as part of the additional enhancement measures and strategies discussed in section 3.20.

**Other Policy Considerations***NPPF*

7.17.16 The NPPF explains that the purpose of the planning system is to contribute to the achievement of sustainable development which is comprised of three dimensions, which are economic, social and environmental. The chapter is concerned with both the economic and social dimensions of sustainable development which are defined as follows by the NPPF:

- An economic role: contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation, and by identifying and co-ordinating development requirements (including the provision of infrastructure); and
- A social role: supporting strong, vibrant and healthy communities by providing the supply of housing required to meet the needs of present and future generations, and by creating a high quality built environment with accessible local services that reflect the community's needs and support its health, social and cultural well-being.
- The NPPF explains (in paragraph 9.3) that planning plays a key role in helping shape places to secure a reduction 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. This is central to the economic, social and environmental dimensions of sustainable development promoted by the NPPF. On 6th March 2014 the Department for Communities and Local Government (DCLG) launched the National Planning Policy Guidance (PPG) as a web-based resource.

*How has this been addressed?*

7.17.17 The ES Chapters assesses the economic and social effects of the development. The need for and economic support for Thanet Extension is provided in Section 5 of this Planning Statement.

*The Thanet District Local Plan (Thanet District Council, 2015)*

7.17.18 The district has already seen above average development of wind farms and other renewable sources of energy. Furthermore, it also argues in favour of developing the green sector whilst also capturing the economic benefits from the wind farms surrounding Thanet and spin off businesses as opportunities arise. This echoes the Dover District Council's (adopted) Core Strategy (Dover District Council, 2010) which identifies offshore wind and biomass as the primary renewable energy sources within the district. National aspirations in relation to private sector-led economic growth and employment creation are echoed at the local level. Here, the focus of economic policy is to close any gaps between local and national economic performance.

*How has this been addressed?*

7.17.19 As set out in Section 5.4 VWPL are actively engaged in the local supply chain in Thanet, providing the link between the national benefits of offshore wind with local economic benefits.

### **Considerations for the Secretary of State**

7.17.20 Parts 2 and 3 of EN-1 set out matters relevant to socio-economic effects at a national level. It is recognised that *"energy is vital to economic prosperity and social well-being and so it is important to ensure that the UK has secure and affordable energy"*. It is recognised in EN-1 that producing the energy required by the UK will require significant infrastructure, including large scale projects.

7.17.21 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.13 requires that the following matters relevant to Socio-Economics are taken into account when considering any proposed development:

*"its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and*

*its potential adverse impacts, including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts"*.



- 7.17.22 Paragraph 4.1.4 of EN-1 states that in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts at national, regional and local levels"*.
- 7.17.23 Paragraphs 5.12.6 to 5.12.9 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of Socio-economic matters. It is confirmed that the Secretary of State must have regard to potential socio-economic effects and give limited weight to assertions not backed up by evidence. Regard should also be had to any positive provisions proposed to make or mitigate impacts and any legacy benefits that may arise.
- 7.17.24 Table 3.43 of Volume 3, Chapter 3: Socio-Economics (Document Ref: 6.3.3) provides a summary of the potential effects during the construction, O&M and decommissioning phases of Thanet Extension, as well as additional proposed enhancement or mitigation measures. The conclusions of the assessment are that the worst-case scenario would be a minor beneficial effect in socio-economic terms, given the provision of jobs and investment in local and UK supply chain.
- 7.17.25 The assessment of Socio-Economics has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.
- 7.17.26 The construction, operation and decommissioning of Thanet Extension will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.
- 7.17.27 Minor beneficial effects on socio-economics should be considered in addition to the substantial benefits of Thanet Extension as a whole. It should be also considered that these minor beneficial effects represent a worst case, and that other possible more likely scenarios would lead to greater beneficial effects.

## 7.18 Tourism and Recreation

- 7.18.1 This topic is assessed in Volume 3, Chapter 4 (Tourism and Recreation) of the ES (Document 6.3.4).

### National Policy Statements: NPS EN-1

#### *EN-1 Policy: Paragraph 5.10.2*

- 7.18.2 The Government's policy is to ensure there is adequate provision of high quality open space (including green infrastructure) and sports and recreation facilities to meet the needs of local communities. Open spaces, sports and recreational facilities all help to underpin people's quality of life and have a vital role to play in promoting healthy living. Green infrastructure in particular will also play an increasingly important role in mitigating or adapting to the impacts of climate change.

*How has this been addressed?*

- 7.18.3 This policy reflects the general importance that is placed on the provision of high quality, public, open space. From this it is understood that any diminution of access to open space, whether in time or extent, is to be avoided as far as is possible NPS EN-1 is considered in the development of embedded mitigation and possible enhancements (section 4.9).

*EN-1 Policy: 5.10.20*

- 7.18.4 Where green infrastructure is affected, the [Secretary of State] should consider imposing requirements to ensure the connectivity of the green infrastructure network is maintained in the vicinity of the development and that any necessary works are undertaken, where possible, to mitigate any adverse impact and, where appropriate, to improve that network and other areas of open space including appropriate access to new coastal access routes.

*How has this been addressed?*

- 7.18.5 This policy has guided the consideration of embedded mitigation (see section 4.9).

*EN-1 Policy: 5.10.24*

- 7.18.6 Rights of way, National Trails and other rights of access to land are important recreational facilities for example for walkers, cyclists and horse riders. The Secretary of State should expect applicants to take appropriate mitigation measures to address adverse effects on coastal access, National Trails and other rights of way. Where this is not the case, the Secretary of State should consider what appropriate mitigation requirements might be attached to any grant of development consent.

*How has this been addressed?*

- 7.18.7 This policy is fundamental to the purpose of this report and has been a material consideration throughout (see primarily section 4.9).

*EN-1 Policy: 5.12.3*

- 7.18.8 This assessment should consider all relevant socio-economic effects, which may include effects on tourism.

*How has this been addressed?*

- 7.18.9 The effects of construction activity on tourism are assessed in section 4.10. The effects of O&M activity are assessed in section 4.11. The effects of decommissioning on tourism are assessed in section 4.12.

## **Other Policy Considerations**

*NPPF: Section 70*

- 7.18.10 Planning policies and decisions should: guard against the unnecessary loss of valued facilities and services.

7.18.11 Section 74: Existing open space should not be built on unless: the loss resulting from the development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location.

7.18.12 Section 75: Planning policies should protect public rights of way and access.

*How has this been addressed?*

7.18.13 These provisions have informed the approach to the management of access and the ECP as described in the Access Management Strategy (Document Ref: 8.4).

*NPPF: Section 114*

7.18.14 Local planning authorities should: set out a strategic approach in their local plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure; and maintain the character of the undeveloped coast, protecting and enhancing its distinctive landscapes, particularly in areas defined as Heritage Coast, and improve public access to and enjoyment of the coast.

*How has this been addressed?*

7.18.15 This provision has been taken into account in consideration of the Dover and Thanet District plans. This policy has guided the consideration of embedded mitigation (see section 4.9).

### **Considerations for the Secretary of State**

7.18.16 EN-1 requires that applicants consult the local community where proposals are in place to build on open space, sports or recreational buildings or land and the loss of such facilities should only be considered when appropriate replacement facilities are provided. Consent should not be granted for development on open space, sports and recreational buildings and land unless and assessment has been carried out that determines it is surplus to requirements, or the benefits of the project outweigh the potential loss of such facilities. VWPL does not propose the loss of any such facilities and therefore there is no conflict with EN-1.

7.18.17 EN-1 provides further guidance on impacts on coastal recreation sites and features, which states in particular, that applicants should take advantage of opportunities to maintain and enhance access to the coast, and in doing so regard shall be had to the overarching objective of creating a continuous signed and managed route around the coast as provided for in the Marine and Coastal Access Act 2009.

7.18.18 Thanet Extension interacts with the English Coastal Path. In the event of a diversion to the Coastal Path, VWPL has prepared an Access Management Strategy (Document Ref: 8.4) which allows for the maintenance of continuous access and management where necessary, during construction for all options.

- 7.18.19 Table 4.22 of Volume 3, Chapter 4: Tourism and Recreation (Document Ref: 6.3.4) provides a summary of the potential effects during the construction, O&M and decommissioning phases of Thanet Extension, as well as additional proposed mitigation measures. Embedded mitigation measures are set out in Table 4.13.
- 7.18.20 The assessment of Tourism and Recreation has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.
- 7.18.21 The construction, operation and decommissioning of Thanet Extension will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.
- 7.18.22 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regard to the EIA regulations and as such effects on tourism and recreation should not be weighed against the substantial benefits of Thanet Extension.

## 7.19 Onshore Biodiversity

- 7.19.1 This topic is assessed in Volume 3, Chapter 5 (Onshore Biodiversity) of the ES (Document 6.3.5).

### National Policy Statements: NPS EN-1

#### *EN-1 Policy: Paragraph 4.3.1.*

- 7.19.2 Prior to an order to grant development consent, due consideration must be given by the Secretary of State as to whether the project may have a significant effect on a European site, or on any site to which the same protection is applied as a matter of policy, either alone or in combination with other plans or projects.

#### *How has this been addressed?*

- 7.19.3 NPS section 4.3.1 is addressed in sections 5.4, 5.7, 5.9 and 5.10 to 5.13 and in the RIAA (Document Ref: 5.2).

*EN-1 Policy: Section 5.3*

7.19.4 This section discusses the generic biodiversity and geological conservation effects associated with energy infrastructure, recognising the need to protect the most important biodiversity and geological conservation interests. Where the development is subject to EIA, the applicant should ensure that the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity (NPS Section 5.3.3). The EIA should illustrate where the project has been able to use opportunities to conserve and enhance biodiversity interests (NPS Section 5.3.4) and should aim to avoid significant harm through the use of mitigation and considering reasonable alternatives. Where significant harm cannot be avoided, then appropriate compensation measures should be provided (NPS Section 5.3.7).

*How has this been addressed?*

7.19.5 NPS Section 5.3 is addressed in sections 5.4, 5.7, 5.9 and 5.10 to 5.13. Geological interest is addressed in Volume 3, Chapter 6 (Document Ref: 6.3.6). NPS section 5.3.4 is addressed in sections 5.9 and 5.15. Volume 1, Chapter 4: Site Selection and Alternatives (Document Ref: 6.1.4), describes the options and process undertaken to the preferred selection.

**National Policy Statements: NPS EN-3**

7.19.6 No relevant policy requirements for shipping and navigation have been identified in EN-3.

**Other Policy Considerations***NPPF: Section 11*

7.19.7 Paragraph 118 states that if significant harm resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused. It goes on to state that proposed development likely to have an adverse effect on a SSSI should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development clearly outweigh the impacts. It also states that opportunities to incorporate biodiversity in and around developments should be encouraged and notes that the following wildlife sites should be given the same protection as European sites:

- potential SPAs;
- possible SACs; and
- listed or proposed Ramsar sites.

*The Conservation of Habitats and Species Regulations 2017*

7.19.8 Under the Regulations a competent authority, before deciding to give consent for a plan or project which is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives. A person applying for any such consent, must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required.

*How has this been addressed?*

7.19.9 The relevant provisions of the Habitats Regulations are addressed in section 5.4, section 5.7, section 5.9 and sections 5.10-5.13. The relevant provisions of the Habitats Regulations are also addressed in the separate Report to Inform an Appropriate Assessment (RIAA) (Document Reference: 5.2).

*Wildlife and Countryside Act 1981 (as amended)*

7.19.10 makes it an offence (subject to exceptions) to intentionally kill, injure or take any wild animal listed on Schedule 5 and prohibits intentional or reckless interference with places used for shelter or protection, or intentionally or recklessly disturbing animals occupying such places.

*How has this been addressed?*

7.19.11 The relevant provisions of the Wildlife & Countryside Act are addressed in section 5.4, section 5.7, section 5.9 and sections 5.10-5.13.

**Considerations for the Secretary of State**

7.19.12 Part 5.7 of EN-1 set out matters relevant to the Ecology and Nature Conservation at national level. It is recognised that 'Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part'. It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.

7.19.13 Part 4 of EN-1 sets out a series of general principles that will be taken in account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to Ecology and Nature Conservation are taken in account when considering any proposed development:

- its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and
- its potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.

7.19.14 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to “*environmental, social and economic benefits and adverse impacts, at national, regional and local levels*”.

7.19.15 Paragraphs 5.3.5 to 5.3.8 set out matters the Secretary of State should have regard to in determining an application for development consent. This include, inter alia, the following:

- The Government’s biodiversity strategy is to ensure a halting, and if possible a reversal, of declines in priority habitats and species, with wild species and habitats as part of healthy, functioning ecosystems; and
- The general acceptance of biodiversity’s essential role in enhancing the quality of life, with its conservation becoming a natural consideration in all relevant public, private and non-governmental decisions and policies.

7.19.16 The Government must also take in account the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity (EN-1 paragraph 5.3.6).

7.19.17 The assessment of Ecology and Nature Conservation has had regard to the relevant requirements for assessment set out in EN-1, and been carried out in accordance with those requirements. Table 5.16 of Volume 3, Chapter 5: Onshore Biodiversity (Document Ref: 6.3.5) provides a summary of the potential effects during the construction, O&M and decommissioning phases of Thanet Extension, with embedded mitigation summarised in Section 5.9.

7.19.18 In the absence of mitigation a significant effect is possible, albeit unlikely, in respect of passage ringed plover, a notified feature of the Sandwich Bay to Hacklinge Marshes SSSI, during the construction, O&M and decommissioning phases. However, residual effects following the implementation of the proposed mitigation measures for the passage of ringed plover are set out in section 5.15 of Volume 5, Chapter 5: Onshore Biodiversity (Document ref: 6.3.5), if required, would not be significant. Following the implementation of the embedded mitigation measures, with the possible exception of ringed plover (see above), no significant effects are anticipated in relation to any other onshore biodiversity receptors during either the construction, O&M or decommissioning phases. No significant cumulative effects are predicted with other developments.

7.19.19 The embedded mitigation measures for onshore biodiversity are presented in Table 5.11 including the consideration of cable routing, reinstatement and restoration of habitats and the use of a qualified Ecological Clerk of Works.

7.19.20 The construction, operation and maintenance, and decommissioning of Thanet Extension will be in accordance with the relevant NPSs and other identified material planning policy matters.

7.19.21 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regards the EIA Regulations and therefore effects on onshore biodiversity should not weight against the substation benefits of Thanet Extension when considering the planning balance.

## 7.20 Ground Conditions, Flood Risk and Land Use

7.20.1 This topic is assessed in Volume 3, Chapter 6 (Ground Conditions, Flood Risk and Land Use) of the ES (Document 6.3.6).

### National Policy Statements: NPS EN-1

#### *EN-1 Policy: Paragraph 5.15.2*

7.20.2 Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the ES or equivalent.

#### *How has this been addressed?*

7.20.3 The future baseline, accounting for climate change is presented in: Volume 5, Annex 6-2: Flood Risk Assessment Study (Document Ref: 6.5.6.2). An assessment of the effects on the water environment (including water quality, water resources, and physical characteristics) is provided in: Environmental assessment during construction, O&M, and decommissioning phase - sections 6.10 - 6.12, Embedded mitigation - section 6.9 and Mitigation - section 6.15

#### *EN-1 Policy: Paragraph 5.15.3*

7.20.4 The ES should in particular describe:

7.20.5 The existing quality of waters affected by the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges;

7.20.6 Existing water resources affected by the proposed project on water resources, noting any relevant existing abstraction rates, proposed new abstraction rates and proposed changes to abstraction rates (including any impact on or use of mains supplies and in reference to Catchment Abstraction Management Strategies;

7.20.7 Existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics; and

7.20.8 Any impacts of the proposed project on water bodies or protected areas under the WFD [Water Framework Directive] and Source Protection Zones (SPZs) around potable groundwater abstractions.



*How has this been addressed?*

7.20.9 The baseline characteristics of the water environment (which includes water quality, water resources, and flood risk) has been provided in: Environmental assessment during construction, O&M, and decommissioning phase - sections 6.10 - 6.12; and Embedded mitigation - section 6.9 and Mitigation - section 6.15.

*EN-1 Policy: Paragraph 5.7.7*

7.20.10 Applicants EN-1 Policy: for projects which may be affected by, or may add to, flood risk should arrange pre-application discussions with the EA [Environment Agency], and, where relevant, other bodies such as Internal Drainage Boards [IDBs], sewerage undertakers, navigation authorities, highways authorities and reservoir owners and operators. Such discussions should identify the likelihood and possible extent and nature of the flood risk, help scope the FRA [Flood Risk Assessment], and identify the information that will be required by the Infrastructure Planning Committee IPC [now The Planning Inspectorate for England and Wales (PINS)] to reach a decision on the application when it is submitted.

*How has this been addressed?*

7.20.11 Discussions with the EA and Lead Local Flood Authorities (LLFAs) have been carried out throughout the environmental assessment process. Details of the consultation are provided in section 6.3; and Volume 5, Annex 6-2: Flood Risk Assessment Study (Document Ref: 6.5.6.2).

*EN-1 Policy: Paragraph 5.15.6*

7.20.12 The [Secretary of State] should satisfy itself that a proposal has regard to the River Basin Management Plans [RBMPs] and meets the requirements of the Water Framework Directive (including Article 4.7) and its daughter directives, including those on priority substances and groundwater.

*How has this been addressed?*

7.20.13 WFD classifications and objectives are taken into account, as the WFD water bodies themselves are receptors outlined in: Existing environment -section 6.7; and Environmental assessment during construction, O&M, and decommissioning phase - sections 6.10 - 6.12.

**National Policy Statements: NPS EN-3**

7.20.14 No relevant policy requirements for ground conditions, flood risk and land use have been identified in EN-3.

**Other Policy Considerations***NPPF*

7.20.15 NPPF states that local planning policies and decisions should ensure that:

- 7.20.16 A site is suitable for its new use taking account of ground conditions and land instability, including from natural hazards or former activities such as mining, pollution arising from previous uses and any proposals for mitigation including land remediation or impacts on the natural environment arising from that remediation;
- 7.20.17 After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part 2A of the Environmental Protection Act 1990; and
- 7.20.18 Adequate site investigation (SI) information, prepared by a competent person, is presented.
- 7.20.19 In addition, the NPPF states that the planning system should contribute to and enhance the natural and local environment by (a) preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability; and (b) remediating and mitigating [...] contaminated [...] land, where appropriate.

*How has this been addressed?*

- 7.20.20 Potential risks arising from land contamination have been considered in: Volume 5, Annex 6-1: Phase 1 Geo-environmental Desk Study (Document Ref: 6.5.6.1); Existing environment - section 6.7; Embedded mitigation - section 6.9; Environmental assessment during construction, O&M, and decommissioning phase - sections 6.10 - 6.12; and Volume 5, Annex 6-2: Flood Risk Assessment Study (Document Ref: 6.5.6.2).

*Draft Thanet Local Plan to 2031, January 2015 Policy SE01*

- 7.20.21 Permission for development which is sensitive to pollution will be permitted only if it is sufficiently separated from any existing or potential source of pollution as to reduce pollution impact upon health, the natural environment or general amenity to an acceptable level, and adequate safeguarding and mitigation on residential amenity.

*Draft Thanet Local Plan to 2031, January 2015 Policy SE03 Contaminated land*

- 7.20.22 Development on land known or suspected to be contaminated or likely to be adversely affected by such contamination will only be permitted where: 1) An appropriate SI and assessment (agreed by Thanet District Council (TDC)) has been carried out as part of the application [...]; 2) The proposed remedial measures would be acceptable in planning terms and would provide effective safeguards against contamination hazards during the development and subsequent occupation of the site.

*Draft Thanet Local Plan to 2031, January 2015 Policy SE04 Groundwater Protection*

7.20.23 Proposals for development within the Groundwater SPZs identified on Thanet's Groundwater Protection Zones Map will only be permitted if there is no risk of contamination to groundwater sources. If a risk is identified, development will only be permitted if adequate mitigation measures can be implemented. Saved Policy EP2 Landfill Sites states: *"On or near landfill sites or where there is otherwise reason to suspect that potential danger from evolving or migrating gas may be present, development or redevelopment, including change of use, will only be permitted where:*

- *1) The Applicant/developer has demonstrated either that there is no danger from evolving or migrating gas or that reliable arrangements can be made to overcome such danger; and*
- *2) Any necessary remedial measures can be achieved without unacceptable environmental impact."*

*How has this been addressed?*

7.20.24 TDC will seek by agreement or by imposition of conditions on any consent for development, to ensure management of gas from closed landfill, and that suitable precautions are taken in construction methods together with any other arrangements considered necessary to safeguard against hazards associated with landfill gas.

7.20.25 Matters relating to Policy SE01, Policy SE04 and Saved Policy EP2 have been considered in: Volume 5, Annex 6-1: Phase 1 Geo-environmental Desk Study (Document Ref: 6.5.6.1); and Embedded mitigation – section 6.9; Environmental assessment during construction, O&M, decommissioning phase - section 6.10 - 6.12; and Embedded mitigation - section 6.9 and Mitigation - section 6.15.

*Kent Minerals and Waste Local Plan 2013 – 2030:*

7.20.26 Policy CSW 10 (Development at Closed Landfill Sites) states that planning permission will be granted for development for any of the following purposes:

- 1) Development for the improvement of restoration for an identified after use for the site; or
- 2) Development for the reduction of emissions of gases or leachate to the environment; or
- 3) Development making use of gases being emitted and which will reduce the emission of gases to the environment.

7.20.27 Policy CSW 14 seeks to ensure that contaminated land is treated in situ or in combination with other contaminated land when those sites are to be redeveloped.

*How has this been addressed?*

7.20.28 Matters relating to Policy CSW 10 and Policy CSW 14 have been considered in: Volume 5, Annex 6-1: Phase 1 Geo-environmental Desk Study (Document Ref: 6.5.6.1); Embedded mitigation – section 6.9; and Environmental assessment during construction, O&M, and decommissioning phase - section 6.10 - 6.12.

*Dover District Council (DDC) Strategy Policy DM17*

7.20.29 This Policy safeguards against contamination in groundwater protection zones.

*How has this been addressed?*

7.20.30 Matters relating to groundwater protection zones have been considered in: Existing environment – section 6.7 identifies that due to the underlying geology there is no hydrogeological linkage to groundwater protection zones; and Embedded mitigation - section 6.9 provides good practice.

*Kent County Council (KCC) Local Flood Risk Management Strategy (LFRMS) (June 2013)*

7.20.31 This includes a statutory duty to develop, maintain, apply and monitor a strategy for the management of local flood risk. The local strategy has been produced by KCC through consultation with a Flood Risk Management Committee, which comprises KCC and district, borough and IDB members and risk management authorities. The LFRMS sets out KCC's approach to managing flood risk from local sources in both the short and long-term, and outlines proposals for sustainable actions that will help to manage the risk in a way that delivers the greatest benefits to the residents, businesses and environment of Kent. It also outlines how KCC will work with other lead local flood authorities to coordinate flood management within catchments that share borders. The Strategy is accompanied by an Action Plan setting out how to deliver the objectives of the local strategy in the future. The action plan is updated annually with progress on plan deliverables.

*How has this been addressed?*

7.20.32 Matters relating to the KCC LFRMS have been considered in: Volume 5, Annex 6-2: Flood Risk Assessment Study (Document Ref: 6.5.6.2); and Embedded mitigation – section 6.9.

## Considerations for the Secretary of State

7.20.33 Part 5 of EN-1 sets out matters relevant to biodiversity and geological conservation effects at a national level. It is recognised that *"geological conservation relates to the sites that are designated for their geology and/or their geomorphological importance"*. Part 5.7 of EN-1 sets out matters relevant to hydrology and flood risk. It is recognised that *"flooding is a natural process that plays an important role in shaping the natural environment. Although flooding cannot be wholly prevented, its adverse impacts can be avoided or reduced through good planning and management"*. It is accepted in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large scale projects.

7.20.34 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.13 requires that the following matters are taken into account regarding geology and ground conditions:

*"its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and*

*Its potential adverse impacts, including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts"*.

7.20.35 Paragraphs 5.3.5 to 5.3.8 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of geology matters. It is confirmed that the development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives.

7.20.36 In taking decisions, the Secretary of State should ensure appropriate weight is attached to designated sites of international, national and local importance. These are identified and considered in Volume 3, Chapter 6: Ground Conditions, Flood Risk and Land Use (Document Reference: 6.3.6).

7.20.37 Paragraphs 5.7.9 to 5.7.12 set out matters the Secretary of State should have regard to in determining an application for development consent regarding hydrology and flood risk. These include:

*"Application supported by an appropriate FRA;*

*The Sequential Test has been applied as part of site selection;*

*A sequential approach has been applied at the site level to minimise risk by detecting the most vulnerable uses to areas of lowest flood risk;*

*The proposal is in line with any relevant national and local flood risk management strategy;*

*Priority has been given to the use of sustainable drainage systems (SUDS); and*

*In flood risk areas the project is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed over the lifetime of the development".*

7.20.38 The assessment of impacts to Ground Conditions, Flood Risk and Land Use had regard to the relevant requirements for assessment set out in EN-1, EN-3 and EN-5, and has been carried out in accordance with those requirements, including a Flood Risk Assessment

7.20.39 Paragraphs 5.10.13 to 5.10.18 of EN-1 set out a series of principles that will be taken into account when reaching a decision regarding land use. EN-1 (5.10.13) requires that where a project conflicts with a proposal in a development plan, account should be had at the stage at which the development plan has been reached when considering what weight to give it in the decision-making process. VWPL has sought to avoid land that was allocated for development as part of the site selection process. At the end of each phase, soils would be reinstated across the temporary land take areas and the land reinstated to a standard capable of being returned to its former use.

7.20.40 The assessment of Ground Conditions, Flood Risk and Land Use has therefore had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.

7.20.41 Table 6.15 of Volume 3, Chapter 6: Ground Conditions, Flood Risk and Land Use (Document Ref: 6.3.6) provides a summary of the potential effects during the construction, O&M and decommissioning phases of Thanet Extension. Table 6.12 provides a summary of the approach to embedded mitigation and proposed monitoring.

7.20.42 The construction, operation and decommissioning of Thanet Extension will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.

7.20.43 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regard to the EIA regulations and as such effects on ground conditions and land use should not weigh against the substantial benefits of the Thanet Extension.

## 7.21 Onshore Historic Environment

7.21.1 This topic is assessed in Volume 3, Chapter 7 (Historic Environment) of the ES (Document 6.3.7).

### National Policy Statements: NPS EN-1

#### *EN-1: paragraph 5.8.4*

7.21.2 The NPS discusses the generic impacts on the historic environment associated with the construction, O&M and decommissioning of energy infrastructure. The NPS sets out the need to consider the impacts on both designated and non-designated heritage assets.

#### *How has this been addressed?*

7.21.3 Effects on designated and non-designated heritage assets have been considered at sections 7.11 and 7.13.

#### *EN-1: paragraph 5.8.5*

7.21.4 Where non-designated heritage assets are of equivalent significance to designated heritage assets, they are subject to the policy considerations that apply to designated heritage assets.

#### *How has this been addressed?*

7.21.5 Non-designated heritage assets of equivalent significance to designated heritage assets (e.g. the Boarded Groin) are identified and assessed as appropriate in sections 7.11 and 7.13.

#### *EN-1: paragraph 5.8.6*

7.21.6 Non-designated heritage assets of lesser significance should be considered within any decision making.

#### *How has this been addressed?*

7.21.7 Effects on non-designated heritage assets have been considered at sections 7.11 and 7.13 as appropriate.

#### *EN-1: paragraph 5.8.9*

7.21.8 A field survey may be required to inform any assessment of significance.

#### *How has this been addressed?*

7.21.9 Initial walkovers and receptor visits have been undertaken to inform the assessment.

#### *EN-1: paragraph 5.8.10*

7.21.10 Any application should contain sufficient information to allow heritage significance to be understood.

*How has this been addressed?*

7.21.11 Statements of significance of heritage assets are set out in sections 7.11 and 7.13 in sufficient detail to allow heritage significance to be understood.

*EN-1: paragraph 5.8.12*

7.21.12 The nature of the significance of the heritage assets and the value that they hold for this and future generations should be taken into account in considering the impact of a proposed development on any heritage assets.

*How has this been addressed?*

7.21.13 The assessment presented in sections 7.11 and 7.13 has regard to the significance of heritage assets. Particularly, the assessment strongly emphasises the nature of the significance of the heritage assets themselves.

*EN-1: paragraph 5.8.14*

7.21.14 Development which would give rise to substantial harm to designated heritage assets should be exceptional, or for heritage assets of the highest significance (Grade I and II\* listed buildings, scheduled monuments, designated battlefields, World Heritage Sites and grade I and II\* designated registered parks and gardens), should be wholly exceptional. Harm to designated heritage assets of less than substantial magnitude should be weighed against the benefits of the proposal.

*How has this been addressed?*

7.21.15 No cases have been identified where substantial harm to the heritage significance of a designated heritage asset would arise. Where harm to the heritage significance of a heritage asset has been identified, this is considered here in the Planning Statement.

*EN-1: paragraph 5.8.15*

7.21.16 Development giving rise to substantial harm to a designated heritage asset should only be permitted where necessary to deliver significant public benefits which outweigh the harm occasioned.

*How has this been addressed?*

7.21.17 No cases have been identified where substantial harm to the heritage significance of a designated heritage asset would arise.

*EN-1: paragraph 5.8.16*

7.21.18 Not all elements of a conservation area or World Heritage Site necessarily contribute positively to significance and the contribution of parts of such designations which may be affected should be considered.

*How has this been addressed?*

7.21.19 The contribution of different elements of area designations has been considered within the assessment set out at section 7.13.



*EN-1: paragraphs 5.8.19 – 5.8.22*

7.21.20 Provisions for the recording of at-risk heritage assets to mitigate against loss of evidential interest are set out.

*How has this been addressed?*

7.21.21 Mitigation measures including preservation by record have regard to the provisions of NPS EN-1.

**National Policy Statements: NPS EN-3**

7.21.22 NPS EN-3 contains no specific policy on onshore historic environment remains, referring back to the generic policies in NPS EN-1 Section 5.8, and specifically refers back to NPS EN-1 for the consideration of elements of the marine historic environment which are, at present located onshore (NPS EN-3 2.6.143). The approach taken and assessment presented in the chapter follows the provisions within NPS EN-1.

**Other Policy Considerations***NPPF*

7.21.23 The NPPF does not set out policy for the testing of Nationally Significant Infrastructure Projects (NSIP). However, Section 12 of NPPF relates to the historic environment and is broadly consistent with the policies of EN-1.

*How has this been addressed?*

The approach taken and assessment presented in the chapter is broadly consistent with the NPPF, but where the requirements deviate, provisions within the NPS have been followed.

*Thanet Local Plan 2006 Saved Policies: Policy HE11*

7.21.24 Provides for assessment, comprising desk-based and/ or field work, to inform an understanding of the effects of a proposed development on archaeological remains.

*How has this been addressed?*

7.21.25 Volume 5, Annex 7-1, Desk Based Assessment (Document Ref: 6.5.7.1) has been produced to meet the requirements of Policy HE11.

*Thanet Local Plan 2006 Saved Policies: Policy HE12*

7.21.26 Provides for protection or recording of archaeological remains likely to be affected by development.

*How has this been addressed?*

7.21.27 Mitigation measures have regard to the provisions of Policy HE12.

*Canterbury City Council Local Plan (2006) saved policies: Policy BE14*

7.21.28 This Policy considers development which could affect a scheduled monument or other nationally important heritage asset or its setting.

*How has this been addressed?*

7.21.29 This policy is only relevant to the assessment of effects arising through change to setting of the scheduled monument at Recluver which is considered from paragraph 7.12.221. this potential receptor of adverse effects is located within Canterbury, although its setting extends into other local authority planning areas and offshore.

*Canterbury City Council Local Plan Publication Draft 2014 (emerging policy)*

7.21.30 Policy HE1 considers development affecting heritage assets.

*How has this been addressed?*

7.21.31 This policy is relevant only to the assessment of effects arising through change to setting of the scheduled monument at Recluver which is considered from paragraph 7.12.221.

### Considerations for the Secretary of State

7.21.32 Part 5.8 of EN-1 set out matters relevant to the Historic Environment at national level. It is recognised that *"the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment"*. It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects. Paragraph 5.8.13 of EN-1 also recognises that new development can make a positive contribution to the character and local distinctiveness of the historic environment. Part 4 of EN-1 sets out a series of general principles that will be taken in account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to the historic environment are taken in account when considering any proposed development:

*"potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts"*.

7.21.33 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.

7.21.34 Paragraphs 5.8.11 to 5.8.18 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of matters relating to the Historic Environment. It is confirmed that the Secretary of State should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development, including by development affecting the setting of a heritage asset taking account, inter alia, of:

- Evidence provided with the application;
- Any designation records;
- The Historic Environment Record, and similar sources of information;
- The heritage assets themselves;
- The outcome of consultations with interested parties; and
- Where appropriate and when the need to understand the significance of the heritage asset demands it, expert advice.

7.21.35 The assessment of the Historic Environment has had regard to the relevant requirements for assessment set out in EN-1, and been carried out in accordance with those requirements. Table 7.15 of Volume 3, Chapter 7: Historic Environment (Document Ref: 6.3.7) provides a summary of the potential effects during the construction, O&M and decommissioning phases of Thanet Extension, with embedded mitigation summarised in Table 7.12.

7.21.36 No effects considered significant for purposes of the EIA regulations have been identified, notwithstanding some changes in setting arising from the presence of the proposed Development. Only one instance of harm to the significance of a heritage asset has been identified (qv the NPPF)– this is an effect on the character and appearance of the Clifftop Conservation Area, Margate arising from visibility of the Thanet Extension WTGs across a part of that area in such a way as to reduce the contribution made by the setting of the area to its significance. As the impact is confined to the northern extent of that area only, the degree of harm is considered to be “less than substantial”.

7.21.37 In all other cases, no harm has been found to the significance of any heritage asset, nor to the way in which that significance is appreciated and/or understood. The character and appearance of Conservation Areas is considered to be preserved, as is the settings of Listed Buildings.

- 7.21.38 Paragraph 5.8.14 of EN-1 states that the development which would give rise to substantial harm to designated heritage assets should be exceptional, or for heritage assets of the highest significance (Grade I and II\* listed buildings, scheduled monuments, designated battlefields, World Heritage Sites and grade I and II\* designated registered parks and gardens), should be wholly exceptional. Harm to designated heritage assets of less than substantial magnitude should be weighed against the benefits of the proposal. Paragraph 5.8.15 of EN-1 states that the development giving rise to substantial harm to a designated heritage asset should only be permitted where necessary to deliver significant public benefits which outweigh the harm occasioned.
- 7.21.39 The character and appearance of the Clifftop Conservation Area, Margate arising from visibility of the Thanet Extension WTGs across a part of that area in such a way as to reduce the contribution made by the setting of the area to its significance. As the impact is confined to the northern extent of that area only, the degree of harm is considered to be “less than substantial”. The Broadstairs Conservation Area suffers from a small change in the appearance from the visibility of the WTGs in the views across in from the south. This change only affects limited views and does not affect the whole of the Area (nor its role in defining an appropriate setting for those listed buildings within it). However, given the change in a key view it is considered to be “less than substantial harm”, albeit at the lower end of the scale.
- 7.21.40 In all other cases, no harm has been found to the significance of any heritage asset, nor to the way in which that significance is appreciated and/or understood. The character and appearance of Conservation Areas is considered to be preserved, as are the settings of Listed Buildings.
- 7.21.41 The proposals are in accordance with the relevant policies regarding the Historic Environment in Thanet and Dover Districts.
- 7.21.42 The construction, operation and decommissioning of Thanet Extension will be in accordance with the relevant NPSs and other identified material planning policy matters.
- 7.21.43 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects on onshore historic environment and where harm has been identified is less than substantial. As such the effect on onshore historic environment should be given little weight against the substantial benefits of Thanet Extension when considering the planning balance.

## 7.22 Traffic and Access

- 7.22.1 This topic is assessed in Volume 3, Chapter 8 (Traffic and Access) of the ES (Document 6.3.8).

**National Policy Statements: NPS EN-1***EN-1 paragraph 5.13.3-5*

7.22.2 The NPS discusses generic impacts associated with the transport of materials, goods and personnel to and from a development during all project phases. If a project is likely to have significant transport impacts the applicant will be required to produce a Transport Assessment (TA). The likely impact from substantial Heavy Goods Vehicle (HGV) traffic should be managed through the use of a Construction Traffic Management Plan (CTMP), with provision of adequate parking and arrangements for abnormal disruption. A Travel Plan will also be required in some instances setting out mitigation and management measures.

*How has this been addressed?*

7.22.3 Consideration of the construction, O&M and decommissioning phases of the proposed development are set out in sections 8.10 'Environmental assessment: construction phase', 8.12 'Environmental assessment: O&M phase' and 8.13 'Environmental assessment: decommissioning phase'. Section 8.9 'Embedded mitigation' sets out the embedded mitigation that will be required as part of the proposed development, referencing the requirement for a Construction Code of Practice (CoCP) (Document 8.1), which provides details on how traffic would be managed.

*EN-1 paragraph 5.13.8*

7.22.4 Demand management measures must be considered where any form of mitigation is required.

*How has this been addressed?*

7.22.5 Mitigation measures proposed within the chapter relate to routing and timing of HGV and staff movements.

*EN-1 paragraph 5.13.11*

7.22.6 The [Secretary of State] may attach requirements to a consent where there is likely to be substantial HGV traffic that:

- Control the number/ routing of HGV movements during specific periods of the construction process; and
- Through consultation with network providers and the police force, ensure adequate arrangements are in place for the delivery of any abnormal loads.

*How has this been addressed?*

7.22.7 Routing for HGV movements has been identified, as well as proposed working hours, in order to minimise the impact of the proposed development on the surrounding highway network. Transportation of Abnormal Indivisible Loads (AILs) will be subject to a separate consenting process, as required.

### National Policy Statements: NPS EN-3

#### *EN-3 paragraph 2.7.77*

7.22.8 Where a cumulative impact is likely, a cumulative transport assessment should form part of the assessment to consider the impacts of abnormal traffic movements relating to the project in question.

#### *How has this been addressed?*

7.22.9 Section 8.14 'Environmental assessment: cumulative effects' discusses the relevant committed developments within the vicinity of the proposed development, as well as assessing their cumulative impact on the proposed development.

### Other Policy Considerations

#### *NPPF*

7.22.10 Sustainable transport modes should be favoured to enhance travel choice. Developments that generate significant movement should be located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. The NPPF also encourages solutions that support reductions in greenhouse gas emissions and reduce congestion.

#### *How has this been addressed?*

7.22.11 Information on available sustainable transport options within proximity of the works can be found in section 8.7 'Existing Environment'. The Code of Construction Practice (Document 8.1) includes travel planning measures, where necessary. This includes consideration of a staff traffic plan with the aim to reduce overall greenhouse gas emissions and congestion by promoting the use of car sharing and sustainable travel options.

#### *Thanet District Local Plan (2006) LP Policy TR3*

7.22.12 The district and county councils will ensure, by means of a legal agreement that proper provision is made for transport infrastructure that is necessary and relevant to the development to be permitted. Proposals for transport infrastructure will be assessed in terms of their impact on the capacity and safety of the transport network together with their social and economic impacts.

#### *How has this been addressed?*

7.22.13 The existing local and Strategic Road Network (SRN) provides adequate transport infrastructure necessary for the delivery of construction HGVs. As outlined in section 8.9 'Embedded mitigation', minor improvements may be required at the proposed development accesses. Bell mouths will be managed by traffic marshals and all temporary access arrangements will be constructed to Design Manual for Roads and Bridges (DMRB) standards. An AIL desk study is included in volume 5, Annex 8-1: Abnormal Indivisible Load Access Study (Document Ref 6.5.8.2) to the chapter

*Thanet District Local Plan (2006) TDC LP Policy TR15*

7.22.14 Development proposals likely to generate significant travel demand and/or traffic movement will be required to demonstrate, through green travel plans, specific measures to encourage and facilitate use of walking, cycling and public transport in preference to private car travel. The council will seek to approve measures, which will assist implementation of green travel plans.

*How has this been addressed?*

7.22.15 The Code of Construction Practice (Document 8.1) includes travel planning measures, where necessary, encouraging the use of sustainable transport methods to access the proposed development.

7.22.16 *Dover District Council (DDC) Core Strategy (adopted 2010) CS Policy DM12*

Applications involving the creation of a new access or the increased use of an existing access onto a trunk or primary road will not be permitted if there would be a significant increase in the risk of accidents or traffic delays unless sufficient mitigation is provided.

*How has this been addressed?*

7.22.17 A full review of existing collision patterns and trends based upon the existing personal injury collision records can be found in section 8.7 'Existing environment'.

### **Considerations for the Secretary of State**

7.22.18 Part 5.13 of EN-1 sets out matters relevant to Traffic and Access at a national level. It is recognised that *"the transport of materials, goods and personnel to and from a development during all project phases can have a variety of impacts on the surrounding transport infrastructure and potentially on connecting transport networks, for example through increased congestion. Impacts may include economic, social and environmental effects. Environmental effects may result particularly from increases in noise and emissions from road transport"*. It is recognised in EN-1 that producing the energy required by the UK will require significant infrastructure, including large scale projects.

7.22.19 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to Traffic and Access are taken into account when considering any proposed development:

*"its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and*

*its potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts"*.

7.22.20 Paragraph 1.4.1 of EN-1 states that in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic, social and economic benefits and adverse impacts at national, regional and local levels"*.

7.22.21 Paragraphs 5.13.6 and 5.13.7 set out matters the Secretary of State should have regard to in determining an application for development consent, including:

*"A new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure and the Secretary of State should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development. Where the proposed mitigation measures are insufficient to reduce the impact on the transport infrastructure to acceptable levels, the Secretary of State should consider requirements to mitigate adverse impacts on transport networks arising from the development; and*

*Should the applicant be willing to enter into planning obligations, or requirements can be imposed to mitigate transport impacts identified in the NATA/WebTAG transport assessment, then development consent should not be withheld and appropriately limited weight should be applied to residual effects on the surrounding transport infrastructure"*.

7.22.22 The greatest number of vehicle movements will be generated in the construction phase, with O&M traffic flows negligible by comparison. Fewer vehicle movements will be required during decommissioning than construction.

7.22.23 Table 8.17 of Volume 3, Chapter 8: Traffic and Access (Document Ref: 6.3.8) provides a summary of the potential effects during the construction, O&M and decommissioning phases of Thanet Extension, as well as additional proposed mitigation measures. Embedded mitigation measures are described in Section 8.9.

7.22.24 The assessment of Traffic and Access has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.

7.22.25 The construction, operation and decommissioning of Thanet Extension will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.

The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regard to traffic. Effects from traffic should therefore not weigh against the substantial benefits of Thanet Extension.



## 7.23 Air Quality

7.23.1 This topic is assessed in Volume 3, Chapter 9 (Air Quality) of the ES (Document 6.3.9).

### National Policy Statements: NPS EN-1

#### *EN-1 paragraph 5.2.7*

7.23.2 The Environmental Statement should describe:

- The Environmental Statement (ES) should describe any significant air emissions, their mitigation and any residual effects distinguishing between the project stages and taking account of any significant emissions from any road traffic generated by the project.
- ES should describe the predicted absolute emission levels of the proposed project, after mitigation methods have been applied.
- The ES should describe existing air quality levels and the relative change in air quality from existing levels.

#### *How has this been addressed?*

7.23.3 This assessment of any significant air emissions is set out in section 9.16 of the chapter.

7.23.4 The chapter assesses the risk and significance of potentially significant emissions to air, with and without appropriate mitigation.

7.23.5 Existing air quality is described in the section 9.7 of the chapter and the relative change is described in sections 9.10–9.12.

### National Policy Statements: NPS EN-3

7.23.6 No relevant policy requirements for air quality have been identified in EN-3.

### Other Policy Considerations

#### *NPPF*

7.23.7 The NPPF sets out the Government's planning policies for England and how these are expected to be applied. The NPPF states: *"Planning policies should sustain compliance with and contribute towards EU limits values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan"*.

*How has this been addressed?*

7.23.8 The potential impacts during the O&M phase of the proposed development are likely to be Negligible. Operation of the proposed built infrastructure (the substation) and maintenance activities would not lead to a significant change in vehicle flows within the study area. Section 9.7 assesses the existing air quality environment and sections 9.10–9.12 address the Annual Average Daily Traffic (AADT) change associated with the proposed development and likely contributions to complying with EU limit values.

*Thanet Local Plan (2006) Saved Policies and Proposals Map Saved Policy EP5 – Local Air Quality Monitoring*

7.23.9 Proposals for New Development that would result in the National Air Quality Objectives being exceeded will not be permitted. Development proposals that might lead to such an exceedance, or to a significant deterioration in local air quality resulting in unacceptable effects on human health, local amenity or the natural environment, will require the submission of an air quality assessment, which should address:

1. The existing background levels of air quality;
2. The cumulative effect of further emissions;
3. The feasibility of any measures of mitigation that would prevent the national Air Quality Objectives being exceeded, or would reduce the extent of air quality deterioration.

*How has this been addressed?*

7.23.10 The existing background is presented in section 9.7. The cumulative effect of further emissions is detailed in section 9.13. Mitigation measures are presented in section 9.9.

*Air Quality Technical Planning Guidance (TDC, 2016) Section 3.4*

7.23.11 The key concern with regard to the air quality impacts of a development is the likely effect on human health. It is important that an air quality assessment evaluates modelled air quality in terms of changes in pollution concentrations where there is relevant public exposure. There are key areas where the magnitude of change as well as the concentration of pollutants in air caused by proposed development is a concern. In some cases, any additional contribution of emissions may worsen air quality and cause the creation of a new AQMA and, therefore, a small change in pollutant concentration can be as much a cause for concern as a large one.

*How has this been addressed?*

7.23.12 The air quality impacts of the proposed development are assessed with regards to human health in sections 9.10–9.12.

## Considerations for the Secretary of State

7.23.13 Part 5.2 of EN-1 sets out matters relevant to Air Quality at a national level. It is recognised that in order to produce the energy required by the UK, significant infrastructure will be required, including large scale projects.

7.23.14 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to Air Quality are taken into account when considering any proposed development: *"Potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts"*.

7.23.15 Paragraph 4.1.4 of EN-1 states that in reaching a decision, the Secretary of State should have regard to 'environmental, social and economic benefits and adverse impacts at national, regional and local levels'. NPS EN-3 paragraphs 5.2.8 to 5.2.10 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of Air Quality matters. It is confirmed that the Secretary of State must have regard to the following:

- *"Give Air Quality considerations substantial weight where a project would lead to a deterioration in Air Quality in an area, or leads to a new area where air quality breaches any national air quality limits;*
- *Potential Air Quality effects; and*
- *In the event that a project will lead to non-compliance with a statutory limit the Secretary of State should refuse consent"*.

7.23.16 Table 9.35 of Volume 3, Chapter 9: Air Quality (Document Ref: 6.3.9) provides a summary of the potential effects during the construction, O&M and decommissioning phases of Thanet Extension, as well as additional proposed mitigation measures. Embedded mitigation measures are described in Table 9.16. The project will not lead to non-compliance with a statutory limit.

7.23.17 The assessment of Air Quality has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.

7.23.18 The construction, operation and decommissioning of Thanet Extension will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.

7.23.19 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regard to air quality impacts. The project will not lead to non-compliance with a statutory limit. Accordingly, effects on air quality should not weight against the substantial benefits of Thanet Extension.

## 7.24 Noise and Vibration

7.24.1 This topic is assessed in Volume 3, Chapter 10 (Noise and Vibration) of the ES (Document 6.3.10).

### National Policy Statements: NPS EN-1

#### *EN-1: Paragraph 5.11.1*

7.24.2 Excessive noise can have wide-ranging impacts on the quality of human life, health (for example owing to annoyance or sleep disturbance) and use and enjoyment of areas of value such as quiet places and areas with high landscape quality. The Government's policy on noise is set out in the Noise Policy Statement for England (NPSE). It promotes good health and good quality of life through effective noise management. Similar considerations apply to vibration, which can also cause damage to buildings.

#### *How has this been addressed?*

7.24.3 Section 10.5 describes how a set of assessment criteria have been developed which has enabled the proposed development to be assessed against the principal aims of the NPSE which is referenced here.

#### *EN-1: Paragraph 5.11.6*

7.24.4 Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards and other guidance. For the prediction, assessment and management of construction noise, reference should be made to any relevant British Standards and other guidance which also give examples of mitigation strategies. The standards and guidance used to assess the proposed development are set out in this table.

#### *How has this been addressed?*

7.24.5 Section 10.5 describes how these standards have been used to assess the impact of noise and vibration.

#### *EN-1: Paragraph 5.11.7*

7.24.6 The applicant should consult Environment Agency (EA) and Natural England (NE), or the Countryside Council for Wales (CCW), as necessary and in particular with regard to assessment of noise on protected species or other wildlife.

*How has this been addressed?*

7.24.7 The results of any noise surveys and predictions may inform the ecological assessment. The seasonality of potentially affected species in nearby sites may also need to be taken into account. The assessment of noise impacts on ecological receptors is provided in Volume 3, Chapter 5: Terrestrial Ecology (Document Ref: 6.3.5).

*EN-1: Paragraph 5.11.8*

7.24.8 The project should demonstrate good design through selection of the quietest cost-effective plant available; containment of noise within buildings wherever possible; optimisation of plant layout to minimise noise emissions; and, where possible, the use of landscaping, bunds or noise barriers to reduce noise transmission.

*How has this been addressed?*

7.24.9 Embedded mitigation for reducing noise and vibration is described in section 10.9. No additional mitigation is required as described in section 10.15.

*EN-1: Paragraph 5.11.9*

7.24.10 The [Secretary of State] should not grant development consent unless it is satisfied that the proposals will meet the following aims:

- avoid significant adverse impacts on health and quality of life from noise;
- mitigate and minimise other adverse impacts on health and quality of life from noise; and
- where possible, contribute to improvements to health and quality of life through the effective management and control of noise.

*How has this been addressed?*

7.24.11 Section 10.5 describes how a set of assessment criteria have been developed which has enabled the proposed development to be assessed against the principal aims of the NPSE which are in accordance with the three aims set out in Para 5.11.9 of NPS EN-1.

*EN-1: Paragraph 5.11.10*

7.24.12 When preparing the development consent order, the Secretary of State should consider including measurable requirements or specifying the mitigation measures to be put in place to ensure that noise levels do not exceed any limits specified in the development consent.

*How has this been addressed?*

7.24.13 Embedded mitigation for reducing noise and vibration is described in Section 10.9. No additional mitigation is required as described in section 10.15. The mitigation measures set out could be specified to ensure that the noise levels do not exceed any limits specified in the development consent order.

### National Policy Statements: NPS EN-3

7.24.14 No relevant policy requirements for noise and vibration have been identified in EN-3

### Other Policy Considerations

#### *NPPF*

7.24.15 The NPPF states that new development should contribute to and enhance the environment by preventing new and existing development from contributing to, or being put at unacceptable risk from, or being adversely affected by unacceptable levels of noise pollution.

#### *How has this been addressed?*

7.24.16 Section 10.5 describes how the assessment follows the principles of the NPPF. Assessments of the noise and vibration impact of the proposed development are presented in sections 10.10 and 10.11. Embedded measures to reduce the impact of noise and vibration are presented in section 10.9. No additional mitigation is required as described in section 10.15. The residual effects of the proposed development, taking account of mitigation measures, are summarised in section 10.16.

#### *Draft Thanet Local Plan to 2031 (TLP 2018) Policy SE06 (Noise)*

7.24.17 “In areas where noise levels are relatively high, permission will be granted for noise-sensitive development only where adequate mitigation is provided, and the impact of the noise can be reduced to acceptable levels. Development proposals that generate significant levels of noise must be accompanied by a scheme to mitigate such effects, bearing in mind the nature of surrounding uses. Proposals that would have an unacceptable impact on noise-sensitive areas or uses will not be permitted.”

#### *How has this been addressed?*

7.24.18 Section 10.5 describes how a set of assessment criteria have been developed which has enabled the proposed development to be assessed against the principal aims of the NPSE. Assessments of the noise and vibration impact of the proposed development are presented in sections 10.10 and 10.11. Embedded measures to reduce the impact of noise and vibration are presented in section 10.9.

### Considerations for the Secretary of State

7.24.19 Part 5.11 of EN-1 sets out matters relevant to Noise and Vibration at a national level. It is recognised that ‘excessive noise can have wide-ranging impacts on the quality of human life, health and use and enjoyment of areas of value such as quiet places and areas with high landscape quality’. It is recognised in EN-1 that producing the energy required by the UK requires significant infrastructure, including large scale projects.

7.24.20 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to Air Quality are taken into account when considering any proposed development:

*"Potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts".*

7.24.21 Paragraph 4.1.4 of EN-1 states that in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts at national, regional and local levels"*.

7.24.22 NPS EN-3 paragraphs 5.11.8 to 5.11.10 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of Noise and Vibration matters. It is confirmed that the Secretary of State should not grant development consent unless it is satisfied that the proposals will avoid significant adverse impacts on health and quality of life from noise; mitigate and minimise other adverse impacts on health and quality of life from noise; and where possible, contribute to improvements to health and quality of life through the effective management and control of noise.

7.24.23 Table 10.28 of Volume 3, Chapter 10: Noise and Vibration (Document Ref: 6.3.10) provides a summary of the potential effects during the construction, O&M and decommissioning phases of Thanet Extension, as well as additional proposed mitigation measures. Embedded mitigation measures are described in Table 10.18.

7.24.24 The assessment of Noise and Vibration has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.

7.24.25 The construction, operation and decommissioning of Thanet Extension will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.

7.24.26 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regard to the noise and vibration and therefore these effects should not weigh against the substantial benefits of Thanet Extension when considering the planning balance.

## 7.25 Aviation and Radar

7.25.1 This topic is assessed in Volume 3, Chapter 11 (Aviation and Radar) of the ES (Document 6.3.11).

**National Policy Statements: NPS EN-1***EN-1: Paragraphs 5.4.10 to 5.4.13*

7.25.2 Informs that if the proposed development could have an effect on civil and military aviation then the assessment should be considered:

- Consult the Ministry of Defence (MoD), the Civil Aviation Authority (CAA) and NATS and any aerodrome – licensed or otherwise – likely to be affected by the proposed development in preparing an assessment of the proposal on aviation or other defence interests.
- Any assessment of aviation or other defence interests should include potential impacts of the project upon the operation of Communication, Navigation and Surveillance (CNS) infrastructure, flight patterns (both civil and military), other defence assets and aerodrome operational procedures.
- Assess the cumulative effects of the project with other relevant projects in relation to aviation and defence.

*EN-1 Paragraph 5.4.15*

7.25.3 Informs that if there are conflicts between the Government's energy and transport policies and military interests in relation to the application, the decision maker should expect the relevant parties to have made appropriate efforts to work together to identify realistic and pragmatic solutions to the conflicts. In so doing, the parties should seek to protect the aims and interests of the other parties as far as possible.

*EN-1 Paragraph 5.4.16*

7.25.4 Advises that there are statutory requirements concerning the fitting of lighting to tall structures. Where lighting is requested on a structure that goes beyond statutory requirements by any of the relevant aviation and defence consultees, the decision maker should satisfy itself of the necessity of such lighting taking into account the case put forward by the consultees. The effect of such lighting on the landscape and ecology may be a relevant consideration.

*EN-1 Paragraph 5.4.17*

7.25.5 Informs that where, after reasonable mitigation, operational changes, obligations and requirements have been proposed, the decision maker considers that:

- A development would prevent a licensed aerodrome from maintaining its licence;
- The benefits of the proposed development are outweighed by the harm to aerodromes serving business, training or emergency service needs, taking into account the relevant importance and needs for such aviation infrastructure;



- The development would significantly impede or compromise the safe and effective use of defence assets or significantly limit military training; or
- The development would have an impact on the safe and efficient provision of en-route air traffic control services for civil aviation, in particular through an adverse effect on the infrastructure required to support communications, navigation or surveillance systems then consent should not be granted.

### National Policy Statements: NPS EN-3

#### *EN-3 Paragraph 2.6.187*

- 7.25.6 Informs that detailed discussions between the applicant for the Offshore Wind Farm (OWF) and the relevant consultees should have progressed as far as reasonably possible prior to the submission of an application to the decision maker. As such, appropriate mitigation should be included in any application to the decision maker, and ideally agreed between relevant parties.

#### *EN-3 Paragraph 2.6.107*

- 7.25.7 Indicates that aviation and navigation lighting should be minimised to avoid attracting birds, taking into account impacts on safety.

### Considerations for the Secretary of State

- 7.25.8 Paragraphs 5.4.14 to 5.4.21 of EN-1 set out matters the Secretary of State will need to be satisfied that the effects on civil and military aerodromes, aviation technical sites and other defence interests have been addressed by the applicant and any necessary assessment of the proposal on aviation or defence interests has been carried out, along with any relevant mitigation.
- 7.25.9 VWPL has consulted all relevant aviation and communications stakeholders as part of the EIA process and taken those responses into consideration in preparation of the application, along with all relevant legislation and guidance.
- 7.25.10 Aviation lighting requirements are outlined in paragraph 1.4.18 of Volume 2, Chapter 1: Project Description (Offshore) (Document Ref: 6.2.1) as well as in paragraph 12.8.18 to 12.8.20 of Volume 2, Chapter 12: Seascape, Landscape and Visual Impact Assessment (Document Ref: 6.2.12). Lighting requirements will satisfy the requirements of CAP 393 (Article 223).
- 7.25.11 Paragraph 5.4.17 of NPS EN-1 requires that:

*‘Where, after reasonable mitigation, operational changes, obligations and requirements have been proposed, the Secretary of State considers that:*

*A development would prevent a licensed aerodrome from maintaining its licence;*

*The benefits of the proposed development are outweighed by the harm to aerodromes serving business, training or emergency service needs;*

*The development would significantly impede or compromise the safe and effective use of defence assets or significantly limit military training; or*

*The development would have an impact on the safe and efficient provision of en route air traffic control services for civil aviation; consent should not be granted.*

7.25.12 Thanet Extension has been sited to minimise conflicts with aviation, military and communication receptors. In cases where conflict has been highlighted by early consultation, VWPL has, where appropriate, proposed mitigation measures to reduce or negate impacts. Embedded mitigation measures for aviation, military and communication receptors are presented in Section 11.8 of Volume 3, Chapter 11: Aviation and Radar (Document Ref: 6.3.10) of the Environmental Statement, with additional mitigation measures described in Table 11.10.

7.25.13 NPS EN-1 paragraph 5.4.18 states that "*Where a proposed energy infrastructure development would significantly impede or compromise the safe and effective use of civil or military aviation or defence assets and/ or significantly limit military training, the Secretary of State may consider the use of 'Grampian', or other forms of condition which relate to the use of future technological solutions to mitigate impacts*". Paragraph 5.4.19 then requires that:

*"Mitigation for infringement of Obstacle Limitation Surfaces (OLS) may include:*

*Amendments to layout or scale of infrastructure;*

*Changes to operational procedures of the aerodromes in accordance with relevant guidance; and*

*Installation of obstacle lighting and/ or by notification in Aeronautical Information Service publications.*

*For CNS infrastructure, the UK military Low Flying system (including Tactical Training Areas and designated air traffic routes, mitigation may also include:*

*Lighting;*

*Operational airspace changes; and*

*Upgrading of existing CNS infrastructure. Mitigation for effects on radar, communications and navigational systems may include reducing the scale of a project".*

7.25.14 The assessment of aviation and radar has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.

7.25.15 The construction, operation and decommissioning of Thanet Extension will be carried out in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for Thanet Extension demonstrates that there is no conflict with any of the conditions set out by the NPSs.

7.25.16 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regard to the EIA regulations. Residual radar impacts on Southend Airport can be successfully mitigated and as such not weigh against the substantial benefits of Thanet Extension.

## 7.26 Health

7.26.1 This topic is assessed in Volume 3, Chapter 12 (Health) of the ES (Document 6.3.12).

### National Policy Statements: NPS EN-1

7.26.2 Energy production has the potential to impact on the health and well-being (“health”) of the population. Access to energy is clearly beneficial to society and to our health as a whole. However, the production, distribution and use of energy may have negative impacts on some people’s health. As described in the relevant sections of this NPS and in the technology specific NPSs, where the proposed project has an effect on human beings, the ES should assess these effects for each element of the project, identifying any adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate. The impacts of more than one development may affect people simultaneously, so the applicant and the IPC should consider the cumulative impact on health. The direct impacts on health may include increased traffic, air or water pollution, dust, odour, hazardous waste and substances, noise, exposure to radiation, and increases in pests. New energy infrastructure may also affect the composition, size and proximity of the local population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport or the use of open space for recreation and physical activity.

#### *How has this been addressed?*

7.26.3 Impacts to health are assessed in sections 12.10, 12.11, 12.12 and 12.13. Direct impacts to health are outlined in Table 12.3.

### National Policy Statements: NPS EN-3

7.26.4 No relevant policy requirements for shipping and navigation have been identified in EN-3.

## Other Policy Considerations

### *NPPF*

- 7.26.5 Planning policies and decisions, in turn, should aim to achieve places which promote: Impacts to health, specifically with regards impacts to green safe and accessible developments, containing clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas.
- 7.26.6 All overhead power lines produce EMFs, and these tend to be highest directly under a line, and decrease to the sides at increasing distance. Although putting cables underground eliminates the electric field, they still produce magnetic fields, which are highest directly above the cable (see para 2.10.12). EMFs can have both direct and indirect effects on human health. The direct effects occur in terms of impacts on the central nervous system resulting in its normal functioning being affected. Indirect effects occur through electric charges building up on the surface of the body producing a microshock on contact with a grounded object, or vice versa, which, depending on the field strength and other exposure factors, can range from barely perceptible to being an annoyance or even painful.

### *How has this been addressed?*

- 7.26.7 Impacts to health, specifically with regards impacts to green space are assessed in sections 12.10.
- 7.26.8 The potential effects of EMF are described in section 12.3. Assessment of impacts can be found in section 12.6, 12.7, 12.8 and 12.9. 2).

### *EIA Regulations 2017 Part 1.4 (2)(a)*

- 7.26.9 The EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on the following factors — (a) population and human health.

### *How has this been addressed?*

- 7.26.10 This is addressed in section 12.4 of this ES chapter.

## Considerations for the Secretary of State

- 7.26.11 Paragraphs 4.13.1 to 4.13.5 of EN-1 set out matters relevant to Public Health. It is recognised that "*access to energy is beneficial to society and human health as a whole*". It is recognised in EN-1 that producing energy required by the UK requires significant infrastructure, including large scale projects.
- 7.26.12 Where the proposed project has an effect on human beings, EN-1 states that the ES should assess these effects for each element of the project, identifying any adverse health impacts, and identify measures to avoid, reduce or compensate for these impacts as appropriate.

- 7.26.13 EN-1 recognises that *"generally, those aspects of energy infrastructure which are most likely to have a significantly detrimental impact on health are subject to separate regulation (for example air pollution) which will constitute effective mitigation of them, so that it is unlikely that health concerns will either constitute a reason to refuse consent or require specific mitigation under the Planning Act 2008. However, the Secretary of State will want to take account of health concerns when setting requirements relating to a range of impacts such as noise"*. Where relevant, these potential effects are assessed under the relevant ES chapters, such as Volume 3, Chapter 9: Air Quality (Document Ref 6.3.9) and Volume 3, Chapter 10: Noise and Vibration (6.3.10).
- 7.26.14 Section 2.10 of NPS EN-5 considers the potential for Electro-Magnetic Fields (EMF) to arise as a result of new power transmission projects, and suggest an approach to mitigation for EMF effects, where they might occur. VWPL has considered the potential for the generation of EMFs as a result of the onshore components of the project. Volume 3, Chapter 12: Public Health (Document Ref: 6.3.12) considered potential effects on Public Health as a result of EMF and concluded that the effect would be of negligible adverse significance.
- 7.26.15 The assessment of Health has had regard to the relevant requirements for assessment and has been carried out in accordance with those requirements.
- 7.26.16 The construction, operation and decommissioning of Thanet Extension will be carried out in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for Thanet Extension demonstrates that there is no conflict with any of the conditions set out by the NPSs which would lead to a refusal of development consent on the grounds of Public Health.
- 7.26.17 The environmental information and assessment carried out for Thanet Extension concludes that there are no significant effects with regard to public health. Effects on public health should therefore not weigh against the substantial benefits of Thanet Extension when considering the planning balance of the Application.

## 8 Balance of Considerations and Overall Conclusions

- 8.1.1 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).
- 8.1.2 In determining this application, the wider benefits of offshore wind and Thanet Extension specifically must be weighed against any adverse impacts that have been identified as well as any 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.
- 8.1.3 This planning statement has considered the need for Thanet Extension, the Application's consistency with relevant planning policy and the planning balance including both beneficial and adverse effects.
- 8.1.4 The need for Thanet Extension and offshore wind in general is clearly supported by NPS EN-1 and wider governmental obligations and objectives relating to low carbon electricity generation, climate change and the economy. The contribution Thanet Extension would make to these objectives and the confirmation of the need for the development has been set out in Section 5.
- 8.1.5 The Application's consistency with relevant planning policy, primarily NPS EN-1 and EN-3, has been demonstrated throughout Section 6 (Site Selection and Alternatives) and Section 7 (Planning Assessment). NPS EN-1 (para 4.1.5) identifies that, where there is a conflict between a development plan and the NPS, the NPS prevails for the purpose of decision making, given the national significance of the infrastructure. The consistency with the NPSs and other relevant policy is further detailed in the individual chapters of the Environmental Statement and supporting documents.
- 8.1.6 Consideration of the weight that may be ascribed to both beneficial and adverse effects for individual topics has been set out in Section 7 under 'Considerations for the Secretary of State'. In reaching its judgement, VWPL has assessed the policy context relating to a range of topics and interests (as set out in the NPSs and other relevant national and local policies) against the findings of the ES.
- 8.1.7 When taking the project as a whole it is not considered that there are any adverse effects, individually or cumulatively, that would be sufficient to outweigh the substantial benefits and need case of Thanet Extension.

## 9 References

Canterbury City Council Local Plan (2006)

Department for Communities and Local Government (2012) National Planning Policy Framework (NPPF). London, Department for Communities and Local Government.

Department of Energy and Climate Change (DECC) (2011a). Overarching National Policy Statement for Energy (EN-1)

Department of Energy and Climate Change (DECC) (2011b). National Policy Statement for Renewable Energy Infrastructure (EN-3)

Department for Energy and Climate Change (DECC) (2011c). National Policy Statement for Energy Infrastructure (EN-5)

Dover District Council Core Strategy (adopted 2010)

Marine Management Organisation (MMO) (2009) Marine and Coastal Access Act.

Planning Act 2008 (as amended) (The Act).

Thanet District Local Plan (Thanet District Council 2006)

Draft Thanet District Local Plan (Thanet District Council, 2015)

The Conservation of Habitats and Species Regulations 2017 (The Habitats Regulations)

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

VWPL (2017). Scoping Report (Document 6.7)

VWPL (2018). Report to Inform the Appropriate Assessment (RIAA) (Document 5.2)

VWPL (2018). Code of Construction Practice (Document 8.1)

Wildlife and Countryside Act 1981 (as amended)

UK Marine Policy Statement (2011)