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3 REGULATORY AND LEGISLATIVE CONTEXT

3.1 Introduction

This section outlines the consent and regulatory requirements relating to the construction, operation and decommissioning of the Thanet Offshore Wind Farm (Thanet) project including the export cable route and onshore ancillary infrastructure. The approach to the Environmental Impact Assessment (EIA) process is also described including the assessment methodology, consultation and communication exercise.

3.2 Consent Requirements

An Agreement for Lease under the Crown Estate Act (1961) is already in place between The Crown Estate and Thanet Offshore Wind Limited (TOW). This Agreement grants TOW an option for seven years to develop an offshore wind farm at the Thanet site, within which time TOW is required to obtain all necessary construction consents. Once all consents are obtained, the Agreement would be converted into a full Lease of the seabed for the wind farm and ancillary elements such as cables.

There are a number of consents that will be required for all phases of development i.e. construction, operation and decommissioning. The Department of Trade and Industry's (DTI) Offshore Renewables Consents Unit (ORCU) (DTI, 2004) has provided guidance on this matter, which summarises the statutory consents required for an "*offshore wind generating station*" under the various Acts of Parliament. A summary of the consents that TOW has applied for are set out in **Table 3.1**, with further details on additional aspects provided below.

Table 3.1 Statutory consents applied for by TOW

Act of Parliament	Consent type	Competent Authority
Section 36 - Electricity Act 1989	For construction and operation of an offshore wind power generating station within territorial waters adjacent to England and Wales, including all ancillary infrastructure.	Department of Trade and Industry (DTI)
Section 5 - Food and Environment Protection Act (FEPA) 1985	For depositing articles or materials in the sea/tidal waters below MHWS (mean high water springs) around England and Wales, including the placement of construction material or disposal of waste dredging.	Marine Consents Environment Unit (MCEU/DEFRA)
Section 34 - Coastal Protection Act (CPA) 1949	To make provision for the safety of navigation in relation to the export cable route.	MCEU/DEFRA
Section 90 Town & Country Planning Act 1990	Deemed planning permission sought as part of the section 36 applications for the onshore elements of the works.	DTI

In gaining consent under the Electricity Act or the Food and Environment Protection Act, conditions may be imposed to control and mitigate the impact of the development.

3.2.1 Extinguishment of public rights of navigation

The Energy Act 2004 introduces two new sections into section 36 of the Electricity Act relating in particular to navigation namely 36A and 36B. Section 36A gives power to the Secretary of State to make a declaration, on application by a developer, which extinguishes public rights of navigation through the place where the generating station would be established. This point has been clarified by the DTI as meaning the area of seabed covered by each individual offshore structure and associated foundation, as opposed to the entire wind farm site (pers. comm. Robert Lilly, DTI, August 2005). This application has been made by TOW as part of their section 36 application.

Section 36B places certain duties on the Secretary of State in relation to navigation, such that consent may not be granted where the generating station would interfere with recognised sea lanes essential to international navigation. Draft guidance on what is meant by the term "*recognised sea lanes essential to international navigation*" has been developed and apart from the Dover Strait Traffic Separation Scheme (TSS), there are no recognised sea lanes essential to international navigation within the immediate vicinity of the Thanet site.

Assuming the granting of consent is not precluded by interference with a sea lane essential to international navigation, the Secretary of State will take into account before a decision is made an application for a declaration to extinguish public rights of navigation and any application for Safety Zones (see below), in addition to any cumulative effects on navigation.

Where consent is granted after commencement of these provisions, no consent for the generating station under section 34 of the CPA is required, however, there is still a requirement under this Act for the export cables.

3.2.2 Safety Zones

The Energy Act 2004 enables a Safety Zone to be established around offshore renewable energy installations and in the case of wind farms this may be established around each offshore structure up to a maximum of 500m from its outer edge.

The purpose of the Safety Zone is to protect the safety of life at sea by minimising the risk of collision between vessels and offshore installations by establishing a zone within which it will be a criminal offence to enter. Permission will be provided for specified vessel types to enter the Safety Zone, such as those required for maintenance or involved in an emergency or distress situation.

Different Safety Zones can be established to cover the main stages in the life of the renewable energy installation including construction, operation and decommissioning.

The applicant must make a case for the establishment of Safety Zones based on safety grounds and this is likely to be tailor made to the particular installation. An application does not need to be made at the same time as the application for section 36 consent, although the guidance does state that an intention to do so would be useful, as the Secretary of State must take into account the request for any Safety Zones when deciding to grant consent. The Secretary of State is also able to establish a Safety Zone if the view is that one is required.

TOW has applied for a 500m Safety Zone around each offshore structure and cable lay vessel for the period of construction and decommissioning of the Thanet project. This is in order to ensure the safety of construction vessels and other vessels navigating in the area (see **Section 14, Shipping and Navigation**).

TOW has also applied for the following Safety Zones during the period of operation:

- 500m around each offshore structure for all vessels over 300 gross tonnes;
- 50m around each offshore structure for all vessels under 300 gross tonnes; and
- 500m around each offshore structure for all fishing vessels employed in drift netting or trawling.

The reasons for these Safety Zones are provided below with further details in **Section 14.**

Vessels may be set towards wind farm structures in cases of machinery failure causing loss of control. The Thanet site is in relatively deep water and therefore vessels would not be stopped by grounding before reaching the offshore structures. Controlling a disabled vessel by use of her anchors would be a definite avoidance measure providing there were sufficient sea room and time to anchor.

Most large vessels have accommodation blocks and wheelhouses well over 22m above sea level that could be at risk of coming into contact with rotating blades. It has been estimated that a vessel of approximately 130 tonnes displacement at 2.5m/s (approx 5 knots) is capable of initiating a tower collapse. TOW has therefore made an application for a 500m Safety Zone around the offshore structures in order to reduce the risks of drifting contact from vessels of 300 gross tonnes (GT) and above, which will cover most vessels of 130 tonnes displacement and above.

As stated, vessels under 300GT could be permitted to navigate within the wind farm site during the operational phase of the project, but a Safety Zone of 50m around each offshore structure has been applied for. This is based on the expected maximum area of interference from scour associated with the largest gravity base structures being considered (see **Section 2, Project Details**).

With regard to fishing in the wind farm area, potting and fishing with fixed nets should not pose a risk to fishermen once the wind farm is operational. However, should loose drift nets become snagged across turbine towers or other structures, they would present a danger to all vessels and boats permitted to use the area. Therefore the risk of injury to fishermen and others could be significant. Similarly, trawl nets and their heavy bottom gear could agitate the seabed and expose the interturbine cables and/or the gear could become snagged on the wind farm structures. The unexpected snagging of fishing gear would present a risk to the fishermen and therefore, as for the use of drift nets, preventative action is necessary. TOW has therefore made an application for the establishment of a 500m Safety Zone around all offshore structures to exclude all fishing with drift nets and trawls within these zones.

The methods of promulgating information and warnings of restrictions or Safety Zones would include detailed warnings in Notices to Mariners, local navigation warnings (VHF radio broadcast by the Coastguard), websites, e-mail and advertisements in the local press and fishing journals. This would be supported by distribution of information to local fishermen and sailing/yacht clubs and would be in addition to the safety and mitigation measures listed within Annex 3 of Marine Guidance Note (MGN) 275(M).

3.2.3 Deemed planning permission

Under section 36, deemed planning permission will be sought for the onshore elements of the project, including the landfall, onshore cable route and substation extension. No separate consent for the onshore works will be submitted. However, the Local Planning Authorities i.e. Thanet District Council and Dover District Council will be statutory consultees as part of the section 36 consent determination.

3.3 Requirement for Environmental Impact Assessment

The proposed development will be subject to an EIA, as required under EC Directive 97/11/EC (The Assessment of Certain Public and Private Projects on the Environment). This Directive has been transposed into UK legislation via the Electricity Works (Environmental Impact Assessment) Regulations 2000 (SI 2000/1927).

Under these regulations, offshore wind farm developments are listed as a Schedule 2 project, described as "*installations for the harnessing of wind power for energy production (wind farms)*". This means that an Environmental Statement (ES) should be prepared for developments likely to have significant environmental effects. A single ES has been be prepared for the Thanet project for the purposes of gaining all consents.

The EIA has been prepared in accordance with the Schedules related to the 2000 Regulations. In addition, the requirements and advice of the DTI in their Guidance Note 'Offshore Wind farm Consents Process' (DTI 2004) have been followed.

3.4 Requirement for Appropriate Assessment

Under the Conservation (Natural Habitats, & c.) Regulations 1994 (SI 1994/2716 as amended), the relevant Competent Authority must consider the effect of a development on the integrity of a European site, if the development is considered likely to have a significant effect on that site. A European site constitutes a Special Area of Conservation (SAC) or Special Protection Area (SPA) for birds. Of relevance to this project are the Thanet Coast and Sandwich Bay SAC and the Thanet Coast and Sandwich Bay SPA (see **Section 4, Policy Framework and Guidance**).

Section 26, Information for Appropriate Assessment provides information for use by the Competent Authority, in this case the DTI, to assist in carrying out an Appropriate Assessment. In particular, it reports on the potential effect of the Thanet project on the European sites' conservation objectives and favourable condition criteria.

3.5 Requirement for Decommissioning

There is a need to consider the plans required for the decommissioning of the Thanet project under the Lease with The Crown Estate and the Energy Act 2004. There are a

number of key issues that need to be addressed as part of any plan to ensure the requisite reinstatement of the seabed, in addition to a need to ensure availability of adequate funds to undertake decommissioning. The provisions for decommissioning under the Energy Act have not yet been enabled.

Following consent, a Decommissioning Plan would be agreed with the DTI and The Crown Estate prior to the commencement of construction. This would take into account the statutory provisions under the Energy Act.

3.6 The Environmental Impact Assessment Process

EIA is a tool for systematically examining and assessing the impacts and effects of a development on the environment. The resultant ES reports on the EIA and contains:

- Description of the development proposal, including any alternatives considered;
- Description of the existing environment at the site and its environs;
- Prediction of potential impacts on the existing human, physical and natural environment at the site and assessment of subsequent effects;
- Description of mitigation measures to avoid or reduce such effects;
- Description of monitoring requirements; and
- Non-Technical Summary.

The following stages are typically included in an EIA:

- Screening determination of whether a development proposal needs an EIA;
- Scoping determination of the issues to be addressed by the EIA;
- Consultation and public participation;
- Original data collection and surveys where necessary to fill data gaps;
- Impact identification and evaluation;
- Identification of mitigation and residual impacts;
- Identification of monitoring requirements;
- Submission of the ES to the relevant authorities as part of the consents process;
- Liaison and consultation to resolve matters or representations/objections; and
- Decision on whether the development proposal should proceed.

3.6.1 Statutory Screening and Scoping Opinions

Government has provided advice that all offshore wind farm developments would be subject to an EIA (DTI, 2001), hence no formal screening request was made.

A Scoping Opinion has been received from DTI relating to the offshore development, following the provision of a Scoping Report. The Scoping Opinion stipulated the need to utilise the advice within the relevant guidance and highlighted the following issues for consideration within the ES:

- Legislation and consent requirements;
- Ornithology;
- Benthic ecology;
- Fish and shellfish;
- Commercial fishing;
- Physical environment;
- Navigation;
- Marine disposal sites;
- Landscape and visual impacts; and
- Potential cable routes

A copy of the full Scoping Opinion letter (DTI, Oct 2004) is included in **Appendix 3.1**

3.6.2 Original data collection and surveys

Further to the findings of the Scoping Report (Royal Haskoning, 2004), and consultation with the Centre for Environment, Fisheries and Aquaculture Science (CEFAS), English Nature, the Royal Society for the Protection of Birds (RSPB) and local fishing organisations *inter alia*, the following surveys were undertaken as part of the EIA.

- Geophysical survey;
- Fisheries and epifaunal survey;
- Benthic survey (sublittoral and intertidal);
- Bird surveys (aerial and boat based);
- Terrestrial survey (Phase 1 habitat survey); and
- Seascape and visual character, character assessment.

3.6.3 Impact identification and evaluation

Impact identification and evaluation was carried out via a number of methods and techniques including data collation and literature review, consultation, reference to relevant guidance and standards, original data collection and analysis including multivariate analysis and computer modelling, as well as experience of similar schemes. Details of the assessment methodology and data sources are provided for each parameter in the relevant section.

3.6.4 Significance levels

In order to provide a consistent framework for considering and evaluating impacts, significance levels have been assigned to each impact. **Table 3.3** sets out the assigned definitions.

Table 3.3 Terminology for classifying environmental impacts

Impact Significance	Definition
Major adverse	The impact gives rise to serious concern and it should be considered as unacceptable.
Moderate adverse	The impact gives rise to some concern but is likely to be tolerable depending on scale and duration.
Minor adverse	The impact is undesirable but of limited concern.
Negligible	The impact is not of concern.
No Impact	There is an absence of one or more of the following: impact source, pathway or receptor.
Minor beneficial	The impact is of minor significance but has some environmental benefit.
Moderate beneficial	The impact provides some gain to the environment.
Major beneficial	The impact provides a significant positive gain.

A number of criteria have been utilised to determine the significance of the environmental impacts. These are:

- Magnitude of the impact i.e. local, regional or national;
- Spatial extent of the impact i.e. small scale or large scale;
- Duration of the impact i.e. short term or long term;
- Reversibility of the impact including species or habitat recoverability, sensitivity and tolerance;
- Conservation or protected status;
- Probability of occurrence of the impact;
- Confidence in the impact prediction; and
- The margins by which set values are exceeded e.g. water quality standards.

3.6.5 Mitigation and residual impacts

Mitigation measures have been described, where potentially significant adverse impacts have been identified, either as part of the design or as a measure implemented during construction, operation or decommissioning. Each impact assessment section assigns a significance level to the impact described which takes into account any stated mitigation measures. In all cases TOW has agreed to these measures and they are therefore expressed as commitments.

3.6.6 Monitoring

Monitoring can be important to verify the predicted impacts of the proposed development on the site and surrounding area and habitats, particularly where levels of uncertainty remain following the EIA. Monitoring programmes are sometimes required to take place during construction, and for a period after construction is complete such as

during operation. Monitoring requirements have been described where necessary. In most cases further liaison with the relevant regulator is expected in order to agree detailed requirements.

3.7 Consultation and Community Involvement

Consultation was carried out with in excess of 100 statutory and non-statutory bodies representing key interests and user groups in the northeast Kent/Thames Estuary area and the wider area during the Scoping Study. Initial consultation included a description of the project proposals and invited comments and requested relevant data or information. Groups consulted included *inter alia*:

- British Chamber of Shipping;
- British Marine Aggregate Producers Association (BMAPA);
- Centre for Environment, Fisheries and Aquaculture Science (CEFAS);
- Civil Aviation Authority (CAA);
- Countryside Agency;
- Defence Estates;
- Department for Environment, Food and Rural Affairs (Defra);
- Department for Transport (DfT);
- Department of Trade and Industry (DTI);
- Dover District Council;
- EDF Energy;
- English Heritage;
- English Nature;
- Environment Agency;
- Joint Nature Conservation Committee (JNCC);
- Kent and Essex Sea Fisheries Committee (K&ESFC);
- Kent County Council (KCC);
- Kent International Airport (KIA);
- Kent Ornithological Society;
- Kent Wildlife Trust (KWT);
- Maritime and Coastguard Agency (MCA);
- Medway Ports Authority;
- National Air Traffic Services (NATS);
- National Federation of Fishermen's Organisation (NFFO);
- Port of London Authority (PLA):
- Port of Ramsgate;
- Royal Commission on the Historical Monuments of England;

- Royal Society for the Protection of Birds (RSPB);
- Royal Yachting Association (RYA);
- Sandwich Bay Bird Observatory Trust;
- Thanet District Council (TDC);
- Thanet Fisherman's Association (TFA);
- The National Trust;
- Trinity House Lighthouse Service (THLS); and
- UK Major Ports Group.

Detailed formal and informal consultation has continued throughout the EIA via correspondence and meetings. All comments received have been taken into consideration during the EIA.

Summary tables containing the consultation responses can be found in **Appendix 3.2**.

3.7.1 Public consultation and exhibitions

To ensure that local people were aware of and involved in the EIA process, presentations of the proposed development were made to Kent County Council, Thanet District Council and Dover District Council, and four all day public exhibitions were held in Margate, Broadstairs, Ramsgate and Deal on the following dates:

- 10th May 2005, Kent County Council;
- 18th May 2005, Thanet District Council;
- 9th June 2005, Dover District Council;
- 14th June 2005, Margate (3pm-6pm);
- 15th June 2005 at Margate;
- 16th June 2005 at Broadstairs;
- 22nd June 2005 at Ramsgate; and
- 23rd June 2005 at Deal.

The public exhibitions, which were open from 11am to 9pm, except Broadstairs, which did not open until 1pm, included information on the project and the construction process, as well as the environmental and other studies undertaken as part of the EIA. A video fly-through of the wind farm was also shown on a rolling basis and provided an indication of how the wind farm would appear in good visibility from various coastal points between Margate and Deal. A brochure, summarising the information from the exhibition boards, was also made available to take away (see **Appendix 3.3**) and visitors were asked to fill in a two page questionnaire. Up to six members of the project team were available throughout the public exhibitions to answer questions. In total, 731 people visited the exhibitions.

3.7.2 Summary of questionnaire responses

A total of 400 questionnaires were returned, outlining the views of people from the local community. The responses to the key questions asked have been represented graphically in **Figures 3.1** to **3.5**. Any questions raised or comments made through the questionnaire were responded to directly by TOW.

Figure 3.1 Residential spread of respondents

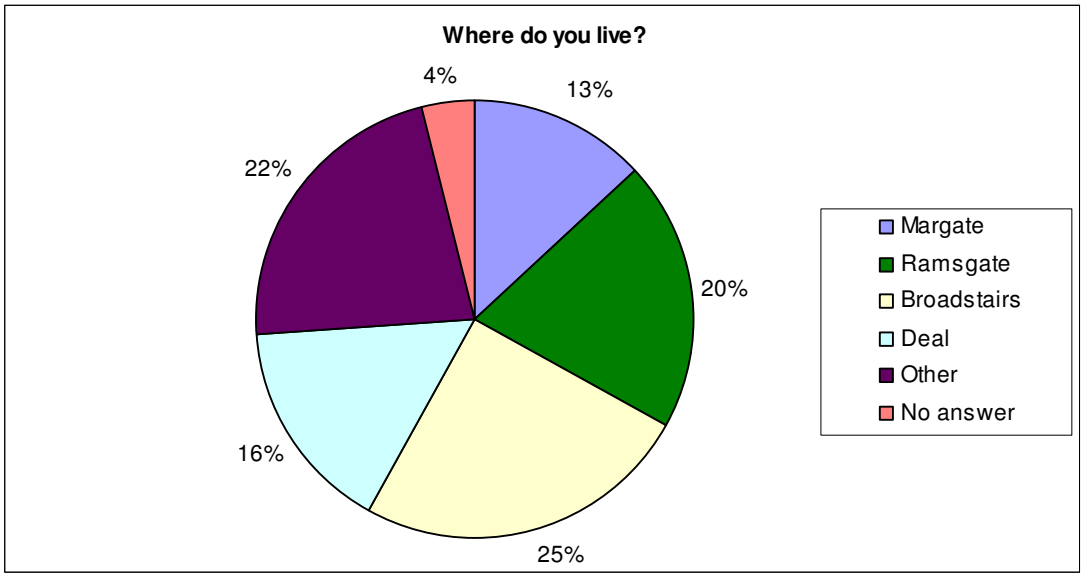


Figure 3.2 Climate change concerns

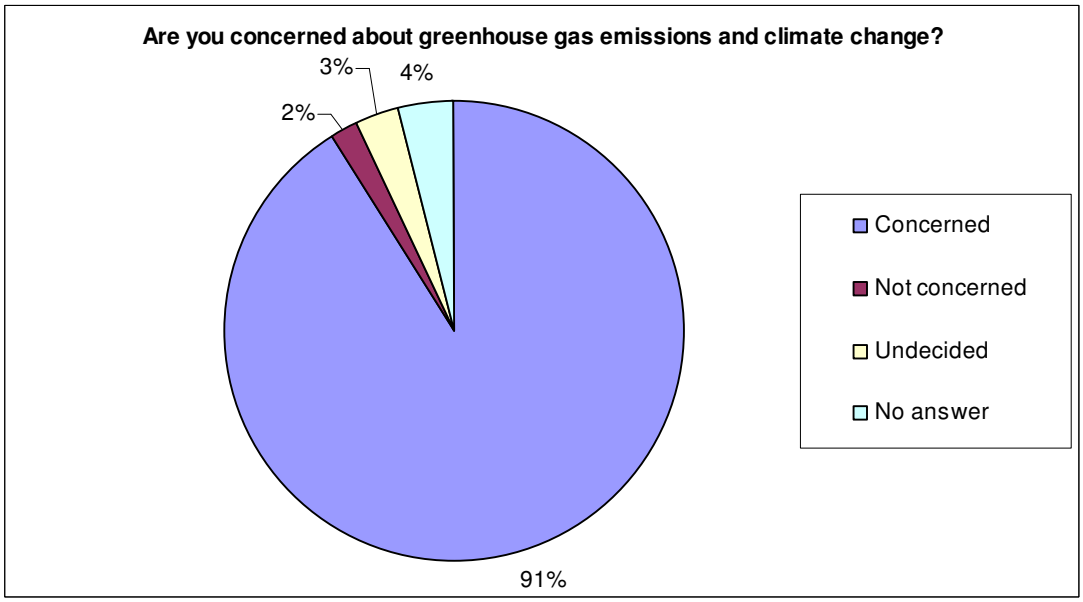


Figure 3.3 Renewables in the South East

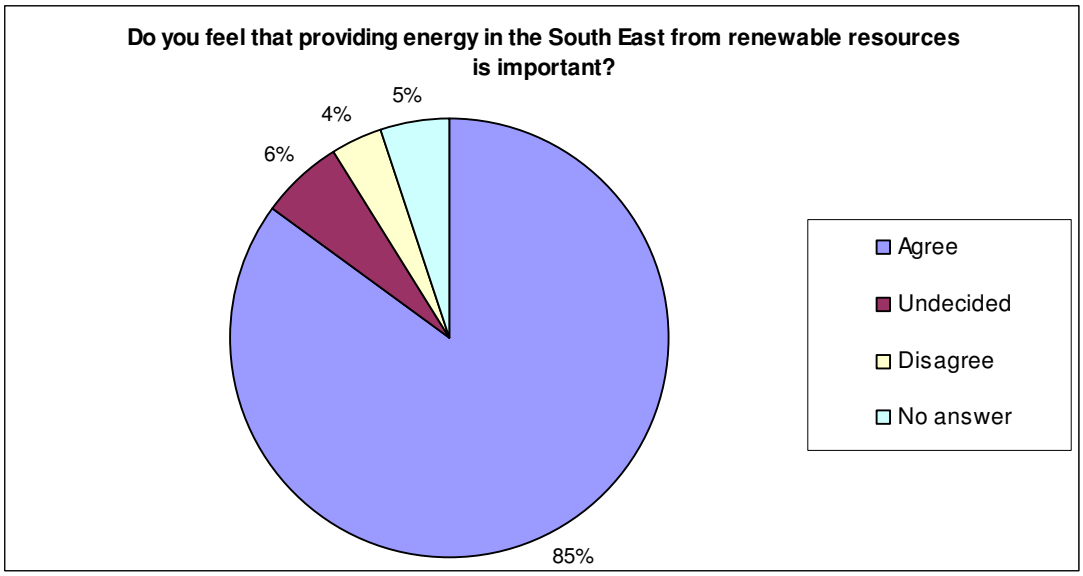


Figure 3.4 Public opinion of the proposals

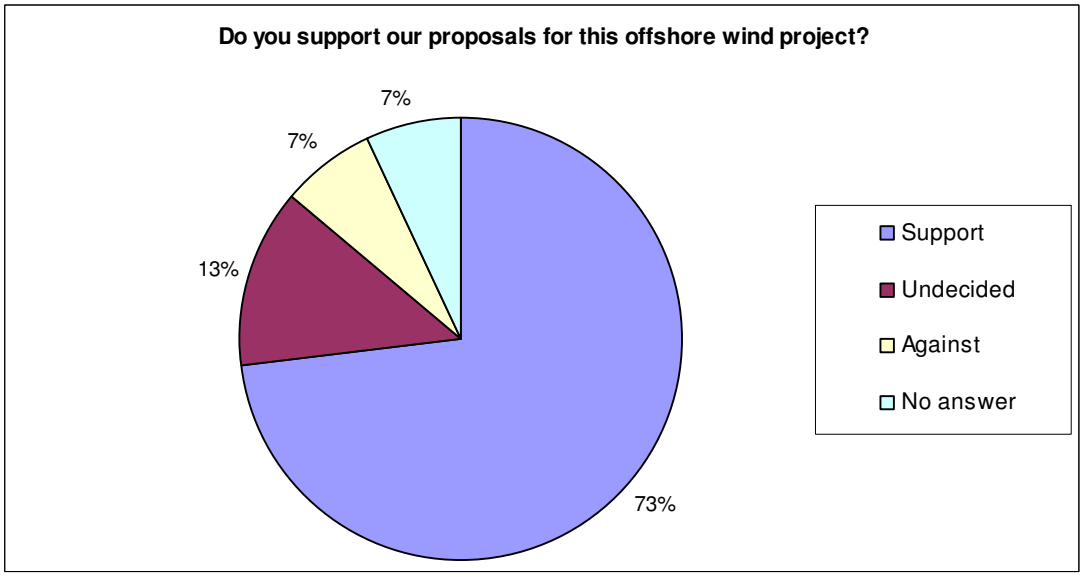
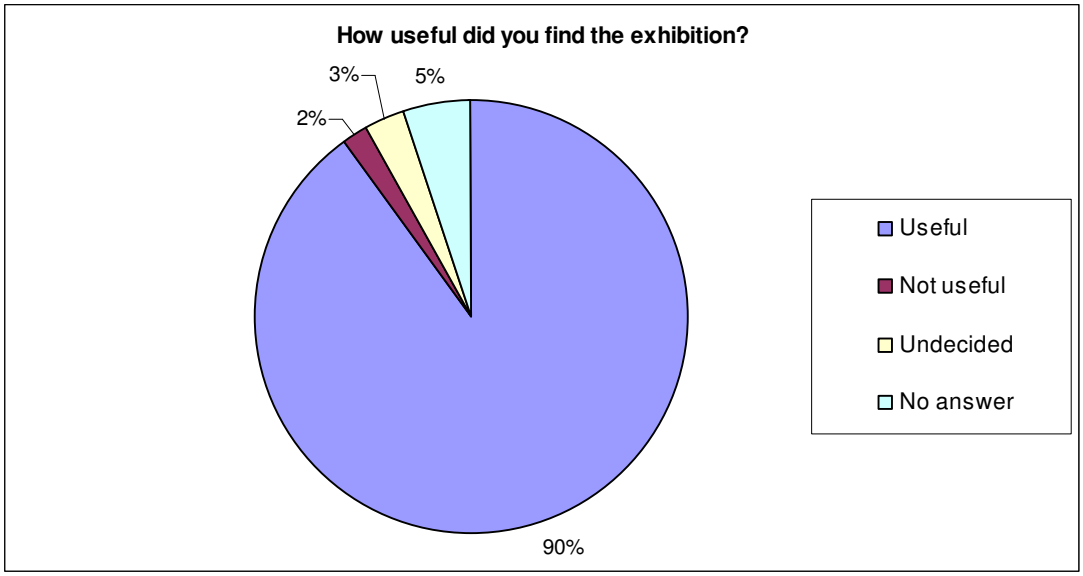


Figure 3.5 Usefulness of the exhibition



The residential spread of respondents shows that the public exhibitions drew attendees from all around the Thanet and Dover coastline. Of those who identified where they lived, the greatest numbers of people came from Broadstairs (25%, 100 individuals) and Ramsgate (20%, 80 individuals), which are the towns that are 'closest' to the Thanet project. The 'Other' category represented some 88 people who came from a range of Kentish towns and further beyond including London and Birmingham.

The questionnaire returns clearly show that the majority of respondents have serious concerns about climate change and the environment in general and wish to see renewable energy being generated in the South East.

The most commonly encountered adverse perceptions of the project were the potential impact on navigation, views and bird life. 64 respondents mentioned shipping and navigational hazards as being a source of concern, 32 respondents mentioned the potential visual impact as being a disadvantage and 23 people believed that the wind farm would pose a threat to bird life.

Despite these concerns, local people showed considerable support for the wind farm proposals. A total of 73% (292 individuals) of all returns were either supporters or strong supporters of the proposals. Only 7% (28 individuals) considered themselves to be against or strongly against the proposals.