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## 3 The regulatory context

This chapter of the Environmental Statement describes the regulatory and consenting process controlling the development, operation and decommissioning of Gwynt y Môr. Additional legislation that may be applicable to the development of the proposed wind farm is also described.

The need for the completion of an Environmental Impact Assessment (EIA) and submission of the Environmental Statement (ES) in relation to the regulatory framework is reviewed and associated guidance on the assessment and regulatory context of offshore wind farm development in UK waters is subsequently summarised. The need for renewable energy and the international, national, and local policies relating to renewable energy development are reviewed in Chapter 2.

### 3.1 Overview of the regulatory context relating to the Gwynt y Môr project

The proposed Gwynt y Môr project is located within the territorial seas of Wales, as prescribed under the Government of Wales Act 1998, which extend from the mean low water mark to 12 nautical miles seaward.

The seabed within the project area and along the associated offshore cable route is owned by the Crown Estate which has agreed to grant a lease of the area of the Wind Farm. It is also the Crown Estate that received and evaluated tenders for Round 2 offshore wind farm development areas, along with the other key regulators, the initial tender process being summarised in Section 3.2.1.

In addition to the primary regulatory framework and Crown Estate lease process governing the development of Gwynt y Môr, listed in Section 3.2.3, a range of other statutory consents and licences may be required for certain components of the development and an overview of these is provided in Section 3.2.4.

### 3.2 The consenting process for the Gwynt y Môr Offshore Wind Farm

#### 3.2.1 The Round 2 tender process

Following the first round of offshore wind farm developments in UK waters, which commenced in 2000, the Energy Minister subsequently announced in April 2002 that no further leasing arrangements would be made until a strategic review and consultation process had been conducted with regard to the appropriate future development of offshore wind farms under a strategic planning framework.

Subsequently, in late 2003, the DTI published its consultation paper “Future Offshore”, which set out the government’s policy direction for future offshore wind development. “Future Offshore” emphasised the commitment of the Government to a more strategic approach by setting out the intention to restrict Round 2 development to three strategic areas – the Greater Wash, the Thames Estuary and the North West, following the completion of a Strategic Environmental Assessment (SEA).

SEA involves a process designed to ensure that the potentially significant environmental effects arising from policies, plans and programmes, such as the development of further offshore wind farms around the UK, are identified, assessed, mitigated and communicated to decision-makers. SEA is seen as an important instrument to help to achieve sustainable development in public planning and policy making.

The requirement for SEA has been introduced specifically by the European Union SEA Directive 2001/42/EC. This requires national, regional and local authorities in Member States to carry out strategic environmental assessments on certain plans and programmes that they promote.

The SEA process for offshore wind farms was completed by the DTI in May 2003 for the three strategic areas. As a result of the conclusions reached by the SEA, a coastal exclusion zone of between 8 and 13 kilometres from the coast within each of the strategic areas was imposed by the DTI in order to reduce the visual impact of future development and avoid potentially sensitive, shallow water areas. The SEA also set out development scenarios limiting the total development possible within the three strategic areas to a total of between 4 and 7.5 GW.

Following a consultation period, the DTI subsequently requested that the Crown Estate invite developers to tender for site option agreements in the three strategic regions for the purposes of offshore wind farm development. Based on the results of the SEA Environmental Report (BMT Cordah, 2003) and the guidelines imposed by the DTI following the completion of the “Future Offshore” consultation process, the Crown Estate, as owners of the seabed within UK territorial waters, announced its tender process for Round 2 sites in July 2003. The tenders received were subsequently assessed against a range of criteria including offshore development experience, knowledge of the environment and financial standing.

Through this process npower renewables tendered for the Gwynt y Môr project off the coast of north Wales, within the North West strategic area. In December 2003 the Crown Estate announced that npower renewables had been successful in securing rights to the Gwynt y Môr project as one of 15 projects awarded in the three strategic development areas. Further details of the tender process and the allocation of the Round 2 projects can be seen on the Crown Estate website, [www.thecrownestate.co.uk](http://www.thecrownestate.co.uk).

#### 3.2.2 The Energy Act 2004 – the control of navigation and obligations on decommissioning

The Energy Act 2004 contains provisions relating to offshore wind energy development. The relevant sections are now in force and address the following objectives:

- the creation of a framework for development outside the territorial seas, based on the previous establishment of a Renewable Energy Zone by the UK Government under the United Nations Convention on the Law of the Sea. The Renewable Energy Zone has as its landward boundary the outer limit of the territorial seas (12 nm from mean low water) and extends to 200 nm from mean low water. The area of Gwynt y Môr Offshore Wind Farm is wholly within the territorial seas
- the 2004 Act amended the consent provisions for Section 36 Electricity Act 1989 contained in Schedule 8 of the 1989 Act so as to make them fit for purpose for offshore development.

- in particular the 2004 Act introduced the ability for the Secretary of State to extinguish navigation rights on the site of renewable energy installations, and to create safety zones within which the right of navigation and fishing may be regulated in the interests of safety. The Act also introduces a statutory regime for the decommissioning of offshore projects
- section 36(B) of the Energy Act 2004 places a duty on the Secretary of State not to grant a Section 36 consent where an offshore renewable energy installation may interfere with recognised sea lanes essential to international navigation.

For the purposes of this ES the most relevant provisions of the Energy Act are those which enable the extinguishment of navigation rights and the creation of safety zones. In due course the Secretary of State will make new offshore consent Regulations for the purposes of Section 36 of the 1989 Act, but this has not yet been done.

Section 36(A) Electricity Act 1989 (introduced by the Energy Act 2004) enables the Secretary of State to make a declaration extinguishing the public right of navigation and fishing on the site of any renewable energy installation. The spatial scope of Section 36(A) extends to the foundations of the wind turbines, any offshore substations, and any anemometry masts. Cables are not covered by this section. The 2004 Act provides that a declaration under Section 36(A) must be associated with an application for consent under Section 36 of the 1989 Act, and must be applied for at the same time as the Section 36 application.

Section 95 of the Energy Act 2004 enables the establishment of Safety Zones around renewable energy installations in the interests of the safety of all users of the sea. It is understood that as a matter of practice the Secretary of State will not wish to see Safety Zones with a radius of more than 500m around any installation. The installations which may benefit from the Safety Zone are wind turbines, any offshore substations, and anemometry masts. Cables are not covered by Section 95. It is not necessary to apply for a Safety Zone at the same time as a renewable energy installation is consented under Section 36 or other jurisdictions. Indeed a Safety Zone may be applied for once the wind farm has been constructed.

The DTI has advised that the offshore cables required for the Gwynt y Môr project are not considered to fall under the definition of Offshore Renewable Energy Installations and therefore are not covered by the provisions of the Energy Act.

For this reason, consent will be required specifically for the installation of the offshore cabling under section 34 of the Coast Protection Act. Whilst this allows for the control of navigation during installation of the cables, Section 34 of the CPA does not provide for any control on navigation or

protection of cables once installed. However, additional protection of the criminal law for damage to the offshore cables, once installed, is provided under the Submarine Telegraph Act 1885. The relevant provisions of the Submarine Telegraph Act will be provided within the Energy Act (section 103) to extend the 1885 Act to cabling in the territorial sea.

In addition to the provisions for the control of navigation and imposition of safety zones, Chapter 3 of Part 2 of the Energy Act sets out a comprehensive statutory scheme for the decommissioning of offshore renewable energy installations and related electric lines, which will apply to all Round 2 offshore wind farms. A detailed decommissioning plan (including costings) is required prior to any construction activities commencing and may be requested by the Secretary of State as soon as any of the statutory consents have been granted. This includes provision for detailed consultation in preparing such a decommissioning plan, and also requires details of the arrangements for ensuring that funds will be available to carry out the decommissioning programme. The decommissioning plan must be agreed with and to the satisfaction of the Secretary of State.

Provision is also made under section 108 of the Energy Act for intermittent review of the decommissioning programme to ensure that it continues to be appropriate. Where necessary, modifications to the programme, or the conditions to which the programme is subject may be proposed. Section 108 also provides a process for dealing with changes in ownership of renewable energy installations or related electric lines. Sections 109 and 110 provide for the implementation of the decommissioning programme and establish a process for dealing with situations where the person responsible for carrying out the programme fails to do so or not in accordance with the conditions to which approval of the programme was subject.

Further guidance from the DTI on the issue of both decommissioning and safety zones is anticipated in the near future and would be considered in full in developing the Gwynt y Môr project.

### 3.2.3 The primary consents for the Gwynt y Môr Offshore Wind Farm

The primary consents required for the construction, operation and decommissioning of Gwynt y Môr are summarised in Table 3.1. Also shown are the generic aspect of development to which these consents can apply (based on the summaries provided by the DTI Guidance Notes on Offshore Wind Farm consenting, DTI, 2004) and their specific application to Gwynt y Môr.

The application for each consent, listed in Table 3.1, will be based on the layout scenarios described in detail in Chapter 4, and will apply to the area described by the consent boundaries indicated in Figure 3.1. The approach to the environment impact assessment, including the use of an appropriate 'worst-case' scenario and with reference to the 'Rochdale' principle, is discussed in chapter 8.

Legislation	Generic aspect of the development controlled	Particular application to the Gwynt y Môr project	Administered by
Electricity Act 1989 – Section 36	For the construction, extension or operation of a generating station within GB territorial waters and within the REZ, to cover all offshore wind and water-driven developments of above 1 MW capacity.	Construction and operation of a generating station at the Gwynt y Môr Offshore Wind Farm project area with a maximum generating capacity of up to 750 MW <sub>e</sub> .	Department for Trade and Industry
Food and Environment Protection Act 1985 (FEPA) – Section 5	The placing of materials on or in the marine environment during construction, and related actions; the disposal of waste at sea; the introduction of tracers and biocides; and certain other activities in the marine environment.	The placement of material required for up to circa 250 turbine foundations, up to 5 met masts and up to 4 offshore substations onto or into the seabed. The deposit of scour protection material where required along the cable route and around each or any of the turbines or substations. The placement of spoil potentially generated as a result of foundation installation.	National Assembly for Wales (NAW), administered by the Marine Consents and Environment Unit (MCEU)
Coast Protection Act 1949 (CPA) – Section 34	Construction, alteration or improvement of any works on, under, or over any part of the seashore lying below the level of mean high water springs (MHWS) The deposit of any objects or materials below the level of MHWS. The removal of any objects or materials from the seashore below the level of MHWS.	The placement of the offshore cables including inter-turbine, inter-substation and the main export cables to the landfall point and up to the MHWS.	The Marine Consents and Environment Unit (MCEU)
Town and Country Planning Act 1990 (TCPA) – Section 57	Planning consent may be required for onshore elements of the offshore wind farm development above the MLWM, such as the construction of electrical substations from the relevant local planning authority (LPA).	In the case of the Gwynt y Môr project planning permission is required for the construction and installation of some of the onshore components.	Denbighshire County Council and Conwy Borough County Council
Electricity Act 1989 – Section 36A	Extinguishing the public rights of navigation	At the location of all offshore structures within Gwynt y Môr project area.	Department for Trade and Industry
Energy Act 2004 – Section 95	Creation of Safety Zones	Safety Zones to be applied for around offshore structures	Department for Trade and Industry

**Table 3.1** Summary of the primary consent applications to be submitted by npower renewables for the Gwynt y Môr Offshore Wind Farm

npower renewables intends to apply to extinguish rights of navigation at the location of offshore structures such as turbines, substations and meteorological monitoring masts. npower renewables also intends to apply to the DTI to establish safety zones around the offshore structures in accordance with Section 95 of the Energy Act 2004.

The Department for Trade and Industry (DTI) has issued guidance on the consenting process for offshore wind farms in the UK (DTI, 2004), which provides an overview of the need for and administration of the variety of consents that will be required for the Gwynt y Môr project. It should, however, be noted that since publication of this guidance document it has been revealed that the provisions of the Energy Act do not cover the offshore cables.

The DTI's Offshore Renewables Consents Unit (ORCU) is a dedicated unit responsible for handling applications for wind farm consents made under the Electricity Act section 36 and FEPA route, and provides a single contact point for queries regarding the application process and any associated queries.

The ORCU works closely with the Marine Consents and Environment Unit (MCEU), a unit representing the Department for Transport's Ports Division and Defra's Marine Environment Branch. The full range of marine works for which these two departments have responsibility are co-ordinated through the MCEU.

In the case of Gwynt y Môr, the FEPA is administered by MCEU on behalf of the National Assembly for Wales.

### 3.2.4 Other statutory permissions and licences

#### 3.2.4.1 Crown Estate Act 1961 – Section 3

As has been noted above, permission is required under the Crown Estate Act to place a structure on or pass cables over seabed or foreshore belonging to the Crown. The Crown Estate can grant consent by transfer of freehold, by issue of a licence, or through the grant of a lease for the seabed affected. Npower Renewables Limited has entered into an agreement for lease with the Crown Estate on behalf of Gwynt y Môr Offshore Wind Farm.

#### 3.2.4.2 Water Resources Act 1991 – Section 109

A licence will be required from the Environment Agency under the Water Resources Act 1990 for the proposed onshore cabling if it passes in, over, or under a water course that is defined as a part of a main river.

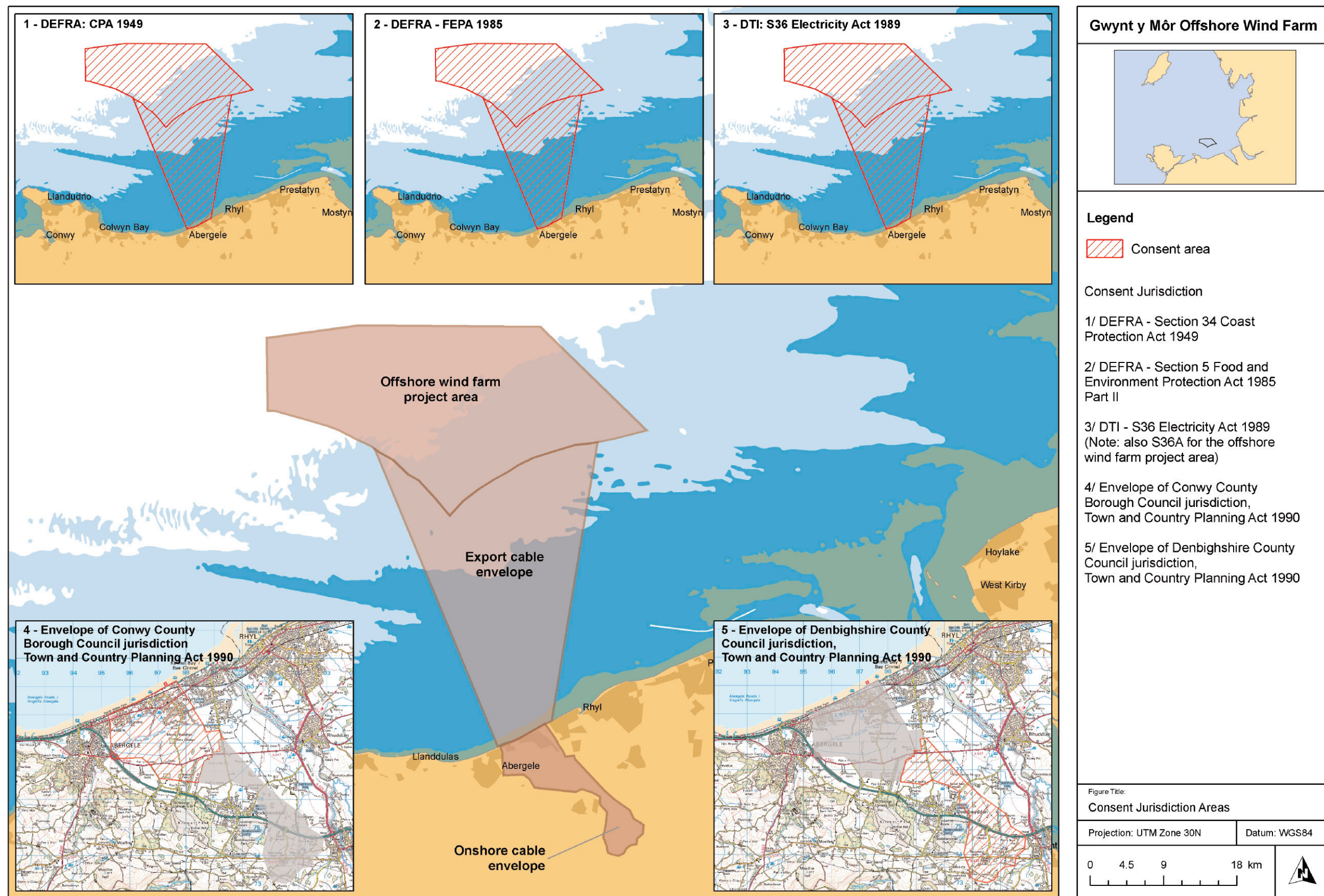
#### 3.2.4.3 Land Drainage Act 1991

A licence under the Land Drainage Act may also be required from the Environment Agency for disruption to coastal defences, and for the disturbance of land drainage structures.

### 3.2.5 Other associated development

The construction of the new 400 kV substation (located adjacent to the proposed Gwynt y Môr 132 kV sub-station) and the short section of cabling, involving both overhead and buried lines, required to connect the Gwynt y Môr substation to the main distribution network will be the responsibility of National Grid Transco(NGT).





**Figure 3.1** Consent jurisdiction areas for Gwynt y Môr onshore and offshore components



Consent for the entire substation (including the NGT assets) and the associated cable end sealing compound, will be covered by a single application under section 57 of the Town and Country Planning Act, which will be made by npower renewables.

The associated overhead cabling works will require additional planning permission under Section 37 of the Electricity Act. NGT will be responsible for this separate consent application. However, for the completeness of the EIA process, the overhead line works are described and assessed within this ES such that the full implications of the Gwynt y Môr project can be understood by the Secretary of State in coming to a view on the project as required by EIA regulations.

### 3.2.6 The regulatory need for Environmental Impact Assessment (EIA) and an Environmental Statement

The need for the completion of a detailed EIA for offshore wind farm projects arises primarily from the requirements of the EIA Directive (85/337/EEC as amended by 97/11/EC) as applied to the Electricity Act through the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000 (SI 2000/1927). The Directive ensures that the consenting authority (in this case the Secretary of State for Trade and Industry) has sufficient information on which to base its decisions when considering applications for developments which may have a significant effect on the environment. In line with the requirements of the EIA Directive as enacted through the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000, there is a requirement to:

*‘provide a full factual description of the development’*

This is taken to include all of the works directly or indirectly associated with the Gwynt y Môr project, including all offshore and onshore works associated with the construction, operation and decommissioning of the project. This includes those associated works made necessary by the development even where they are not explicitly covered by the regulations or covered by the project specific consent applications, in this case, for example, the overhead cabling to be consented and carried out by NGT as previously described.

The Town and Country Planning Act (Environmental Impact Assessment) (England and Wales) Regulations 1999 also enacts the requirements of the EIA Directive in requiring an ES to be completed for certain classes of onshore development.

The EIA Directive has not yet been directly applied under the FEPA or CPA regulations, although there are existing provisions within FEPA which require the developer to provide environmental information equivalent to that presented in a formal ES.

This Environmental Statement (ES) has been compiled to provide the required information on the scheme and its potential impacts on the environment and to present the EIA of the various components of Gwynt y Môr. The enclosed information is intended to allow the Secretary of State for Trade and Industry and the other consenting authorities to make an informed decision on the environmental impacts and benefits of the project in determining the various consent applications.

The ES also seeks to provide detailed information on the Gwynt y Môr project and its associated environmental costs and benefits to a range of interested stakeholders including NGOs, local, regional and national interest groups and members of the public.

The ES seeks to describe all aspects of the Gwynt y Môr project from the onshore and offshore construction works, through the operational phase, and into its eventual decommissioning.

### 3.2.7 Other applicable legislation and guidance

A range of other legislation may have an influence on specific aspects of the development of the Gwynt y Môr project. These have been referred to throughout the ES under the applicable sections. Examples may include, but are not necessarily limited to:

- the Countryside and Rights of Way Act 2000 (relating to sites of special scientific interest)
- the Protection of Wrecks Act 1973
- the Merchant Shipping Act 1995
- the Protection of Military Remains Act 1986
- the Habitats Regulations 1994 (as amended).

### 3.2.8 Other planning policy considerations

The main onshore components of the Gwynt y Môr project (i.e. the onshore cabling, substation development, associated road development and the cable end sealing compound) fall within the boundaries of Denbighshire County Council and Conwy County Borough Council. The local planning authorities will assess any such proposals against the relevant development plan policies and any "other material considerations", and as such the onshore components of Gwynt y Môr must be considered in the light of the guidance provided by such development plans. The relevant local planning policy in relation to renewable energy projects and the proposed locations of the onshore components are reviewed in detail in Chapter 2 of this ES.

It should be noted, however, that these local planning policies apply only within the county boundaries (most notably above the mean low water mark) and as such have no influence on the offshore components of Gwynt y Môr.

## 3.3 Statutory and non-statutory guidance

There are a number of documents available that provide generic guidance on the development of offshore wind farms. These cover issues associated with the construction, operation, and decommissioning of wind farms, and discuss the potential impacts that need to be considered throughout the development process.

### 3.3.1 DTI guidance notes: Offshore wind farm consents process (2004)

In 2004, the DTI produced updated guidance for those involved in the planning process for offshore wind farms in England and Wales. The guidance aims to clarify the consents process by stipulating the roles and responsibilities of the statutory consenting bodies and aims to encourage developers to use the DTI as the focal point for consent applications.

Good practice procedures are highlighted, and early dialogue between the developer, consenting authorities, statutory consultees and other stakeholders is encouraged.

### 3.3.2 CEFAS guidance note for Environmental Impact Assessment in respect of FEPA and CPA requirements (2004)

Prepared by the Centre for Environment, Fisheries and Aquaculture Science (CEFAS), on behalf of the MCEU, this document aims to provide scientific guidance to the offshore wind farm industry on the gathering, interpretation and presentation of data within an Environmental Impact Assessment. The guidance is intended to supplement the DTI guidance previously described and refers only to the requirements necessary to enable the assessment of an application under FEPA and CPA. The following issues are considered within the guidance document:

- coastal and sedimentary processes
- benthos
- fish resources
- commercial fisheries
- marine navigation
- archaeology and other historical uses of the seabed
- marine mammals
- nature conservation
- cumulative impacts
- decommissioning.

### 3.3.3 DTI guidance on electricity works (EIA) regulations (2000)

This guidance note provides assistance on the use of the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000. Information is provided on when an EIA is necessary, such that the applicant is required to produce an Environmental Statement to submit with their application, and also covers the issues which should be addressed within the ES. Guidance is also provided on the pre-application procedures, on the need for and content of an ES, and also the consultation and publicity necessary when making an application for a development, which requires EIA.

The guidance is aimed at developers of power stations and installers of overhead power lines, and also at local planning authorities and stakeholders, which may have an interest in the environmental impact of a proposed development.

### 3.3.4 Nature conservation guidance on offshore wind farm development (Draft, 2005)

Produced by the Department for Environment, Food and Rural Affairs (Defra), the aim of this guidance is to provide developers with a greater understanding of the potential nature conservation impacts of offshore wind farms. Specifically the approach required to ensure that no harm is caused to the Natural 2000 network is addressed.

The primary focus is on impacts which may affect Special Areas of Conservation (SACs) or Special Protection Areas (SPAs), which jointly comprise the Natural 2000 site network. The guidance builds on lessons learned from Round 1 developments and the Strategic Environmental Assessment (SEA) process.

The guidance provides an overview of the types of impacts on nature conservation interests which may be realised during the construction, operation, and decommissioning of an offshore wind farm. The guidance covers potential impacts on:

- birds
- marine mammals
- fish and shellfish
- subtidal benthos
- intertidal habitats
- terrestrial and coastal habitats
- coastal and sedimentary processes.

In each case consideration is given to the likelihood of an impact, the assessment of the potential significance of impacts, and approaches to monitoring, minimising or mitigating impacts.

### 3.3.5 DTI new and renewable energy programme – assessing the potential of wind energy projects – notes for developers. Prepared by ETSU (1999)

The objective of this report is to provide initial guidance for developers considering the installation of a wind power project. Although primarily aimed at onshore wind farm development, it nonetheless provides useful guidance for offshore developers on a range of issues that need to be considered at the feasibility stage.

### 3.3.6 DTI wind information needs for planners. Prepared by ETSU (2000)

This report aims to inform local planning authorities of the kind of information that planners should expect to see in relation to wind farm development, through a review of existing information and an extensive consultation exercise. This document is also primarily aimed at onshore development, but nonetheless includes useful guidance on a number of key issues that also apply to offshore wind farms.

### 3.3.7 Best practice guidelines BWEA (1994)

These guidelines are primarily for use by developers of onshore wind farms. They therefore focus on issues which are the responsibility of, and can be controlled by, the developer. Consequently, they work within the framework of existing national energy, environmental and planning policy, and aim to establish the process and approach for identifying, developing and implementing appropriate wind energy proposals.

### 3.3.8 Maritime and Coastguard Agency (MCA) Guidance note MGN 275; Proposed UK offshore renewable energy installations (OREI) – Guidance on navigational safety issues

This guidance note, published in August 2004, highlights issues that need to be taken into consideration when assessing the impact on navigational safety from offshore renewable energy developments, such as offshore wind farms. This includes development within United Kingdom internal waters, in the territorial seas or in the Renewable Energy Zone.

The guidance makes the following key points:

- the guidance note should be used, primarily, by offshore renewable energy installation developers, seeking consent to undertake marine works
- specific annexes within the guidance address issues covering:
  - site position
  - structures and safety zones

- navigation, collision avoidance and communications
- safety and mitigation measures recommended for OREI during construction, operation and decommissioning
- search and rescue matters
- section 36 of the Electricity Act 1989, as amended by the Energy Act 2004 and Article 60 of the United Nations Convention on the Law of the Sea (UNCLOS) established beyond the territorial sea.

### 3.3.9 BWEA recommendations for fisheries liaison August, 2004

This document provides guidelines for developers of offshore wind farms and the fishing community. It has been produced by the British Wind Energy Association (BWEA) working in close co-operation with various fisheries groups such as, National Federation of Fishermen's Organisations (NFFO), Scottish Fishermen's Federation (SFF), Sea Fisheries Inspectorate (SFI) and other relevant marine organisations. The recommendations are based on best practice developed through the experience of the UK's fishing community, and the offshore oil, gas and cable industries.

The document, together with the Fishing Liaison with Offshore Wind (FLOW) group, aims to facilitate co-operation between offshore wind farm developers and the fishing community through encouraging effective liaison with the fishing industry and the production of industry-wide standards for fisheries liaison.

#### 3.3.10 Offshore wind farm technical reports and ongoing research

In addition to the guidance documents and legislation described previously, there are a number of technical reports available which have been produced by statutory and non-statutory organisations focussing on key issues for wind farm development.

The Crown Estate set up a Trust Fund based on the refundable financial deposits made by developers as part of the procedures for Round One. The fund was set up for the purpose of generic research to benefit the offshore wind farm industry as a whole. This fund is administered by the COWRIE (Collaborative Offshore Wind Research into the Environment) Steering Group, which is made up of experts from the offshore wind industry, English Nature, Countryside Council for Wales, Scottish Natural Heritage, Joint Nature Conservation Committee, DEFRA, CEFAS, the Royal Society for the Protection of Birds, the DTI and the BWEA.

Research at present is focussing on the following areas:

- birds and benthos
- electromagnetic fields
- marine bird survey methodology
- remote bird monitoring technique
- sub-sea acoustic noise.

Additional research undertaken outside of the COWRIE programme includes the visual assessment of wind farms and a review of potential effects on coastal processes. Throughout this Environmental Statement consideration will be given to existing guidance and ongoing research, both from the UK and elsewhere, to ensure that a comprehensive and thorough assessment of the potential environmental impacts is provided.

Further research into the potential effects of offshore wind farm development is being co-ordinated by the DTI's Research Advisory Group (RAG). The Group comprises those departments with regulatory

responsibility for wind farms i.e. the Department of Trade and Industry (DTI), Defra and Department for Transport, together with the Crown Estate and also representation from the DTI Strategic Environmental Assessment Programme. Its main aim is to make sure that there is a co-ordinated approach among the regulatory and funding bodies to address the key potential impacts of Round 2 wind farm proposals.

RAG has a number of projects currently underway which are summarised as follows:

- aerial surveys of water birds in strategic wind farm areas
- further developing and enhancing the capacity of surveyors for collecting acceptable quality data on seabird distribution in UK waters
- development of generic guidance for sediment transport monitoring programmes
- production of a methodology for assessing the marine navigation safety risks of offshore wind farms
- marine vessel traffic survey database
- guidance for offshore wind farm developers on seascape impact assessment
- study to assess fishing activities that may be carried out in and around wind farms.

In addition, there are a range of stakeholder groups advising the Government on offshore wind and other issues, as follows:

- the Strategic Environmental Assessment Steering Group, which directs the work of a high-level environmental assessment programme
- the Fishing Liaison with Offshore Wind Group, which provides a forum for the exchange of information on general matters concerning fishing and the offshore renewables industries
- the Offshore Renewables Energy Environmental Forum, which provides a forum for government, industry and non-governmental organisations (NGOs) to discuss environmental issues relevant to the UK's offshore renewables energy sector
- the Nautical and Offshore Renewables Energy Liaison Forum (NOREL), which provides a forum for government, industry and NGOs to discuss and take forward action on matters of mutual interest relating to navigational safety.

#### 3.3.11 Other relevant research

In addition to the UK-based research programmes into the issues associated with offshore wind farm development, there is a growing body of research from the existing offshore developments in other European countries, particularly Denmark, Sweden and the Netherlands. Specifically, extensive pre - and post-construction environmental monitoring programmes for large offshore wind farm projects, such as those at Horns Rev and Nysted, provide valuable data on the observed effects of both the construction and operational phases.

These research programmes have targeted a range of issues including:

- benthos
- birds
- marine mammals
- fish
- coastal processes
- visual and socio-economics
- noise.