

UK Offshore Energy Strategic Environmental Assessment

Future Leasing for Offshore Wind Farms and
Licensing for Offshore Oil & Gas and Gas
Storage

Non-Technical Summary

January 2009

NON-TECHNICAL SUMMARY

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Introduction

The Department of Energy and Climate Change (DECC) is conducting a Strategic Environmental Assessment (SEA) of a draft plan/programme to hold further rounds of offshore wind leasing and offshore oil and gas licensing in United Kingdom waters. DECC encompasses the energy functions previously under the remit of the Department for Business, Enterprise and Regulatory Reform (formerly the Department of Trade and Industry), along with various climate change functions previously under the remit of the Department for the Environment, Food and Rural Affairs.

The SEA is being conducted in accordance with the *Environmental Assessment of Plans and Programmes Regulations 2004* (the SEA Regulations), which apply to any relevant plan or programme which relates either solely to the whole or any part of England, or to England and any other part of the United Kingdom (UK).

This SEA is intended to:

- Consider the environmental implications of a draft plan/programme for licensing for offshore oil and gas, including gas storage, and leasing for offshore wind. This includes consideration of the implications of alternatives to the plan/programme and the potential spatial interactions with other users of the sea.
- Inform the UK Government's decisions on the draft plan/programme
- Provide routes for public and stakeholder participation in the process

This non-technical summary provides a synopsis of the SEA Environmental Report, including the conclusions and recommendations.

What is the draft plan/programme?

The 2007 Energy White Paper 'Meeting the Energy Challenge' outlined two serious long-term challenges for the UK:

- Tackling climate change by reducing carbon dioxide emissions both within the UK and abroad; and
- Ensuring secure, clean and affordable energy as we become increasingly dependant on imported fuel.

Ensuring security of energy supply is essential to both climate change and energy policy. Fundamental to securing our energy supplies is to ensure that we are not dependant on any one supplier, country or technology.

The draft plan/programme subject to this SEA needs to be considered in the context of overall UK energy supply policy and greenhouse gas emission reduction efforts. The main objectives of the current draft plan/programme are to enhance the UK economy, contribute to the achievement of carbon emission reductions and security of energy supply, but without compromising biodiversity and ecosystem function, the interests of nature and heritage conservation, human health, or material assets and other users.

The main parts of the draft plan/programme, and context are:

For offshore wind energy - to enable further rounds of offshore wind farm leasing in the UK Renewable Energy Zone and the territorial waters of England and Wales with the objective of achieving some 25GW of additional generation capacity by 2020.

This part of the plan/programme does not include the territorial waters of Scotland and Northern Ireland.

The *Energy Act 2004* made provision for the designation of a Renewable Energy Zone outside territorial waters over which the United Kingdom may exercise rights for wind, wave and tidal energy production. The UK Renewable Energy Zone includes an area outside territorial waters where Scottish Ministers have functions in relation to renewable energy installations.

The *Climate Change Act 2008* places a duty on the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 80% lower than the 1990 baseline.

In December 2008 the European Parliament and Council of Ministers reached political agreement on legislation to require that by 2020, 20% of the EU's energy consumption must come from renewable sources. The UK's contribution to this will require the share of renewables in the UK's energy consumption to increase from around 1.5% in 2006 to 15% by 2020. In 2008 the Government consulted on a UK Renewable Energy Strategy, which is due to be published in Spring 2009.

Renewable energy will also make an important contribution to security of energy supply. By increasing the level of energy generated domestically, there will be less dependance on imports of fuel from abroad. The Government's consultation on a draft Renewable Energy Strategy estimated that increased investment in renewables in the UK, to meet a 15% renewable energy target in 2020, will reduce UK gas imports by some 11-14% in 2020.

The technology for offshore wind farms is continuing to evolve. For example larger turbines, improved gearboxes allowing faster rotation speeds, alternative foundations, vertical axis of rotation turbines are in development, and a range of scenarios were considered in the assessment.

For offshore oil and gas - to hold further seaward rounds of oil and gas licensing in UK waters.

The 2007 Energy White Paper noted that currently around 90% of the UK's energy needs are met by oil, gas and coal. Renewable energy and other low carbon technologies will play an increasing role in the UK's energy mix over the longer term; however, fossil fuels will continue to be the predominant source of energy for decades to come. With production from UK oil and gas fields declining, the UK will become yet more reliant on imports. Making efficient use of the UK's own energy reserves brings obvious benefits both in the contribution it can make to a diverse UK energy mix and to the economy in terms of jobs, investment and national income generated by the sector.

A 2007 HM Treasury discussion paper states that "The UK Government remains committed to promoting a healthy and prosperous UK oil and gas industry and maximising the economic recovery of the UK's oil and gas reserves. The UK's oil and gas reserves are significant, and up to 2006 have produced around 36 billion barrels of oil equivalent (boe). Estimates of the oil and gas remaining to be produced from the UK Continental Shelf (UKCS) range from 15 to 25 billion boe. Although the UK is already a net importer of oil and gas, indigenous supplies will continue to play a vital role in the UK's energy consumption for many years to come."

For gas storage - to include future licensing for the underground storage of combustible gas in depleted and other offshore oil and/or gas fields in UK waters, as part of the strategy to increase the UK's storage capacity and maintain resilience of gas supply in cold weather periods of high demand or interruptions to imported supplies.

The Government consulted in 2006 on the effectiveness of current security of gas supply arrangements and security of supply is one of the key issues identified by the 2007 Energy White Paper.

By 2020 it is estimated that 80% of the UK's gas supply will be imported. The *Energy Act 2008* makes provision for the designation of Gas Importation and Storage Zones and creates a licensing framework to enable private sector investment in offshore gas storage infrastructure which will help maintain reliable supplies of energy.

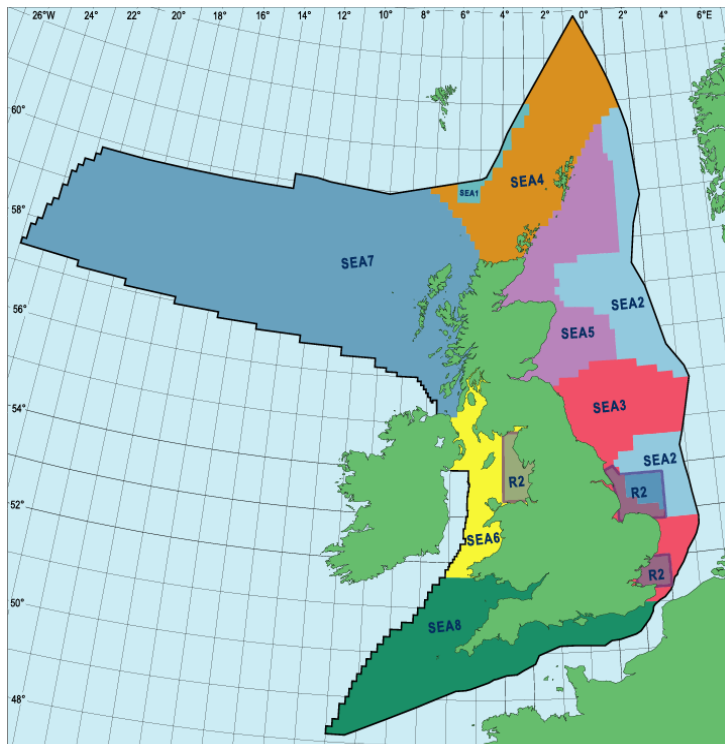
What are the alternatives to the draft plan/programme?

The following alternatives to the draft plan/programme for future offshore wind leasing, oil and gas licensing and gas storage have been assessed in the SEA:

1. Not to offer any areas for leasing/licensing
2. To proceed with a leasing and licensing programme
3. To restrict the areas offered for leasing and licensing temporally or spatially

The DECC SEA process

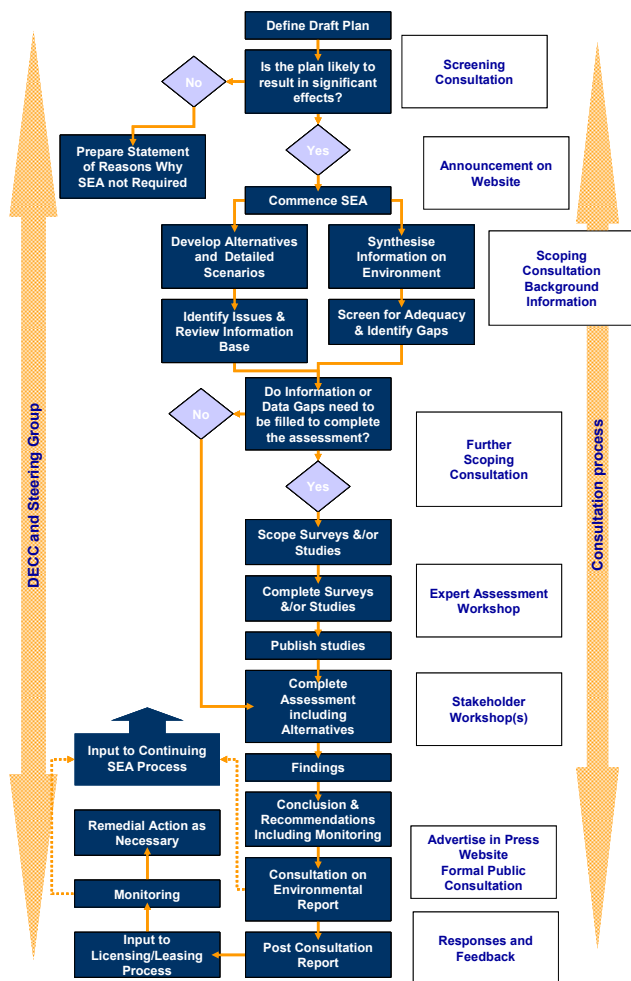
Map 1 - DECC past SEA Sequence



The SEA process aims to help inform licensing and leasing decisions by considering the environmental implications of the proposed plan/programme and the potential exploration, development and energy production activities which could result from its implementation.

Since 1999, the Department has conducted seven SEAs of the implications of further licensing of the UK Continental Shelf (UKCS) for oil and gas exploration and production (SEAs 1-7) and an SEA for a second round of wind leasing (R2) – see list overleaf and Map 1 to the left. Initial work was undertaken for SEA 8, but this area is now included in the Offshore Energy SEA.

	Area	Sector	Licensing/Leasing Round	
SEA 1	The deep water area along the UK and Faroese boundary	Oil & Gas	19 th Round	(2001)
SEA 2	The central spine of the North Sea which contains the majority of existing UK oil and gas fields	Oil & Gas	20 th Round	(2002)
SEA 2 Extension	Outer Moray Firth	Oil & Gas	20 th Round	(2002)
SEA 3	The remaining parts of the southern North Sea	Oil & Gas	21 st Round	(2003)
R2	Three strategic regions off the coasts of England and Wales in relation to a second round of offshore wind leasing	Offshore wind	R2	(2003)
SEA 4	The offshore areas to the north and west of Shetland and Orkney	Oil & Gas	22 nd Round	(2004)
SEA 5	Parts of the northern and central North Sea to the east of the Scottish mainland, Orkney and Shetland	Oil & Gas	23 rd Round	(2005)
SEA 6	Parts of the Irish Sea	Oil & Gas	24 th Round	(2006)
SEA 7	The offshore areas to the west of Scotland	Oil & Gas	25 th Round	(2008)



The DECC offshore energy SEA process has developed over time, drawing in concepts and approaches from a variety of individuals, organisations and other SEAs as well as addressing the requirements of legislation and guidance. The process followed for this SEA and temporal sequence of events is summarised below, but note that certain activities such as information gathering continue throughout the process.

Initial scoping for the Offshore Energy SEA with the SEA Steering Group, environmental authorities and a range of academic and conservation organisations commenced early in 2006. A formal scoping exercise with the statutory Consultation Bodies/Authorities and other stakeholders was conducted from December 2007; a report of the scoping feedback can be downloaded from www.offshore-sea.org.uk.

In addition, a range of field surveys, technical studies and syntheses of data were commissioned to underpin the offshore energy SEA assessment. These technical and data reports are summarised

in the Environmental Report and are available for download at www.offshore-sea.org.uk where documents for previous SEAs are also available.

An Assessment Workshop involving the SEA Steering Group, technical report authors and SEA team was held in early September 2008 and is summarised in Appendix 2. The output of this workshop included the final list of SEA objectives and indicators (see Section 3 of the Environmental Report), the draft plan/programme alternatives and a list of topics to be considered in more detail in the Environmental Report.

Three regional stakeholder meetings were held in Cardiff, Glasgow and London in October 2008 at which stakeholders from a wide variety of organisations, sectors and areas participated. Topic specific fisheries, navigation and developers' workshops were also held in October 2008. The stakeholder input on the information base and other issues of relevance to the SEA is summarised in Appendix 2 of the Environmental Report.

The Environmental Report and draft plan/programme are being issued for consultation in line with the requirements of the SEA Regulations and the Government's Code of Practice on Consultation (latest version July 2008) – see the "Next Steps" section at the end of this non-technical summary. After a 12 week public consultation period, the Department and the Secretary of State will consider comments received from consultation in the decision making regarding the draft plan/programme. A Post Consultation Report will be prepared and placed on the SEA website collating the comments and DECC responses to them.

Environmental Report

The Environmental Report of the Offshore Energy SEA provides relevant information for formal consultation with the statutory Consultation Bodies/Authorities and with the public regarding the implications of the draft plan/programme and its alternatives.

In accordance with the SEA Regulations, the following potentially affected receptors were included within the scope of the assessment.

- Biodiversity, habitats, flora and fauna
- Geology and sediments
- Landscape/seascape
- Water environment
- Air quality
- Climatic factors
- Population and human health
- Other users, material assets (infrastructure, other natural resources)
- Cultural heritage, including architectural and archaeological heritage
- Interrelationships of the above

Information on the environmental baseline and its likely future evolution has been grouped into these subject areas and the assessment has used the same headings in the interests of clarity.

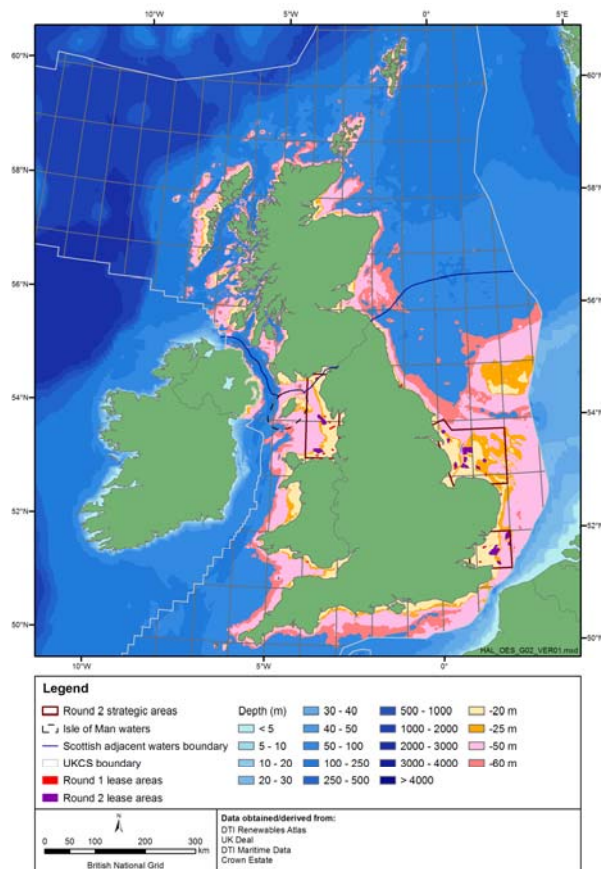
The key points and conclusions of the assessment are summarised below.

What areas are included in this SEA?

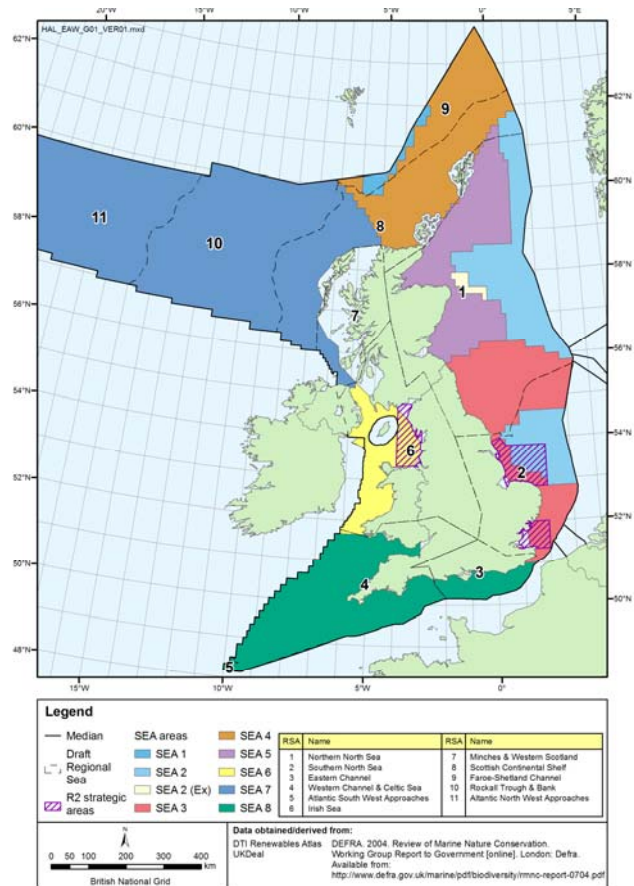
For offshore wind leasing, this SEA covers those parts of the UK Renewable Energy Zone and the territorial waters of England and Wales where the water depth is around 60m or less - see Map 2.

For offshore (seaward) oil and gas licensing and for offshore gas storage licensing this SEA covers all UK waters (SEA 1 to 8 areas) – see Map 3.

Map 2 – Location of shallow waters (<60m)



Map 3 – Past SEA areas (coloured) and Regional Seas (numbered)



Overview of the natural environment

Following discussion with the SEA Steering Group in February 2008 it was agreed to use the draft Regional Seas divisions as a basis for considering UK waters for this SEA – see numbered areas on Map 3.

The UK has a rich marine biodiversity reflecting both the range of habitats present in water depths from the shore to >2400m, and its position where several biogeographical provinces overlap. Some species and habitats are naturally rare, whilst others are endangered by human activities, and actions to protect and promote biodiversity are being taken at many levels including national, European and global. The natural environment of UK waters is summarised in Appendix 3 to the Environmental Report and selected highlights are given below.

The bird fauna of the UK is western Palaearctic, that is the great majority of species are found widely over western Europe and extend to western Asia and northern Africa. There are three regular patterns of species occurrence: resident, summer visitors (to breed) and winter visitors. Some of the summer visitors undertake long migrations to overwinter in southern Africa or South America. A few species are found only or predominantly in the UK. By way of example, the three Pembrokeshire islands of Skomer, Skokholm and Middleholm are estimated to hold some 50%, and the Isle of Rum off western Scotland between a quarter and a third of the world's breeding population of Manx shearwaters.

Many of the species of whales and dolphins found in UK waters have a worldwide distribution, although a number have restricted ranges, typically temperate to sub-Arctic or Arctic waters of the North Atlantic. British whales and dolphins include resident species as well as migrants (regularly moving through the area to and from feeding and breeding grounds) and vagrants (accidental visitors from the tropics or polar seas). Two species of seal breed in the UK; the grey seal has a North Atlantic distribution with the UK holding over 40% of the world population; and the harbour seal is found along temperate, sub-Arctic and Arctic coasts of the northern hemisphere, with the UK population representing over 5% of the global total.

A wide range of biogeographic distribution patterns are shown by the fish in UK waters. The majority of continental shelf species have a north-east Atlantic/northern Atlantic distribution, although a proportion are found globally in the tropics/subtropics and others have a circum-polar pattern of occurrence. Widely distributed species often include local stocks with distinct breeding times and locations (e.g. herring). Deep water fish show different distribution patterns with major differences occurring north and south of the Wyville Thomson Ridge (ca. 60°N), and a distinct species group found in the cold waters of the Faroe-Shetland Channel and Norwegian Sea. Virtually all commercially fished species are heavily exploited.

In broad biogeographical terms, the planktonic flora and fauna of UK waters is part of the North-East Atlantic Shelves Province which extends from Brittany to mid-Norway. In addition, the deeper Faroe-Shetland Channel and areas to the north are within the Atlantic sub-Arctic Province. Each province can be subdivided according to hydrography and plankton composition.

The composition of the seabed fauna of the UK reflects the intersection of four biogeographical zones:

- Boreal Province including the North and Irish Seas
- Lusitanian-Boreal Province comprising the Celtic Sea and west coasts of Ireland and Scotland
- Arctic Deep-Sea Province, a deep water zone centred on the Norwegian Sea but extending into the Faroe-Shetland and Faroe Bank Channels
- Atlantic Deep-Sea Province, a deep water zone to the west of northeast Europe

Within each Province it is possible to distinguish a series of faunal communities inhabiting specific sediment types. Often these communities extend over wide areas (e.g. the fine sands of the central North Sea and the sandy muds of the Fladen Ground in the northern North Sea). In addition, there are a number of highly localised habitats and communities, including reefs of long lived horse mussels and cold water corals, some of which are the subject of biodiversity action either at an OSPAR, EU or UK level. A large proportion of the seabed of the UK continental shelf and upper slope is physically disturbed by fishing activities.

Other context to the draft plan/programme

The Marine Bill White Paper (2007) notes that activities in the marine area contribute substantially to the UK economy and quality of life, with an annual economic contribution in the order of £67 billion.

The SEA Regulations require that consideration is given to the degree to which the “plan or programme influences other plans and programmes including those in a hierarchy”.

The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) is an important mechanism through which Governments of the western coasts and catchments of Europe, together with the European Community, cooperate to protect the marine environment of the North-East Atlantic. The OSPAR Commission is in the process of establishing a network of Marine Protected Areas (MPAs), the designation of which will be informed by the OSPAR Initial List of Threatened and/or Declining Species and Habitats. It is aimed to complete a joint network of well managed MPAs by 2010 that, together with the Natura 2000 network, is ecologically coherent.

OSPAR periodically publishes assessments in the form of Quality Status Reports (QSRs) of the North-East Atlantic and its sub-regions with the last QSR being published in 2000. OSPAR is currently preparing a new assessment, QSR 2010, a consultation draft of which will be published in November 2009. QSR 2010 will inform the 2010 OSPAR Ministerial Meeting in Bergen on the environmental status and future actions for the protection and conservation of the North-East Atlantic.

The EU Marine Strategy Framework Directive entered into force in July 2008. The key objectives of the Directive are to achieve good environmental status of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend.

The Directive establishes European Marine Regions on the basis of geographical and environmental criteria. UK waters lie within the Greater North Sea and Celtic Sea sub-regions of the North-East Atlantic Ocean Region. Each Member State is required to develop strategies for their marine waters in cooperation with other Member States and non-EU countries within a Marine Region.

The Marine Strategies must contain a detailed assessment of the state of the environment, a definition of "good environmental status" at regional level, and the establishment of clear environmental targets and monitoring programmes. The Directive requires that programmes of measures be established to achieve good environmental status, and that these include spatial protection measures contributing to coherent and representative networks of marine protected areas, adequately covering the diversity of the constituent ecosystems. Such protected areas are to be coordinated with the Natura 2000 site network established under the Birds and Habitats Directives, for which designations in some UK marine areas are not yet completed.

The *Marine and Coastal Access Bill* was introduced to the House of Lords on 4th December 2008. The Bill will:

- Introduce a new marine planning system, with long-term objectives for the marine area around the UK and, subsequently, the creation of more detailed local marine plans

- Establish a Marine Management Organisation for the waters around England and the UK offshore area
- Streamline the law on licensing marine development so that, as far as possible, only one licence is needed for each development
- Provide powers to designate Marine Conservation Zones and to protect those zones from damaging activities
- Secure a long-distance route around the coast of England, including beaches, cliffs, rocks and dunes, with public access for coastal walking and other recreational activities
- Strengthen and modernise the licensing and management of marine, migratory, freshwater and shellfish fisheries, including the creation of new Inshore Fisheries and Conservation Authorities, and introduce a scheme to manage live fish movement
- Streamline and modernise enforcement powers for fisheries and nature conservation, providing a civil sanctions scheme for licensing and nature conservation offences, and an administrative penalty scheme for domestic fisheries offences

A full list of other initiatives which have been analysed in terms of their implications for the draft plan/programme and vice versa is given in Appendix 4.

Prospectivity

For commercial **hydrocarbon resources** to occur, a number of factors and features have to coincide, including:

- The presence of source rocks, with an appreciable organic matter content
- Adequate depth of burial to allow the conversion of the organic matter to oil or gas through the action of temperature and pressure
- The presence of rocks with sufficient porosity to allow the accumulation of oil or gas
- Cap or seal rocks to prevent the oil or gas from escaping from the reservoir rocks
- Migration pathways to permit oil and gas formed in the source rocks to move to reservoir formations

Such conditions typically occur in sedimentary basins, and not areas of igneous rock unless these overlay sedimentary rocks as in parts of the Faroe-Shetland Channel.

Offshore areas of the UK have been offered for oil and gas licensing in a series of rounds since 1964, with the 25th Round held in 2008. Areas with hydrocarbon prospectivity have been extensively explored over this period and many fields brought into production, mainly in the North and Irish Seas, resulting in an extensive infrastructure which can be utilised by new developments. There is a consensus view that the great majority of large fields in shelf depth waters (<200m) have been found, and deeper water areas are either not prospective or increasingly well explored and understood. Gas storage in depleted and other hydrocarbon reservoirs is part of the current draft plan/programme, and can be expected to take place in the same areas as existing oil and gas production.

The UK has extensive **marine renewable energy** resources including wind, wave and tidal, all of which are variable over space and time. There are several demonstration and commercial offshore wind farms in operation or under construction in UK waters following two rounds of offshore wind leasing in 2000 and 2003, with the generation capacity of all consented developments currently totalling some 5.5GW. Away from the shelter of the coast, the total wind resource over a year is relatively uniform across very large areas, although clearly the occurrence and strength of wind is dependant on a number of meteorological factors. At any point in time while some areas of the UK may be calm, the

wind is likely to be blowing elsewhere. Water depth, distance from areas of high electricity demand, and the availability of connection points to the onshore transmission grid are significant factors in the preferred location of offshore wind developments.

Exploitation of wave and tidal stream energy is not yet fully commercial in UK waters, although several test and demonstrator projects have been deployed or are in development. Wave and tidal energy is not part of the draft plan/programme considered in this SEA.

Overview of main sources of effect and controls in place

The main stages of offshore wind farm development are:

1. Site prospecting/selection including collection of site specific wind data, and seabed information by geophysical and geotechnical survey
2. Development, including construction of foundations and any scour protection, turbine installation, cable laying including shoreline crossings and armouring, installation of gathering stations/substations and connection to the onshore national electricity transmission system
3. Generation operations
4. Maintenance
5. Decommissioning, including removal of facilities

The main stages of oil and gas activity (including natural gas storage) are:

1. Exploration, including seismic survey and exploration drilling
2. Development, including production facility installation, generally with construction of an export pipeline, and the drilling of producer and injector wells
3. Production/operation, with routine supply, return of wastes to shore, power generation, chemical use, produced water reinjection management and reservoir monitoring
4. Maintenance
5. Decommissioning, including cleaning and removal of facilities

These activities can interact with the natural and broader environment in a number of ways. The main potential sources of environmental effects from activities which could follow adoption of the draft plan/programme are:

- Noise (impulsive) from seismic survey and piling during installation
- Noise (semi-continuous or continuous) from turbines, drilling rigs, production facilities or vessels
- Physical damage (acute) to seabed features, biota and features of archaeological interest from anchoring, pipeline construction and cable laying
- Physical damage (non-acute) from particulate smothering
- Physical presence of structures, colonisation of structures by organisms, avoidance of wind farm areas e.g. by birds, animal collisions with structures and turbine blades
- Physical presence of structures, interference with other users of the sea
- Physical presence of structures, visual intrusion
- Chemical contamination (routine) from drilling and other discharges, antifouling coatings etc
- Chemical contamination (accidental) from spills
- Atmospheric emissions from fuel combustion, venting
- Electromagnetic Fields, possible effects on electrically or magnetically sensitive species from subsea power cables

All the major stages of offshore oil and gas and offshore wind farm operation are covered by environmental regulations including the requirement for Environmental Impact Assessment at the development stage (see Appendix 5).

For oil and gas, consents (with applications supported by assessments of effects) are required for seismic survey, exploration drilling, field development, pipeline installation, development drilling, field operation (including atmospheric emissions, production of hydrocarbons, use of chemicals, produced water treatment), offshore facility modification, field decommissioning etc. The major consents also include a public consultation stage which allows stakeholders to draw issues to the attention of DECC and the developers.

The *Energy Act 2004*, the *Energy Act 2008*, the *Planning Act 2008* and the *Marine and Coastal Access Bill 2008* together with “Marine Bills” proposed by the devolved administrations provide a revised framework for the consenting of offshore wind farms.

Assessment summary

Biodiversity, habitats, flora and fauna

In general, marine mammals show the highest sensitivity to **acoustic disturbance by noise** generated by offshore wind farms and by hydrocarbon exploration and production activities. The severity of potential effect has therefore been related principally to marine mammal species composition and abundance in the area under consideration, although effects on fish (including spawning aggregations) have also been considered. For both marine mammals and fish, various effects will generally increase in severity with increasing exposure to noise; a general distinction may be drawn between effects associated with physical injury or physiological effects, and effects associated with behavioural disturbance.

Seismic surveys generate among the highest noise source levels of any non-military marine activity. The potential for significant effect in relation to oil & gas activities is therefore largely related to the anticipated type, extent and duration of seismic survey. In offshore wind farm construction, pile-driving of turbine foundations may also generate high source levels and has been widely recognised as a potential concern, in particular for large developments where many piles may be installed sequentially, or where more than one piling rig might be used simultaneously thus affecting a larger area.

There is now a reasonable body of evidence to quantify noise levels associated with both seismic survey and wind turbine foundation pile-driving, and to understand the likely propagation of such noise within the marine environment. There is less clarity about the potential effects on marine mammals (and other receptors including fish), particularly in relation to distinguishing a significant behavioural response from an insignificant, momentary alteration in behaviour. Consequently, recent expert assessments have recommended that onset of significant behavioural disturbance resulting from a single pulse is taken to occur at the lowest level of noise exposure that has a measurable transient effect on hearing. In the light of limited behavioural data the SEA also concurs with the scientific consensus judgement that seismic and pile-driving operations have the potential to cause some level of disruption of normal behaviour in marine mammals and possibly some species of fish at ranges of many kilometres. However, both planning and operational controls cover noise from relevant marine activities, including geophysical surveying and pile-driving. In addition, it is an offence to deliberately disturb wild animals of a European Protected Species (EPS), particularly during the period of breeding, rearing, hibernation and migration or to cause the deterioration or destruction of their breeding sites or resting places. EPS are those species listed in Annex IV of the Habitats Directive, which includes all cetacean species.

The SEA has considered the protections afforded to EPS under the habitats Directive and the latest JNCC guidance on interpretation of the main elements of the disturbance offence. Using maximum abundance data from the Survey of Small Cetaceans Abundance of the North Sea and Adjacent Waters (SCANS) II survey, the SEA has estimated the noise level experienced at the edge of the area in which high densities of animals would be expected to occur (this would be a large area for species with large a population size but occurring at low density, but a small area for small groups/high densities). This analysis indicates that single seismic or pile-driving sources are unlikely to have a significant disturbance effect, with the possible exception of coastal populations of bottlenose dolphins (where impacts would be assessed/further mitigated through the Appropriate Assessment process under the Habitats Regulations). The SEA therefore concludes that neither regional nor local prohibitions on the activities under consideration are justified by acoustic disturbance considerations. Given the lack of definition of the actual survey and development programmes which the draft plan/programme may entail (in terms of duration, nature of acoustic sources and the potential for temporal or spatial mitigation), it is also not possible to make specific recommendations concerning mitigation. However, it is noted that such project-specific assessments will be required for all areas under the existing regulatory regime, including requirements for consideration of deliberate disturbance of cetaceans.

Having considered marine mammal sensitivities of individual Regional Seas, together with potential cumulative effects resulting from the probable combination of oil and gas licensing and offshore wind leasing, the SEA recommends that within certain key areas of marine mammal sensitivity, operational criteria are established to limit the cumulative pulse noise “dose” (resulting from seismic survey and pile-driving) to which these areas are subjected. It will be necessary to consult with both industries to define the terms of such criteria; however, a simple approach could be implemented within the existing regulatory framework for activity consenting, particularly if initially developed and adopted voluntarily in collaboration within the industries (as was the case, initially, with the existing JNCC mitigation guidelines). The approach would also require a mechanism to facilitate the exchange of information, for example through a web-based forum hosted by DECC, JNCC or the future MMO.

Activities associated with offshore wind farm development, exploration and production of oil and gas, and gas storage can lead to **physical disturbance of seabed habitats**, with consequent effects on seabed features and biotopes and potentially on archaeological artefacts. In particular, scour – a localised erosion and lowering of the seabed around a fixed structure – was recognised at an early stage as a potential issue in relation to wind turbine foundations, and has been subject to considerable research and monitoring. These studies have concluded that scour effects are small in scale and local in extent.

The SEA has considered the spatial extent of predicted disturbance effects, and the sensitivity of seabed habitats (in particular habitats which potentially qualify under the Habitat and Species Directive Annex I) and placed these in the context of natural disturbance events and current assessment (using newly available data) of the major sources of direct, physical pressure from human activities on seabed environments. The SEA concludes that physical disturbance associated with activities resulting from proposed oil and gas licensing and wind farm leasing will be negligible in scale relative to natural disturbance and the effects of demersal fishing. The potential for significant effects, in terms of regional distribution of features and habitats, or population viability and conservation status of benthic species, is considered to be remote.

The broadscale distribution of seabed biotopes is relatively well mapped, so the likely occurrence and general sensitivity of habitats in proximity of proposed activities can be assessed. Similarly, specific projects can be assessed in terms of likelihood of the presence

of significant archaeological features. In both cases, however, detailed site surveys (which are routinely undertaken prior to development operations) should be evaluated with regard to environmental and archaeological sensitivities.

The **physical presence of offshore infrastructure and support activities** may potentially cause behavioural responses in fish, birds and marine mammals, through a range of different mechanisms. Previous SEAs have considered the majority of such interactions with offshore oil and gas infrastructure (whether positive or negative) to be insignificant, because the total number of surface facilities is relatively small (low hundreds) and the majority are far offshore, in relatively deep water. This assessment is considered to remain valid for the potential consequences of future rounds of oil and gas licensing (including for gas storage). However, the large number of individual structures in offshore wind farm developments, the presence of rotating turbines, and their potential location (e.g. in relation to coastal breeding or wintering locations for waterbirds), indicate a higher potential for physical presence effects. In relation to birds, these include displacement and barrier effects associated with exclusion from ecologically important (e.g. feeding, breeding) areas, disturbance of regular movements (e.g. foraging, migration), collision risk, and the disturbance effects of light. Bat collisions with offshore structures are not considered to be a significant issue for the draft plan/programme assessed. Other potential effects considered by the SEA include fouling growth (colonisation of a structure by plants and animals), the introduction of rock in sedimentary areas, effects on natural habitats (such as localised warming around seabed cables) which could facilitate colonisation by non-indigenous species, and electromagnetic fields (EMF) as a potential source of effect resulting from marine electricity transmission, particularly on electrosensitive fish (e.g. sharks and rays) behaviour.

Overall, the assessment of these effects concludes that based on available evidence, displacement, barrier effects and collisions are all unlikely to be significant to bird populations at a strategic level. However, there are some important uncertainties in relation to bird distribution, variability in migration routes and timings, the statistical power of monitoring methods, and the sensitivity of this conclusion to modelling assumptions (notably avoidance frequency in modelling of collision risk and several important factors in modelling of population dynamics). Therefore, recognising that a large proportion of the bird sensitivities identified are concentrated in coastal waters, a coastal buffer zone of 12 nautical miles (some 22km) is recommended, within which major wind farm development would not normally occur.

Although there has recently been significant survey effort in coastal waters, the lack of modern data on waterbirds in offshore areas is noted. Developers need to be aware that access to adequate data on waterbird distribution and abundance is a prerequisite to effective environmental management of activities, for example in site selection, timing of operations and oil spill contingency planning.

There are some information gaps relating to EMF effects, and although not considered significant at a strategic level, it is recommended that research results are monitored to inform site specific considerations.

Geology and sediments

All UK areas include a wide range of geomorphological features resulting from the underlying solid geology, past glaciations and recent processes, with sediments ranging from muds to boulders. Various wind farm and oil industry activities would result in sediment disturbance or potentially, without mitigation, destruction of small scale features. The seabed mapping undertaken in advance of operations allows the identification and hence avoidance of valued features. Contamination of sediments may occur from discharges of

drilling wastes and spills, or in the case of the oil industry from production wastes such as produced water. The composition of planned discharges from wind farm and oil industry operations is regulated, with increasingly stringent controls applied in recent years. Monitoring results indicate that sediment contamination is not a significant issue in wind farms or recent hydrocarbon developments. The geological information derived from seabed mapping, seismic survey, geotechnical surveys and the drilling of wells is regarded as a positive contribution to the understanding of the UKCS.

Landscape/seascape

The major development of offshore wind farms envisaged by the draft plan/programme could result in significant effects on landscape/seascape. In contrast, most potential hydrocarbon developments are likely to be sub-sea facilities, well offshore and beyond sight of land. The assessment has considered the theoretical maximum visibility of offshore wind turbines (of a range of sizes and heights) during day and night based on curvature of the Earth, the relative effectiveness of the 8 and 13km seascape buffers adopted in the Round 2 SEA, based on evidence from Round 1 and 2 developments, the relative sensitivity of the coast and hinterland based on protected/valued landscape designations, and international practice in wind farm siting. Significant adverse effects are likely without mitigation; however, for a variety of impact reduction reasons a general guideline of a 12 nautical mile buffer zone is recommended for large (>100MW) wind farm developments. This is not to exclude wind farms from being built closer to shore but to reduce conflicts with a range of ecological and other receptors (including landscape/seascape) and avoid potential public opposition and extended consenting timescales.

Water environment

Contamination of water may occur from discharges of drilling wastes, production wastes such as produced water (i.e. water produced along with oil and gas during the production phase), dissolution of antifouling coatings and corrosion protection anodes, accidental spills, grouting, or disturbance of previously contaminated sediments.

Drilling discharges from the renewable energy and hydrocarbon industries are comprehensively regulated, with the discharge of oil-based drilling fluids effectively banned, and strict controls implemented over chemical additives used in water-based fluids. In view of the offshore locations, water depths and current regimes prevalent in areas of likely wind farm development, prospecting for hydrocarbons and gas storage, significant contamination or ecological effects of drilling discharges are not expected. It is not expected that significant discharges of produced water will be made from new hydrocarbon developments, since there is a strong presumption against marine discharge and regulatory preference for reinjection to a suitable subsurface formation. Other operational discharges are subject to regulatory controls, and are not considered to have significant environmental risk.

UK regional and national monitoring programme results indicate that water column contamination and associated biological effects are not significant issues.

Air quality

Atmospheric emissions from the potential activities likely to follow implementation of the draft plan/programme could affect local air quality. Gaseous emissions contribute to regional acid gas loads and may result in local low level ozone and smog formation. The principal routine operational emissions during offshore wind and oil industry exploration, construction and production operations are of combustion products (CO₂, CO, NO_x, SO₂, CH₄, and volatile organic compounds (VOCs)) from power generation and engines on rigs, production

facilities, vessels and helicopters. Fugitive emissions such as those from cement tanks, diesel storage and cooling/refrigeration systems can result in emissions of dust/particulates, VOCs, hydrofluorocarbon refrigerants etc depending on the source.

In some parts of UK waters there are appreciable atmospheric emissions from maritime activities. However, the likely geographic spread and timing of projected activities which may follow leasing/licensing, and the limited scale of other such sources offshore indicate that significant effects on local and regional air quality will not occur. The implications of atmospheric emissions from all wind farm developments, and hydrocarbon exploration, production and storage activities would be assessed through the statutory EIA process, which would serve to identify if mitigation was required.

Climatic factors

Atmospheric emissions from the potential activities following implementation of the draft plan/programme will contribute to local, regional and global concentrations of CO₂ and other greenhouse gases, although in the case of offshore wind farm developments these will be offset by the production of renewable energy. There are growing concerns about the effects of fossil fuel combustion in terms of climate change and ocean acidification. However, the contribution of atmospheric emissions from hydrocarbon related activities that may result from implementation of draft plan/programme alternative 2 or 3, or the end use of any hydrocarbons produced, would represent a small fraction of existing UK, European and global emissions. In response to climate change concerns, the UK government and European Union continue to introduce a variety of policy initiatives intended to stabilise and reduce greenhouse gas emissions. All recognise the long term nature of the venture and that there is no one solution, with a series of contributory steps being required. These steps include reduction in energy demand through increased energy efficiency, promotion of renewable fuels and electricity generation, fuel switching to lower carbon alternatives, carbon capture and sequestration etc. In the short term, UK energy demand not met from indigenous sources (whether fossil or renewable) will be supplied by imported fossil fuels – with little distinction in terms of resultant atmospheric emissions. Thus domestic hydrocarbon production would be neutral in the attainment of UK climate change response policy objectives, and potentially positive in respect of oil, since associated gas is put to beneficial use rather than mostly flared as in some other sources of potential supply. In addition, domestic hydrocarbon production has a positive contribution to the UK economy and security of supply.

Population and human health

No adverse effects on population or human health are expected, based on the nature of the activities that could follow leasing and licensing, the offshore locations, the low risk (based on historic frequency and severity) of major accidental events, the regulations in place to manage occupational health risks to the workforce and others, and the controls on chemical use and discharge and on other marine discharges. Potential difficulties in effecting search and rescue operations by helicopter in offshore wind farms are noted; these can be mitigated in part by the lay out of turbines within a wind farm.

The adoption of the draft plan/programme is likely to contribute to maintaining investment and activity in the UK offshore oil and gas industry, and to increase investment and activity in the offshore wind energy industry and offshore gas storage. This will bring positive benefits in terms of an increased proportion of low carbon energy in the UK energy mix, greater security of energy supply and increased employment and tax revenues.

Other users, material assets (infrastructure, other natural resources)

A casual look out to sea may suggest an open space with few other uses. The reality is very different, with multiple uses particularly of coastal areas. Partly in response to the scale of the area needed for major expansion of offshore renewable energy generation (100s to 1000s of square kilometres), proposals for formal marine spatial planning are included in the *Marine and Coastal Access Bill 2008*. The range and importance of existing and some potential uses of the sea are described in Appendix 3 of the Environmental Report, with key aspects summarised below. In advance of formal marine spatial planning, the approach taken in this SEA has been to obtain accurate and recent information on other current and likely uses of the sea in the foreseeable future, to facilitate identification of sensitive areas and measures to reduce the scope and scale of significant adverse effects.

The UK is heavily reliant on shipping for the import and export of goods, and will remain so for the foreseeable future. Over 95% of the goods entering or leaving the UK are transported by ship, with substantial numbers of vessels also transiting UK waters en route to other European and more distant ports. In recognition of the vessel traffic densities and topographic constraints on various routes, the International Maritime Organisation (IMO) has established a number of traffic separation schemes and other vessel routing measures to reduce risks of ship collision and groundings. In addition, IMO regulations required that from the beginning of 2005, an Automatic Identification System (AIS) transponder be fitted aboard all ships of >300 gross tonnage engaged on international voyages, all cargo ships of >500 gross tonnage and all passenger ships irrespective of size. AIS allows precise tracking of individual vessels, and for this SEA, AIS data covering 4 weeks spanning 2007 were obtained and analysed to provide accurate information on important areas for larger vessel navigation. In addition to collision and grounding risk considerations, most vessels typically take direct routes from place to place and new obstructions causing large route deviations would increase transit times and fuel usage. It was concluded that wind farm siting should be outside areas important for navigation (these are mapped in the Environmental Report) and that this would not preclude the attainment of the draft plan/programme objectives.

Fishing in the UK has a long history and is of major economic and cultural importance. In 2007, there were nearly 13,000 working fishermen in the UK (of which 79% were full time), operating over 6,700 vessels, many of which were smaller inshore boats. These vessels landed 610,000 tonnes of fin- and shellfish in 2007, with a total value of £645 million. On top of this, fish processing provides over 22,000 jobs in the UK. The livelihoods of individual fishermen depend on their ability to exploit traditional fishing grounds and to adapt to changing circumstances to maximise profit. Consequently, they are vulnerable to competition within the UK industry and with foreign vessels, and to being displaced from primary grounds. To better understand the fishing activities of UK vessels, information from the UK Sea Fisheries Statistics (logbook submissions) was used to derive maps of fishing effort density, gear type and season. These show that the greatest density of fishing effort takes place in coastal waters, for both static (such as pots, traps or gillnets) and mobile gears (such as trawls and dredges). In addition, larger fishing vessels (>24m) in the EU have carried a Vessel Monitoring System (VMS) since 2000. From 2003, this requirement was extended to vessels >18m, and from 2005 to vessels >15m. To inform the SEA, VMS data for UK vessels over three years (2005-2007) was obtained and analysed to provide information on important fishing areas for larger vessels and offshore areas. It is recommended that waters near the coast and certain especially important fishing areas offshore are avoided for future wind farm siting.

Military use of the coasts and seas of the UK is extensive, with all three Services having defined Practice and Exercise Areas, some of which are danger areas where live firing and testing may occur. Such areas are well documented and have been taken account of in the

SEA. In addition, in terms of national security the potential for offshore wind farms to interfere with the reception and discrimination of military radars (air traffic control and those part of an early warning system) is a key consideration for the siting of such developments. There are a number of other defence sensitive areas which are not necessarily mapped, but need to be taken account of at the planning stages of an individual project. These aspects require internal Government discussion and are, of necessity, outside the scope of this SEA.

Offshore wind farms have the potential to affect civilian aerodromes and radar systems. The UK air traffic control service for aircraft flying in UK airspace has made available mapped data indicating the likelihood of interference from offshore wind turbines on its radar reception. Similarly, the Civil Aviation Authority (CAA) produces an Aerodrome Safeguarding Map and Local Planning Authorities are required to consult on relevant Planning Applications which fall within a 15km radius. Any proposals for a wind turbine within a 30km radius of an airport also require consultation with the Airport Company. In addition, the CAA has indicated the need to maintain a 6 nautical mile obstacle-free zone around offshore oil and gas facilities to allow for the safe operation of helicopters undertaking instrument (as opposed to visual) approaches. This requirement may restrict the location of offshore wind farm developments although, with adequate risk assessment and consultation with the field operator, variations to the 6nm zone can be agreed.

Tourism and recreational use of UK coasts and coastal waters is of major importance in many areas. Annually, the British public take some 28 million days on seaside holidays in the UK spending £5.1 billion, split between England (£4 billion), Wales (£0.52 billion), Scotland (£0.44 billion) and Northern Ireland. Major recreational uses of the sea beyond beaches and coastal paths include yachting (for which the Royal Yachting Association has published charts of cruising and racing routes) and sea angling, which in England and Wales generates some £82m for charter boats and £278m for own boat activities. Many visitors to the coast cite unspoilt and beautiful natural scenery as the important factors influencing their selection of location to visit. The importance of such attributes is widely recognised and protected through designations such as National Parks, Areas of Outstanding Natural Beauty, and National Scenic Areas. The wind farm siting recommendation made above for landscape/seascape is also considered to significantly reduce the potential for adverse effects on tourism and recreation.

Various areas of sea are used or licensed/leased for marine aggregate extraction, telecommunications and other cables, disposal of capital and other dredging wastes, Round 1 and Round 2 offshore wind farms, surface and subsea oil and gas production and export infrastructure. These have a combined turnover of some £34 billion, employing nearly 320,000 people and have all been mapped and considered in this SEA. Potential future uses of the sea include gas storage (both natural gas and carbon dioxide) in geological formations, aquifers or constructed salt caverns. Where available, information on potentially suitable locations for this has been considered in the assessment.

The implementation of the draft plan/programme will result in some associated development activities onshore for example the installation of substations and National Electricity Transmission System connections for offshore wind farms and the installation of additional equipment at existing gas terminals for gas storage. The construction phase of offshore wind farms at the scale envisaged in the draft plan/programme is likely to require the expansion of certain port facilities.

Cultural Heritage

The collective inventory and knowledge of maritime sites in particular is quite poor and may be subject to recording biases. Archaeology associated with human and/or proto-human

activities either on the current seafloor of the southern North Sea, in the coastal zone of the British Isles and further inland, has the potential to date back at least as far as 500,000 years BP. Relatively recent finds of flint artefacts from the Cromer Forest-bed Formation in Suffolk date to as early as 700,000 years BP. The current understanding of marine prehistoric archaeology is based on knowledge of the palaeolandscapes of the continental shelf between the UK and Europe during glacial phases and limited finds of archaeological materials, augmented with knowledge of analogous cultural and archaeological contexts from modern day terrestrial locations. The record for wreck sites is biased towards those from the post-Medieval and later periods, presumably a function of greater traffic and increased reporting associated with the introduction of marine insurance and the Lloyds of London list of shipping casualties in 1741. The strategic military importance of the sea, the importance of the North Sea as a fishing area, the importance of maritime trade routes and the treacherous nature of many nearshore waters, has led to a large number of ship and aircraft wrecks in UK waters.

A number of coastal sites have been designated as World Heritage Sites, for example St Kilda, the Dorset and East Devon Coast and the Heart of Neolithic Orkney.

No strategic level controls were identified during the SEA assessment, and it is through site specific surveys that cultural heritage features would be identified and mitigation measures to be developed, in line with existing guidelines for seabed developers.

Interrelationships - Cumulative effects

The effects of activities which could result from adoption of the draft plan/programme have the potential to act incrementally with those from other wind farm and oil & gas existing facilities or new activities, or to act cumulatively with those of other human activities (e.g. fishing and shipping). Secondary effects are indirect effects which do not occur as a direct result of the proposed activities, while synergistic effects are considered to be potential effects of oil or wind farm industry activities where the joint result of two or more effects is greater than the sum of individual effects.

Cumulative effects in the sense of overlapping "footprints" of detectable contamination or biological effect were considered to be either unlikely (accidental events), or very limited (for physical damage, emissions, discharges), since monitoring data indicates that the more stringent emissions, discharge and activity controls introduced over recent years have been effective and there is no evidence for significant cumulative effects from current activities.

The SEA recognises that there is uncertainty regarding potential cumulative effects of noise disturbance, and recommendations to address this are outlined above. There is also the potential for significant adverse effects on other users of the sea (including radar coverage) and on landscape/seascape from major development of offshore wind farms. However, this can be mitigated to acceptable levels by appropriate site selection, in particular avoidance of areas of prime importance to other industries/users and preferential selection of sites away from the coast where offshore structures are less visually intrusive (such areas usually benefit from an improved quality of wind resource available). Area-wide mitigation solutions for potential radar interference may be possible but require pilot studies and trials.

Atmospheric emissions resulting from fossil fuel use during wind farm facility manufacture, construction and maintenance, are more than balanced by the overall net reductions in carbon dioxide emissions as a result of electricity generation from renewable energy. Atmospheric emissions from oil industry activities that may result from implementation of draft plan/programme alternative 2 or 3, and the end use of any hydrocarbons produced, will contribute to overall global emissions of greenhouse gases. However, the scale of such

emissions is relatively small, and they will be included in overall UK emissions inventories and also in the longer term initiatives to shift the balance of energy demand and supply towards a low carbon economy.

Besides a minor contribution to climate change and ocean acidification, no secondary or synergistic effects were identified that were considered to be potentially significant, although the effects of multiple noise sources is an area requiring better understanding.

Interrelationships - Wider policy objectives

The SEA Directive requires that, in considering the likely significance of effects, the degree to which the plan or programme influences other plans and programmes should be addressed, together with the promotion of sustainable development. The contribution of atmospheric emissions from oil and gas and gas storage activities that may result from implementation of draft plan/programme alternative 2 or 3, or the end use of any hydrocarbons produced, would represent a minor fraction of existing UK, European and global emissions. These emissions where they relate to combustion end use would be neutral in the attainment of UK climate change response policy objectives, and potentially positive in respect of oil since associated gas is husbanded, rather than mostly flared as in some other potential sources of supply.

A number of offshore European Conservation (Natura 2000) sites are in the process of being designated under the Habitats Directive, and the boundaries of some coastal and marine sites are being extended. In addition, the Marine Strategy Directive through the *Marine and Coastal Access Bill* will introduce further requirements for identification and designation of Marine Conservation Zones (or Marine Protected Areas). These will require careful consideration in the selection of offshore wind farm sites and oil and gas/gas storage infrastructure to avoid adverse effects on the integrity of the sites or compromising good environmental status.

With suitable mitigation and appropriate controls on activities which could follow adoption of the draft plan/programme, major negative effects on other policies or programmes can be avoided; this includes non-environmental topics such as navigation and air traffic control. In a number of policy areas the draft plan/programme will contribute positively to the achievement of goals.

Transboundary effects

The area covered by the draft plan/programme and considered in the Offshore Energy SEA abuts the waters of all the UK's immediate neighbours. The activities which could result from adoption of the draft plan/programme may occur adjacent to the median lines and thus have the potential to result in transboundary effects including:

- Underwater noise
- Marine discharges
- Atmospheric emissions
- Displacement of fishing activity
- Disruption to migratory species (birds and, possibly, fish and mammals)
- Disruption of radar sensitivity and discrimination
- Accidental events – vessel collisions
- Accidental events – oil spills

All of the effects listed above may be able to be detected physically or chemically in the waters of neighbouring states.

The scale and consequences of environmental effects in adjacent state territories due to activities resulting from the proposed leasing/licensing will be less than those in UK waters, and with the mitigation measures proposed, are considered not to be significant.

Conclusions

The SEA considered the alternatives to the draft plan/programme and the potential environmental implications of the resultant activities in the context of the objectives of the draft plan/programme, the SEA objectives, the existing regulatory and other control mechanisms, the wider policy and environmental protection objectives, the current state of the environment and its likely evolution over time, and existing environmental problems. The conclusion of the SEA is that alternative 3 to the draft plan/programme is the preferred option, with the area offered restricted spatially through the exclusion of certain areas. It is concluded that there are no overriding environmental considerations to prevent the achievement of the offshore oil and gas, gas storage and wind elements of the plan/programme, albeit with a number of mitigation measures to prevent, reduce and offset significant adverse impacts on the environment and other users of the sea.

To attain the 25GW objective of the draft plan/programme, several thousand wind turbines would be needed which, depending on turbine spacing and wind farm separation, may occupy up to 10,000km². Development on this scale is judged to have the potential to result in significant environmental effects on areas or landscapes of recognised national, European Community or international protection status, as well as on other uses of the sea. Coastal areas typically have higher environmental sensitivity, both in ecological terms (for example waterbirds and seabed habitats), and in existing human uses (for example shipping, fishing and yachting). Tourism and recreation are key activities and industries in coastal areas, many of which are also protected landscapes such as National Parks. Reflecting the relative sensitivity of multiple receptors in coastal waters, this report concludes that the bulk of this new generation capacity should be sited well away from the coast, generally outside 12 nautical miles (some 22km). The proposed coastal buffer zone is not intended as an exclusion zone, since there may be scope for further offshore wind development within this area, but as mitigation for the potential environmental effects of development which may result from this draft plan/programme. The environmental sensitivity of coastal areas is not uniform, and in certain cases new offshore wind farm projects may be acceptable closer to the coast. Conversely, a coastal buffer in excess of 12nm may be justified for some areas/developments. Detailed site-specific information gathering and stakeholder consultation is required before the acceptability of specific major Round 3 or subsequent wind farm projects close to the coast can be assessed. Marine spatial planning proposals are under consideration in Parliament, which would give coastal regulators and communities further opportunities to have a say in the way the marine environment is managed, in addition to the existing routes for consultation as part of the development consent process.

A series of proposals are made regarding precautions, areas to be withheld, operational controls and certain data gaps.

Next steps

The Offshore Energy SEA Environmental Report and supporting documents are available for review and public comment for a period of 12 weeks from the date of publication in January 2009. The documents are being made available from the SEA website (www.offshore-sea.org.uk) or on CD or printed copy. Comments¹ and feedback should be marked “Offshore Energy SEA Consultation” and may be made via the website or by letter or e-mail addressed to:

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The Department will consider comments received from the public consultation in their decision making regarding the draft plan/programme.

A Post Consultation Report will be prepared and placed on the website collating the comments, DECC responses to them and indicating how they and the Environmental Report have been taken account of in the implementation of the plan/programme.

¹ Confidentiality: Your comments may be made public by DECC in relation to this consultation exercise. If you do not want your name or all or part of your response made public, please state this clearly in the response. Any confidentiality disclaimer that may be generated by your organisation’s IT system or included as a general statement in your fax cover sheet will be taken to apply only to information in your response for which confidentiality has been requested. However, please also note that DECC may disclose information it holds pursuant to a statutory, legal or parliamentary obligation, including without limitation, requirements for disclosure under the Freedom of Information Act 2000 and/or the Environmental Information Regulations 2004. In considering any request for disclosure of such information under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004, DECC will consider and make use of relevant exemptions or exceptions where they properly apply and, where relevant, will consider whether the public interest in withholding the information outweighs the public interest in disclosing the information. It is DECC’s normal practice to consult and consider the views of third parties where necessary although decisions on disclosure are ultimately taken by DECC. However, any decision by DECC against the release of information can be appealed to the Information Commissioner and ultimately the Information Tribunal. We will handle any personal data you provide appropriately in accordance with the Data Protection Act 1998 and the Freedom of Information Act 2000.

