



Wind Energy and the Historic Environment



ENGLISH HERITAGE

English Heritage is the Government's adviser on the historic environment. Central to our role is the advice we give to local planning authorities and government departments on development proposals affecting historic buildings, sites and areas, archaeology on land and underwater, designed landscapes and the historic aspects of the landscape as a whole. We also manage an estate of over 400 historic properties open to the public. This guidance is intended for developers of wind energy projects which may affect any of these aspects of the historic environment. It is also aimed at those, including local authority planners and their historic environment advisers, involved in strategic planning for renewable energy and the determination of project specific applications.

Alongside this guidance on wind energy, English Heritage has also produced guidance on climate change and other renewable energy technologies and the historic environment. This is available at the *Historic Environment – Local Management* website: www.helm.org.uk.

CLIMATE CHANGE AND RENEWABLE ENERGY

The Earth's climate is changing. The average global temperature has risen by 0.6 degrees Celsius since the beginning of the 20th century, taking the northern hemisphere outside the range of average temperatures it has experienced over the last 1,000 years. Globally, all of the 10 warmest years on record have occurred since the beginning of the 1990s, and the effects of recent warming can be seen in an increased incidence of heat-waves, storminess and flooding, the retreat of glaciers and ice sheets, and altered responses in plants and animals.

Although climate change is a natural and constant process, there is a strong scientific and political consensus, internationally and within the UK, that the current increase in average temperatures results mainly from increasing atmospheric concentrations of carbon dioxide and other greenhouse gases and that these increasing concentrations are the result, in part at least, of human influences. There is also general agreement that average temperatures are likely to rise even faster, particularly in the second half of this century, unless action is taken to limit and reduce greenhouse gas emissions.

Under the terms of the Kyoto Protocol, the UK pledged to reduce greenhouse gas emissions by 12.5 per cent below 1990 levels by 2008–12, with a further undertaking to reduce CO₂ emissions by 20 per cent by 2010. The European Union has also endorsed the need to reduce carbon dioxide levels in order to limit future temperature rise to 2 degrees Celsius.

Within this framework of international obligations and targets, the Government set out its energy policy, including its policy on renewable energy, in the 2003 Energy White Paper, *Our energy future – creating a low carbon economy*. The White Paper aims to put the UK on target to cut its carbon dioxide emissions by some 60 per cent by 2050, with real progress made by 2020, while maintaining reliable and competitive energy supplies.

The generation of energy from a variety of renewable sources is intended to make a major contribution to achieving this target, as well as providing a response to the depletion of fossil fuels and the need to promote security of energy supply within the UK. The Government has previously set a target to generate 10 per cent of UK electricity from renewable energy sources by 2010. The White Paper set out the Government's aspiration to double that figure by 2020 and suggested that an even greater proportion of energy requirements would be needed from renewable sources beyond that date.

ENGLISH HERITAGE POLICY ON RENEWABLE ENERGY AND THE HISTORIC ENVIRONMENT

On the basis of the most widely accepted predictions, future climate change is likely to be detrimental to the historic environment. Despite the fact that most historic buildings, sites and landscapes have experienced a changing climate in the past, many may be at risk, together with the important contribution they make to the UK economy:

- Rising sea levels will endanger the preservation of historic maritime landscapes, structures, buildings and archaeology.
- Increasing frequency and severity of flooding may damage the historic fabric of towns and cities.
- Higher temperatures, drier summers, changing patterns of vegetation and altered distributions for pests and disease may pose significant challenges for the long-term maintenance of historic landscapes, including designed landscapes.
- Potential increases in rainfall, storminess and weather intensity together with greater risk of ground subsidence may threaten the continued stability and weather resilience of many historic buildings.
- Changes in hydrology and cropping regime and increasing soil erosion as a result of weather extremes may make it more difficult to conserve buried archaeological remains.

Recognising these threats to the historic and natural environments and to our national prosperity, English Heritage welcomes the Government's commitment to reduce the emissions which contribute to global warming. We support measures to reduce fuel consumption, increase energy efficiency and exploit renewable energy sources. In addition, through our own sustainable development strategy (www.english-heritage.org.uk/sustainabledevelopmentstrategy), we are committed to reducing the environmental impact of our own activities. Nevertheless, we also recognise that some renewable energy technologies have the potential to cause serious damage to irreplaceable historic sites, which are themselves an integral part of the wider environmental and sustainability agenda.

A truly sustainable approach to renewable energy generation needs to secure a balance between the benefits it delivers and the environmental costs it incurs. English Heritage therefore supports an approach to renewable energy generation which:

- acknowledges the need for society to invest in a wide range of renewable energy generation technologies;
- recognises the potential environmental impacts of different technologies, including their implications for the historic environment;
- keeps the balance of environmental benefits and disadvantages of each technology under continual review; and
- continually seeks to limit and mitigate adverse impacts.

English Heritage believes a pro-active and strategic approach to the land-use planning system will maximise the benefits of renewable energy projects, while minimising their adverse effects on the historic environment. This should be achieved by considering the *cumulative* effects of projects as well as their *specific* impacts and by ensuring that the implications of renewable energy developments are adequately reflected in national, regional and local planning policy and at all stages of the environmental impact assessment process.

We also believe that high quality design should play a key role in minimising any adverse effects of projects, whether this is directed at the disposition of wind turbines and energy crops in the landscape or the positioning of photo-voltaic cells on historic buildings. Fundamental to achieving high quality design will be a sound understanding of the character and importance of the historic asset involved, whether at the scale of individual buildings and sites or more extensive historic areas and landscapes.

Given the rapidity with which renewable energy technologies are evolving, considerable weight should be given to ensuring the reversibility of renewable energy projects and their associated infrastructure. English Heritage therefore believes that where sensitive greenfield land is used for renewable energy developments, it should not subsequently be regarded as brownfield land once installations are redundant.

WIND TURBINE TECHNOLOGY

By converting wind energy into electricity, wind turbines reduce the environmental impact of power generation. Wind energy is currently the most developed of a number of renewable energy technologies, with more than 1,000 wind turbines already operating across the UK, producing around one quarter of one percent of the country's energy.

Wind turbines can be deployed individually, to power a single site or installation, but are most commonly grouped together as 'wind farms' to provide power to the national grid. The energy output from turbines has increased dramatically over the past decade from 200 KW to 3 MW and with 5 MW turbines now under evaluation. Their greater energy yield means that the number of turbines needed to produce a given amount of energy has been reduced by at least a factor of five. Over the same period, however, the tower height and rotor diameter of turbines has doubled. Large modern wind turbines have rotor diameters ranging up to 65 metres. Towers range from 25 to 80 metres in height and, when a blade is vertical, some of the larger modern wind turbines can reach a total height in excess of 100 metres. Larger-scale wind energy developments are also becoming increasingly common as turbine ratings increase. In 2003, around a third of completed developments were above the 50MW threshold, and wind farms may now include up to 24 turbines and cover a total area of around one square kilometre.

As technical advances increase its cost effectiveness, offshore wind generation is beginning to play an increasingly important role in achieving renewable energy targets. By 2006, the installation rate for offshore generation is predicted to overtake that onshore. Currently, fifteen wind energy developments are planned in three strategic sea areas identified by government off the UK's eastern and western coasts. Offshore wind farms are generally large installations. Current turbine hub heights range from 40 to 100 metres and rotor diameters from 44 to 110 metres, with turbines likely to increase further in size and capacity. Although this increase in scale could intensify the visual impact of offshore installations when seen from the land, parallel improvements in technology which allow them to be located further from the shore may tend to mitigate this effect. A major expansion of offshore capacity is, however, likely to require a significant strengthening of the national grid at the coast where it is currently poorly developed.

Wind farm developments should be sited to avoid damage to archaeological features. Wind turbines at Carland Cross, Cornwall, are located at a distance from the prehistoric burial mounds in the two foreground fields.

Photograph: Steve Hartgroves,
Historic Environment Service,
Cornwall County Council



ONSHORE RENEWABLE ENERGY: THE PLANNING CONTEXT

National Policy

Planning policies on land-based renewable energy generation in England are set out in *Planning Policy Statement 22: Renewable Energy* (PPS 22). These are amplified by *Planning for Renewable Energy: A Companion Guide to PPS22*, which offers practical advice on how these policies can be implemented on the ground. Additional advice is provided by *The Planning Response to Climate Change: Advice on Better Practice* issued by ODPM, the Scottish Executive and the Welsh Assembly Government.

The policy set out in PPS 22 and its companion guide are to be taken into account, alongside other planning policies, by regional planning bodies in the preparation of regional spatial strategies, by local planning authorities in the preparation of local development documents, and in all decisions on individual planning applications. Where renewable energy developments affect the historic environment, the policies set out in *Planning Policy Guidance 15: Planning and the Historic Environment* and *Planning Policy Guidance 16: Archaeology and Planning* will also need to be taken into account.

PPS 22 states that renewable energy developments should be capable of being accommodated throughout England in locations where the technology is viable, environmental, economic, and social impacts can be addressed satisfactorily. It stipulates that regional spatial strategies and Local Development Documents (LDDs) should contain policies designed to promote and encourage, rather than restrict, the development of renewable energy resources.

The PPS recognises the potentially adverse effect of some renewable energy developments on the visual amenity of the landscape and acknowledges that, among the renewable energy technologies, wind turbines are likely to have the greatest visual and landscape effects. It requires these to be assessed by local planning authorities on a case-by-case basis – according to the type of development, its location and landscape setting – by means of objective analysis and professional judgement, supported by appropriate descriptive material. The PPS notes that the impact of wind turbines on the landscape will vary according to the size and number of turbines and the type of landscape involved. It also notes that long-term landscape impacts can be mitigated if conditions

are attached to planning permissions which require the future decommissioning of turbines and their ancillary infrastructure.

The PPS also recognises that renewable energy developments may have an adverse effect on both the historic and natural environment. It therefore stipulates that applications affecting World Heritage Sites should only be granted after an assessment has shown that the integrity of the site would not be adversely affected. It also specifies that planning permission for renewable energy projects which affect Scheduled Monuments, Conservation Areas, Listed Buildings, and sites on the *Register of Historic Battlefields* and the *Register of Parks and Gardens of Special Historic Interest in England* should be granted only where it can be demonstrated that the objectives of designation of the area will not be compromised by the development, or where any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the development's environmental, social and economic benefits.

The PPS discourages the creation by regional planning bodies and local planning authorities of buffer zones around internationally or nationally designated areas which will prevent renewable energy projects. However, it acknowledges that the potential impact of developments close to the boundaries of these designated areas will be a material consideration to be taken into account in determining planning applications.

Regional Spatial Strategies and Local Development Frameworks

Regional level policy is seen by government as critical to the achievement of national targets for renewable energy generation. PPS 22 stipulates that the regional spatial strategy framework should contain regional renewable energy generation targets and criteria-based planning policies which reflect considerations likely to influence the location of projects, such as the presence of internationally or nationally designated areas within the region. Although Regional Spatial Strategies will have a key role in identifying broad locations for renewable energy projects, these locations are not to be given defined boundaries and will not preclude projects in other locations. Regional planning bodies are encouraged to work with local authorities to ensure that any criteria-based policies are applicable across the region or in defined sub-regions.

PPS 22 includes internationally and nationally designated heritage sites among those considerations for which specific policies at the regional level may be appropriate. The *Companion Guide to PPS22* also confirms that sites or areas of heritage importance should be included and that criteria-based policies may be appropriate for undesignated landscapes with particular characteristics where the criteria have to be consistent across a number of individual districts.

Although much of the strategic framework for renewable energy planning will be established at the regional level with the involvement of local authorities, Local Development Frameworks (LDFs) will also play a strategically important role. PPS 22 requires local planning authorities to include criteria-based policies in LDFs which support regional generation targets and provide guidance in relation to standalone renewable energy schemes or the integration of renewable energy into new development. These policies should focus on key local issues, within the framework set out by national planning policy and the Regional Spatial Strategy.

The *Companion Guide to PPS22* makes it clear that it will be usual for policies for standalone renewable energy schemes to list the issues which will be taken into account in determining specific applications, and that this should include impacts on landscape, townscape, and historic and cultural features and areas. The guide also makes it clear that, as the impact on designated sites of surrounding development is a material consideration in determining applications, local planning authorities should ensure that their criteria-based policies afford appropriate protection to the areas around nationally-designated assets. Policies can also be framed to assist decision-making on issues of landscape character outside nationally designated areas, and local planning authorities are advised to consider undertaking landscape capacity and sensitivity analyses in order to frame these.

Local planning authorities are also encouraged to consider preparing Supplementary Planning Documents on renewable energy. These documents can be used to set out in detail how criteria will be applied to assess renewable energy applications, to address the specific locational issues of different technologies and to provide design guidance. They may also be used to indicate the relative sensitivity of some landscapes to particular types of renewable energy development, in order to guide developers' choice of sites.

Development control issues

All wind farm developments require planning permission. For installations with an output below 50MW installed capacity, applications for planning permission are determined by the local planning authority. For larger installations, development control is the responsibility of the Secretary of State for Trade and Industry, with the local planning authority acting as a statutory consultee. A licence must also be obtained from The Office of Gas and Electricity Markets (OFGEM) for developments in excess of 50MW.

Wind turbines are projects listed under Schedule 2.3(i) of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, as further amended by the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000. Local planning authorities are therefore required to screen applications for the need for EIA where the development involves the installation of more than two turbines or the hub height of any turbine (or height of any other structure) exceeds 15 metres. Although smaller developments may not require a full EIA, the local planning authority may still require relevant issues to be addressed in an environmental statement to accompany a planning application.

The environmental, landscape and visual impacts of projects, including their cumulative visual impact, should be assessed and mitigated at the scheme-specific level. Local planning authorities are encouraged to agree with developers how they should undertake landscape and visual impact assessment, and what relevant information will be required to accompany the planning application, during pre-application discussions.

EVALUATING THE IMPACT OF ONSHORE WIND TURBINE PROJECTS ON THE HISTORIC ENVIRONMENT

When scoping and designing wind turbine projects, or when determining planning applications for projects, developers and local authorities should always consider the impacts of the proposed development on the historic environment, including its implications for archaeological remains, historic structures and buildings, designed landscapes, the historic character and associations of the wider landscape. This consideration should extend to designated and significant undesignated sites and areas, including the implications of development on their setting, and should embrace both the direct physical impact of developments and any indirect impacts. Local planning authorities should always require these impacts to be adequately considered as part of the process of preparing any Environmental Statement.

Direct physical impacts

Wind turbines require a deep foundation to prevent them from becoming unstable in high winds. The foundation of a 1MW to 2MW machine would typically comprise more than 100m³ of reinforced concrete in a block of up to 16m diameter and 3.5m depth. In addition, the direct physical impacts from wind farm projects will include structures such as wind monitoring towers, sub-stations, transformers, control rooms, access roads, cable ducting, perimeter fencing and connection to the grid, together with temporary structures required during construction.

Construction of these features has the potential to damage any underlying archaeological remains. However, in comparison with other more conventional forms of development, ground disturbance within the overall footprint of a wind farm may be comparatively limited, and flexibility in the siting of individual structures provides opportunities to avoid damage. For example, within a typical development of six turbines, covering a total area of 14 hectares, the actual footprint of the turbines and their associated infrastructure may be limited to 1% to 2% of the overall development area.

Indirect impacts

Wind energy developments may impair the setting of historic sites and can compromise the visual amenity of the wider landscape, detracting from historic character, sense of place, tranquillity and remoteness. In certain conditions, indirect impacts can also include noise and shadow flicker from turbines.

Turbines towers are now typically in excess of 60 metres in height and may have a zone of visual influence more than ten kilometres in radius. Because wind turbines work best in locations where conditions are frequently windy, their visibility is often increased by being situated on high ground or in exposed positions in order to maximise energy yields. Similarly, in order to distance development from population centres, many existing developments have been sited in upland locations: places which are valued for their wild and remote character and often for their exceptionally well preserved historic remains.

Dealing with historic sites

Historic sites are a finite resource which cannot be replaced once damaged or destroyed. In contrast with some nature conservation or landscape designations, which may embrace very extensive tracts of land, designated historic sites tend to be more limited in extent. For example, the average area of a scheduled monument is only 2.5 hectares and the average area of a registered park and garden is 108 hectares. Listed buildings and their curtilages generally occupy far smaller areas. It should not, therefore, be particularly onerous to avoid locating potentially damaging wind farm developments within nationally important historic sites, and the criteria adopted by regional planning bodies and local authorities for assessing renewable energy projects in RSSs and LDFs should reflect this. Significant but undesignated historic sites, buildings and designed landscapes are also generally limited in extent and should similarly be avoided wherever practicable. To facilitate this, consultation with the relevant local authority Historic Environment Record should be undertaken at the earliest stage in the design of wind energy developments. Where direct impacts cannot be avoided, project assessment and mitigation should be required in line with the guidance provided in Planning Policy Guidance 15 and 16.

Setting and visual amenity

In accordance with the guidance provided by PPS22 and its companion guide, consideration should be given to the impact of wind energy developments on the wider landscape setting and visual amenity of historic sites. This consideration should extend to the effects of any necessary infrastructure (such as power transmission lines, access roads and signage) and to the individual as well as the cumulative impact of developments. Seasonal variations in visual impact should also be considered.

While change within the setting of historic sites may often be acceptable, in certain instances development will be considered inappropriate. Among particular factors which should be borne in mind when assessing the acceptability of developments within the setting of historic sites are:

- **Visual dominance:** Wind turbines are far greater in vertical scale than most historic features. Where an historic feature (such as a hilltop monument or fortification, a church spire, or a plantation belonging to a designed landscape) is the most visually dominant feature in the surrounding landscape, adjacent construction of turbines may be inappropriate.
- **Scale:** The extent of a wind farm and the number, density and disposition of its turbines will also contribute to its visual impact.
- **Intervisibility:** Certain archaeological or historic landscape features were intended to be seen from other historic sites. Construction of wind turbines should respect this intervisibility.
- **Vistas and sight-lines:** Designed landscapes invariably involve key vistas, prospects, panoramas and sight-lines, or the use of topography to add drama. Location of turbines within key views, which may often extend beyond any designated area, should be avoided.
- **Movement, sound or light effects:** The movement associated with wind turbines as well as their scale may be a significant issue in certain historic settings. Adequate distance should always be provided between important historic sites and wind turbine developments to avoid the site being overshadowed or affected by noise and shadow flicker effects.

- **Unaltered settings:** The setting of some historic sites may be little changed from the period when the site was first constructed, used or abandoned. Largely unaltered settings for certain types of sites, particularly more ancient sites, may be rare survivals and especially vulnerable to modern intrusions such as wind turbines. This may be a particular issue in certain upland areas.

World Heritage Sites

PPS 22 stipulates that, along with other designated sites of international importance, renewable energy developments should not adversely affect the integrity of World Heritage Sites.

World Heritage Sites are inscribed under the terms of the World Heritage Convention, an international treaty which imposes obligations on the UK. Details of the operation of the World Heritage Convention are contained in *Operational Guidelines for the Implementation of the World Heritage Convention* (2005). This guidance extends to protection of the visual amenity of the setting of World Heritage Sites, as well as the sites themselves. The setting of some World Heritage Sites in the UK is more formally defined than for other heritage designations, by means of a mapped area included in the nomination file and approved by the intergovernmental World Heritage Committee at the time of the Site's inscription on the World Heritage List. This setting should be taken into account when determining wind energy applications in proximity to World Heritage Sites, as should the specific guidance on World Heritage Sites provided in PPG 15.

The wider landscape

While all landscapes are the product of human intervention and are therefore historic to some degree, some have been far more dynamic over time or have altered more radically than others. These historically dynamic landscapes, particularly those where the prevailing character is industrial or agriculturally intensive, may be more suited to accommodating large-scale wind energy developments than less dynamic areas.

The character of industrial or intensively agricultural landscapes may accommodate wind farm developments more easily than remote or historic locations.

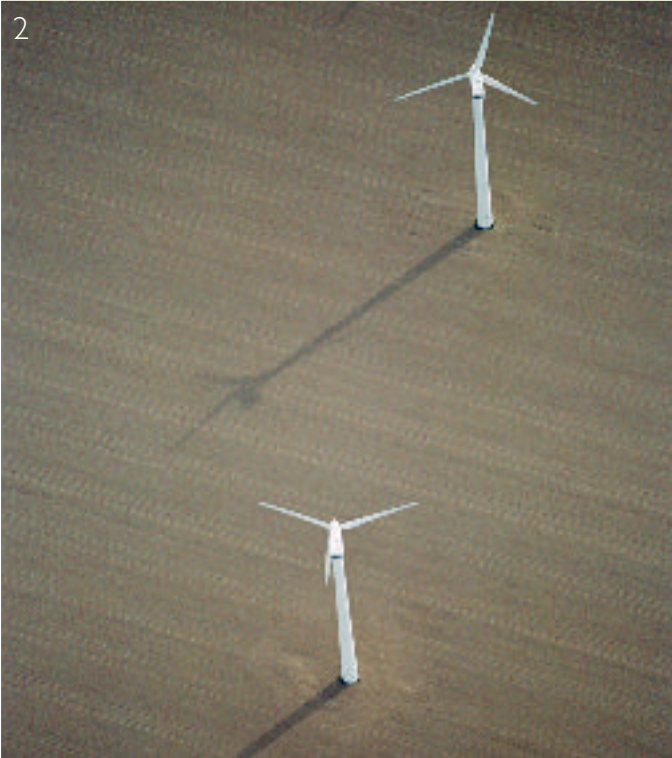
2 Somerton, Norfolk

3 Siddick, Cumbria

4 Blyth, Northumberland

Photographs: NMR 21738-33; 17762-04; 17677-06 © English Heritage NMR

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The historic character of the landscape should therefore be considered alongside other aspects of character and visual and aesthetic issues when framing planning policies or determining individual applications, and landscape capacity and sensitivity analyses should always include the historic dimension. Where local authorities have completed an appraisal of this historic dimension of the landscape as part of the English Heritage-sponsored Historic Landscape Characterisation programme, this appraisal should be incorporated in the overall assessment of landscape impact.

In considering the landscape effects of wind energy developments, planning authorities should have regard to the immediate landscape impacts of the project, to the impacts of related secondary developments such as power lines and transmission stations, and to the cumulative effects of existing or planned renewable energy developments and their infrastructure. The character of the landscape, including its historic character, should be taken into account in determining the location, scale and extent of renewable energy developments. An analysis of character may also be helpful in informing the detailed design of wind energy developments, including the number, scale and disposition of turbines.

Reversibility

One important feature of wind energy developments is their general reversibility (in terms of landscape if not archaeological impacts). Planning authorities should therefore make provision, as part of any planning permission, for the long-term protection of the landscape by requiring legal agreements for the remediation and restoration of wind farm sites and their infrastructure when they are decommissioned.

OFFSHORE RENEWABLE ENERGY: THE CONSENTS PROCEDURE

As the land use planning system does not extend offshore, the policies set out in PPS 22 do not apply to developments for offshore renewable energy, although they do apply to related secondary developments constructed onshore, such as sub-stations and temporary construction facilities, for which planning permission will be required.

The Department of Trade and Industry is the lead Government department for the consents procedure for the development of offshore wind developments, coordinating applications through its Offshore Renewables Consents Unit. The consent procedure involves two alternative routes: the Electricity Act 1989 or the Transport and Works Act 1992. Both routes are likely to involve the need to obtain additional consents, principally permissions under the Food and Environment Protection Act 1985 and the Coast Protection Act 1949. Whichever consent route is adopted, an Environmental Impact Assessment is likely to be required.

Offshore wind energy developments on the Crown Estate's marine estate also require the granting of an Agreement for Lease by the Crown Estate as the main landowner of the territorial seabed.

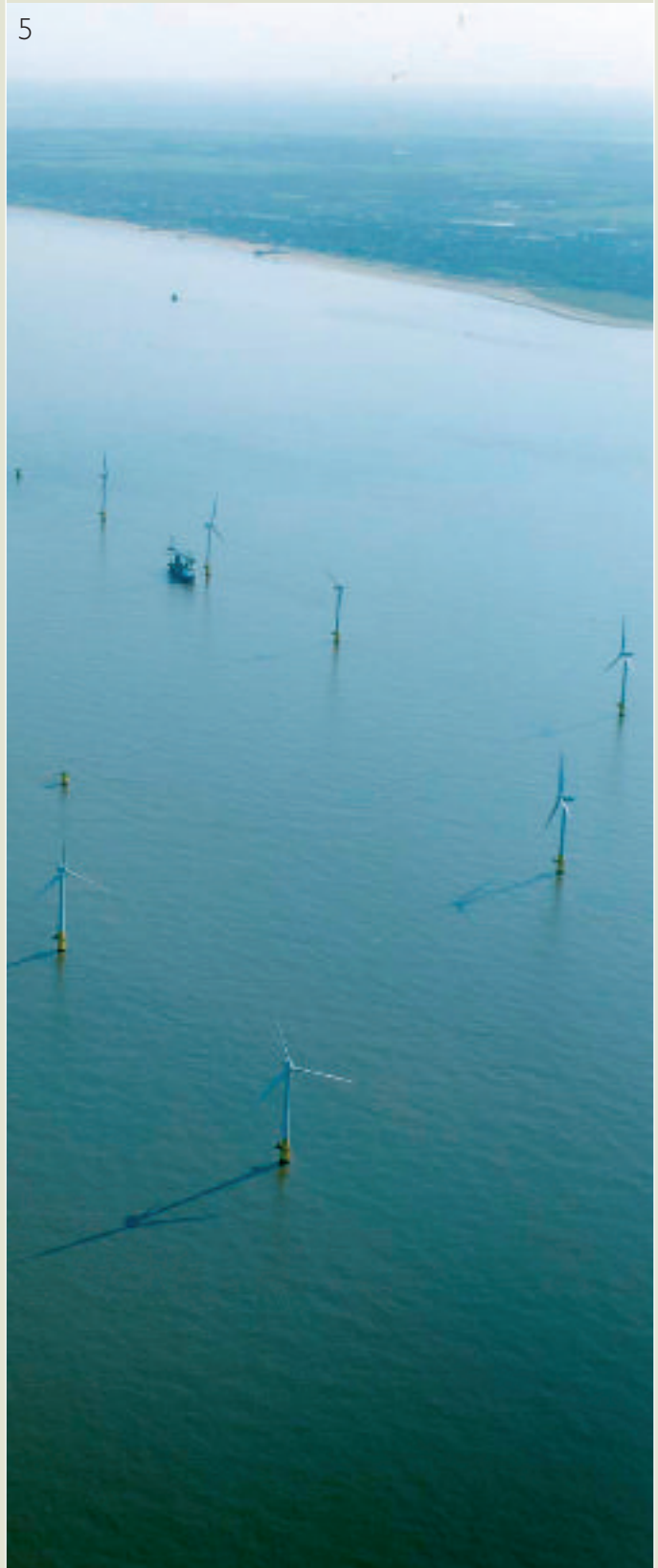
EVALUATING THE IMPACT ON THE HISTORIC ENVIRONMENT OF OFFSHORE WIND TURBINE PROJECTS

When scoping and designing offshore wind turbine projects, or when determining consent applications, developers and consenting authorities should always consider the impacts of the proposed development on the historic environment which, for marine developments, could include either wreck or evidence for dry-land archaeological remains, subsequently submerged as a result of sea level rise over the last 10,000 years. The raised areas of seabed suited to turbine construction may also be areas of high potential for submerged prehistoric remains.

In addition, consideration should be given to the impact of developments on the seascape and on views of the adjacent coast, which may be historically significant (for example, in proximity to historic ports

5 The character of coastal seascapes and landscapes and the impact on marine archaeology should be considered at an early stage in offshore wind farm projects, such as this development at Scroby Sands, off Great Yarmouth, Norfolk.

Photograph: NMR 23501-15
© English Heritage NMR



or historic defensive sites). Although the trend to site new installations further from the coast may reduce the likelihood of significant visual impacts in the future, connections to the national grid may still have significant impacts on landscape and seascape.

Consideration of the impacts on marine archaeology should include both designated and undesignated remains. A small number of shipwrecks in territorial waters are designated under the Protection of Wrecks Act 1973, or protected under the Protection of Military Remains Act 1986, but the vast majority of wrecks, including nationally important sites, are undesignated. Submerged prehistoric land surfaces and their associated archaeological remains, which may be of considerable importance, are currently offered no form of statutory protection.

Assessment of the effects of development on the historic environment should be considered as part of the process of preparing an Environmental Statement. Developers should consult with English Heritage at an early stage about the implications of projects and seek information from the Maritime Module of the English Heritage National Monuments Record. Where appropriate, they should also seek information from the Historic Environment Records of adjacent local authorities.

Environmental statements should consider the direct and cumulative impacts of proposed offshore installations, both within the turbine array and on the wider seabed environment. This should include the construction of turbines and meteorological masts and their foundations; scour protection; burial and armouring of cables on the site and connection to the shore; and potential hydrological or sediment transport effects. The impact assessment of associated construction works should include onshore, inter-tidal and offshore works, as sensitive archaeological sites may occur in all these locations. Where archaeological remains are likely to be adversely affected by development, the Environmental Statement should set out proposed mitigation measures, including arrangements for post-construction monitoring of impacts. Consideration should also be given to the archaeological implications of the decommissioning of offshore installations.

KEY SOURCES

DoE 1990: *Planning Policy Guidance 16: Archaeology and Planning*. Department of the Environment, London

DoE/DNH 1994: *Planning Policy Guidance 15: Planning and the Historic Environment*. Department of the Environment and Department of National Heritage, London

HM Government 2005: *Securing the Future: The UK Government Sustainable Development Strategy*. Her Majesty's Stationery Office, London

ODPM 2004a: *Planning Policy Statement 22: Renewable Energy*. Office of the Deputy Prime Minister, London

ODPM 2004b: *Planning for Renewable Energy: A Companion Guide to PPS22*. Office of the Deputy Prime Minister, London

ODPM 2004c: *The Planning Response to Climate Change: Advice on Better Practice*. Office of the Deputy Prime Minister, Scottish Executive and the Welsh Assembly Government, London

Sustainable Development Commission 2005: *Wind Power in the UK: A guide to the key issues surrounding onshore wind power development in the UK*, London

UNESCO 2005: *Operational Guidelines for the Implementation of the World Heritage Convention*. United Nations Educational, Scientific and Cultural Organisation, Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage, New York

WIND ENERGY AND THE HISTORIC ENVIRONMENT: BEST PRACTICE CHECK LIST

- The implications for the historic environment of wind energy developments should be reflected in Regional Spatial Strategies, Local Development Frameworks and Supplementary Planning Documents.
- The effects of wind energy programmes and projects on the historic environment should be evaluated in all levels of environmental impact assessment.
- Consideration of the historic environment should include World Heritage Sites; marine, coastal and terrestrial archaeology; historic buildings and areas; designed landscapes; and the historic character of the wider landscape.
- The significance of internationally and nationally designated sites should be safeguarded, and physical damage to historic sites should be avoided.
- The impact of wind energy developments on the setting and visual amenity of historic places should also be considered.
- Where wind energy developments affect historic sites, national planning policies on the historic environment should be taken into account.
- Consideration should always be given to the reversibility of wind energy projects.

