Wind Generated Energy

Head of Service: Tim Capper, Head of Democratic Services
Report Author: Neil White, Scrutiny Support Officer

Recommendation: to advise full council on the motion submitted by Councillor N Clarkson on wind generated energy.

BACKGROUND

Full council at its meeting on 13 January 2009 received a motion that:

"Copeland Borough Council wish to support the motion that was passed by Cumbria County Council on Thursday November 20th 2008 in that the County Council has grave concerns that the current targets for onshore wind-generated energy ride rough shod over the capacity of our landscapes and seascapes to satisfactorily accommodate further wind farms. Cumbria's environment is a key asset for economic wellbeing. The County Council believes that a proliferation of wind farms will undermine efforts to address the county's economic problems.

The County Council calls on the Secretary of Stage for Energy and Climate Change to give a commitment to seek to ensure that Government will reduce its over reliance on onshore wind, reduce current wind – related targets and invest, as a matter of urgency, in other low carbon energy generation."

An amendment to the motion was also submitted that stated:

"Copeland Borough Council wish to support the concerns raised in the motion passed by the County Council on Thursday 20 November 2008, and resolves to write to the Secretary of State for Energy and Climate Change, the local MP and the county council as follows:

The Copeland Borough Council calls on the Secretary of State for Energy and Climate Change to give a commitment to seek to ensure that Government will reduce its over-reliance on onshore wind, reduce current wind-related targets and invest, as a matter of urgency, in other low carbon energy generation."

The Council agreed that that the Notice of Motion under Standing Order 8 submitted by Councillor N Clarkson be referred without discussion to the Overview and Scrutiny Committee for Economic Development and Enterprise.

ENERGY CONSUMPTION

The UK currently has around 76GW (gigawatts) of electricity generation capacity to meet annual consumption of about 350TWh (terawatt hours) and winter peak

9.61 Government policy, as re-stated in the Energy White Paper 2007 [123] and Energy Bill 2007-8, is quite clear that diversity in the provision of energy is fundamental and that it is essential to maintain electricity supply system security. Therefore, whilst renewable energy and microgeneration have an important role to play, there will be a continued need for other electricity generation including potentially nuclear, clean coal and gas generation technologies.

Table 9.6 Indicative Regional Renewable Energy Generation Targets

Renewable Energy Type / Scale	Existing Generating Capacity in 2005		Indicative Target for Total Generating Capacity in 2010 (including existing schemes) [Target = 3.59 TWh/ yr (3,590 GWh/yr)]			Indicative Target for Total Generating Capacity in 2015 (including existing schemes) [Target = 5.66 TWh /yr (5,660 GWh/yr)]			Indicative Target for Total Generating Capacity in 2020 (including existing schemes) [Target = 7.93 TWh/yr (7,930 GWh/yr)]		
	No of schemes	Capacity (MW)	No of schemes	Capacity (MW)	Energy Output (GWh/yr)	No of schemes	Capacity (MW)	Energy Output (GWh/yr)	No of schemes	Capacity (MW)	Energy Output (GWh/yr)
Offshore wind farms	0	0	3	297	937	4	747	2,356	5	1347	4,248
On-shore wind farms	16	68.9	35 – 51	600	1,183	44 – 62	720	1,561	44 – 62	720	1,561
On-shore wind clusters											
Single large wind turbines			30	48	88.7	50	75	162.6	50	75	162.6
Small stand-alone wind turbines	Small	Small	50	1.5	3.0	75	2.25	4.9	75	2.25	4.9
Bldg.-mounted micro-wind turbines	0	0	1,000	1	1.7	10,000	10	16.6	20,000	20	33.3
Biomass-fuelled CHP / electricity schemes	2	11.1	7	31.1	150.5	12	56.1	271.5	15	106.1	513.5
Biomass co-firing	2	103	2	103	498.5	0	0	0	0	0	0
Anaerobic digestion of farm biogas	0	0	5	10	48.4	10	20	96.8	15	30	145.2
Hydro power	9	2.7	12	3.5	7.1	12	3.5	7.1	12	3.5	7.1
Solar photovoltaics [124]	V small	V small	1,000	2	1.7	25,000	50	52	50,000	100	124.8
Tidal energy	0	0	0	0	0	2	30	67	2	30	67
Wave energy	0	0	0	0	0	0	0	0	1	30	39.4
Energy from waste											
Landfill gas	52	113.4	52	113.4	548.8	19	79.1	382.8	0	0	0
Sewage gas	16	13.4	16	13.4	64.9	16	13.4	64.9	16	13.4	64.9
Thermal treatment of municipal / industrial waste	1	10.5	1	10.5	50.8	3	125.5	607.4	6	215.5	1043
TOTAL	97	312.5	215 – 229 plus PV plus Micro Wind	1,234.4	3,584.1	247 – 265 plus PV plus Micro Wind	1932	5,650.6	241 – 259 plus PV plus Micro Wind	2,692.8 plus Waste	8,014.7 plus Waste

123 Meeting the Energy Challenge, A White Paper on Energy, May 2007, CM7124.

124 This category is assumed to consist of a variety of different scales of domestic, commercial and "motorway" scheme with an average size of 2kW

Table 9.7a Indicative Sub-Regional Breakdown of Target for Total Generating Capacity in 2010 (including existing schemes)

Indicative Renewable Energy Generation Type/Size	Region-Wide Targets	Cheshire	Cumbria	Greater Manchester	Lancashire	Merseyside	Warrington & Halton	TOTAL
Offshore wind farms	3 (297)	-	-	-	-	-	-	3 (297)
On-shore wind farms On-shore wind clusters	-	5-7 (82.5)	13-18 (210)	5-7 (90)	11-16 (195)	2 (15)	1 (7.5)	37-51 (600)
Single large wind turbines	-	3 (4.5)	4 (9)	8 (12)	7 (10.5)	6 (9)	2 (3)	30 (48)
Small stand-alone wind turbines	-	8 (0.24)	10 (0.3)	12 (0.36)	10 (0.3)	8 (0.24)	2 (0.06)	50 (1.5)
Bldg.-mounted micro-wind turbines	-	95 (0.095)	75 (0.075)	370 (0.37)	205 (0.205)	190 (0.19)	65 (0.065)	1,000 (1)
Biomass-fuelled CHP / electricity schemes	-	1 (4)	2 (8)	1 (4)	1 (9)	1 (4)	1 (2.1)	7 (31.1)
Biomass co-firing	2 (103)	-	-	-	-	-	-	2 (103)
Anaerobic digestion of farm biogas	-	1 (2)	1 (2)	1 (2)	1 (2)	1 (2)	0	5 (10)
Hydro power	-	0	8 (2.4)	2 (1)	2 (0.1)	0	0	12 (3.5)
Solar photovoltaics [126]	-	95 (0.19)	75 (0.15)	370 (0.74)	205 (0.41)	190 (0.38)	65 (0.13)	1,000 (2)
Tidal energy	0	-	-	-	-	-	-	0
Wave energy	0	-	-	-	-	-	-	0
Energy from waste								
Landfill gas	-	7 (16.2)	6 (5.4)	13 (23.7)	14 (20.2)	7 (13.5)	5 (34.4)	52 (113.4)
Sewage gas	-	3 (0.7)	0	5 (8.5)	4 (1.2)	2 (2.0)	2 (1.0)	16 (13.4)
Thermal treatment of municipal / industrial waste	-	0	0	1 (10.5)	0	0	0	1 (10.5)
Total [127]	5 (400)	28-30 (110.4)	44-49 (237.3)	48-50 (153.2)	50-55 (239)	27 (46.3)	13 (48.2)	215-229 (1,231.4) [1234.4?]

126 This category is assumed to consist of a variety of different scales of domestic, commercial and “motorway” scheme.
127 All totals are exclusive of micro wind and photovoltaics installations

9.2 RENEWABLE ENERGY POLICIES

9.2.1 The Council recognises the benefits that both standalone and integrated renewable energy schemes can bring from a local to global scale. In land-use policy terms the important thing is to seek a balance between encouraging the development of renewable energy resources, taking into consideration the wider environmental, economic and social benefits of proposals, and appropriate safeguards against any adverse impact, in line with the provisions of PPS 22 on Renewable Energy, Policy ER15 of RSS and Policy R44 of the JSP. The Council will therefore support development for renewable energy generation so long as the overall criteria of Policy EGY 1 are met along with any of the additional safeguards in Policies EGY 2 – 6 which relate to specific types of energy proposal. The following paragraphs 9.2.2 – 9.2.7 set out how the criteria in Policy EGY 1 are to be applied.

9.2.2 The landscape and visual effects of renewable energy proposals will vary according to the type of development, its location and the landscape or townscape setting. Adverse impacts can be minimized by attention to siting, design, scale, colour schemes and landscaping and the Council will expect developers to take such matters into account (including the effects of any associated infrastructure such as network connections, sub stations, security fencing and access tracks and foundations) at an early stage in project development. They should ensure that their proposals do not adversely affect the special qualities of designated landscapes, particularly the St Bees Head Heritage Coast or those of the built heritage – in terms of Scheduled Ancient Monuments, Conservation Areas and Listed Buildings. In addition, sensitive handling will be required in the siting, design and scale of development in Landscapes of County Importance. The Council will take into account the likely cumulative effects of existing and proposed renewable energy schemes including linked apparatus and distribution lines and other utility infrastructure in its assessment of all proposals.

9.2.3 Effects on biodiversity are also important. Where development for renewable energy could have an adverse effect on a site of international importance such as a Special Protection Area, a Special Area for Conservation or a RAMSAR site (see 6.1.4 – 6.1.11 and Policy ENV 1) the Council will only consider granting planning permission a) if an assessment of the site has shown that its integrity would not be adversely affected or b) where adverse effect could be expected and with no alternative solution apparent, that there are imperative reasons of overriding public interest identified by the developer, including those of a social or economic nature. In cases of national designations like SSSIs, proposals will need to demonstrate that they would not compromise the objectives of the designation or that any adverse effects are clearly outweighed by the environmental, social or economic benefits. Elsewhere the Council will expect developers to explore all potential effects on wildlife habitat or species and make provision for mitigation, compensatory or enhancement measures.

9.2.4 Effects on general amenities will be taken into account. As noted in PPS 22, renewable technologies may generate small increases in noise levels and the Council will expect the location and design of renewable energy developments to minimize increases in ambient noise levels. Objectionable odours can be significant issue in handling some proposals e.g. for anaerobic digestion. The Council will not allow such plants to be located in close proximity to existing residential areas or those with planning permission or allocated for development in this Plan. Any other potential nuisance e.g. emissions and pollutants must be identified by the developer and appropriate mitigation measures designed into the scheme to minimize their effects on neighbouring uses. Waste arisings can also be a source of potential nuisance and care will be required to in the first instance minimize the amounts of material involved and then to ensure that the most efficient, least harmful means of disposal is used, including attention issues involved in transportation from the site (e.g. type of vehicle and need for containment). Developers will also need to demonstrate that neither the operations or waste arisings will have an adverse effect on the hydrology of the site and surrounding area.

9.2.5 Traffic impacts must be borne in mind, particularly the match between the standard and condition of highway(s) serving the site and the size of vehicles and frequency of trips generated by the particular type of development. The site access, traffic management and parking arrangements must be designed in accordance with Policy TSP 6 requirements.

9.2.6 Care must be taken in or adjoining areas designated for community recreation purposes (by virtue of Policy SVC 13) and routes serving them. Developers must ensure that no safety or security risks are created by the form, siting or type of development proposed.

9.2.7 Most large scale renewable energy proposals are likely to require a full Environmental Impact Assessment which will assist all parties in meeting the Policy EGY 1 criteria or in establishing the need to consider alternative sites (Policy DEV 8 will also apply). In all cases, however, the Council will expect developers to actively consult local communities at an early stage in the development process and will expect significant benefits to be delivered to the community where a scheme is to be sited, where possible. The Council will also expect that such issues as effects from electro-magnetic interference, effects on radar and aviation and separation distances from powerlines, roads and railways will have been addressed before it considers applications for planning permission. Additional guidance is being compiled by the County Council in partnership with the Cumbrian District Authorities. This will be incorporated in Supplementary Planning Documents to be published shortly on Wind Energy Development and Landscape Character and both will assist in the handling of new development proposals."

POLICY EGY 1: Renewable Energy

Proposals for any form of renewable energy development must satisfy the following criteria:

1. **That there would be no significant adverse visual effects**

2. **That there would be no significant adverse effects on landscape or townscape character and distinctiveness**

3. **That there would be no adverse impact on biodiversity**

4. **That proposals would not cause unacceptable harm to features of local, national and international importance for nature or heritage conservation**

5. **That measures are taken to mitigate any noise, smell, dust, fumes or other nuisance likely to affect nearby residents or other adjoining land users**

6. **That adequate provision can be made for access, parking and any potentially adverse impacts on the highway network**

7. **That any waste arising as a result of the development would be minimized and dealt with using a suitable means of disposal**

8. **There would be no adverse unacceptable conflict with any existing recreational facilities and their access routes**

9. **That they would not give rise to any unacceptable cumulative effects when considered against any previous extant planning approvals for renewable energy development or other existing/approved utility infrastructure in the vicinity.**

Developers are expected to actively consult with local communities in developing their proposals and to deliver significant benefits to the community where the scheme is to be sited wherever possible.

Wind Energy

9.2.8 The best wind energy sites are open to constant high speed winds usually on the coast or on exposed hillsides and usually, therefore, in wild and unspoilt landscapes open to views from a wide area. These are sensitive locations where the application of Policy EGY 1 will be implemented with care and the proposed new SPDs on wind energy and landscape character will be especially useful in this regard. The St Bees Head Heritage Coast is particularly sensitive area and planning permission for wind energy development within or in close proximity to the Heritage Coast will only be given where it can be demonstrated that the objectives of its designation

will not be compromised, and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits. Elsewhere in Landscapes of County Importance, schemes will need to demonstrate sensitivity to the distinctive character of the area. The impact upon other sensitive sites such as SSSIs, sites of wildlife interest, RIGS, Scheduled Ancient Monuments and sites of local archaeological or historic importance must also be borne in mind along with affects on wildlife and the potential impact on residential amenity. The Council will have regard to the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 and where relevant proposals will be subject to Policy DEV 8: Major Development. The Council will also take into account the cumulative effects of wind turbine developments in any locality so as to avoid significant adverse affects. As required by JSP Policy 44 (4) measures will also be required to secure the removal of structures and related infrastructure from the development site once their operation ceases with appropriate remediation works to the site.

9.2.9 The Council also intends to adopt SPD to supply further guidance on achieving positive onshore wind energy development schemes as part of the Local Development Framework.

POLICY EGY 2: Wind Energy

Proposals for wind energy developments will be considered against the criteria of Policy EGY 1 with the additional requirement that:

There would be a scheme for the removal of turbines and associated structures and the restoration of the site to agriculture when the turbines become redundant.

9 Environment, Minerals, Waste and Energy

Policy EM 17

Renewable Energy

In line with the North West Sustainable Energy Strategy, by 2010 at least 10% (rising to at least 15% by 2015 and at least 20% by 2020) of the electricity which is supplied within the Region should be provided from renewable energy sources. To achieve this new renewable energy capacity should be developed which will contribute towards the delivery of the indicative capacity targets set out in Tables 9.6 and 9.7a-c. In accordance with PPS22, meeting these targets is not a reason to refuse otherwise acceptable development proposals.

Local authorities should work with stakeholders in the preparation of sub regional studies of renewable energy resources so as to gain a thorough understanding of the supplies available and network improvements, and how they can best be used to meet national, regional and local targets. These studies should form the basis for:

- informing a future review of RSS to identify broad locations where development of particular types of renewable energy may be considered appropriate [119]; and
- establishing local strategies for dealing with renewable resources, setting targets for their use which can replace existing sub regional targets for the relevant authorities.

Plans and strategies should seek to promote and encourage, rather than restrict, the use of renewable energy resources. Local planning authorities should give significant weight to the wider environmental, community and economic benefits of proposals for renewable energy schemes to:

- contribute towards the capacities set out in tables 9.6 and 9.7 a-c; and
- mitigate the causes of climate change and minimise the need to consume finite natural resources.

Opportunities should be sought to identify proposals and schemes for renewable energy. The following criteria should be taken into account but should not be used to rule out or place constraints on the development of all, or specific types of, renewable energy technologies:

- anticipated effects on local amenity resulting from development, construction and operation of schemes (e.g. air quality, atmospheric emissions, noise, odour, water pollution and disposal of waste). Measures to mitigate these impacts should be employed where possible and necessary to make them acceptable;
- acceptability of the location/scale of the proposal and its visual impact in relation to the character and sensitivity of the surrounding landscape, including cumulative impact. Stringent requirements for minimising impact on landscape and townscape would not be appropriate if these effectively preclude the supply of certain types of renewable energy, other than in the most exceptional circumstances such as within nationally recognised designations as set out in PPS22 paragraph 11;
- effect on the region's World Heritage Sites and other national and internationally designated sites or areas, and their settings but avoiding the creation of buffer zones

119 Requirement of Paragraph 6, Planning Policy Statement (PPS22) "Renewable Energy", ODPM 2004.

and noting that small scale developments may be permitted in such areas provided there is no significant environmental detriment;

- effect of development on nature conservation features, biodiversity and geodiversity, including sites, habitats and species, and which avoid significant adverse effects on sites of international nature conservation importance by assessment under the Habitats Regulations;
- maintenance of the openness of the Region's Green Belt;
- potential benefits of development to the local economy and the local community;
- accessibility (where necessary) by the local transport network;
- effect on agriculture and other land based industries;
- ability to make connections to the electricity distribution network which takes account of visual impact (as qualified above);
- integration of the proposal with existing or new development where appropriate;
- proximity to the renewable fuel source where relevant – e.g. wood-fuel biomass processing plants within or in close proximity to the region's major woodlands and forests;
- encourage the integration of combined heat and power (CHP), including micro CHP into development.

Developers must engage with local communities at an early stage of the development process prior to submission of any proposals and schemes for approval under the appropriate legislation.

9.55 In the short to medium term, the majority of the power generated in the North West will continue to come from the large-scale nuclear, coal and gas-fired power stations that supplied around 80% of the region's electricity in 2001 [120]. However, as fossil fuel resources are in serious decline and nuclear stations are scheduled to close, the UK is likely to become a major importer of energy during the next two decades. Much of the Region's existing capacity for generating power is from long term unsustainable non renewable sources, although there may still be a role for cleaner coal production. Renewable energy technologies must now be developed to support an increasing proportion of the Region's capacity for generating electricity. Tables 9.6 and 9.7 a-c provide indicative regional and sub regional targets. These are flexible and will change. However they provide an important indication of the way in which regional and sub regional targets might be met and new renewable energy capacity should be developed with the aim of meeting or exceeding these targets. It is proposed that the targets should be subject to bi-annual review, allowing them to be revised periodically through an active process of monitoring of renewable energy deployment against proposed targets and regional energy consumption. The replacement of non-renewable capacity by improved energy efficiency and Combined Heat & Power (CHP) will bring new economic opportunities to the region, as part of a strategic and sustainable approach to energy.

9.56 The Energy and Greenhouse Gas Emissions Study published by NWRA in 2007 [121] examined the potential for installation of renewable heat technologies, and proposed regional targets for their uptake. Work to agree such targets for renewable heat will be considered in a future review of the RSS.

120 Energy in England's Northwest - Achieving Sustainable Growth" Northwest Regional Development Agency, July 2003.
121 www.nwra.gov.uk

9.57 Each renewable technology has its own locational characteristics and requirements and different areas will be better suited to different technologies. The international importance of much of the coastline and all of the major estuaries of the Region for nature conservation is likely to inform choice of location for marine schemes.

9.58 In line with PPS22, developers must consult and engage with local communities at an early stage of the development process prior to submission of any proposals and schemes for approval under the appropriate legislation.

Policy EM 18

Decentralised Energy Supply

Plans and strategies should encourage the use of decentralised and renewable or low-carbon energy in new development in order to contribute to the achievement of the targets set out in Table 9.6 and 9.7a-c. In particular, local authorities should, in their Development Plan Documents, set out:

- targets for the energy to be used in new development to come from decentralised and renewable or low-carbon energy sources, based on appropriate evidence and viability assessments; and
- the type and size of development to which the target will be applied.

In advance of local targets being set, new non residential developments above a threshold of 1,000m² and all residential developments comprising 10 or more units should secure at least 10% of their predicted energy requirements from decentralised and renewable or low-carbon sources, unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable.

9.59 PPS1 supplement on Climate Change expects local planning authorities to provide a framework that promotes and encourages renewable and low carbon energy development. Local planning authorities should have an evidence-based understanding of the local feasibility and potential for renewable and low-carbon technologies, including microgeneration, to supply new development in their area. Targets for the percentage of energy to be use in new development to come from decentralised and renewable or low-carbon energy sources should be set out and tested in Development Plan Documents to ensure they are evidence-based, viable and consistent with ensuring housing and affordable housing supply is not inhibited.

9.60 Microgeneration has the potential to play a significant role in moving towards the Government's objective of sustainable, reliable and affordable energy for all, delivered through competitive markets. The Microgeneration Strategy, published in 2006, aims to create conditions in which microgeneration is a realistic alternative, or supplementary energy generation source, for individual householders, the wider community and small businesses [122].

122 Our Energy Challenge: Microgeneration Strategy: Power from the People, http://www.berr.gov.uk/energy

The Yes 2 Wind website is a site produced by Friends of the Earth, Greenpeace and WWF, with the aim of providing information and resources for the public to support wind farm proposals locally.

It talks of 8 myths about wind power and it gives the following answers:

Myth 1. Wind turbines spoil the landscape
Fact: This is a highly subjective issue. Being visible is not necessarily the same as being intrusive. While some people express concern about the effect wind turbines have on the beauty of our landscape, others see them as elegant and beautiful, or symbols of a better, less polluted future.
The landscape we inhabit is largely human-made and it evolves over time. In comparison to other energy developments like nuclear, coal and gas power stations, or open cast mining, wind farms have relatively little visual impact. Nevertheless sites within Areas of Outstanding Natural Beauty (AONBs) or National Parks are unlikely to be appropriate for large wind farms. The increased utilisation of renewable energy and greater use of wind power will mean that we will have more of these structures visible in our townscape and landscape in the future. But all the organisations supporting this web site believe that wind energy is one of the most environmentally benign ways of producing the electricity we need to power our daily lives. If we don't switch to cleaner forms of energy, climate change will severely and irrevocably alter much of our landscape as well as the animal and plant life it contains.

Myth 2. Wind turbines kill lots of birds
Fact: Monitoring of existing wind farms suggests that with sensitive siting there is no adverse effect on bird populations. Applications for consent for wind farms submitted to the Department for Business, Enterprise and Regulatory Reform (BERR) and local councils must be accompanied by an Environmental Impact Assessment (EIA) that includes details of the likely impact of the project in question on the environment and wildlife, among other things. In considering an application, the Department consults with a range of stakeholders, including the statutory advisers on nature conservation, as well as others with an interest in the project. This ensures that decisions on whether to grant consent for a wind farm are considered in the light of the best available information about its likely impacts.

According to the Royal Society for the Protection of Birds (RSPB), the available evidence suggests that appropriately positioned wind farms do not pose a significant hazard for birds. The RSPB supports the sustainable development of renewable energy such as wind power because it helps mitigate climate change, which they believe "poses the most significant long-term threat to the environment...The available evidence suggests that appropriately positioned wind farms do not pose a significant hazard for birds." The RSPB's conclusion is supported by a report last year for the Swedish State Energy Authority, which found that only 14 of the total 1.5 million migrating seabirds that each year passes two wind farms at Kalmarsund in south east Sweden are at risk of being killed.

Developers should contact specialists such as the RSPB and conduct a thorough analysis of the risk to birdlife as part of the environmental impact assessment of their wind farm proposal.

With rigorous EIAs and thorough monitoring wind power can be deployed without significant detriment to birds (and other wildlife).
For example, the 9 harbour-wall turbines at Blyth are in a busy bird area. Of the bird flights through the wind farm, only 1 in 10,000 have resulted in a collision. This translates to 1-2 collisions per year per turbine. To put the issue into perspective, every year more than 10 million birds are killed by cars in the UK.
Projects like the Black Law windfarm demonstrate that, if properly sited, such developments not only produce zero emissions, but can also have a positive impact on the environment. The RSPB make clear that the Black Law windfarm, on the site of an abandoned opencast coalmine, represents an exciting opportunity to deliver real biodiversity benefits through habitat management. In any case, the likely impact on wildlife must be kept in context. A paper in Nature, by a large group of scientists including one from the RSPB, indicated that in sample regions covering about 20 per cent of the Earth's land surface - 15 per cent to 37 per cent of species (not just birds) will be committed to extinction as a result of mid-range climate warming scenarios by 2050.

Myth 3. Tourists hate wind farms
Fact: There is no evidence to suggest that wind farms deter tourists, indeed many wind farms are themselves tourist attractions.
For example, in Swaffham, Norfolk, over 50,000 tourists have climbed the wind turbine tower to see the spectacular views from the top of its the 65m high viewing platform.

In August 2003 20 Greenpeace volunteers interviewed over 650 tourists about the proposed Scarweather Sands wind farm in Swansea Bay. The response was emphatic - 96 percent said that they would be 'more likely' or 'just as likely' to return for a beach holiday after the wind fram was built.

In Scotland, a MORI poll was undertaken in 2002 regarding wind farms in the Argyll area. 80 percent of tourists said they would be interested in visiting a wind farm if it were open to the public with a visitor centre., while 91 percent of repondents said they would not be put off from visiting an area because of the presence of wind farms.

In Denmark, many tour agencies run boat trips to take visitors to see the offshore wind farm at Middelgrunden, near Copenhagen.

Myth 4. Wind turbines are noisy
Fact: Modern turbines are actually very quiet! Thanks to advances in wind turbine technology, well designed, well sited turbines can be quiet enough to cause no disturbance to people living just a few hundred metres away.

At these distances, any noise they do make is usually drowned out by the natural noise of the wind itself in the trees and vegetation. To protect nearby residents from any undue disturbance, proposals to install wind turbines are required to meet strict noise standards.

Having read exaggerated claims in the press, people visiting wind farms are often surprised at how quiet they actually are. The Scottish Executive public opinion survey is one of several demonstrating that concerns about noise are often unfounded.

Before construction of the Scottish wind farms studied, 12% of people living near the sites thought that the turbines would cause a noise nuisance, but after construction, when people had experience of the wind farm operating, only 1% thought they were noisy.

Myth 5. Wind power isn't reliable
Fact: Yes it is. There is actually a lot of confusion about the reliability of different sources of electricity. No power stations are able to operate all the time without stopping. Many so-called reliable sources such as nuclear plants suffer from unexpected 'outages' when reactors must be shut down, often at short notice, for essential safety maintenance.

Unreliability of this kind is far harder to deal with than the intermittency of wind power, as the amounts of electricity involved are generally much higher. By comparison the variation in output from wind farms distributed around the country is scarcely noticeable.

A great advantage of wind power is that the available wind resource is much greater during the colder months of the year, when energy demand is at its highest. And the wind will never stop blowing everywhere in the UK at once! At present the National Grid can be operated effectively and economically with up to 20 per cent of the electricity capacity being provided by variable energy sources such as wind. At the levels being considered over the next few decades for wind energy production, such variability can easily be accommodated by the grid system.

It is true that we could never rely on wind turbines alone to provide for all our electricity needs. But there are storage technologies we can use, such as pumped storage hydro power schemes (where water is pumped up-hill, thus acting like large batteries for the electricity system).

In future, hydrogen offers a potential way of storing electricity from wind power. Excess wind power can be used to produce hydrogen through electrolysis, and then hydrogen can be turned back into electricity using a fuel cell, as and when it is needed.

The UK is the windiest country in Europe, so we have a massive resource waiting to be used. And in the future, all our electricity could come from a mix of complementary renewable sources - balancing wind power with wave, tidal, solar and biomass.

Myth 6. Wind turbines are taking over the countryside
Fact: There are now some 1,769 turbines in 137 locations across the UK.1 Generating 10 per cent of our electricity from renewables by 2010 could mean an increase by around another one and half times the current number.2 Less than 1/20,000th of the UK (800–1,200 hectares) would be used for foundations and access roads 3, while land between turbines can still be used for farming or natural habitat.

A typical wind farm of about 20 turbines extends over an area of about one to two square kilometres. But only a small fraction of this land, about 1-2 per cent, is actually occupied by the turbines and access tracks. The bulk of the land is unaffected and can continue to be used for agriculture, grazing, etc. To produce 10 per cent of the UK’s current electricity from the wind would use about 1 per cent of the total UK land area, with the turbines occupying

only about 0.02 per cent of this. When the wind farm has finished generating, the turbines can be dismantled, and the land returned completely to its previous use.

Myth 7. Wind produces little power
Fact: A single 1.8-megawatt turbine can produce enough power for 1,000 homes. Wind power already provides enough electricity to supply 1.2 million British homes every year. Offshore wind farms like the London Array (1,000MW) are planned on a scale that will generate enough power to supply the electricity needs for 750,000 homes (equivalent to a quarter of Greater London's households or every home in Kent and East Sussex). And in 30 years of monitoring there have been no days when the wind has not blown throughout the UK, meaning that our wind farms generate power for approximately 85 per cent of the time.

According to the DTI, renewable energy technologies could cost effectively provide one third of UK electricity requirements by 2025. The UK is the windiest country in Europe, but in 2001 only 0.3 per cent of our electricity supply came from wind power – less than 500 megawatts (MW). According to the Low Carbon Buildings Programme, the UK has 40 per cent of Europe's total wind energy. But we are not taking full advantage of this potential, unlike Germany for example, which already had more than ten times our current wind farm capacity - despite the fact that our winda are stronger and more constant than theirs.
Germany added 2,650MW of wind power capacity during 2001, giving a total of 8,750MW (equivalent to 3.5 per cent of their electricity consumption). Germany also plans a massive increase over the next 25 years, with a target of one quarter of present electricity needs coming from wind power. Spain is another rapidly growing wind energy market (second fastest in 2001), with a total of over 3,340 MW of installed capacity and has built over five times more than we have in just a few years. In Denmark 18 per cent of electricity already comes from wind and this is set to increase.

Myth 8. Wind power is expensive and heavily subsidised
Fact: The cost of generating electricity from wind has fallen dramatically over the past few years. Between 1990 and 2002, world wind energy capacity doubled every three years and with every doubling prices fell by 15%7. Power generation costs are determined by the installed costs of the plant (including interest during construction), operation and maintenance costs, fuel costs, energy productivity, cost of capital and the capital repayment period. In the case of wind energy, the fuel – the wind itself – is free.

Wind energy is competitive with new coal and new nuclear capacity, even before any environmental costs of fossil fuel and nuclear generation8 are taken into account. The average cost of generating electricity from onshore wind is now around 3-4p per kilowatt hour, cheaper than new nuclear (4-7p)9. As gas prices increase and wind power costs fall – both of which are very likely – wind becomes even more competitive, so much so that some time after 2010 wind should challenge gas as the lowest cost power source. Furthermore, the wind is a free and widely available fuel source, therefore once the wind farm is in place, there are no fuel or waste related costs.

When the full costs of the environmental damage caused by fossil fuels and nuclear power are taken into account, wind power is an even better buy. For example, it has been estimated that if the cost of environmental damage were included, the price of electricity from coal would be three times higher than electricity from the wind. The full costs of nuclear power, including

dealing with highly-radioactive waste and decommissioning of old plants, are still not included in the price of electricity after decades of operating stations in the UK, and the nuclear industry is still dependent on massive Government subsidy.

There is no Government subsidy for building wind farms. As much as £2 billion of private investment has been made in the UK wind industry. The support mechanism – Renewable Obligations Certificates (ROC) - is only available for electricity that wind farms have already produced and supplied to utilities. The cost to the consumer of supporting the initial development of wind power in the UK has been very small. The Non-Fossil Fuel Levy, set up at the time of electricity privatisation, supported all non-fossil fuel sources of electricity: nuclear power and renewable energy. However, almost 90 per cent of that subsidy went to the nuclear industry. The Government has replaced this arrangement with the Renewable Energy Obligation, which encourages electricity suppliers to provide up to 10 per cent of their electricity from renewable sources by 2010.

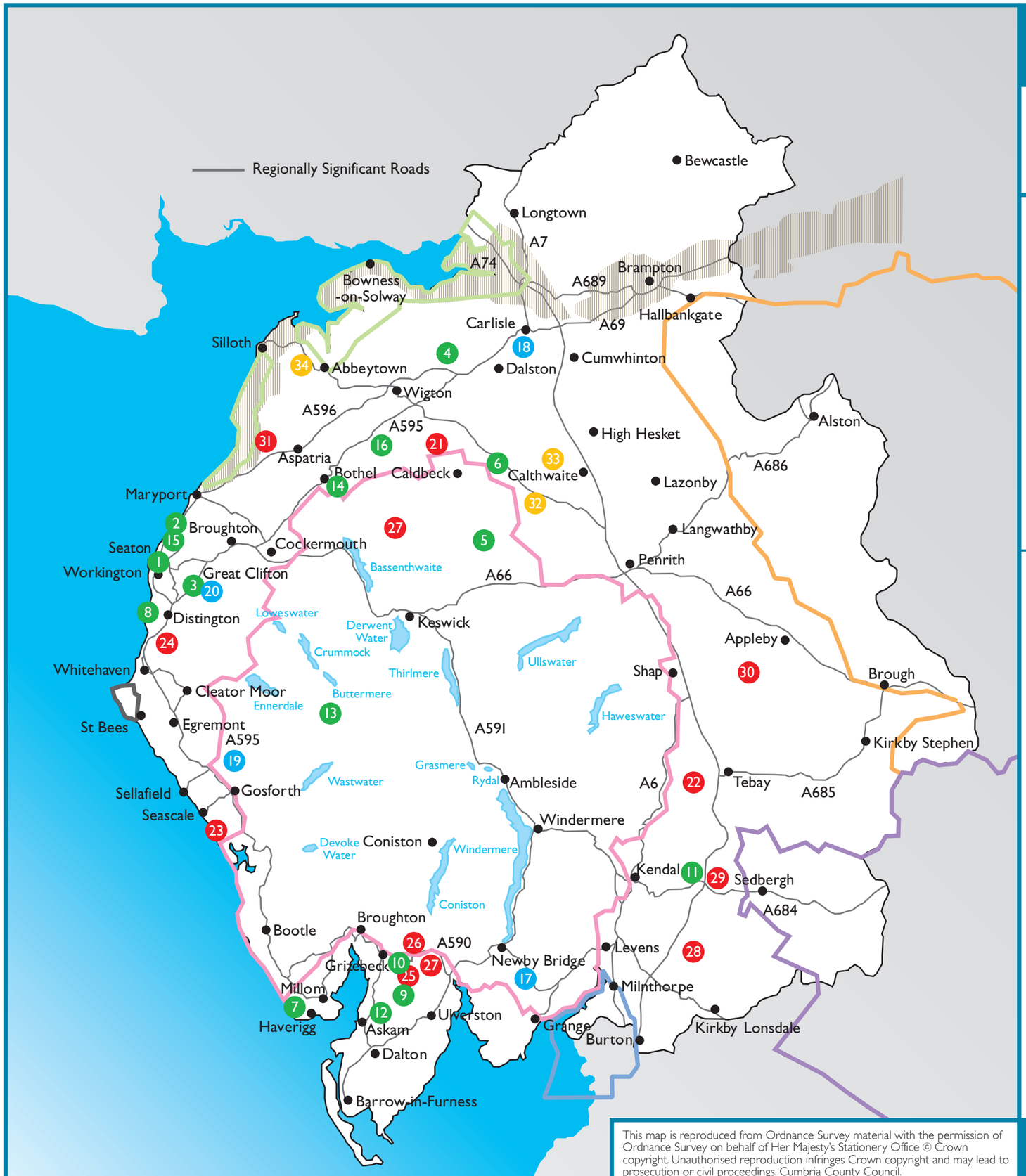
Cumbria Wind Energy
Supplementary Planning Document

Cumbria County Council

Wind Energy Development Sites

Map 2

This map should be read in conjunction with the Landscape Capacity Assessment Fundings in Part 2. When considering the potential acceptibility of a scheme all other planning issues set out in the SPD must be considered. This map is indicative only.



Key

- Lake District National Park
- Yorkshire Dales National Park
- Solway Coast AONB
- North Pennines AONB
- Arnside and Silverdale AONB
- Frontiers of the Roman Empire: Hadrian's Wall - visual envelope
- St Bees Heritage Coastline
- Cumbria County Council Boundary

- Operational
- Approved
- Appeal
- Refused
- Application

Wind Energy Development - Operational

1 Oldside
2 Siddick
3 Winscales
4 Great Orton
5 Swineside*
6 Newlands Mill
7 Haverigg
8 Lowca
9 Harlock Hill
10 Kirkby Moor
11 Lambrigg Fell
12 Far Old Park
13 Black Sail Hut*
14 Wharrels Hill
15 Voridian
16 High Pow

Wind Energy Development - Approved

17 Barnscar Fold*
18 Pirelli
19 Laverock Howe*
20 Winscales Moor

Wind Energy Development - Refused

21 Hilltop
22 Whinash Wind Farm
23 Drigg
24 Fairfield Farm (2)
25 Gunson Height
26 Lowick Beacon
27 Lowick Common
28 Barkin House
29 Firbank Fell
30 Hoff Moor
31 Brownrigg Hall

Wind Energy Development - Application

32 Lamonby
33 Grise
34 Hellrigg

* schemes within the Lake District national Park are small scale providing power to individual buildings only

10 20 30 40 km

N

July 2007

Table 9.7b Indicative Sub-Regional Breakdown of Target for Total Generating Capacity in 2015 (including existing schemes)

Indicative Renewable Energy Generation Type/Size	Region-Wide Targets	Cheshire	Cumbria	Greater Manchester	Lancashire	Merseyside	Warrington & Halton	TOTAL
Offshore wind farms	4 (747)	-	-	-	-	-	-	4 (747)
On-shore wind farms	-	7-10 (120)	15-21 (247.5)	6-8 (97.5)	13-20 (232.5)	2 (15)	1 (7.5)	44-62 (720)
On-shore wind clusters								
Single large wind turbines	-	6 (9)	6 (9)	14 (21)	11 (16.5)	10 (15)	3 (4.5)	50 (75)
Small stand-alone wind turbines	-	12 (0.36)	15 (0.45)	18 (0.54)	15 (0.45)	12 (0.36)	3 (0.09)	75 (2.3)
Bldg.-mounted micro-wind turbines	-	950 (0.95)	750 (0.75)	3,700 (3.7)	2,050 (2.05)	1,900 (1.9)	650 (0.65)	10,000 (10)
Biomass-fuelled CHP / electricity schemes	-	2 (9)	3 (13)	2 (9)	2 (14)	2 (9)	1 (2.1)	12 (56.1)
Biomass co-firing	0	-	-	-	-	-	-	0
Anaerobic digestion of farm biogas	-	2 (4)	2 (4)	2 (4)	3 (6)	1 (2)	0	10 (20)
Hydro power	-	0	8 (2.4)	2 (1)	2 (0.1)	0	0	12 (3.5)
Solar photovoltaics [129]	-	2,375 (4.75)	1,875 (3.75)	9,250 (18.5)	5,125 (10.25)	4,750 (9.5)	1,625 (3.25)	25,000 (50)
Tidal energy	2 (30)	-	-	-	-	-	-	2 (30)
Wave energy	0	-	-	-	-	-	-	0
Energy from waste								
Landfill gas	-	2 (8.7)	3 (3.9)	2 (12)	7 (14.3)	3 (9.7)	2 (30.5)	19 (79.1)
Sewage gas	-	3 (0.7)	0	5 (8.5)	4 (1.2)	2 (2.0)	2 (1.0)	16 (13.4)
Thermal treatment of municipal / industrial waste	-	1 (25)	0	2 (100.5)	0	0	0	3 (125.5)
Total [130]	6 (777)	35-38 (182.5)	52-58 (284.8)	53-55 (276.2)	57-64 (297.4)	32 (64.5)	12 (49.6)	247-265 (1,932)

129 This category is assumed to consist of a variety of different scales of domestic, commercial and “motorway” scheme. With domestic PV now encouraged via the Bldg. Regulations the number of domestic installations increases greatly.

130 All totals are exclusive of micro wind and photovoltaics installations

Table 9.7c Indicative Sub-Regional Breakdown of Target for Total Generating Capacity in 2020(including existing schemes)

Indicative Renewable Energy Generation Type/Size	Region-Wide Targets	Cheshire	Cumbria	Greater Manchester	Lancashire	Merseyside	Warrington & Halton	TOTAL
Offshore wind farms	5 (1,347)	-	-	-	-	-	-	5 (1347)
On-shore wind farms	-	7-10 (120)	15-21 (247.5)	6-8 (97.5)	13-20 (232.5)	2 (15)	1 (7.5)	44-62 (720)
On-shore wind clusters								
Single large wind turbines	-	6 (9)	6 (9)	14 (21)	11 (16.5)	10 (15)	3 (4.5)	50 (75)
Small stand-alone wind turbines	-	12 (0.36)	15 (0.45)	18 (0.54)	15 (0.45)	12 (0.36)	3 (0.09)	75 (2.3)
Bldg.-mounted micro-wind turbines	-	1,900 (1.9)	1,500 (1.5)	7,400 (7.4)	4,100 (4.1)	3,800 (3.8)	1,300 (1.3)	20,000 (20)
Biomass-fuelled CHP / electricity schemes	-	2 (9)	4 (18)	2 (9)	3 (19)	2 (9)	2 (42.1)	15 (106.1)
Biomass co-firing	0	-	-	-	-	-	-	0
Anaerobic digestion of farm biogas	-	2 (4)	3 (6)	3 (6)	5 (10)	2 (4)	0	15 (30)
Hydro power	-	0	8 (2.4)	2 (1)	2 (0.1)	0	0	12 (3.5)
Solar photovoltaics [132]	-	4,700(9.5)	3,750 (7.5)	1,8500 (37)	10,250 (20.5)	9,500 (19)	3,250 (6.5)	50,000 (100)
Tidal energy	2 (30)	-	-	-	-	-	-	2 (30)
Wave energy	1 (30)	-	-	-	-	-	-	1 (30)
Energy from waste								
Landfill gas	-	0	0	0	0	0	0	0
Sewage gas	-	3 (0.7)	0	5 (8.5)	4 (1.2)	2 (2.0)	2 (1.0)	16 (13.4)
Thermal treatment of municipal / industrial waste	-	1 (25)	0	2 (100.5)	1 (40)	1 (40)	1 (10)	6 (215.5)
Total [133]	8 (1,407)	33-36 (179.5)	51-57 (292.4)	52-54 (288.4)	54-61 (344.4)	31 (108.2)	12 (73)	241-259 (2692.8)

132 This category is assumed to consist of a variety of different scales of domestic, commercial and “motorway” scheme. With domestic PV now encouraged via the Bldg. Regulations the number of domestic installations increases greatly.

133 All totals are exclusive of micro wind and photovoltaics installations.

demand of about 63GW. This level of capacity is roughly 20% higher than the expected level of peak demand.

The UK also has a diverse electricity generation mix. In 2006, 36% was generated by gas-fired power stations, 37% from coal, 18% from nuclear, and 4% from renewables. The remainder comes from other sources such as oilfired power stations and electricity imports from the continent.

The Government has set the ambitious target of reducing the UK's carbon emissions by at least 60% by 2050. Under the Climate Change Bill the emission reduction goals for 2020 and 2050 will become statutory, with the introduction of five-year 'carbon budgets' (total emission limits). The Government will be required to produce plans to meet its carbon budgets, and to report to Parliament on how it is doing so.

In spring 2007 the Government helped secure agreement in the EU to an ambitious target to source 20% of the EU's total energy use – a combination of electricity, heat and transport – from renewable sources by 2020. This compares to around 8.5% across the EU in 2005. Member State contributions to this overall target have yet to be agreed, but the European Commission has proposed that the UK should provide renewable sources for 15% of its total energy use by 2020

The Government considers that this is a very challenging target. In 2006 only around 1.5% of our final energy consumption came from renewable sources, and under current policies we expect this to rise to 5% by 2020. To meet the proposed EU target by 2020 we will have to increase the proportion of our energy coming from renewables ten-fold from 2006 levels, three times more than current policies are designed to achieve.

UK RENEWABLE ENERGY STRATEGY

From June to September 2008 the Government undertook consultation on its UK Renewable Energy Strategy that contained a range of possible additional measures to encourage deployment of renewable energy in the UK. These measures are designed to achieve a 15% renewable energy target for the UK by 2020.

The Strategy stated that:" We would need to develop a completely new approach to renewable heat: providing a substantial incentive to jump-start this new market, developing supply chains and encouraging large numbers of households to find renewable ways of heating their homes. We would also need to develop a new sustainable biomass market. The country's current wind generation capacity, on and offshore, would have to increase by a factor of ten.

We expect the key growth area to be wind power, both on and offshore. Analysis on electricity constraints suggests that up to 33 GW of offshore wind might be

achievable by 2030. However, our initial modelling suggests that by 2020 deployment may be closer to 14 GW, compared to less than 1 GW today. This would equate to around 3,000 extra offshore turbines of 5 MW. Others have suggested that higher levels might be achievable – for example, Renewables Advisory Board (RAB) estimated that around 18 GW of offshore wind could be deployed by 2020. BERR is undertaking a Strategic Environment Assessment (SEA) to assess the feasibility (economic, technical and environmental) of proposals for up to a further 25 GW of offshore wind on top of the 8 GW already planned. We want to make full use of the potential for offshore development.

Our initial modelling suggests that we might need approximately 14 GW of onshore wind too, compared to 2GW today – equating to around 4,000 new 3 MW onshore turbines in addition to the approximately 2,000 turbines already installed. Others have estimated a slightly lower level of onshore deployment, for example, RAB estimated that around 13 GW of onshore wind could be deployed by 2020. Subject to planning permission, we would expect that a large proportion of onshore wind development will take place in Scotland. Tidal barrages and lagoons, such as the options being discussed in Severn Estuary, could also make a key contribution if they are able to meet environmental assessment, economic and other criteria."

The Government also states in the strategy that: "there are potential tensions between local concerns and wider national policy and needs. Renewable developers often complain that the balance between them is not always struck correctly; that the planning system takes too long, costs too much and, in some cases, does not consistently reflect national policy. This can block new generation and the extensions to the electricity grid which are necessary for it to become operational, adding delay and cost to investment."

The Government further stated that it was "seeking powers to address some of these concerns through the Planning Bill and the Marine Bill, notably by ensuring that all onshore wind developments above 50 MW and offshore wind developments above 100 MW in England and Wales are considered by a new Infrastructure Planning Commission (IPC) on tight timeframes and on the basis of a new National Policy Statement for renewables."

WIND GENERATION

The British Wind Energy Association is the trade and professional body for the UK wind and marine renewables industries.

It states that the wind industry is experiencing significant growth, three years ago in 2005 it reached 1 gigawatt of installed wind capacity, last month it passed the 3GW mark and within another three years it will achieve 8GW. Within 5 years

wind is anticipated to overtake nuclear energy in terms of installed generating capacity.

As of October 2008 there were just over 20GW worth of wind energy schemes at one stage or another in the development cycle.

Onshore status	Schemes	MW Cap	Offshore Status	Schemes	MW Cap
Operational	186	2,590	Operational	7	566
Under construction	27	772	Under construction	7	467
Approved, not built	131	3,379	Approved, not built	9	3,413
In planning	262	7,142	In planning	5	1,678

REGIONAL SPATIAL STRATEGY
Targets for renewable energy production are set on a regional basis in order to meet the Government's overall targets.

The targets for different types of renewable energy generation across the North West have recently been adopted in the North West Regional Spatial Strategy (The North West Plan, September 2008).

All local authorities contributed to and commented on drafts of the Regional Spatial Strategy. The Regional Spatial Strategy was then subject to a public examination, where objections were considered, before adoption.

The current target which is in line with the North West Sustainable Energy Strategy, is that by 2010 at least 10% (rising to at least 15% by 2015 and at least 20% by 2020) of the electricity which is supplied within the Region should be provided from renewable energy sources. To achieve this new renewable energy capacity should be developed which will contribute towards the delivery of the indicative capacity targets. More detail on the targets is set out in Appendix "A ".

CUMBRIA WIND ENERGY SUPPLEMENTARY PLANNING DOCUMENT
The Cumbria Wind Energy Supplementary Planning Document that was adopted by the Council in September 2007 stated that: "The wind resource in Cumbria is greatest on west facing upland sites and along the coast. It does not take into account that wind energy developments are now being built in areas of lower wind speeds or the technical, environmental or cultural constraints that may affect land. Neither does it provide a basis for individual development decisions.

Many of the windiest parts of Cumbria fall within national landscape designations. The Lake District National Park and Yorkshire Dales National Park, Arnside and Silverdale, North Pennines and Solway Coast Areas of Outstanding Natural Beauty have the highest value landscapes in Cumbria. Policies have been put in

place to protect the landscape value of these areas and their settings, which limits the level of wind energy development that is likely to take place there. “

This planning document also included a map showing the Wind Energy Development Sites in Cumbria as at July 2007. This is at Appendix “B”.

ANTI WIND AND WIND SUPPORTERS

The Guardian unlimited in December 2007 suggested that there were now 151 anti-wind farm action groups in the UK which have been formed as a result of wind farm developments planned for local countryside areas.

The Campaign to Protect Rural England Policy Position Statement on Onshore Wind Turbines which gives a useful explanation of the concerns about wind farms in the countryside is Appendix “C “.

In response to the Anti Wind Groups the Friends of the Earth, Greenpeace and WWF, created a website with the aim of providing information and resources for the public to support wind farm proposals locally.

It seeks to debunk what it calls the eight myths about wind power. Details of this are at Appendix “D “.

THE ENERGY COAST MASTERPLAN

The master plan states that for West Cumbria to be recognized as Britain’s Energy Coast not just in the UK but across the globe it must:

- Have a strong background in nuclear, other energy, environmental remediation and technological development
- Be a location for skills development
- Have government support with public private partnership
- Be at the forefront of cutting edge research in nuclear, energy and engineering fields.

Furthermore, the North West Development Agency Science Strategy identified renewable energy as a major opportunity for the Northwest and there are incentives for renewable energy arising from the Energy Review and White Paper e.g. the Environmental Transformation Fund.

PLANNING POLICIES

In determining planning applications for wind farms the council as the local planning authority has to consider each application on its individual merits on a case by case basis using the relevant adopted planning policies in place.

These policies are:

Regional Spatial Strategy
The North West of England Plan Regional Spatial Strategy to 2021 has a specific policy on Renewable Energy. This is Policy EM17 and is detailed in full at Appendix “E”.

Copeland Local Plan (June 2006)
The Copeland Local Plan has one policy relating to renewable energy in general (EGY1) and then a number of subsequent policies considering different forms of renewable generation in turn, including wind energy (EGY2).

Policy EGY 1 provides a list of criteria that any form of renewable energy development must satisfy in order to minimise adverse impacts of any development. This includes the consideration of any cumulative effects when considered against any previous extant planning approvals for renewable energy development or other existing/approved utility infrastructure in the vicinity.

Policy EGY2 reiterates the criteria in EGY1, together with a requirement that there is a scheme for the removal of turbines and associated structures and the restoration of the site to agriculture when the turbines become redundant.

The Local Plan Policies EGY 1 and EGY 2 can be found in full in Appendix “F”.

Cumbria and Lake District Joint Structure Plan (April 2006)
Policy R44: Renewable energy outside the Lake District National Parks and AONBs is a saved policy in the Cumbria and Lake District Joint Structure Plan and has not been superseded by the Regional Spatial Strategy (September 2008).

Its focus is very similar to policies EGY1 and EGY2 in the Copeland Local Plan.

Cumbria Wind Energy Supplementary Planning Document
The Cumbria Wind Energy Supplementary Planning Document was adopted by the Council in September 2007 as supplementary guidance to policies EGY1 and EGY2 in the Copeland Local Plan. The purpose of the document is to give a clearer indication of the potential capacity of different landscape character types and how cumulative effects of development will be considered, without being site specific.

It was produced and adopted jointly by a number of councils across the county to provide a consistent approach to proposals.

Copeland Local Development Framework
The Council is currently in the very early stages of producing new planning policies for the borough to replace the Local Plan through the Local Development Framework.

The issues around wind energy can be considered and consulted on fully as part of the due process for the Local Development Framework. The current timetable for the Local Development Framework will see policies adopted from June 2011.

Conclusion
The Committee is invited to consider this report and advise full council accordingly. This could be through forming a recommendation supporting or not the notice of motion on the basis of this report or through the establishment of a task and finish group if the committee feels it needs to see more detailed information on this subject.

List of Appendices
Appendix "A" – North West Indicative Targets for Renewable Energy
Appendix "B" – Wind Energy Development Sites in Cumbria as at July 2007
Appendix "C" – The Campaign to Protect Rural England Policy Position Statement on Onshore Wind Turbines
Appendix "D" – Yes 2 Wind website eight myths about wind power
Appendix "E" – The North West of England Plan Regional Spatial Strategy Policy EM17 Renewable Energy
Appendix "F" – Copeland Local Plan Policies EGY 1 and EGY 2

List of Background Documents:
None