

The Impact of Wind Farms on Scottish Tourism

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1. Key Points

- The main source of data on the impact on tourism of wind farms in Scotland is the 2008 Moffat Report¹ which focused on four geographical regions in Scotland².
- Our analysis of recent tourism data on visitor numbers and spend in regions comparable to the four Moffat Report regions presents a mixed picture. However, there is no evidence to suggest that subsequent wind farm development in these areas has had an adverse effect.
- A 2012 UK survey³ of tourists' attitudes to wind farms found that:
 - 80% of UK respondents, and 83% of Scottish respondents said their decision on where to visit or where to stay would not be affected by the presence of a wind farm;
 - 52% of all respondents disagreed that wind farms spoil the look of the UK/Scottish countryside, with a further 29% neither agreeing nor disagreeing.
- Our conclusion is that there is no new evidence to contradict the earlier findings that wind farms have little or no adverse impact on tourism in Scotland.

2. Introduction

The point of reference for the impact of wind farms on tourism is the 2008 Moffat Report 'The Economic Impacts of Wind Farms on Scottish Tourism', commissioned by the Scottish Government⁴. This study concluded that even using a worse-case scenario the impact of current applications would be very small, and would be more than balanced by the economic benefits of wind farm development.

Outdoor recreation and landscapes underpin much tourism in Scotland. General sightseeing and exploring the Scottish countryside were important activities done by UK tourists (91% and 73% respectively), and 58% of visitors said that looking at scenery and landscape was an important motivation for their visit⁵. These activities, which include touring and visiting a variety of rural and urban locations, reflect the types of visitors that Scotland receives. Given this movement between places, it is likely that most visitors will see a wind farm at some point in their visit.

¹ <http://www.scotland.gov.uk/Resource/Doc/214910/0057316.pdf>

² The selection was based on, among other things, the importance of tourism in the areas and the significant number of actual or proposed developments.

³ http://www.visitscotland.org/pdf/Windfarm%20Consumer%20Research%20final_docUpdatedx.pdf

⁴ The 2009 Visitor Attraction Monitor (2010), Moffat Centre for Travel and Tourism Business Development, <http://www.moffatcentre.com/media/moffatcentre/documents/visitorattractionreports/vam2009.pdf>

⁵ Research for Tourism Leadership Group (2012)

<http://www.visitscotland.org/pdf/Trends%20and%20markets%20report%20for%20Scottish%20tourism%20strategy.pdf>

ClimateXChange was asked by the Scottish Government to review evidence published since the Moffat Report and to see what more recent research has to say about the impact of wind farms on tourism in Scotland. This report provides a summary of that evidence.

3. Findings

Tourist Attitudes to Wind Farms

While there are a number of studies looking at public attitudes to wind farms, few of these deal with the specific issue of tourist attitudes towards wind farms⁶. Since 2008 there has been one independent survey and one independent report examining wind farms and tourism. There have also been a number of academic articles.

An independent survey conducted on behalf of VisitScotland in 2011 examined tourists' attitudes to wind farms, and their effect on tourists. The sample population included both UK and Scottish visitors. Participants were asked a number of questions regarding their attitudes to wind farms. The research found that:

- 80% of UK respondents, and 83% of Scottish respondents, said their decision on where to visit or stay **would not** be affected by the presence of a wind farm
- 52% of all respondents **disagreed** that wind farms spoil the look of the UK/Scottish countryside, with a further 29% neither agreeing nor disagreeing
- 40% of UK respondents, and 46% of Scottish respondents, said they would be interested in visiting a wind farm visitor centre
- 43% of all respondents would prefer not to see wind farms in popular tourist areas
- 55% of all respondents **disagreed** that they would avoid an area of the countryside if they knew there was a wind farm there
- Respondents **tended to agree** that 'wind farms are necessary for the future of energy generation' (mean score 7.63)
- Respondents **do not** feel that 'wind farms are an eyesore on the landscape and ruin the tourist experience (mean score 4.63)

In 2012 The Tourism Company⁷ conducted a literature review on the impacts of wind turbines on tourism for Anglesey County Council. This report supports the empirical evidence and found that⁸:

- A significant majority of tourists surveyed are largely positive about the generation of energy through wind turbines and are not opposed to it in principle.
- However, a significant minority continue to believe that wind farms have a negative impact on the landscape (between 18-32% depending on landscape).
- There is some evidence that negative responses to actually observing turbines when travelling may be less than when reacting to hypothetical situations.
- In general, studies find little difference in the reaction to wind turbines across the age ranges.

⁶ Frantal, B., Kunc, J. (2011) Wind Turbines in Tourism Landscapes: Czech Experience, *Annals of Tourism Research*, 38, 2, 499-519.

⁷ http://www.visitscotland.org/research_and_statistics/tourism_topics/wind_farms.aspx, 'The Impact of Wind Turbines on Tourism – A Literature Review' (2012), The Tourism Company, for the Isle of Anglesey County Council.

⁸ Worth noting here are the differences of this study compared with the Moffat Report, particularly with regard to the size and number of developments in an area, and the intention to return.

- There was very little difference in the reactions of 'active' (hill walkers, specific outdoor activities) from 'passive' tourists (sightseers, short walks), although active tourists were slightly more likely to suggest that their reaction depended on the location of the turbines.
- There is slightly more acceptance of turbines amongst hill walkers than general tourists, with overseas visitors also being more positive.
- Families are least likely to be affected by wind farms as they have other preoccupations.
- When compared to other structures identified negatively in the landscape (such as pylons, mobile phone masts and power stations) wind turbines came in 8th place.
- There was considerable variation in the effect on future visits with some studies finding almost no effect (96%) and others showing that 18% would not visit an area with a wind farm.
- Landscapes affect acceptance; people marginally prefer wind farms located in farmland rather than more wild places.
- Reaction to wind farm numbers and distribution is varied with some studies showing preference for a number of smaller developments while others indicate large single developments minimise impact.

We have also reviewed the wider academic literature. This tells us that, for most tourists, wind farms are not a major factor in their decision-making and for those who do notice them, most have either a positive or neutral reaction⁹. Even a worst-case scenario estimates that wind farm development has minimal impact on tourism, reducing revenue growth and employment by less than 0.2% by 2015, and this is more than offset by gains made from developing, installing and maintaining wind farms¹⁰. More visitors seem to associate wind farms with clean energy than landscape damage, suggesting there could be a role in promoting Scotland as an environmentally-friendly country, so long as they are sensitively sited.

A study on Gigha looked at whether extensive wind farm development makes a region less attractive to tourists¹¹. The study confirmed that for most tourists the existence of wind farms was not a factor in their decision-making. Although 5% said that turbines in the landscape might make them stay away, this was balanced by those who found the wind farms an added draw. The Moffat Report¹² is the most widely used reference for assessing the impact of wind farms on tourism in Scotland. The research was conducted in 2007 and sought to identify: the potential number of tourists that may come into contact with wind farms; the reactions of those tourists affected by wind farms; and the economic impact of those reactions (a change in the number of tourists going to an area; a change in prices of tourism services).

Tourism by Region, 2009-2010

There has not been a comparable study since the Moffat Report on the effect of wind farms on tourism. To understand whether wind farms are currently having an effect on tourism in Scotland, we have analysed recent tourism statistics on visits, nights and spend, to look at trends in comparable case study regions to those used in the Moffat study.

The latest visitor research by region covers 2009-2010. Overall regional figures show a complicated picture regarding trends in visitor trips, nights and spend for each region. Table 1 shows figures for visitors by region. The four Moffat Report case study regions are underlined.

⁹ Warren, C.R. & R.V. Birnie, 'Re-powering Scotland: Wind Farms and the 'Energy or Environment?' Debate, *Scottish Geographical Journal*, 125:2, 97-126.

¹⁰ Ibid

¹¹ C.R. Warren, M. McFadyen (2010) 'Does community ownership affect public attitudes to wind energy? *Land Use Policy* 27, (2), 204-213 (<http://www.sciencedirect.com/science/article/pii/S0264837709000039>)

¹² For a synopsis of the Moffat Report, see Annex 3

Table 1. Tourism by Region, 2009-2010¹³

	2009-2010	Trips	Nights	Spend
Highlands & Islands	% change	-26	-8	0
Aberdeen & Grampian	% change	-7	-15	-14
Orkney & Shetland*	% change	0	-20	+7
Dumfries & Galloway	% change	-6	+8	-8
Scottish Borders	% change	+17	+23	-22
Edinburgh & Lothian	% change	-4	-6	+4
Angus & Dundee	% change	+16	+29	+18
Perthshire	% change	3	-2	+9
Fife	% change	+3	+20	-5
Glasgow & Clyde Valley	% change	+1	-5	+5
Ayrshire & Arran	% change	-26	+7	0
ALLFV**	% change	-3	-7	-4
Total	2009	16.78(m)	66.06(m)	4,054(£m)
	2010	16.45(m)	65.17(m)	4,106(£m)
	% change	-2	-1	+1

* Data available for UK visitors only ** Argyll, Loch Lomond and Forth Valley

The extent to which changes may or may not be due to wind farm developments in each region can be assessed by comparing the figures for each Moffat Report region with the map of developments given in Annex 2. It can be seen that the Moffat Report regions (Highlands & Islands, Dumfries & Galloway, Borders and Perthshire) continue to be significant areas of wind farm development. Data from 2010 on visitor numbers and spend for these regions give a mixed picture. Visitor numbers in the Highlands fell but overall spend by visitors remained the same. In Dumfries and Galloway the number of trips made by visitors fell, while the number of nights increased, and spending by visitors fell by 8% when compared with 2009. In the Borders visitor numbers increased but overall spend decreased by 22% and in Perthshire the number of trips was up slightly, the number of nights fell and visitor spend increased by 9%.

From these figures it is difficult to interpret what impact (if any) wind farms may have had on tourists' decision-making since there are many other factors that influence where people stay, how long they stay for and what they spend. Other factors, such as the recession of the last few years further complicate interpretation of trends in visitor numbers and spend for any particular region.

Regional Trends compared with National Trends, 2009-2010

How are the four Moffat Report regions faring relative to national trends? Table 2 presents data for the four Moffat Report regions compared to the national trend across trips, nights and spend for UK and overseas visitors to Scotland in 2009 and 2010¹⁴.

¹³ http://www.visitscotland.org/research_and_statistics/regions.aspx

¹⁴ Note that these regions are not a direct comparison with the case study regions used by the Moffat report.

Table 2. Regional/National Trends, 2009-2010¹⁵

	2009-2010	UK Residents			Overseas visitors		
		Trips	Nights	Spend	Trips	Nights	Spend
Highlands & Islands	% change	-34	-11	-9	+12	+3	+24
Dumfries & Galloway	% change	-4	+13	+2	-32	-40	-58
Scottish Borders	% change	+14	+6	-14	+25	+90	-45
Perthshire	% change	+6	+3	+18	-15	-22	-31
National	% change	-0.8	-3.3	-3.9	-8.0	-2.8	+5.5

The data are inconclusive, with some regions faring worse than the national average and others faring better. The picture is further complicated by differences between UK residents and overseas visitors.

Although not strictly comparable, recent data indicates that on a number of measures tourism in the four Moffat Report regions is not being adversely affected. Again, it is difficult to determine the effect of wind farms on tourist decisions to visit from these data alone, since there are many other factors that influence tourist decisions.

Visitor Attractions: 2009

The annual Visitor Attraction Monitor (VAM) provides data on the number of visits to around 700 Scottish visitor attractions¹⁶. The last full year for which data are available is 2009 during which time the Scottish Visitor Attraction sector experienced an overall increase in visits of 3.5% compared with 2008.

Increases of between 11.9% and 0.1% were found across all 14 former VisitScotland areas, with the exception of Ayrshire & Arran (-1.0%) (see Table 1 in Annex 3).

The four Moffat Report case study areas all had increased visitor attraction numbers from 2008 to 2009. We do not know the reasons for this, nor what, if any, relation this has to wind farm development. However we can say that the presence of wind farms in these areas had little or no impact on total visitor numbers attractions - it may even have contributed to an increase in visits.

Visitor Intentions to Return, 2011

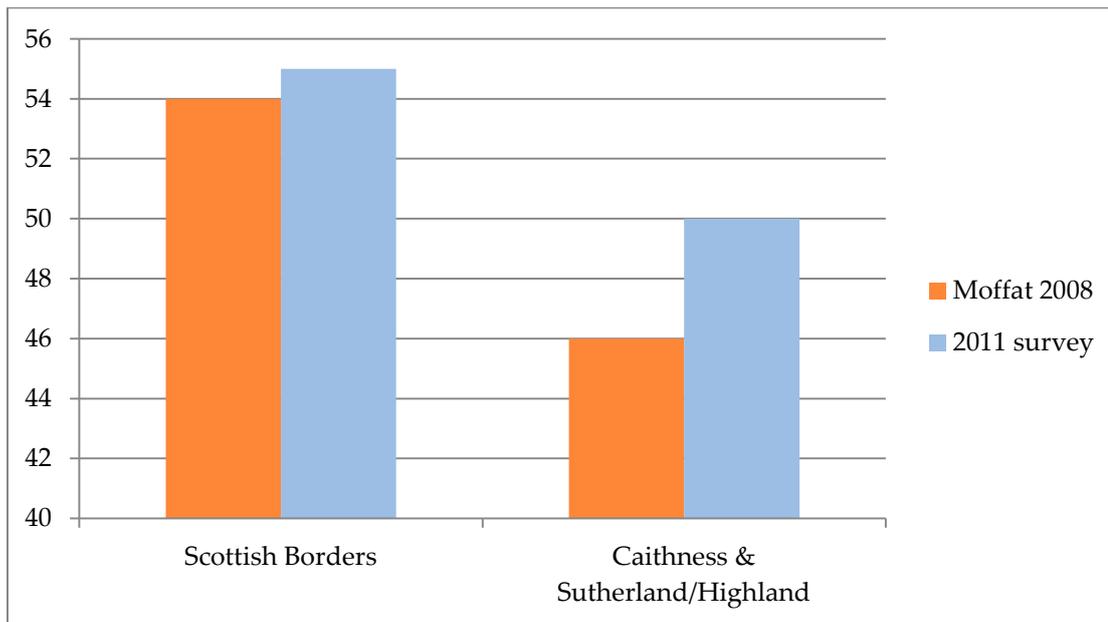
One of the potential impacts of wind farms on tourism is that they might affect visitors' intentions to return. In other words, visitors might not be aware of wind turbines before they visit but the sight of them might affect their decision to return. Data on visitor intentions to return are available for two¹⁷ of the Moffat Report regions. Both show an increase, as indicated in Figure 1 (figures are in percentages). It is not known if these visitors had seen a wind farm, and how this may or may not have affected their intention to return.

¹⁵ http://www.visitscotland.org/pdf/Domestic_Tourism_2010_Full_Year%5B1%5D.pdf,
http://www.visitscotland.org/PDF/International_Tourism_2010_Full_Year%5B1%5D.pdf

¹⁶ <http://www.moffatcentre.com/ourpublications/visitorattractionreports/>

¹⁷ Perth & Kinross, and Dumfries & Galloway were not reported in 2011.

Figure 1. Visitor Intentions to Return



The Moffat study tried to confirm whether the experience of seeing a wind farm altered visitors' intentions to return to the case study area or to Scotland as a whole. They reported that the vast majority (93-99%) of those who had seen a wind farm said that the experience would not have any effect, and there were some tourists for whom the experience increased the likelihood of return rather than decreasing it.

Annex 1: Renewables Policy

Since 2005 pro-renewables policy frameworks have been put in place at EU, UK and Scottish levels. In 2011 the Scottish Government revised targets for energy produced from renewable sources upwards¹⁸. The current targets are

- 100% electricity demand equivalent from renewables by 2020
- 11% heat demand from renewables by 2020
- At least 30% overall energy demand from renewables by 2020

These ambitious targets are endorsed by industry and business. While these targets are considered achievable, they also present challenges, most importantly the establishment of appropriate levels of support for deployment and adequate grid infrastructure. The government also recognises that Scotland's ambitions for renewable energy are not to be pursued at the expense of the wider environment.

Renewable energy is an important part of Scotland's economic development, as identified in the Low Carbon Economic Strategy published in 2011¹⁹. The large scale development of offshore wind represents the biggest opportunity for sustainable economic growth in Scotland for a generation, potentially supporting up to 28,000 directly related jobs and a further 20,000 indirect jobs and generating up to £7 billion for the Scottish economy by 2020. Onshore wind offers opportunities for local community ownership

Over the past four years much of the framework to achieve renewables targets has been put in place. This includes the Renewables Action Plan (2009-11), the Renewable Heat Action Plan (2009), and the National Renewable Infrastructure Plan (NRIP) (2010).

To meet the 2020 target for the equivalent of 100% of electricity consumption from renewables, a further increase in consenting and deployment rates will be required, especially for offshore wind. The challenge will be to ensure this is achieved in balance with environmental, land use and community issues.

To address the issues raised by future developments, including landscape issues and other considerations such as noise and archaeology, guidance in relation to wind farms has recently been reviewed and updated by SNH to reflect understandings of landscape and visual impacts related to wind farm development²⁰. Scotland is also leading the international Good Practice Wind Project (GP WIND http://www.project-gpwind.eu/index.php?option=com_content&view=featured&Itemid=101) which aims to develop good practice in reconciling objectives on renewable energy with wider environmental objectives and actively involve communities in planning and implementation²¹. Topics include reconciling environmental concerns with the benefits of wind farm development in terms of energy needs, CO₂ reduction and local social and economic benefits and impacts. Through the Land Use Strategy²² the government promotes an integrated approach to land use and planning which means that any wind farm development should reflect the scale and character of the landscape as well as

¹⁸ 2020 Routemap for Renewable Energy in Scotland (2011), Scottish Government, Edinburgh (<http://www.scotland.gov.uk/Resource/Doc/917/0118802.pdf>)

¹⁹ 2020 Routemap

²⁰ Strategic Locational Guidance for Onshore Windfarms (2009), Siting and Designing windfarms in the landscape (2009), both SNH

²¹ <http://www.scotland.gov.uk/Topics/Business-Industry/Energy/Action/leading/Good-Practice-Wind>

²² Getting the Best From Our Land: A Land-Use Strategy for Scotland (2011), The Scottish Government <http://www.scotland.gov.uk/Resource/Doc/345946/0115155.pdf>

any visual impact. Landscape Visual Impact Assessment (LVIA) typically includes assessment of impacts on key users of the landscape, including tourists²³. Development plans must set out spatial frameworks for onshore wind farms generating over 20MW, identifying potential constraints such as the effects on landscapes, natural heritage and historic environments. Such factors are all important considerations when it comes to tourism.

Principal factors behind the drive towards renewables include tackling climate change by providing low-carbon alternatives to fossil fuels. Increased renewable energy production can also bring enhanced energy security, economic benefits and opportunities for community ownership²⁴. However, Scotland's ability to supply sufficient renewable electricity and heat to meet its targets in a cost effective way depends critically on also reducing demand. Energy efficiency is at the top of the hierarchy of energy policies as the simplest and most cost-effective way to reduce emissions whilst at the same time maximising the productivity of renewable sources.

Challenges to meeting new renewables targets include planning and technical challenges. Scottish Planning Policy (SPP) requires planning authorities to support the development of wind farms in locations where the technology can operate efficiently and environmental and cumulative impacts can be satisfactorily addressed. Web-based renewables planning advice was launched in February 2011 ([http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-](http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/renewables)

[Policy/themes/renewables.](http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/renewables)). Headline items in the Renewables Advice include greater emphasis on spatial planning for wind farms below 20 MW, as more development interest at this scale emerges. Ministers are also considering where there is a need for new planning advice, such as handling the relationship between offshore renewables and planning etc. It is likely that improving the 'front end' of planning will bring forward applications at the development management stage that are less contentious and have greater levels of support.

Two key issues affect how many renewable energy developments are deployed:

- onshore wind proposals on more contentious sites, for example closer to communities, or on or near landscape and environmentally sensitive areas, or Sites of Special Scientific Interest
- dealing with the cumulative impacts of renewables, especially onshore wind farms in certain locations

The way in which these issues are addressed is likely to affect any impact that wind farms have on tourism.

²³ Siting and Designing windfarms in the landscape (2009) Scottish Natural Heritage.

http://www.snh.org.uk/pdfs/strategy/renewables/Guidance_Siting_Designing_windfarms.pdf

²⁴ 2020 Routemap for Renewable Energy in Scotland (2011), Scottish Government, Edinburgh (<http://www.scotland.gov.uk/Resource/Doc/917/0118802.pdf>)

Annex 2: Current and planned wind farm development

Offshore wind

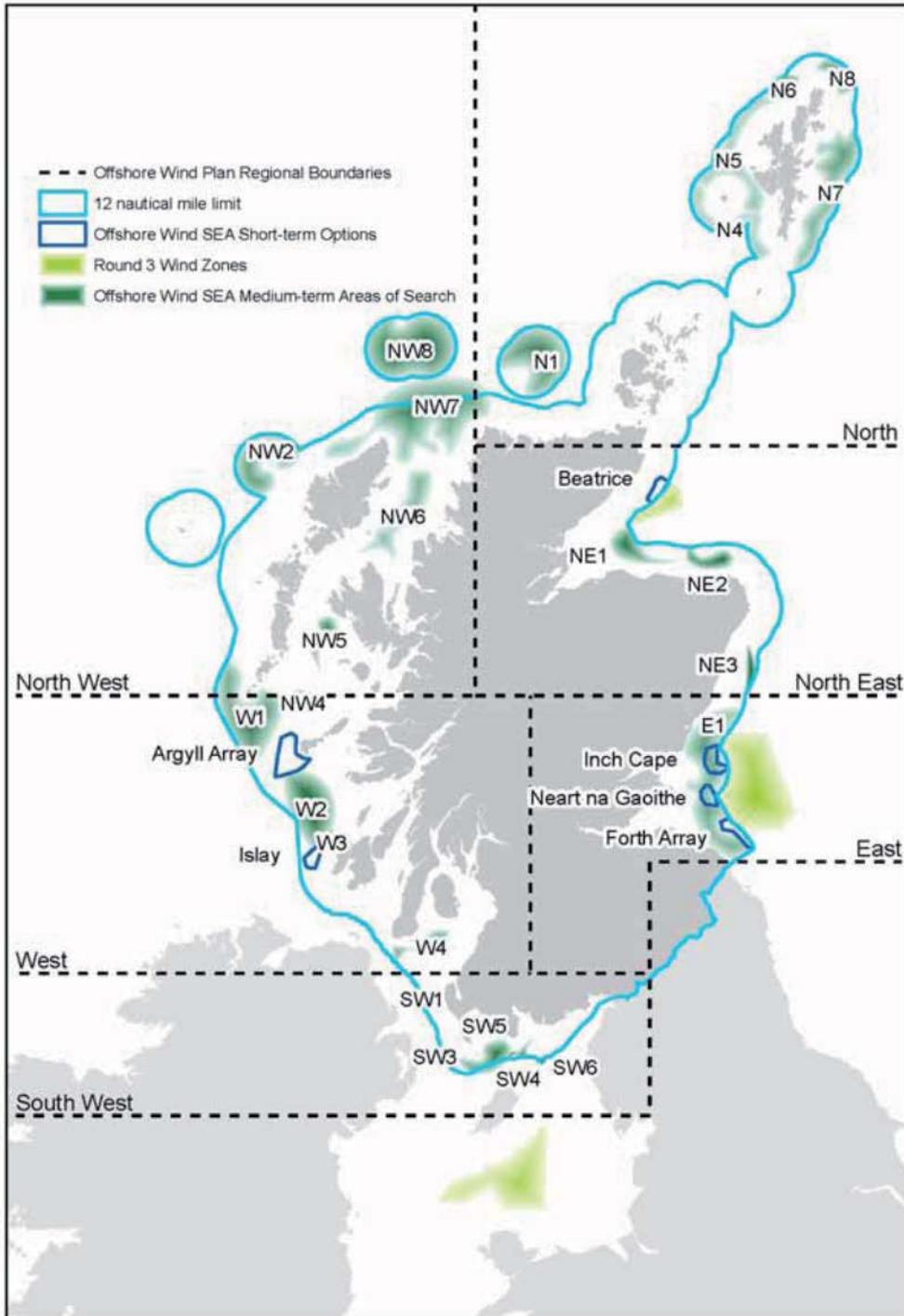
With 25% of Europe's offshore wind potential, the manufacturing, supply chain, job creation and training opportunities present Scotland with huge scope for sustainable economic growth in this area. There are currently two offshore wind sites within Scottish Territorial Waters: the Beatrice wind turbine demonstrator project in the Moray Firth, and; Robin Rigg in the Solway Firth.

The Sectoral Marine Plan²⁵ identifies 6 sites for short-term development, and a further 25 for medium term development. The short-term sites are: Islay; Argyll Array; Beatrice; Inch Cape; Neart na Gaoithe; and Forth Array

These are shown in Figure 1, along with the numbered medium term sites.

²⁵ Blue Seas – Green Energy, A Sectoral Marine Plan for Offshore Wind Energy in Scottish Territorial Waters (2011) The Scottish Government, Edinburgh.

Fig 1. Short term Sites and Medium Term Areas of Search (Final Plan)²⁶

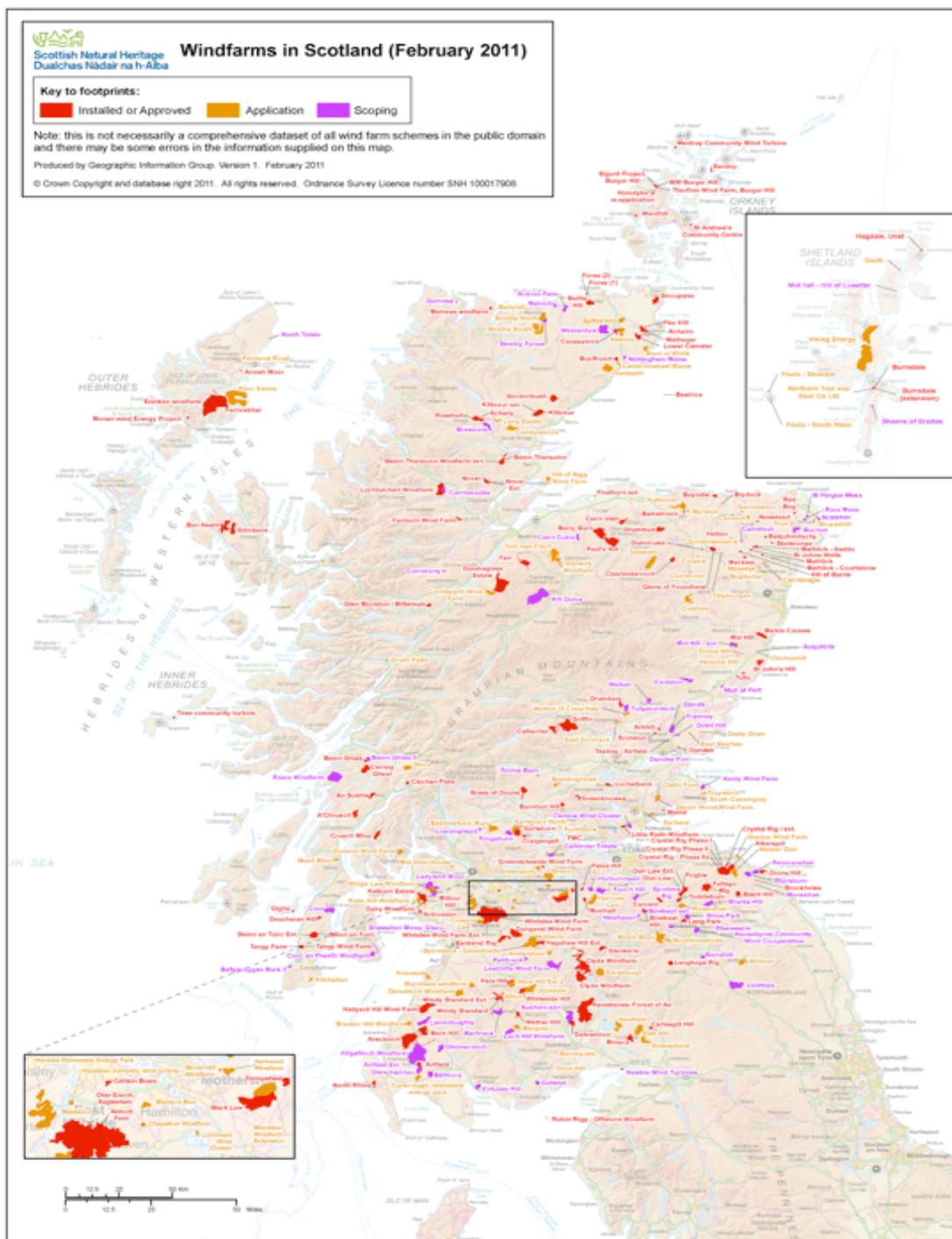


²⁶ Sectoral Marine Plan

Onshore wind

Current deployment includes 1,367 turbines at 117 sites already installed and operating, with a further 450 turbines at 20 sites under construction. Planned deployment includes 755 turbines at 76 sites consented and ready to be deployed if developer proceeds, a further 1,445 turbines at 100 sites awaiting planning and 1,628 turbines at 94 sites currently requesting pre-application scoping opinion²⁷ (see Fig. 2).

Fig 2. Development Sites for Onshore Wind, 2011²⁸



²⁷ 2020 Routemap for Renewables

²⁸ <http://www.snh.gov.uk/planning-and-development/renewable-energy/research-data-and-trends/trendsandstats/windfarm-footprint-maps/>

Annex 3: Tourism

The Moffat Report found that:

- The maximum total reduction in employment and income for Scotland is 211 full time equivalent jobs (equivalent to 0.1% of tourism employment in Scotland) equivalent to £4.7m of gross value added at 2007 prices¹. It therefore concluded that the negative impact of wind farms on tourism at national level is small and any reduction in employment in tourism will be less than the numbers currently directly employed in the wind power industry.
- Impacts in some local areas are important enough to warrant specific planning consideration, including a Tourist Impact Statement as part of the Environmental Impact Analysis.
- Large single developments are preferable to a number of smaller developments as it is the basic intrusion into the landscape that generates the initial loss, rather than subsequent developments on the same site.
- The public did not recognise that some areas had been protected from development and hence the wilderness nature of such areas needs to be publicised in order to provide substitution opportunities for tourists who find wind turbines an objectionable presence.
- Some tourists were positively attracted to wind turbines which suggest there may be an opportunity to market areas of high development as 'green'.

People visit Scotland for many reasons. According to VisitScotland, Scotland's national tourism organisation, a tourist is a non-resident who spends one or more nights in Scotland for the purposes of a holiday; on business; to visit friends or relatives; or for some other purpose²⁹.

In 2011 almost 16 million overnight tourism trips were taken in Scotland, for which visitor expenditure amounted to over £4.5 billion³⁰. This figure does not include day visitors who also form an important market for visitor attractions. The majority of the volume and value of Scotland's tourism is accounted for by the domestic markets – Scotland, England, Wales and Northern Ireland. In 2011 their total share was 85% of trips and 67% of visitor spend³¹. The majority of visitors are visiting a number of regions during their trip³².

Tourism is one of Scotland's key economic contributors, providing direct employment for 200,000 people, many in rural areas, and visitor spending in excess of £4 billion per annum in 2011³³. It is an important part of the social,

²⁹ VisitScotland (2011) Key Facts on Tourism
http://www.visitscotland.org/pdf/VS%20Insights%20Key%20Facts%202012_FINAL.pdf (14/08/2012)

³⁰ Ibid.

³¹ Ibid.

³² Scotland Visitor Survey 2011 & 2012 Summary of 2011 Results (2012) Visit Scotland
<http://www.visitscotland.org/pdf/External%20Visitor%20Survey.pdf>

³³ Tourism Scotland 2020: A National Strategy (2012) The Scottish Tourism Alliance

economic and cultural well-being of Scotland, from major cities to rural areas. The quality of both the culture and the environment is a key part of building a sustainable tourism sector. Scotland is renowned, at home and abroad, for its diversity and quality of landscape and scenery, particularly its distinctive mountains, coasts and lochs. Such landscapes are valued for their remoteness and their wilderness qualities, which enhance the tourism experience. Tourism surveys of national and international visitors consistently cite the importance of natural landscape and scenery as main attractions³⁴. Scotland’s appeal can be attributed to four groups of assets³⁵:

- nature, heritage and activities
- destination towns and cities
- events and festivals
- business tourism

However, the tourism sector also faces a number of challenges and opportunities due to the changing global economic situation, climate change, rising fuel prices and security concerns.

Tourism offers an important, sometimes vital, source of income for remote and rural communities. These same areas are often the most sought after for placement of wind farms because they have the best wind resource. They are also promoted for their landscape and wilderness qualities, which the presence of wind farms might disrupt by ‘industrialising’ the scenery. Land use and landscapes play an integral part in Scotland’s tourism industry, providing a range of opportunities for outdoor pursuits, visiting historic sites and enjoying the natural heritage.

Many people find that structures such as wind turbines, pylons and mobile phone masts reduce the attractiveness of a landscape. This may lead to a reduced demand which can result in either reduced prices for tourism services or reduced numbers of tourists, or both. At the same time, the tourism industry itself requires a reliable supply of electricity. Renewable energy can bring social and economic benefits to communities and businesses.

Recent and Current Tourism Statistics for Scotland

Since 2008 a number of reports have been published which give information on the state of Scotland’s tourist sector. Table 1 shows the percentage change in the number of visitors to attractions from 2008-09. The only area to show a decline was Ayrshire and Arran.

Table 1. Visitor Attraction Monitor, 2009

Former VisitScotland Area	Sample	Visits 2009	Visits 2008	% 09/08
Aberdeen & Grampian	84	2,172,845	2,059,392	5.5
ALLFV*	82	4,145,871	4,139,865	0.1
Angus and City of Dundee	31	1,515,360	1,468,806	3.2
Ayrshire & Arran	27	1,321,332	1,334,498	-1.0
Dumfries & Galloway	50	1,787,858	1,692,827	5.6
Edinburgh & Lothians	84	9,878,362	9,695,224	1.9
Greater Glasgow & Clyde Valley	73	15,801,552	15,205,397	3.9
Highlands	88	3,849,114	3,583,171	7.4
Fife	34	852,531	779,712	5.9
Orkney	22	517,757	510,233	1.5

³⁴ VisitScotland (2012) Wind Farm Consumer Research

³⁵ Tourism Scotland 2020

Outer Hebrides	12	326,339	291,756	11.9
Perthshire	37	1,386,752	1,350,727	2.7
Borders	40	1,025,624	942,858	8.8
Shetland	18	195,054	187,236	4.2
Total	682	44,749,351	43,241,702	3.5

Scotland as a whole: 2006-2010

Figures 1 and 2 present visitor numbers and spend over the 5 years between 2006 and 2010 (rounded for ease of reading)³⁶.

Fig 1. Total trips in Scotland 2006-2010

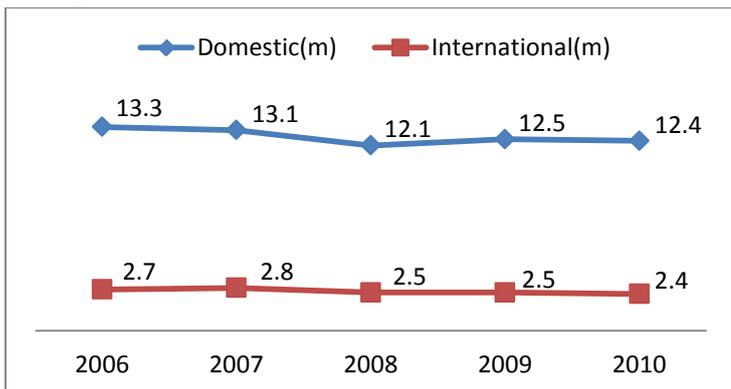
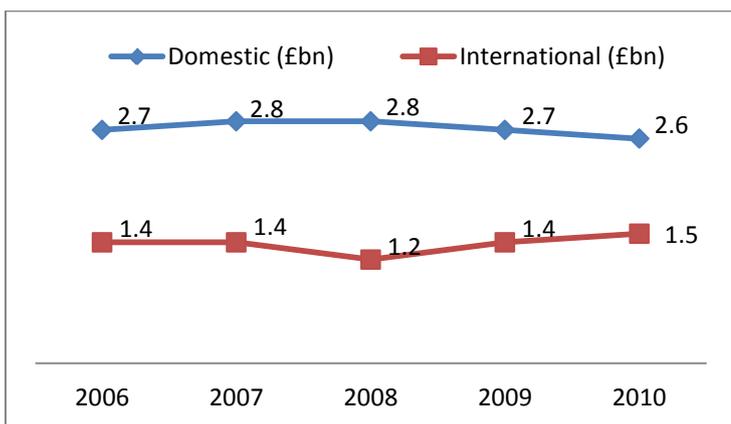


Figure 1 shows that both domestic and international trips to Scotland have fallen since 2006. Domestic trips were lowest in 2008 but have not yet returned to 2006 levels, and international trips have fallen to 2.4m in 2010 from a high of 2.8m in 2007.

Fig 2. Total visitor spend in Scotland 2006-2010



³⁶ Trends and Markets Research Report (2012) Susan Dickie, VisitScotland.
<http://www.visitscotland.org/pdf/Trends%20and%20markets%20report%20for%20Scottish%20tourism%20strategy.pdf>

Figure 2 shows that domestic spend grew until 2008 but has dropped since, and remains below 2006 levels of spend. International spend is the only figure to increase since 2009 and since 2006 despite fewer trips by international visitors in 2010.

These figures clearly show a dip in tourist numbers and spend as a result of the international economic climate. Thus the tourism industry is already being negatively affected by the economic situation, although it may now be showing signs of recovery. The question is what additional effects (if any) is the expansion of wind farms having?

Domestic Tourism 2010

VisitScotland reported that overnight visitors to Scotland from the rest of the UK recorded 12.4 million trips in 2010 and spent over £2.6 billion³⁷. This represents a small decline over 2009 in trips (1%) and a drop in spending (4%). This compares to domestic tourism within the UK which was down 5% in trips while the number of nights fell 6% and expenditure fell by 5%. These figures suggest that the Scottish tourism market is continuing to perform well despite the UK recession.

New data relating to visitor numbers and spend for the four case study areas identified in the 2008 Moffat report present a mixed picture (see table 2). Visitor numbers and spend in Highlands and Islands fell for UK visitors and rose for visitors from overseas, whereas in Perthshire the opposite was the case; overseas visitor spend and numbers fell while domestic spend and numbers rose. In the Scottish Borders numbers were up for both UK and overseas tourists, but spend for both was down on 2009. In Dumfries and Galloway numbers and spend by overseas visitors were down, while trips by UK visitors were down but nights and spend increased³⁸.

Table 2 Tourism by Region, 2009-2010³⁹

	UK Residents			Overseas visitors			
	2009-2010	Trips	Nights	Spend	Trips	Nights	Spend
Highlands & Islands	% change	-34	-11	-9	+12	+3	+24
Aberdeen & Grampian	% change	-12	-20	-22	+8	-8	-4
Orkney & Shetland	% change	0	-20	+7			
Dumfries & Galloway	% change	-4	+13	+2	-32	-40	-58
Scottish Borders	% change	+14	+6	-14	+25	+90	-45
Edinburgh & Lothian	% change	-6	-8	-7	+1	-5	+17
Angus & Dundee	% change	+16	+30	+15	0	+3	+18
Perthshire	% change	+6	+3	+18	-15	-22	-31
Fife	% change	+5	+6	-33	-8	+51	+21
Glasgow & Clyde Valley	% change	+7	0	-4	-18	-11	+24
Ayrshire & Arran	% change	-35	+9	-13	-31	-4	+37

³⁷ VisitScotland Review of Domestic Overnight Tourism to Scotland in 2010

http://www.visitscotland.org/pdf/Domestic_Tourism_2010_Full_Year%5B1%5D.pdf

³⁸ Note that these regions are not a direct comparison with the case study regions used by Moffat.

³⁹ http://www.visitscotland.org/research_and_statistics/regions.aspx

ALLFV*	% change	-4	-11	-7	0	+6	+6
Total	2009	13.01(m)	44.27(m)	2736(£m)	3.77(m)	21.79(m)	1318(£m)
	2010	12.8(m)	43.92(m)	2612(£m)	3.65(m)	21.25(m)	1494(£m)
	% change	-2	-1	-5	-3	-2	+13

- Argyll, Loch Lomond and Forth Valley

Thus it is difficult to see an overall picture emerging. This is partly because many factors affect tourists' decisions on where to travel, including weather, affordability and what is on offer. These statistics tell us where people visited, for how long and what they spent but they do not tell us WHY. Further research is needed to unpack visitors' motivations and decision-making regarding which areas they visit and which areas they avoid.

These figures give a general indication of how tourism in Scotland is faring by region. They are a useful way of comparing tourist activity across three measures with previous years however they do not tell us what might prompt a change in behaviour. However the extent to which this might be due to the presence of wind farms in a particular area or what other factors (festivals, city promotions, competitions) might be involved in decisions to travel and stay in a particular region.

Accommodation Occupancy 2011

The Scottish Accommodation Occupancy Survey (SAOS) monitors the performance of the tourist industry in Scotland through occupancy figures for the five main accommodation sectors: hotels, guest houses and bed and breakfasts, self-catering, camping and caravan parks and hostels. Comparative figures from previous years are also available. The Annual Report 2011⁴⁰ shows that the number of overnight tourism trips in Scotland increased by 7% for serviced rented accommodation (such as hotels/motels, guest houses and B & Bs). The number of overnight tourism trips to self-catering rented accommodation (including caravan/campsites) increased by 12% in 2011.

Domestic and Overseas Tourism, April 2011 - March 2012

VisitScotland publishes the latest available statistics from the year to date from the main tourism monitor surveys. These statistics show how the Scottish tourism industry is faring as a result of changes in consumer and trading conditions.

The latest figures on domestic and international tourism from April 2011 - March 2012 show increases in the number of trips, days and spend for domestic tourists (Table 2), and increases in trips and spend for international tourists⁴¹ (Table 3)

Table 3 Latest figures: Domestic tourism (GB markets) – 2012

12 month rolling total	Trips (m)	Nights (m)	Spend (£m)
April 2011-March 2012	12.9	44.8	3,015
% change on April 2010-March 2011	+5.5%	+4.9%	+2.1%

Table 4 Latest figures: International Tourism – 2012

12 month rolling total	Trips (m)	Nights (m)	Spend (£m)
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⁴⁰ VisitScotland Accommodation Occupancy Surveys Annual Report 2011

<http://www.visitscotland.org/pdf/218761%20SAOS%20annual%20report%20V3.pdf>

⁴¹ http://www.visitscotland.org/research_and_statistics/tourismstatistics/latest_statistics.aspx 20/07/2012

April 2011 - March 2012	2.4	N/A	1,499
% change of April 2010- March 2011	+1.3%	N/A	+3.6%

The figures show that trips and nights from domestic tourism increased by about 5%, with spend increasing more slowly, by about 2%. International tourists have also made slightly more trips so far in 2012 than in 2011 (1%) and have increased their spend even more (nearly 4%). This indicates that domestic visitors are coming more frequently but spending less, while international visitors are coming slightly more and spending more.

Tourism opportunities from wind farms

Wind farms can themselves be tourism destinations, with the wind turbines at the Ecotech Centre (<http://www.ecotech.org.uk/oldhomepage.html>) proving to be popular visitor attractions⁴². Public access to wind farms, coupled with tourist guides and information boards, encourages activities such as walking, rambling and even dog sled racing which in turn have knock-on effects for other local food and tourism businesses. Whitelee wind farm (<http://whiteleewindfarm.co.uk/home?nav>) near Glasgow has a range of activities, including outdoor pursuits and talks from conservation groups, as well as encouraging the public to get close to the turbines and learn more about renewable energy.

Eco-tourism, which maximises environmental performance and minimises impact on the local environment, is identified as an area for growth⁴³. Wind farms and renewables could play an important role in this area.

⁴² The Impact of Wind Farms on the Tourist Industry in the UK (2006) British Wind Energy Association <http://www.bwea.com/pdf/tourism.pdf>

⁴³ National Strategy 2020

Annex 4: Public Attitudes to Wind Power

Public attitudes to wind power are fundamentally different to attitudes to wind farms⁴⁴, a difference that has created what is sometimes referred to as the 'social gap'⁴⁵. Although there is broad public support for renewables, wind power included, there is often resistance at a local level to particular developments. Some opposition is based on misconceptions (for example noise, environmental impact, efficiency) but local objections also seem to include aesthetic and emotional feelings around what amounts to a visual intrusion on a landscape to which residents (and visitors) may have a strong attachment. Tourists, and those taking part in recreation, might not be present in the area for a long time, but their sensitivity to landscape change is regarded as high because their purpose is specifically to enjoy their surroundings and 'take in the view'.

While residents of the local community may be able to receive some of the benefits of the profits generated by community-owned schemes, visitors are less likely to be involved in such schemes. Evidence suggests that potential opposition to new developments can be avoided by giving local people a greater say in the planning and development stages, and through creating community ownership schemes⁴⁶, but it is difficult to include visitors in such schemes.

Potential opposition to wind turbines may not be the result of 'NIMBYism' but a more complex reaction involving nature/industry symbolic contradictions between a place represented in terms of scenic beauty and which provides a restorative environment for visitors and residents, and a wind farm that will 'industrialise' the area⁴⁷. The inclusion of subjective views and preferences of different groups in the decision-making process regarding wind farm projects means that the landscape has become a point of contestation and negotiation between different ways of seeing, various interests, value judgements, ideologies, myths and representations.

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www.climateexchange.org.uk

⁴⁴ Common Concerns about wind Power (2011) Centre for Sustainable Energy.
http://www.cse.org.uk/downloads/file/common_concerns_about_wind_power.pdf

⁴⁵ P. Devine-Wright, Y. Howes (2010) 'Disruption to place attachment and the protection of restorative environments: A wind energy case study', *Journal of Environmental Psychology*, 30, 3, 271-280.

⁴⁶ Living With Environmental Change <http://www.lwec.org.uk/stories/changing-behaviour-learning-lessons>

⁴⁷ Devine-Wright & Howes (2010)