

17. MATERIAL ASSETS

Additional information relevant to Section 17 is presented in Appendix K in Volume 2 of 3 of the EIS.

17.1 TOURISM

17.1.1 Receiving Environment

General

Tourism is considered as being of vital importance to the national economy and is regarded as one of the greatest potential wealth creators and employers at national level. Its importance is enhanced by the employment it can generate in areas that lack opportunity for other kinds of development. Tourism increased rapidly in Ireland in the decade up to 2008 as indicated by the numbers of overseas visitors to Ireland. This trend was sharply reversed between 2008 and 2010 with the onset of the global recession. However, as shown in Table 17.1, figures indicate that numbers have been on the rise again since then.

Table 17.1: Overseas Visits (Thousands) to Ireland

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number	6,574	6,977	7,709	8,012	7,839	6,927	6,139	6,621	6,518	6,986

In 2013, tourism was responsible for overseas earnings of €3.3 billion (excluding carrier receipts – airfares and ferry costs). Combining the data from the domestic market and international visitors, total tourism revenue for the economy in 2013 was around €5.7 billion. Of this revenue, €1.4 billion directly benefited the Exchequer through taxation.

The tourism sector supports 137,000 jobs in the accommodation and food sector alone, and overall employment in tourism is estimated to be in the region of 200,000. Tourism also shapes Ireland’s image and attractiveness as a place to live, work and invest.

Data from the Central Statistics Office for 2013 show that, while overall visits to Ireland in 2013 rose by 7.2% (6.98 million trips), core tourism visits grew strongly with holiday trips up 8% and business trips up 5.1%. Spending by visitors to Ireland also increased in 2013, with total tourism and travel earnings from overseas visitors growing by 9.4% to €4.12 billion.

Further potential is anticipated and tourism is a priority sector for development by the Government. Maximising the potential of the tourism section and economic diversification are recognised as critical in helping to achieve the critical mass of population in rural areas that have been suffering from population decline.

Regional and Local

The majority of tourism growth has occurred in a number of the larger urban centres, being partly due the emergence of convenient, frequent and affordable air access to these centres. This in turn has resulted in a fundamental shift in consumer preferences towards short city breaks at the expense of more long-stay rural-based holidays.

Historically, tourism has been a major industry in Co Kerry. The county is well endowed in terms of the quality of its landscape, its physical cultural heritage and recreational resources. These combine to make the region distinct as a tourist destination. Kerry has

the potential to increase visitor numbers and to increase visitor spend.

While the landscape with its natural beauty and scenic quality is the county's main asset and attraction, there are no major tourist attractions in the area immediately surrounding the development and it is not an important tourist area in its own right. The R579 Clonkeen – Kenmare road, which passes to the west of the wind farm site, is a significant access route for tourists travelling between major tourist destinations of Killarney and Kenmare.

There is an extensive network of long-distance existing waymarked walks, pilgrim paths and forest walks in the county and they include the Beara Way, the Dingle Way, Cosán na Naomh (Saint's Walk), the North Kerry Way, the Shannon Way, the River Lee Walk and the Kerry Way.

The Kerry Way long distance walking trail (Figure 17.1) is one of the longest of Ireland's National Waymarked Trails, being approximately 215 km long, and is also one of the most popular. The walking route officially begins and ends in Killarney but the trail can be joined at any number of points along its length. The Kerry Way takes in the entire Iveragh Peninsula in an anti-clockwise loop and is the walking alternative to the Ring of Kerry scenic drive, which follows a similar route.

The full route is broken down into nine key stages of approximate equal length or duration. Stage 9 of the route from Kenmare to Killarney or vice versa is known as the Old Kenmare Road. This is a moderate to strenuous 5 - 8 hour (24 km) scenic route, partly through the Killarney National Park, having a number of steep and steady climbs and descents. A shorter 9 km (3 hour) section of this stage from Torc Waterfall to Galway's Bridge is also popular.

Canoeist groups use the Roughty River on a wide scale. It is considered one of the most exciting amenities in the county and was one of the few rivers to receive three stars in the Irish Whitewater Guidebook. The most regularly run section is from Morley's Bridge to Kilgarvan and consists of a large variety of waterfalls and rapids.

According to IFI recreational angling in Ireland was worth some €550M in 2012 with significant potential for further growth. The south-west region attracts 45% of all overseas anglers. The importance of angling is highlighted by the fact that anglers tend to stay longer and spend more than the average visitor. The Roughty River is popular for fishing, although the banks are generally very overgrown and undeveloped and the fishing rights are fragmented. The river gets a small run of Spring Salmon and a very good run of Grilse from mid-June to late-July. It also gets reasonable runs of Sea-Trout, although this has declined

17.1.2 Impact of the Development

General

Ireland's scenery has been a cornerstone of international tourism marketing campaigns for decades. In 2007, 80% of overseas holidaymakers to Ireland rated scenery as an important reason for their trip (the second highest category), followed by the natural / unspoilt environment at 74%. Furthermore, over one quarter of holidaymakers believed that scenery is a factor that distinguishes Ireland from other destinations. The future sustainability of Ireland's tourism industry is, therefore, inextricably linked to the maintenance of the character and scenic qualities of the Irish landscape.

Various tourism strategies highlight the importance of showcasing Ireland as an environmentally clean country. Wind farms can contribute to this by indicating a commitment to renewable energy and a cleaner environment. Public attitude is that the

presence of a wind farm adds interest to an area, associates the area with clean, green energy or presents the area as progressive and sustainable.

The issue of how wind farms affect tourism has long been an issue that has divided opinion and promoted debate.

Ireland 2002: Sustainable Energy Ireland (SEI) commissioned a survey aimed at identifying public attitudes to renewable energy and to wind energy in Ireland. The survey found that, in general, Irish people are positively disposed towards the development of wind farms. One of the main findings was that those with direct experience of wind farms in their locality do not in general consider that they have had any adverse impact on the scenic beauty of the area or on tourism.

However, the survey also indicated that people will not accept wind farms everywhere and that special care should to be taken to ensure that wind farms respond to contextual landscape characteristics.

Scotland 2002: A poll carried out by MORI Scotland, an independent research agency, interviewed tourists visiting Argyll and Bute, the area in Scotland having the greatest concentration of wind farms. Responses by interviewees to various questions were as outlined in Tables 17.2 & 17.3.

When asked whether the presence of the wind farms had a positive or negative effect, less than one in ten (8%) felt it had a negative effect.

Table 17.2: Response to Question - What effect if any would you say the presence of that / these wind farm(s) has had on your impression of Argyll as a place to visit?

Completely Positive	Generally Positive	Positive / Negative	Generally Negative	Completely Negative	Don't Know
15%	28%	43%	7%	1%	6%

Asked whether a presence of wind farms in Argyll, made any difference to the likelihood of them visiting the area, the majority (91%) maintained that it made no difference.

Table 17.3: Response to Question - Has the presence of wind farms in Argyll made you any more or less likely to visit the area in future, made it less likely or has it made no difference?

More Likely	No Difference	Less Likely	Don't Know
4%	91%	2%	3%

In general, it appeared that although the majority of tourists visited areas in which wind farms are located, many were unaware of their existence. The research indicated that wind farms were not seen as having a detrimental effect on tourist visits.

Ireland 2007: Fáilte Ireland, in association with the Northern Ireland Tourist Board (NITB), decided to commission a survey of both domestic and overseas holidaymakers to Ireland to determine their attitudes to wind farms. The purpose of the survey, which involved face-to face interviews with a total of 1,300 domestic and overseas tourists throughout Ireland, was to assess whether or not the development of wind farms would impact on the enjoyment of the Irish scenery by holidaymakers.

Interviews indicated that most visitors are broadly positive towards the idea of building more wind farms on the Island, although a sizeable minority (14%) exists who are negative

towards wind farms in any context.

Despite the fact that almost half of the tourists interviewed had seen at least one wind farm on their holiday, most felt that their presence did not detract from the quality of their sightseeing, with the largest proportion (45%) saying that the presence of the wind farm had a positive impact on their enjoyment of sightseeing, with 15% claiming that they had a negative impact (see Figure 17.2). Compared with other types of development in the Irish landscape, wind farms elicited a positive response with compared with some other prominent developments

Almost three quarters of respondents claim that potentially greater numbers of wind farms would either have no impact on their likelihood to visit or have a strong or fairly strong positive impact on future visits to the island of Ireland (see Figure 17.3).

Of those who feel that a potentially greater number of wind farms would positively impact on their likelihood to visit, the key driver is their support for renewable energy and potential decreased carbon emissions. Those who are negatively disposed are more likely to cite that wind farms look ugly, are noisy and can frighten or damage wildlife. A small number also claim they have preference for other forms of renewable energy.

Local Interest

Because it is not a significant tourism area in its own right, the wind farm development will not have any significant adverse impacts on tourism assets. There is no potential to impact on the flagship tourism attractions in Co. Kerry.

As shown on Map 3: ZTV - Potential Theoretical Cumulative Visibility of the Grousemount Wind Farm in Combination with Existing & Permitted Wind Farms – Tip Height (Volume 3 of 3), the wind farm will be visible over a short length of the Kerry Way in the area north of Kenmare. Intervening topography prevents views towards the wind farm from further north along the route. Viewpoint 22 in the Landscape assessment shows the view from Gowlane, north of Kenmare on the Kerry Way. The array of existing turbines around the upper Roughty Valley is visible, occupying a small section of the distant horizon to the east. The presence of the proposed turbines would increase the spatial extent of the turbine array. However, at a distance of 15 km they are not prominent features and they do not negatively affect the character or quality of the view.

Whereas the presence of turbines within an open landscape may represent a negative impact to some, other walking visitors may view their presence and movement as an item of positive interest over a short portion within a lengthy walk. Furthermore, it is recognised that although the view may be regarded by some walkers as the primary reason for hill walking, for others the journey and experiences other than the view, such as exercise, shared experience with family/ friends and physical challenges gained from the activity, are likely to play an important role in the enjoyment of the activity. These will not be affected by the presence of the existing turbine array or the proposed turbines.

In any case, there is no evidence that the public is deterred from using amenities resulting from the presence of wind farms and in fact wind turbines become features of interest within the journey. The interim guide to the Miners Way and Historical Trail national long-distance walk route cites as follows:

An outstanding feature of this Corry Mountain section is the recently erected wind farm.

17.1.3 Mitigation

No mitigation of impacts is required.

17.1.4 Conclusions

The proposed development will not result in significant adverse impacts and will have positive effects on the socio-economics of the area and on tourism.

17.2 ENERGY SUPPLY

17.2.1 Receiving Environment

Demand for electricity is a key indicator of performance and growth in the national economy, with growth in demand for electricity actually surpassing national economic growth. Sustained economic growth requires that additional electricity generating capacity be installed on a continuing basis.

The transformation of Irish society and its economy, as in the case of many other countries, relied heavily on the exploitation of apparently abundant, affordable and widely available energy supplies and the services they provide. Such services are intrinsic to the operation of a modern economy with its needs for warmth and comfort, power and light, and mobility and communications.

Peak demand refers to a period in which electrical power is expected to be provided for a sustained period at a significantly higher than average supply level. Peak demand fluctuations may occur on daily, weekly, monthly, seasonal and yearly cycles. The actual point of peak demand is a period which represents the highest point of customer consumption of electricity.

The trend in weekly peak demand for each year demonstrates a characteristic shape, with high demand in the early weeks of the year, lower demand in the summer months and higher demand as winter returns.

Table 17.4: Electricity System Records

Parameter	Value	Effective Date
Winter Night Valley	2,928 MW	December 2010
Summer Night Valley	1,786 MW	August 2008
Mid-day Peak	4,410 MW	December 2010
Evening Peak	5,090 MW	December 2010
Saturday Peak	4,524 MW	January 2010
Sunday Peak	4,335 MW	January 2010
Maximum Wind	1,474 MW	November 2011

The last two decades saw significant growth in demand for energy in Ireland and for electricity as a component of overall energy demand.

The total amount of primary energy used by the residential sector grew by 32% between 1990 and 2006, with electricity consumption by the average dwelling in 2006 being approximately 5,600 kWh or 22% of overall energy demand. The remainder was in the form of direct fossil fuels, being predominantly related to transport.

Despite a significant growth in the number of one person households, by international standards the average household size in Ireland remains high (at 2.81 persons per household in 2006). This partly accounts for climate corrected electricity consumption per dwelling being above the average for the UK and for the EU.

The Irish economy has undergone a downturn and this has led to significant reductions in both peak demand and energy consumption across the island. Some sectors have been affected more than others. However, economic indicators are now predicting a return to growth and electricity demand grew in 2013 (Figure 17.4).

The forecasting of electricity demand is an essential aspect of assessing generation adequacy. This task has become more complex in recent years with the changing economic climate.

Models based on historical trends, economic forecasts and energy policies at regional, national and European level are used to predict future electricity demand. The electricity forecast model for Ireland is a multiple linear regression model which predicts electricity sales based on changes in economic parameters. A spread of electricity forecasts is produced.

The Government has a plan to increase energy efficiency by 20% by 2020. This includes such actions as replacing existing lighting with energy efficient sources, and increasing the thermal insulation standards for newly built housing, as well as grants for retrofitting existing houses to improve their efficiency. This will undoubtedly have an effect on the demand profile. Developments in electric vehicles and the roll out of smart-metering will also have an influence on the demand shape in Ireland.

Three main electricity sales forecasts (high, median and low) are produced for Ireland for the next ten years. Looking forward, the median scenario sees a recovery to 2008 electricity demand levels by about 2019. This scenario is informed by predictions of significant economic growth by the ESRI and other institutions.

Table 17.5 presents the demand forecasts²⁹ for the years 2015 to 2024, which may be taken as indicative of a general trend in demand growth. In addition to increases in maximum demand, as shown in Figure 17.5, forecasts³⁰ show an increase in overall electricity consumption.

Table 17.5: Demand Forecast (MW)

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Low	4,818	4,818	4,819	4,819	4,819	4,820	4,820	4,824	4,845	4,868
Medium	4,831	4,856	4,881	4,898	4,919	4,939	4,959	4,999	5,045	5,093
High	5,000	5,025	5,049	5,067	8,087	5,107	5,127	5,167	5,214	5,261

While reliable high efficiency plant operating at base load is also required, some of this demand will be met from renewable and alternative forms of electricity production, such as wind, in line with Government strategy.

The production of electricity by conventional thermal power plants requires the use of fossil fuels and Ireland has a very high energy import dependency. For 2012, the value of the fossil fuels not consumed as a result of renewable electricity generation is estimated at €245M, with the value of avoided CO₂ emissions being a further €15M. Savings from wind generation are estimated at €177M in fossil fuel and €11M in CO₂ emissions. Apart from a small quantity of peat, all of the savings are due to the displacement of imported fossil fuels.³¹

²⁹ All-Island Generation Capacity Statement 2015-2024; EirGrid / SONI, February 2015

³⁰ Electricity & Gas Retail Markets Annual Report 2013, Commission for Energy Regulation

³¹ Quantifying Ireland's Fuel and CO₂ Emissions Savings from Renewable Electricity in 2012; SEAI, May 2014

Through the Public Service Obligation (PSO) levy, electricity consumers in Ireland support national policy objectives, including peat fired and renewable electricity generation.

17.2.2 Impact of the Development

The proposal will contribute to ensuring that adequate electricity supplies are available to support economic activity and growth in a manner fully compatible with Government energy and environmental policies. It will ensure that national economic development is not constrained by shortfalls in the availability of electric power.

The wind is an intermittent energy resource, since it does not blow all the time. However, this does not reduce its environmental value as a source of power. While energy output from a wind farm is variable, electricity demand itself is constantly fluctuating and supply and demand must be matched on a minute to minute basis, 24 hours of the day, every day of the year. Indeed, the variability in electricity demand exceeds the variation in electricity generation by wind.

It is anticipated that, based on an installed total generating capacity of 115 MW, the project will generate about 350,000,000 kWh of electricity per annum and this is a significant contribution to national availability of electricity supplies. With the average electricity demand of a household being 4,902 kWh, the electricity generated at Grousemount will be the equivalent to the annual consumption of approximately 70,000 homes for the lifetime of the wind farm.

The production of electricity by the proposed development will not involve fuel consumption. Each additional MW of installed wind capacity removes the need to import fossil fuels, which is measured in terms of tonnes of oil equivalent (toe). Renewable electricity generation by wind in 2012 was 4,101 GWh and resulted in reduced fossil-fuel use of 826,000 toe.

A common assertion by opponents of wind power is that as much energy is consumed in the manufacturing and installing wind turbines as they subsequently produce. Energy balance is the comparison of energy used in manufacture with the energy produced by a wind turbine or power station. This can be expressed in terms of energy 'pay back' time, i.e. the time needed to generate the equivalent amount of energy used in manufacturing the wind turbine or power station. The average wind farm will pay back the energy used in its manufacture within 3-5 months of commencement of operation.³²

This means that over its operating life an onshore turbine is expected to recover multiples of the input energy required. This takes account of energy associated with maintenance of the wind farm, as well as the losses that are inherently part of electricity transmission and distribution systems.

SEAI and EirGrid conducted a joint modelling exercise to investigate the impact of increased wind generation on electricity generation costs in 2011³³ for Ireland. In general, while capital costs of wind energy plants are higher than conventional generation, wind energy can act as a hedge against high fuel costs by depressing the wholesale cost of electricity. This exercise attempted to identify how much the wholesale cost was depressed and compared this to the additional costs faced by consumers, namely the PSO and the additional constraint costs. A scenario with the expected 2011 installed wind capacity was compared to a scenario that did not have any wind capacity. The Single

³² Milborrow, *Dispelling the Myths of Energy Payback Time*, as published in *Windstats*, Vol 11, No 2 (Spring 1998).

³³ *Impact of Wind Generation on Wholesale Electricity Costs in 2011*, SEAI & EirGrid, February 2011

Electricity Market (SEM) operates on an all-island basis and both Ireland's and Northern Ireland's electricity systems were modelled.

The modelling exercise specifically quantified the impact of wind generation on the SEM wholesale price of electricity. The differing operational constraint costs were included for both scenarios. For the 2011 expected wind capacity scenario the cost of Ireland's PSO for wind generation was added. Key findings were as follows:

- The wind generation expected in 2011 reduced Ireland's wholesale market cost of electricity by around €74M.
- The reduction in the wholesale market cost of electricity was approximately equivalent to the sum of PSO costs, estimated as €50M, and the increased constraint costs incurred, due to wind in 2011.

The study clearly demonstrated that wind energy is not contributing to higher wholesale electricity prices on the Irish electricity system.

In a separate analysis that looked at the cost impact of wind and other renewable technologies in the 2020 time frame, under the scenarios studied consumers were shown to pay less through the support mechanisms than the savings they make from lower wholesale power prices.

17.2.3 Mitigation

No mitigation of impacts is required.

17.2.4 Conclusions

The proposed development will have positive effects and will not result in significant adverse environmental impacts.

17.3 AIR NAVIGATION

17.3.1 Receiving Environment

The highest point at Grousemount is at an altitude of approximately 570 m OF and there are many peaks in the general in excess of this.

The DoEHLG Windfarm Planning Guidelines note (Section 5.11) as follows:

The siting of wind turbines may have implications for the operations of the Communications, Navigation and Surveillance systems used for Air Traffic Control for the separation and safety of aircraft. Wind turbine siting may also have implications for the flight paths of aircraft.

Requirements regarding airport safeguarding in the context of wind energy developments are outlined in the Kerry Wind Energy Strategy, as follows:

RE developments within the exclusion zone of Kerry Airport, must consult with the Airport Authority and the Irish Aviation Authority.

There are no major airports in the immediate vicinity of the wind farm. Kerry Airport is located at Farranfore, approximately 36 km northwest of Grousemount.

The only licensed aerodrome in the broader area is at Mallow, approximately 27 km east of Grousemount.

17.3.2 Impact of the Development

The most elevated turbine at the site will be T13, whose base elevation will be at 493 m

OD. With a maximum overall dimension of 126 m from ground level to the tip of the turbine in the fully upright position, the maximum elevation of any part of the development will be at an elevation of 619 m OD. This is lower than surrounding peaks at The Paps (690 mOD), Knockboy (706 mOD), Mangerton (843 mOD) and Crohane (650 mOD), all of which are within 15 km of the site. This separation is insignificant in air navigation terms.

Wind Deployment Zones that are shown on Map 6 of the Kerry Renewable Energy Strategy are derived on the basis of an appropriate exclusion zone for Kerry Airport.

It is evident that Grousemount Wind farm will not impact on air navigation or on airport safeguarding.

17.3.3 Mitigation

In response to its requirement that was outlined in the course of consultation regarding potential interference with telecommunications networks (Section 17.4), the Irish Aviation Authority and the Air Corps have requested that suitable illumination is provided on the structures along with adequate notice of a minimum of 30 days is given before the erection of any turbines.

All requirements of the Irish Aviation Authority and the Department of Defence will be implemented in full.

17.3.4 Conclusions

The proposed development will not result in significant adverse impacts.

17.4 TELEVISION AND COMMUNICATIONS SIGNALS

17.4.1 Receiving Environment

All large structures have the potential to interfere with television or radio signals.

Some evidence exists that in certain circumstances, wind turbines, more particularly the rotation of the blades, can adversely affect communication systems that use electromagnetic waves as the transmission medium, e.g. television, radio and microwave links.

17.4.2 Impact of the Development

Scattering effects have been associated with television reception in the vicinity of wind turbines, causing double imaging on the television screen. The most significant effect, at a domestic level, is straightforward involving a possible flicker effect caused by the moving rotor, particularly on television signals.

The most significant potential effect of a wind farm, in terms of numbers of households affected, is where it is directly in line with the transmitter radio path. In practice, the majority of these difficulties arise where structures such as wind turbines are located in a region where there is a relatively weak signal.

There are two potential and different effects depending on the location of the receiver to the wind farm:

- **Shadowed houses:** The majority of the issues are related to receivers 'shadowed' directly behind the wind farm where the main signal passes through the wind farm. In these locations the turbine rotor can create a degree of signal scattering which causes loss of picture detail, loss of colour and buzz on sound.
- **Viewers to the side:** The effects are likely to be periodic reflections from the

blades, giving rise to a delayed image or ghost image on the screen which is liable to flicker as the blades rotate.

These problems are predominantly associated with turbines having metal or carbon-fibre blades. Modern turbines, such as the type proposed, have blades manufactured from fibreglass composite materials and the problem of scattering are much less likely to arise.

Consultation

As outlined in Appendix K.1, a total of 46 companies were contacted in a desktop assessment of possible interference impacts on telecommunications infrastructure and any radar infrastructure in the vicinity of the wind farm. All but two responded. Of those that did respond most have positive views about the development.

No company expressed any serious concerns about the development, this being largely attributed to the area being rather unpopulated, remote and not having a significant existing telecommunications infrastructure.

These stakeholders included the main wireless operators such as broadcasters and cellular network operators, as well as aviation operators and airports. It also included new internet market entrants operating wireless based broadband services and wireless internet service providers (WISP). (Some of the leads generated during the assessment later proved to be worthless because the stakeholder identified had not taken up licences for the operation of services within the area near the wind farm.)

The stakeholders were grouped into five categories to highlight the different types of users that might be expected to be adversely affected by the development, as follows:

Table 17.6: Aviation Operators

Company	Company	Company	Company
Cork Airport	Dept. of Defence	Irish Aviation Authority	Kerry Airport
Shannon Airport			

Potential impacts would be expected to involve lighting issues, navigation hazards for aircraft and possibly infringement of existing telecommunication links or radar networks. No interference was predicted.

Table 17.7: Broadcasters

Company	Company	Company	Company
BAI	Kerry Radio	RETNL (2rn)	TG4
UPC			

While some domestic TV reception interference may be caused, the moves to the digital 'Saorview' TV system and away from Microwave Multipoint Distribution Systems (MMDS) for wireless TV provision has lead to this becoming much less of a problem. There are some FM radio services that are broadcast locally. However, these rarely if ever report any interference issues from wind farms and no FM radio interference is expected.

Table 17.8: Telecommunication Operators

Company	Company	Company	Company
Airspeed	BT	Eircom	ESB Telecoms

Company	Company	Company	Company
Garda Síochána	Imagine	Meteor (Mosaic	Netshare Ireland/Vodafone
Three (H3G)	Towercom	Mosaic (O2 & Three)	

This group contains stakeholders that are very sensitive to wind farm developments. They are highly aware of any possible impacts and often have the required tools to analyse the wind farms. None of the companies contacted stated that they had any concerns about the development.

Table 17.9: Broadband Operators

Company	Company	Company	Company
Airwave Internet	Celtic Broadband	Centrecom	Cork Community Broadband
Digiforge	Digiweb	EOBO (Bbnet)	FastrackBroadband
Kernet	Kerry Broadband	Invertecbroadband	Kingdom Broadband
Maints Broadband	Munster Broadband	Munster Wireless	Rapid Broadband
Ripplecom	Rural Broadband	Scb Broadband	Sbb.ie
Xpresent			

This group has emerged within the last few years and the companies often provide wireless based (Wi-Fi) Internet and broadband services to end customers in rural and remote areas of Ireland that are not yet served by the main telecommunications operators. Some also operate limited microwave links carrying trunk broadband into their Wi-Fi broadcast cells. Most of these operators do not have the ability to do any internal analysis of the impacts of the developments. Almost all the stakeholders contacted responded to state that they have no issue with the development.

Table 17.10: Others

Company	Company	Company	Company
Kerry Fire Brigade	Sigma	Tetra Ireland	National Ambulance Service

These stakeholders include those operating VHF radio, microwave links and those using the national TETRA digital radio system. All the listed stakeholders listed responded to state that they have no issue with the planned developments.

17.4.3 Mitigation

In anticipation of some television interference resulting to domestic television reception from wind farm construction, RTÉ has developed a protocol agreement for wind farm developers that is designed to protect the broadcast services to users that existed before the development took place. The protocol provides a remedial mechanism for the loss of broadcast amenity, which might be suffered by residents in the interference zone, caused by the wind farm structures.

The developer proposes to enter such a protocol agreement with RTÉ. In summary, the remedial mechanism will comprise the following:

- A consultant will be engaged to undertake a detailed study on potential television interference (TVI) in advance of erection of wind turbines

- A helpdesk will be established to receive complaints regarding TV interference.
- A letter drop will be conducted to all residences within an appropriate distance from the site (typically approximately 2 km) to advertise the helpdesk. The extent of the letter drop will be determined by the consultant based on the TVI study.
- A resident may log a complaint and the consultant will call to assess the resident's TV signal.
- If TVI is found to be caused by the wind farm, then remediation will be carried out. (At other developments remediation to date has consisted of the installation of Saorview. However, there may be issues in the future where Sky / UPC or other mechanisms may be more appropriate.)
- It would be expected that the helpdesk and the developer's contract with the consultant would remain in place for approximately 12 months. It would be expected that any complaints should be logged within that period. A further letter drop would be used to inform residents of the date on which operation of the helpdesk will cease.

17.4.4 Conclusions

No significant impacts are predicted.



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Legend

- - - The Kerry Way Walking Route
- Grousemount Site Boundary

Figure 17.1 - Kerry Way Walking Route

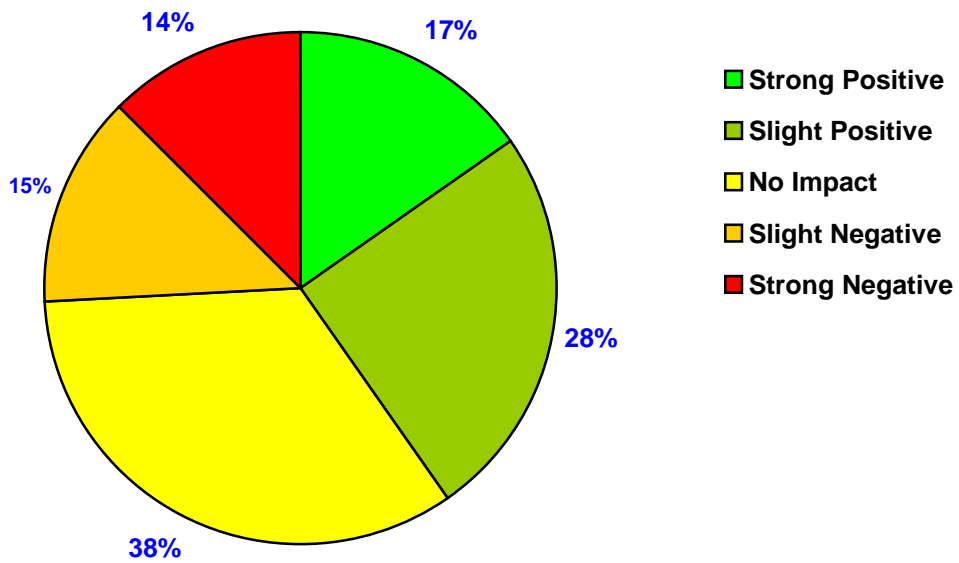


Figure 17.2: How did viewing a wind farm impact on your sightseeing?

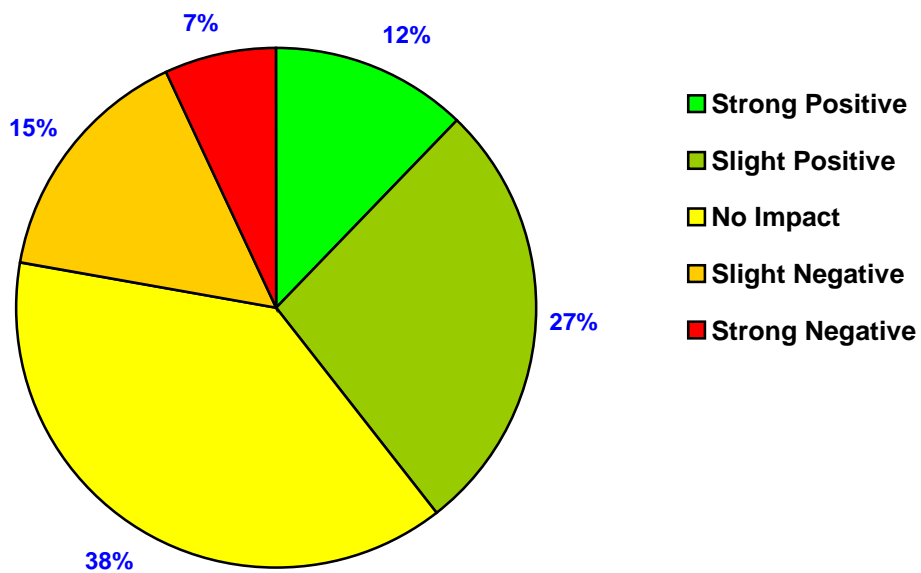


Figure 17.3: How would wind farms impact on your decision to visit Ireland?

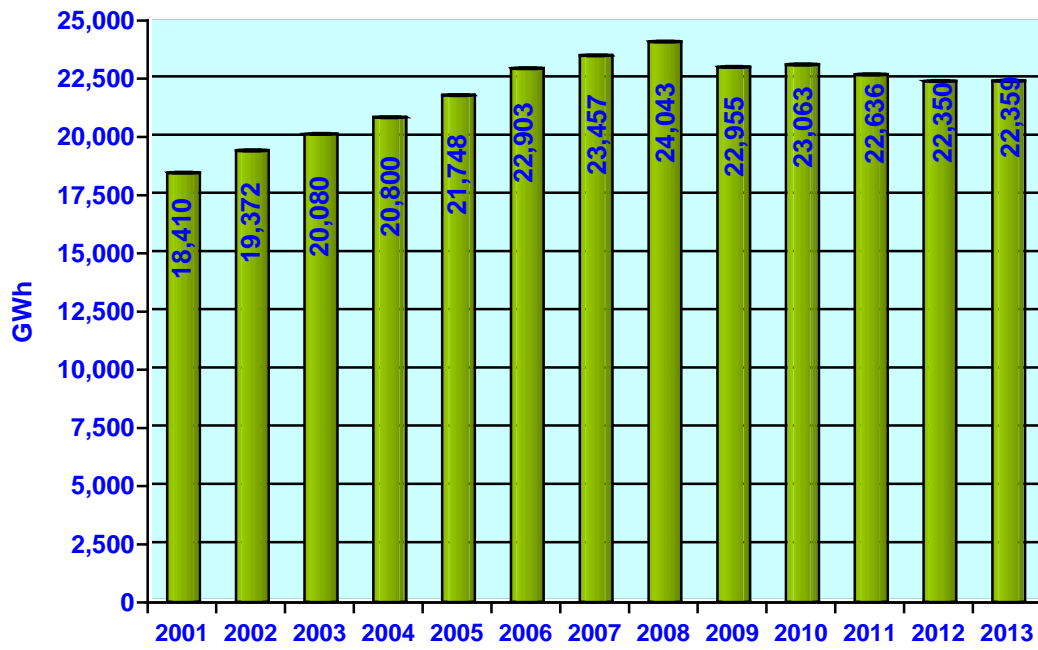


Figure 17.4: Annual Electricity Demand

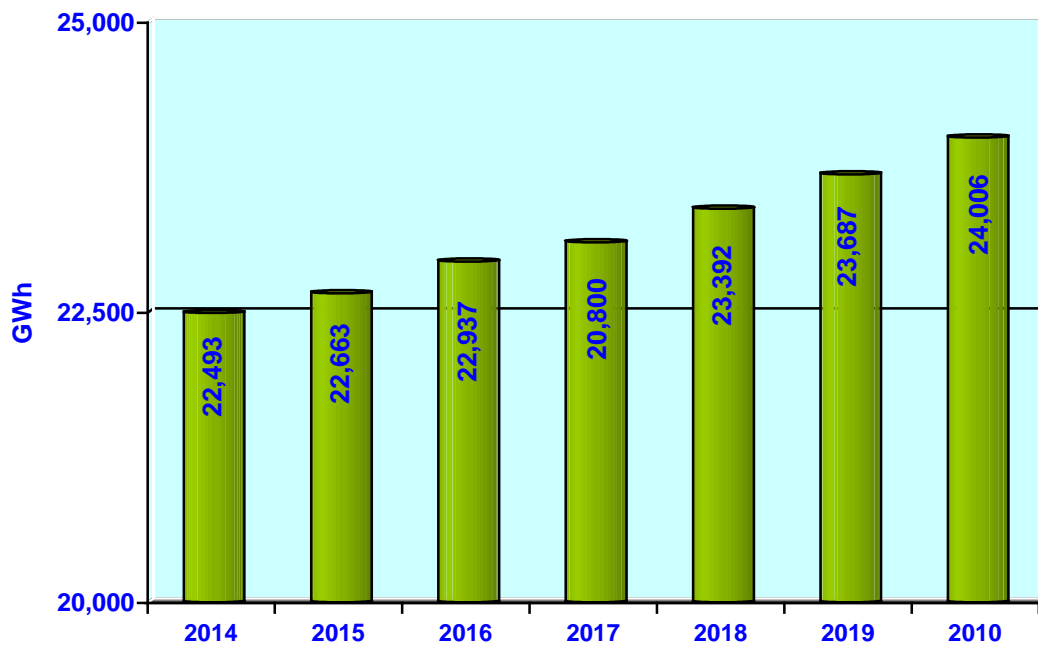


Figure 17.5: Electricity Demand Forecast