



An  
Bord  
Pleanála

## Inspector's Report PL27.249299

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<b>Development</b>	10 year permission for 11 no. wind turbines, 2 meteorological mast, site tracks, site compound, underground cables, 2 no. new entrances and associated site works.
<b>Location</b>	Roddenagh, Kiladuff, Ballymanus, Preban, Askakeagh Co. Wicklow.
<b>Planning Authority</b>	Wicklow Co. Council
<b>Planning Authority Reg. Ref.</b>	17/814
<b>Applicants</b>	ABO Wind Ireland Ltd
<b>Type of Application</b>	Permission
<b>Planning Authority Decision</b>	Refuse permission
<b>Type of Appeal</b>	First and Third Party
<b>Appellants</b>	(1) ABO Wind Ireland Ltd. (2) Richard Moore O'Farrell & Others
<b>Observers</b>	(1) Frances Roache & Others (2) Mountaineering Ireland

(3) Wicklow Uplands Council

(4) Pat Casey TD

(5) Yvonne Whitty

**Date of Site Inspection**

20/12/17 & 12/1/18

**Inspector**

Siobhan Carroll

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## 1.0 Site Location and Description

- 1.1. The appeal site is located in an upland area in south-western foothills of the Wicklow Mountains. The site lies approximately 1.5km to the west and south-west of the town of Aughrim. The village of Annacurragh is situated circa 1km to the south.
- 1.2. The site extends across the townlands of Roddenagh, Killaduff, Ballymanus, Askakeagh, Ballinglen, Preban, Tomcoyle, Kilballyowen, Killacloran, Clone, Coolahullin, Ballycoog Upper, Ballycoog Lower, Ballykillageer Upper, Ballykillageer Lower, Ballintemple, Coolgarrow, Kilcarra West, Kilcarra East, Glenart, Shelton Abbey, Kilbride and Killinisskyduff Co. Wicklow.
- 1.3. The appeal site has a stated area of 111.21 hectares. This comprises the entire landholding. The permanent land take required for the proposed turbine bases, crane hard standing, access tracks, met mast base and electrical sub-station would be circa 8.6 hectares. The elevation of the site ranges from circa 140m – 300mOD. The site is presently largely under commercial coniferous forestry. Surrounding land uses includes cattle and sheep grazing. There is an access road network and manmade drainage systems in use for ongoing forestry operations.
- 1.4. The Wicklow Uplands forms the largest contiguous upland region in the county. The highest peak Lugnaquilla has an elevation of 924m. The appeal site is located some 14km to the south on the foothills of Wicklow mountains. The site is located on an elongated ridge between the Derry Water River to the south-east and the Ow River, a smaller tributary of the Derry Water River, to the north-east. The peak of the subject ridge is 377m. The Wicklow Way, which extends for 130km from Marlay Park in South Dublin to Clonegal on the Wexford-Carlow border, is situated circa 2km to the west of the site at the closest point.
- 1.5. This ridge does not feature any masts, antenna or other such telecommunications or wind energy infrastructure. A windfarm containing six turbines is currently under construction on the upland area at Ballycumber to the west.

## 2.0 Proposed Development

- 2.1. A ten year permission is sought for the following;

- 11 no. wind turbines,
  - 2 meteorological mast,
  - site tracks, site compound,
  - underground cables, 2 no. new entrances
  - associated site works.
  - The application is accompanied by an Environmental Impact Assessment Report.
- 2.2. The proposed turbines have a maximum overall height of 150m to blade tip from existing ground level. A final design for turbines has not been made by the applicant. The proposed turbine is indicated to be of the generic three bladed, horizontal axis tubular tower variable speed upwind type. Typical turbine elevations are shown on drawing titled 'Turbine Elevations' – Proj.- no:IR012, Page no: 7.101.
- 2.3. The meteorological mast has a maximum overall height of 100m from existing ground level.
- 2.4. Two new entrances to local roads are to be created. Site entrance 1 at Preban and site entrance 2 at Roddenagh. It is proposed to construct a temporary access link onto the L3205 at site entrance 2 at Roddenagh to facilitate turbine delivery. It is also proposed to widen the existing forestry access at Roddenagh. This access is located 275m to the north-west of the junction of the local road L7137 and the L3205. It is proposed to upgrade and widen existing site tracks to a 4.5m minimum width along straight sections and 8m at bends.
- 2.5. The proposal includes a 38kV electrical substation compound which includes a control building comprising a switch room, control room, ESB room and store with office canteen facilities and toilet and washing facilities.
- 2.6. The application does not include a grid connection to the National Grid. Any such connection would be subject to a future application. The applicant has provided three options for future connection to the National Grid. It is stated that a 38kV underground cable would connection to one of the following;

- (a) 110kV electrical substation and associated infrastructure and works (on a brownfield site adjacent to the existing Shelton Abbey 110kV Electrical Substation)
- (b) 110kV electrical substation and associated infrastructure and works (within disused quarry in proximity to the existing Shelton Abbey 110kV Electrical Substation)
- (c) Connection directly at the Arklow 220kV electrical substation and all associated infrastructure and works.

- 2.7. The predicted wind speeds at Ballymanus windfarm are 7.5 to 7.75m/s at 75m above ground level and 8 to 8.25m/s at 100m above ground level.
- 2.8. It is estimated that the Ballymanus windfarm will take 12 months to construct and the turbines have a design life of 25 years.

### **3.0 Planning Authority Decision**

#### **3.1. Decision**

Permission was refused for two reasons;

- 1. Having regard to
  - The location of the wind energy development within Prospect 54,
  - The size and scale of the proposed turbines,
  - The cumulative visual impact of the development with existing and permitted wind developments;

It is considered the proposed development would form a significant visual intrusion in the landscape by reason of the height and spatial extent of the proposed turbines, which would be excessively dominant and visually obtrusive, when viewed from Listed Prospect No. 54, would have a pronounced effect on the landscape, altering its reading as a rolling rural landscape to a more industrialised scene, when the accumulation of both existing and permitted

windfarm developments are viewed in the setting. The proposed wind energy development would, therefore, seriously injure the visual amenities of the area, would impact detrimentally on this listed prospect, and would be contrary to proper planning and sustainable development.

2. Having regard to the overall design, layout and positioning of the proposed site entrances taken in combination with the inadequate information submitted in relation to the provision of sight distances and the detailed design of the entrances, it is considered that the proposed development could endanger public safety by reason of serious traffic hazard. The proposed development would therefore be contrary to the proper planning and sustainable development of the area.

## **3.2. Planning Authority Reports**

### **3.2.1. Planning Reports**

- The site is located in an area 'less favoured' for Wind Energy Development which is an area of High Amenity. The EIAR was considered to be sufficiently detailed to comply with the requirements of the European Directive 2014/52/EU. The applicant has sought to address the previous refusal reasons on site. Including amended details in relation to ornithology particularly the Red Kite, ecology in relation to bats, issues relating to slope stability, impact on Ballinglen Bridge and details of grid connection proposals. In relation to visual impact it was concluded that the development would have a significant impact on listed views/prospects on the town of Aughrim and cumulatively on the wider landscape. Regarding the proposed site entrances it was concluded that inadequate information had been submitted to indicate that adequate sightlines could be provided.

### **3.2.2. Other Technical Reports**

Municipal District Engineer Arklow – Regarding site entrance no. 2 concern is raised that the entrance is located close to an existing junction between L-2143 and L-7137.

Municipal District Engineer Tinahely – Further information requested regarding the layout and sightlines at site entrance no. 1 and details of proposed haulage route for turbine components in order to assess impacts on the Regional and local roads.

Senior Executive Scientist – There is no reason from a geological aspect for not granting permission for development. If permission is granted it is recommended that a condition be attached requiring the waste management plan to be submitted for approval by the Waste Management Section of the Council.

Heritage Officer – Regarding the Environmental Impact Assessment, adequate information was provided on local ecology, flora and fauna and the impact of the proposed development. The archaeological mitigation provisions include pre-development test excavation. The implementation of a monitoring programme would appear to be satisfactory to protect archaeological heritage.

EHO – No objection

Acting Chief Executive Report – dated 25<sup>th</sup> of August 2017 – The Acting Chief Executive inspected the site. In relation to the proposed site entrances, the locations can safely accommodate the entrance. However, as they are configured they are not considered satisfactory. The Acting Chief Executive inspected the view at Mucklagh as indicated in the EIAR and also drove along the Regional Road which is a listed Prospect in the County Development Plan. The Acting Chief Executive agrees with the refusal reason recommended in the Executive Planner's report in relation to visual impact within the listed Prospect. The impact of the other three views stated in the refusal reason are not significant enough to warrant refusal. The view approaching Aughrim from Ballinclash has a limited impact. The view on approach to Aughrim is visually busy and it is considered that the turbines would take up a limited space which is absorbable. The view from Kilcavan Gap of the proposed development is a relatively long range view which can be reasonably absorbed in the landscape.

### **3.3. Prescribed Bodies**

An Taisce – The EIAR has not given adequate consideration to future expansion on the Red Kite in this area. The presence of sub surface archaeology has not been



afforded adequate weight in the site layout. The Council should ensure that the subject proposal would not adversely impact on the archaeological heritage of the area.

Inland Fisheries Ireland – The site is located within the Ow, Derry Water, Aughrim River Catchment, an important salmonid system, with excellent stocks of salmon, brown trout, brock river and sea lamprey species. Freshwater Pearl Mussel has been recorded in the Aughrim main channel. The construction management plan should provide a mechanism for ensuring compliance with environmental legislation and statutory consents.

Transport Infrastructure Ireland – TII considers that issues in relation to the transportation of the turbines to the site should be resolved prior to any decision. In relation to cable route options proposed to cross the M11 using an existing structure no details have been provided to demonstrate that the cable route can be accommodated in such a manner.

Failte Ireland – They strongly advise the Council to review the location of the proposed wind farm and to ensure that all appropriate alternatives have been considered in full.

Irish Aviation Authority – No objection subject to condition.

Department of Culture, Heritage and the Gaeltacht – In relation to the matter of nature conservation all of the measures identified in the Appropriate Assessment appear to address any potential problems that may arise. It is recommended that the development is monitored at all stages by suitably qualified personnel to ensure all conditions and mitigations are met.

### **3.4. Third Party Observations**

- 3.4.1. The Planning Authority received 324 submissions/observations in relation to the proposed development. The main issues raised are similar to those set out in the third party appeal and in the observations to the appeals.

## 4.0 Planning History

Reg. Ref. 14/2198 – Permission was refused for a wind energy project on the site comprising up to twelve wind turbines, construction of new internal access tracks, upgrading existing access tracks, a new site entrance, underground cabling, electrical substation, site compound and associated works.

Permission was refused for three reasons;

1. Having regard to
  - The location of the wind energy development within Prospect 54, View 26, and on entry views to Aughrim and from the Main Street
  - The size and scale of the proposed turbines,
  - The cumulative visual impact of the development with existing and permitted wind developments

It is considered the proposed development would form a significant visual intrusion in the landscape by reason of the height and spatial extent of the proposed turbines, which would be excessively dominant and visually obtrusive, when viewed from Listed Prospect No. 54, and View 26, would have a dominant impact on views approaching and within Aughrim, and would have a pronounced effect on the landscape, altering its reading as a rolling rural landscape to a more industrialised scene, when the accumulation of both existing and permitted windfarm developments are viewed in the setting. The proposed wind energy development would, therefore, seriously injure the visual amenities of the area, would impact detrimentally on listed views and prospects, and would be contrary to proper planning and sustainable development.

2. Following assessment of the submitted Environmental Impact Statement it is considered that the proposed Wind Energy development has not taken sufficient account/submitted sufficient information to show that the development would not negatively impact on:

- The archaeology of the area given the proximity of the proposed development to Recorded Monuments combined with the lack of archaeological testing
- Red Kites, formerly native species which are listed in Annex 1 of the Birds Directive, as the development would be located close to the core breeding area for Red Kites, and the mitigation measures are considered inadequate
- Bats, as a sufficient buffer distance has not been provided between a number of the turbines and linear features.
- Stability of lands, given inadequate site investigation work has been carried out.
- Ballinglen Bridge a Protected Structure, given an inadequate assessment of the suitability of the proposed traffic route for abnormal loads, in particular, the impacts on the structural stability of Ballinglen Bridge.
- Traffic safety, as no details of the entrance to the site from the L-2143-30 have been submitted.

The proposed Wind Energy Development would therefore materially contravene the objectives in the County Development Plan to protect the built and natural heritage, would impact on traffic safety and would be contrary to the proper planning and sustainable development of the area,

3. The Environmental Impact Statement submitted is considered deficient as the Grid Connection for the wind energy development has not been assessed as part of the submitted Environmental Impact Statement, and insufficient information has been submitted to properly evaluate the impacts on the Archaeology of the Area, Red Kites, Bats, Land stability and traffic safety. Therefore a complete Environmental Impact Assessment could not be carried out on the development contrary to the requirements of the EIA Directive.

## 5.0 Policy Context

### 5.1. Development Plan

The operative plan for the area is the Wicklow County Council Development Plan 2016 - 2022.

- Chapter 9 – refers to Infrastructure

#### (1) Wind Energy

The generation of electricity from wind is the principle renewable alternative being developed in Ireland at present, primarily due to the good wind resources available. The entire Country is richly endowed with wind resources. Although Ireland only accounts for 2% of the total EU land mass, we have some 6% of EU wind resources. Per capita, we are one of the richest countries in the world in terms of wind energy. In 2014 Wind Energy made up 18.3% of gross electricity consumption in Ireland.

Access to the electricity transmission grid is an issue for the supply of wind-generated electricity, which is controlled by EirGrid and in some instances the ESB. While a land-use plan cannot impact directly on the manner in which the grid is regulated or developed, through the development of a Wind Energy Strategy, other planning ‘bottlenecks’ can be somewhat addressed through:

- the identification of locations where wind energy projects will be favoured and supported;
- the setting out of a clear set of parameters to be considered in the locating of wind farms; and
- providing clear guidance about the design and layout of wind farm projects.

Wicklow County Council has produced the County Wicklow Wind Energy Strategy which forms part of this plan. The Strategy supports a plan led approach to wind energy development in County Wicklow and sets out ‘Areas Most Favoured’, ‘Area Less Favoured’ and ‘Areas Not Favoured’ for Wind Energy Development within the County. It is the policy of the Council to maximise wind energy development within

the County in all three of these areas, on a case by case basis, subject to meeting specific requirements and guidance contained within the strategy. The County Wicklow Wind Energy Strategy is set out in Volume 3 of this plan.

### **Wind Energy Objectives**

**CCE6** To encourage the development of wind energy in accordance with the County Wicklow Wind Energy Strategy and in particular to allow wind energy exploitation in most locations in the County subject to:

- consideration of any designated nature conservation areas (SACs, NHAs, SPAs, SAAOs etc) and any associated buffers;
- impacts on Wicklow's landscape designations;
- particular cognisance and regard being taken of the impact on wind turbines on residential amenity particularly with respect to noise and shadow flicker;
- impacts on visual and recreational amenity;
- impacts on 'material assets' such as towns, infrastructure and heritage sites;
- consideration of land cover and land uses on or adjacent to the site; and
- best practice in the design and siting of wind turbines, and all ancillary works including access roads and overhead cables.

### **Appendix 6 – Wicklow Wind Energy Strategy**

The County has been divided into three areas (as shown on Map 3 – Wicklow Wind Strategy Area of Wind Energy Potential):

#### Red Not Favoured

Wind farm development will not be considered favourably in these areas

#### Orange Less Favoured

Wind farm development will be considered, but the sensitivities revealed in these areas would render exploitation more problematic and therefore these areas are less favoured for wind energy development

### Green Most Favoured

Wind farm development will be considered favourably, subject to compliance with all necessary siting and design standards.

Note: within all three areas due regard shall be taken of listed views and prospects and any development that would contravene objective NH52 of the Plan1. Objective NH52 refers to views and prospects states that it is Council policy to protect listed views and prospects from development that would either obstruct the view /prospect from the identified vantage point or form an obtrusive or incongruous feature in that view /prospect. Due regard will be paid in assessing development applications to the span and scope of the view / prospect and the location of the development within that view / prospect.

- The site is located within an area categorised as Orange 'Area Less Favoured' for Wind Energy Development within the County. As shown on Map 3 of the Wind Energy Strategy.
- The site is situated within the Listed Prospect No. 54 – origin - Holts Way at Coolalug, Mucklagh, Tomnaskela and Kilpipe Prospect across the Derry Water River and towards south Wicklow Mountains.
- The site is situated within the Listed View No. 26 – origin - R748 Kilcavan Gap view to North East and North West.
- The site is located within an Area of High Amenity - 3(c) - The Southern Hills Lands generally following the 300m contour comprising of 1) the mountainous leg from Moylisha running north-west of Shillelagh, Tinahely and Aughrim 2) the Croghan Mountain area south of Aughrim and Woodenbridge and 3) the Kilgavan Gap and Hillbrook area.

## 5.2. National Policy

### 5.2.1. Guidelines for Planning Authorities on Wind Farm Development and Wind Energy Development 2006

The Guidelines offer advice on planning for wind energy through the Development Plan process, and in determining applications for planning permission, and are intended to ensure consistency of approach in the identification of suitable locations for wind energy developments, and acknowledge that locational considerations are important. These considerations include ease of vehicular access and connection to the electricity grid. It is acknowledged that visual impact is amongst the more important issues when deciding a particular application. Whilst there is no set-back distance specified, it is indicated at section 5.6 that noise is likely to be a problem at less than 500m. In relation to shadow flicker, section 5.12 states that impact at neighbouring offices and dwellings within 500m should not exceed 30 hours per year or 30 minutes per day. It goes on to state that at distances greater than 10 rotor diameters, the potential for shadow flicker is very low. Section 5.13, dealing with 'windtake', states that distances between turbines will generally be 3 rotor diameters in the crosswind direction and 7 rotor diameters in the prevailing downwind direction. This section goes on to state- 'Bearing in mind the requirements for optimal performance, a distance of not less than two rotor blades from adjoining property boundaries will generally be acceptable, unless by written agreement of adjoining landowners to a lesser distance. However, where permission for wind energy development has been granted on an adjacent site, the principle of the minimum separation distances between turbines in crosswind and downwind directions indicated above should be respected'.

### 5.2.2. Circular Letter PL5/2017 Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change and Wind Energy Development Guidelines 2006 – Update on Review.

The circular letter reiterates advice of circular letter 20-13 on the review of wind energy and renewable policies in development plans which issued on 20 December 2013 advising local authorities to defer amending their existing development plan policies in relation to wind energy and renewable energy generally as part of the

normal cyclical six yearly review or plan variation process and should instead operate their existing development plan policies or objectives until completion of a focused review of the wind energy development Guidelines 2006.

In relation to the review of Wind Energy Development Guidelines Update refers to the “preferred draft approach” announced on 13th June 2017 and its key aspects including:

- The application of a more stringent noise limit consistent with World Health Organisation Noise Standards, in tandem with a new robust noise monitoring regime.
- A visual amenity setback of 4 times the turbine height between a wind turbine and the nearest residential property subject to a mandatory minimum distance of 500 metres.
- The elimination of shadow flicker.
- The introduction of new obligations in relation to engagement with local communities by wind farm developers along with the provision of community benefit measures.

The update outlines that the next stage of the focussed review will be the commencement of scoping for SEA and this will be followed in due course by the publication of detailed draft guidelines accompanied by relevant environmental reports for public consultation in Autumn 2017 with a view to concluding and publishing the final revised Guidelines in Q1 2018.

**5.2.3. Interim guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change. Department of Housing, Planning, Community and Local Government, July 2017.**

These guidelines were issued under Section 28 of the Planning and Development Act 2000, as amended. Under this provision, the Planning Authority and An Bord Pleanála are required to have regard to the guidelines and to apply any specific planning policy requirements of the guidelines, in the performance of their functions. The guidelines focus on administrative procedures and do not amend or replace the existing Wind Energy Development Guidelines 2006 which remain in place pending



the completion of the ongoing review. The guidelines refer to the need for planning authorities to have regard to the relevant national plans policies and strategies when making reviewing varying or amending development plan or local plan policies or objectives that relate to renewable energy and in particular wind energy developments. The relevant planning authority shall:

- (1) Ensure that overall national policy on renewable energy is acknowledged.
- (2) Indicate how the implementation of the relevant development plan or local area plan will contribute to realising overall national targets and the potential wind energy resource in megawatts and
- (3) Demonstrate detailed compliance with (2) in any proposal to introduce or vary a mandatory setback distance for wind turbines.

**5.2.4. National Planning Framework – Project Ireland 2040, Department of Housing, Planning, Community and Local Government, February 2018.**

Energy Policy and Planning

1.1.2. Ireland's national energy policy is focused on three pillars: (1) sustainability, (2) security of supply and (3) competitiveness. The Government recognise that Ireland must reduce greenhouse gas emissions from the energy sector by at least 80% by 2050. In the energy sector, transition to a low carbon economy from renewable sources of energy is an integral part of Ireland's climate change strategy and renewable energies are a means of reducing our reliance on fossil fuels. The forthcoming Renewable Electricity Policy and Development Framework will aim to identify strategic areas for the sustainable development of renewable electricity projects of scale, in a sustainable manner, compatible with environmental and cultural heritage, landscape and amenity considerations. The development of the Wind Energy Guidelines and the Renewable Electricity Development Plan will also facilitate informed decision making in relation to onshore renewable energy infrastructure.

National Policy Objective 55 – Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050.

### 5.2.5. Other policy documents

- EU Energy Directives and Roadmaps, and associated national targets for renewable energy by sector.
- National Climate Change Strategy.
- White Paper on Energy 2007
- National Renewable Energy Action Plan 2010
- Strategy for Renewable Energy 2012-2020
- EU Final Draft Guidance (March 2010) Wind Energy Developments and Natura 2000.
- Ireland's Transition to a Low Carbon Energy Future, DCENR, 2015-2030
- Renewable Energy Policy and Development Framework. DCENR, 2016
- Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure, DCENR, 2012.

## 6.0 The Appeals

### 6.1. Grounds of first party Appeal

A first party appeal was submitted by Tom Phillips & Associates on behalf of the applicant ABO Wind Ireland Ltd. The grounds address each of the refusal reasons issued by the Planning Authority in turn. The main issues raised are as follows;

#### **Planning Authority Reason for refusal no. 1 – Landscape/Visual Impacts**

- The Board is referred to the Landscape and Visual Impact Statement prepared by MacroWorks.
- The concluding statement of the Landscape and Visual Impact Statement is cited "On the basis of the conclusions of the landscape and visual section of the project EIAR and the further reasons contained with this appeal response, it is not considered that the Wicklow County Council's reason for refusal no. 1 is justified. Wind energy developments are frequently visible from scenic

designations throughout the country and many without the degree of visual harmony that the Ballymanus Wind Farm displays from 'prospect 54' (Wicklow CDP). The salient character of the receiving landscape will remain that of productive, yet tranquil, rural uplands should the proposed development be realized and will not become industrialised in either a standalone or cumulative sense.”

- Refusal reason no. 1 relies on the premise that wind turbines are inherently unsightly and visual impact is directly proportional to visual exposure. Wind turbines have become an increasingly common form of development, particularly in the uplands. Therefore, it is submitted that the assessment of whether proposed wind turbines are appropriate for a particular landscape should not begin with the premise that they are incongruous and should be hidden from view.
- It is noted that this position is not supported in the Wind Energy Development Guidelines (2006). The Guidelines take a more pragmatic and design led approach and apply different guidance to different landscape types.
- MacroWorks advocate a design approach whereby turbines that cannot be fully or substantially screened from view should then be fully revealed in a comprehensible manner. Turbines should be spaced and laid out to avoid clutter and confusion and reflect the surrounding landform and land cover patterns to provide visual legibility. This design approach has been taken for Ballymanus Wind Farm.
- In relation to potential visual impact from the settlements of Aughrim and Annacurragh it is stated that there are only partial views of several turbines. In relation to prospect 54 where views of the proposed wind farm are unavoidable the proposed layout has been optimised for aesthetic effect.
- Prospect 54 is a designated scenic route which extends for 4.7km of R747 regional road and is towards the Derry River and south Wicklow Hills. It is stated that the proposed wind farm will only be intermittently visible from this section of the road between sections of dense planting. When visible, 7 of the 11 turbines are likely to be substantially and clearly visible. The extent and

nature of the visibility is represented by a series of viewpoints/photomontages along the R747.

- The Planning Officer in their assessment considered that the degree of visual exposure determined the degree of impact. In response to this the applicant considers that the Planning Authority failed to describe the way in which the turbines will be 'significantly detrimental' to the visual amenity.
- It is argued that VP5 and VP6 represent exemplary views that the wind farm has been sited and designed to assimilate within the landscape. The scale of the turbines is not considered excessive in the context of the upland landscape and the overlap of turbines is avoided. The landscape is a typical forested and farmed ridge. It is not considered to have a distinctive or naturalistic quality such as the areas within the heart of the Wicklow Mountains.
- Regarding the cumulative impact, only one other wind farm scheme (Ballycumber wind farm) would be visible from Prospect 54. There is a 3km separation distance between the two wind farms. The landscape context where the other wind farm is on a distinctive and separate ridge to the south-west clearly shows that they are two separate developments.
- The proposed development along with the existing permitted wind farm is not considered to represent an excessive accumulation of development when viewed from Prospect 54.
- It is considered that these developments are continuing a trend towards wind energy development being a characteristic feature of the north Wexford/south Wicklow upland rural landscape.
- Objective NH52 of the Development Plan refers to protected views and prospects and requires that due regard will be paid in assessing development applications to the span and scope of the view/prospect and the location of the development within the view/prospect.
- It is not considered that the proposed wind farm at Ballymanus would obstruct the view from Prospect 54.

- The impact when viewed from the designated view 26 from Kilcavan Gap was raised in the Planner's report, however this view was not held in the report of the Chief Executive. The impact to views from Aughrim and Kilcavan Gap were removed from refusal reason no. 1.
- The use of wording in the refusal reason that "the impacts will have a pronounced effect on the landscape, altering its reading as a rolling rural landscape to a more industrialised scene, when the turbines are viewed in the setting."
- It is noted that in the report of the Chief Executive that "this is a rural resource based development where there is not an abundant choice of where to locate such infrastructure."
- The wind turbines are not an industrial form of development in the common understanding of the term. Industrial form of development would evoke an image of chimneys and factories.
- It is concluded that the details contained in the appeal response which refer to landscape and visual assessment that refusal reason no. 1 is justified.

#### **Planning Authority Reason for refusal No. 2 – Site Access/Traffic Hazard**

The Board is referred to the report of the Traffic and Access Report prepared by Roughan & O'Donovan Consulting Engineers. Traffic surveys have been carried out on the local roads adjoining the proposed site entrance to indicate the impacts of the proposed development. It is considered that the proposed access arrangements to the site are appropriate to serve Ballymanus Wind Farm and would not adversely impact traffic safety.

- In relation to haulage routes it is stated that two viable routes for the delivery of abnormal loads have been considered. The transportation of abnormal loads will be controlled through the provision of a Construction Traffic Management Plan (CTMP).
- The CTMP indicates that traffic management controls will be implemented in accordance with Traffic Signs Manual, NRA Publications, National Roads Authority, 2010. Chapter 8 of the Manual refers to Temporary Traffic

Measures and Signs for Road Works. Traffic management at the site entrances will remain in place while temporary access arrangements for abnormal loads are required. Deliveries will be scheduled for early mornings and all abnormal vehicles will be escorted by a safety vehicle. The condition of the road infrastructure on the access routes to and from the site will be recorded before and after completion of construction phase. Should any evidence of defects arise then remedial actions and or works will be carried out.

- During the operational phase there will be minimal traffic movements to and from the site and, therefore, the operational stage traffic impacts will be negligible.
- Traffic surveys were carried out on the local roads near the site entrances. The surveys indicate that existing roads at the two proposed entrances and on the approaching roads to the site carry very low volumes of traffic.
- Drawing number 16226-SA-001 for Site Entrance 1 – indicates adequate visibility splays are achieved.
- Drawing number 16226-SA-002 indicates the Temporary Access link at Roddenagh and Drawing number 16226-SA-003 indicates Site Entrance 2.
- Site entrance 1 is located on the L3205 close to Preban Bridge it is the proposed access the western side of the wind farm on Preban Hill. The entrance is designed to accommodate abnormal loads. The widened entrance is only required to accommodate loads during construction phase and very occasionally during operational phase where there is damage to turbine blades.
- It is proposed to narrow the entrance during the operational phase. This will ensure the entrance does not lead to a traffic hazard.
- Site entrance 2 is an existing forestry entrance at Roddenagh which will be upgraded to allow for the delivery of abnormal loads. It is also required to widen the local road to 6m from the forest entrance to the junction with the L3205.

- It is proposed to construct a temporary access link onto the L3205 to facilitate turbine delivery. The temporary access link will be controlled for access by abnormal load vehicles with traffic management measures.
- The visibility splays at each junction are consistent with TII – Design Manual for Roads and Bridges. Site entrance 1 at Preban Bridge requires some trimming of the boundary hedge to maintain sightlines.
- The visibility splay for site entrance 2 at Roddenagh requires some minor trimming of the boundary hedge to maintain the sightlines.

## 6.2. Grounds of third party Appeal

A third party appeal was submitted by Peter Sweetman & Associates on behalf of Richard Moore O’Ferral & Others. The main issues raised are as follows;

- The application is considered invalid as it does not include the consent of the landowners for the grid connection.
- The Planning Authority did not carry out the mandatory Environmental Impact Assessment as required by the Directive.
- The Planning Authority did not carry out an assessment of biodiversity, particularly in relation to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC.
- The Planning Authority did not carry out an assessment of population and human health.
- The EISR did not consider human health in an appropriate manner.
- The environmental impact assessment does not include all the reasonable alternatives studied by the developer which are relevant to the project.
- It is considered that the EISR is invalid as it states, “there are up to three options for the connection to the national grid, the 38kV underground cable would feed into one of the following:.....”

- The EISR must include a description of project comprising information on the site, design, size and other relevant features of the project. There is no facility for the design to include options.

### 6.3. Applicant Response

A response to the third party appeal has been submitted by Tom Philips Associates on behalf of the applicant, AOB Wind Ireland Ltd. The main issues raised are as follows;

- Regarding the validity of the application, the planning application does not include for a grid connection as part of the proposed development and therefore the consent of the landowners is not applicable.
- In relation to statement in the third party appeal that '*the Planning Authority failed to carry out a mandatory Environmental Impact Assessment as required by the Directive.*' The applicant has provided an Environmental Impact Assessment Report as part of the planning application. This is a matter for Wicklow Co. Council to address.
- Regarding the statement that '*the Planning Authority failed to carry out an assessment of biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC.*' The applicant has provided an EIAR and a screening document for Appropriate Assessment as part of the application. This is also a matter for Wicklow Co. Council to address.
- Regarding the statement which refers to the absence of an assessment of population and human health and that it failed to assess the effects of infrasound, the applicant provided an EIAR which covered the former issues. In relation to infrasound, the levels associated with wind turbines are considered to be at a sufficiently low level as to not impact on human health. There are no current guidelines published in the Republic of Ireland regarding infrasound.



- It is noted that Best Practice Guidance to PPS18: Renewable Energy, in Northern Ireland refers to infrasound and it states, *‘That there is no evidence that ground transmitted low frequency noise from wind turbines is at a sufficient level to be harmful to human health.’* It is further notes that the Guidance states that, *‘infrasound associated with modern wind turbines is not a source which will result in noise levels which may be injurious to the health of a wind farm neighbour.’*
- Therefore, in relation to the matter it is considered that there would be no adverse impact to human health resulting from infrasound.
- Regarding the issue of reasonable alternatives studied by the developer, Section 2.2 of the Environmental Impact Assessment Report addresses ‘alternatives’ in relation to the proposed development.
- It is stated in the third party appeal that the EISR is invalid as there are up to three options for the connection to the national grid. In response it is stated that the options for grid connection are provided for the purposes of assessment under the EIA Directive. It is highlighted in both the EIAR and the planning application that the grid connection does not form part of the proposed development and will be subject to a future planning application.

#### 6.4. **Planning Authority Response**

- None received

#### 6.5. **Observations**

The Board received 5 no. observations from (1) Frances Roache & Others (2) Mountaineering Ireland (3) Wicklow Uplands Council (4) Pat Casey (5) Yvonne Whitty.

(1) Frances Roache & Others

- The proposed development would seriously impact the supply of water to the observer’s farm. Proposed turbines no. 2 and no. 3 are located within the drinking source Killaduff spring GW Contribution zone. This has been

incorrectly indicated on Figure NO: 8:10 Drawing No: P1246-1214-A4-810-00A. Proposed turbines no. 4 and Met Mast 1 are also in the catchment area of the water source.

- The applicant has proposed to protect water supplies in the EIS. However, the observer has expressed concern that the runoff from the roads and turbine sites will flow directly into their water supply. This would result in silt and chemicals entering the water supply which would result in it being undrinkable. This would impact the viability of the farm.
- It is also noted that there is a very high watertable in the area and that there are a number of springs within the catchment area.
- The proposed development would involve digging into the bedrock and removing soil which would impact on the hydrology and geology of the site and surrounding area.
- The observer has raised issues regarding the title to the land. They state that there appears to be no written consent from the owner of lands subject to Folio WW662F and WW37184F.
- A cable route from Preban to Killaduff would interfere with grazing rights and the water springs that forms a lough on Killaduff Hill.
- In relation to the proposed site access, it appears that there are three entrances. The sightlines at site entrance no. 1 are inadequate. It is estimated that there would be up to 50 lorries per day on the local roads during the construction phase. These roads are not designed to accommodate that level of traffic.
- It is also noted that there are significant numbers of walkers on the roads that enter the woods at Roddenagh and Kiladuff. Therefore, pedestrian safety would be compromised with the increased level of HGV movements.
- It is considered that the proposed development would seriously impact the local habitat. The site forms part of the catchment of the Ow River which is a salmonid river. The main Aughrim channel contains three species of lamprey which are listed under Annex II of the Habitats Directive. The freshwater pearl

mussel which is listed under Annex II of the Habitats Directive is also indigenous to the Aughrim channel.

- It is noted that there are endangered species of birds on the lands where the wind farm is proposed. They include Woodcock, Meadow Pipit and Red Grouse. Concern is also raised that the proposed development would impact upon the core breeding area for Red Kites.
- Other protected animal species found on the site include bats, pine martins, red squirrel, badgers, otters and hare.
- The proposed wind farm would impact upon the observers sporting rights on lands at Killaduff.
- The development would have a negative impact on the health of local residents due to the noise level which would be generated. The maximum allowable decibels at night time is 43dB. The observer's house would be located close to the wind farm and the noise level would be 42.4dB which is only 0.6dB below the maximum allowable limit. This would, therefore, have a serious negative impact on their health and sleep patterns.
- Concern is raised regarding the level of shadow flicker which the observer's house and farm would experience and the potential impact on them and their livestock.
- The visual impact the proposed wind farm would cause is also highlighted.

## (2) Mountaineering Ireland

- Mountaineering Ireland strongly refutes the claim made by the appellants that the proposed development would not industrialise the rural landscape setting.
- Mountaineering Ireland also challenge the assertion in the Landscape and Visual Impact Assessment that wind turbines belong on exposed hills. Technical improvements have provided that wind turbines function well in other settings. It is noted that the siting of wind turbines along motorways is common on the Continent.

- Concern is raised at the statement in the Landscape and Visual Impact Assessment that *'rather than industrialising the rural landscape, these developments are considered to be a continuing trend towards wind energy development being a characteristic feature of the north Wexford/south Wicklow upland rural landscape.'* In the absence of up to date wind energy guidelines it is vital that the Board ensure the protection of the character of the south Wicklow uplands.
- The Landscape and Visual Impact Assessment submitted with the application is considered to be flawed, particularly in relation to the selection of Viewshed Receptor Points. The selection of VRP's masks the impact that the proposed development would have on the experience that hill walkers would enjoy in the Wicklow Mountains and on the Wicklow Way.

### (3) Wicklow Uplands Council

- They consider that minimal public and community consultation was carried out and that there is a potential threat to the Wicklow Upland landscape.
- Wicklow Uplands Council state that they support renewable energy. However, they consider that wind farm development should be encouraged provided that sites are carefully selected in terms of their impact on the landscape, environment, people and wildlife.
- They consider that the Ballymanus windfarm would introduce an artificial industrial restructuring of the landscape at a scale and location which is entirely inappropriate.
- The Wicklow Uplands landscape covers a geographical area from the foothills at the N11 on the eastern side of the core mountain area to the N81 to the west and the Co. Wexford border to the south. The wide Wicklow Uplands landscape must be considered as a uniquely outstanding landscape. The site is located within an area designated as an Area of Special Amenity. The Southern Hills of Co. Wicklow provide a different scale from the central and higher mountain range. However, they display a unique character.

- The proposed turbines would be located along the hill range which runs parallel with the R747. There is a 5km section of the R747 which runs from Annacurragh junction west towards Tinahely which is a 'scenic route' - Prospect no. 54 in the Development Plan. The proposed development would have a negative impact on the visual amenity of the area and would dominate the skyline along the 'scenic route'.
- It is noted that the area has been identified as an area 'less favoured' (orange zone) for wind development in the Wicklow Wind Energy Strategy 2016-2022. The Observers state that to their knowledge a wind development proposal has not yet been approved in a less favoured area and, therefore, if permission were granted it would set a national precedent.
- It is noted that the Landscape and Visual Impact Statement prepared by MacroWorks challenges the assertion that the proposed development would have a long lasting visual impact on the South Wicklow landscape. Given the height and scale of the proposed turbines at 150m they would have a long lasting visual impact on the landscape and will alter the rolling landscape.

#### (4) Pat Casey TD

- Mr Casey TD strongly objects to the proposed development of industrial turbines.
- The south Wicklow rural landscape has a distinct and invaluable natural character and heritage.
- The proposed 150m high wind turbines, access roads and associated works would destroy the rural landscape and negatively impact the neighbouring communities of Askanagap, Aughrim, Annacurra, Preban and Ballinglen. The visual, noise and flicker effect on the communities would be unacceptable.
- The proposed development would place undue risk upon the historic and protected bridges at Ballinglen and Aughrim.
- There are a number of wind farm developments located in south Wicklow and it is considered that the proposed development would saturate the landscape with additional turbines of a height and scale which would be inappropriate.

- This is the second application made by ABO Wind Ltd to construct turbines at this location. The Planning Authority previously refused permission based on visual impact to the local community and the irrevocable change from a rural to an industrial landscape. It is considered that the current application has not addressed these reasons for refusal.
- The applicant ABO Wind Ltd have not conducted adequate community consultation.

(5) Yvonne Whitty

- Ms Whitty states that she is a licenced archaeologist.
- The archaeological assessment carried out is considered incomplete. In the Environmental Impact Assessment Report, it is stated that specialist consultants have investigated the site and its environs in detail. However, it is noted that in Chapter 13 on page 27 that the Archaeological consultants state that their assessment is based on a desktop review of the available cultural heritage and archaeological data and a comprehensive programme of field inspection of the site.
- The observer considers that the incomplete research was carried out and that the archaeological assessment fails to protect the heritage of the area.
- The location and layout of the windfarm development within a rich archaeological landscape does not understand or mitigate the impacts of the development on the unique and non-renewable archaeological heritage of the area.
- It is noted that there are many RMP sites in proximity of the site. Enclosure WI039-010-Ballinglen is an enclosure of 50m. The enclosure is circa 300m to the south-west of turbine no. 10. This RMP is mentioned within the EIA study area boundary however no archaeological mitigation measures are provided.
- Bivallate ringford WI039-001-Ballinglen is located 26m from the access road, 50m from a crane pad and 106m from turbine no. 8. The site boundaries between the archaeological map and the mapping of the applicant does not correspond. The ringfort is located in forested ground which has been

planted over. However, features are still visible on aerial photographs. It is considered that the recommendation to fence off the site including a 20m buffer zone is not an appropriate archaeological measure. The likelihood of encountering sub surface archaeological remains is certain. The observer states that it would be appropriate that a geophysical survey be undertaken as the site boundary of the development appears to impact upon the ringfort.

- There is another Bivallate ringfort WI039-002 situated 287m to the north-east of the site. The ringfort is defined as being well preserved and well defined. The feature is clearly visible in the landscape and is 54m from the access road, 198m from turbine no. 8 and 73m from the proposed site compound. The archaeological mitigation as set out on page 444 of the EIA recommends the provision of a 30m buffer zone around the monument. Given the proximity of the site boundary to the ringfort it is recommended that a geophysical survey be undertaken.
- Enclosure WI039-003 – Ballinglen is the largest enclosure/ ringfort in proximity to the site. It is located 432m to the north-east of the site. The monument is well defined and well preserved. The site boundary would impact on the northern bank of the ringfort. The archaeological mitigation states that a 30m buffer should be provided around the monument.
- Holy Well WI034-035 – Roddenagh is located in an area which is under plantation. There is no impact assessment or archaeological mitigation for this RMP site.
- Section 13.5 of the EIA refers to archaeological mitigation measures which do not protect the heritage of the area. It states that there is no way of knowing the extent of the archaeology on the ridge which straddles the townlands of Ballinglen and Preban without the completion of an EIA which takes into account the design, location, construction methods, geophysical survey, testing if appropriate and detailed discussions with the National Monuments Service. The EIA notes *that 'this ridge was favoured for settlement in the early medieval period'*. It is further stated in the EIA that *'there may be increased potential for uncovering sub surface features as a result of the*

*construction works and that appropriate mitigation put in place prior to these works will prevent the loss or damage to the archaeological record.'*

- It is considered that these measures will fail to protect the archaeological record.
- There are three other enclosures located in the wider landscape. They are WI039-006, WI039-007, WI039-008 and WI039-008-001. Preban graveyard is located 300m to the south of the proposed access road. Preban may have been an early monastic site and archaeological features have been identified over 100m from the graveyard. This has serious implications for the siting of the proposed windfarm.
- The turbines would be visually dominant when viewed from the graveyard and from the bivallate ringforts, enclosures, holy well and from other sites.
- Inadequate and incomplete research was carried out in relation to archaeological assessment. The EIA fails to provide a historical background or place name analysis.
- Chapter 13 'Archaeology and Cultural Heritage' has failed to address the direct impacts on the integrity and visual amenity of monuments.
- The proposed windfarm should it proceed will directly impact upon the landscape which is rich in archaeological heritage.
- The EIA is inadequate as it fails to identify potential impacts and mitigate them in a way which will ensure that the cultural heritage is preserved.
- The proposed development is also contrary to the Built Heritage Strategy of the Wicklow County Development Plan 2016-2022.

## 6.6. Further Responses

A response to the first party appeal was submitted on behalf of the third party appellants Richard Moore O'Farrell & Others. The main issues raised are as follows;

- The submission reiterates and summarises the first party appeal grounds.



- Mr John O'Driscoll of Glenview, Ballinglen, Tinahely states that he is the owner of lands at Ballinglen the title which is registered in the Land Registry under Folio reference WW588F. The red line boundary of the proposed wind farm crosses Mr. O'Driscoll's lands in a number of locations. Mr. O'Driscoll states that he has not given his consent for development on his lands.
- It is stated, that, the applicant cannot develop the site access in accordance with the submitted plans.

## 7.0 **Assessment**

Having regard to the above, and having inspected the site and reviewed all documents on file, the following is my assessment of this case. Issues to be considered in the assessment of this case are as follows:

- Planning policy
- Visual amenity and landscape character
- Traffic and Access
- Environmental Impact Assessment
- Appropriate Assessment
- Other issues

### 7.1. **Planning policy**

- 7.1.1. It is national, regional and local policy to promote the development of renewable sources of energy. The development of renewable energy is a key part of the Government's Energy Policy Framework 2007-2020. The need to support renewable energy stems from Ireland's international commitments under the Kyoto protocol and

European Directive 2002/77/EC. Under the EU Renewable Energy Directive 2009 the National 2020 target for Ireland is to source 16% of all energy consumed from renewable sources. These policies are transposed into County Development Plan.

- 7.1.2. With regard to the principle of development of the appeal site for a wind energy development, there are a number of provisions of the development plan that are of relevance. The Wind Energy Strategy that forms part of the Wicklow County Development Plan 2016 – 2022, identifies preferred areas for wind energy development within the County. The proposed development is located in an area designated as ‘less favoured’ for wind energy development in the Plan as identified on Map No. 3. This corresponds with the landscape classification Area of High Amenity. It is advised in the Strategy that in such locations challenges to wind energy exploitation are present, such as listed views and prospects, and areas of heritage value in particular ‘Natura 2000’ designations. In relation to all three areas identified in the Strategy it is advised that due regard shall be taken of listed views and prospects and any development that would contravene objective NH52 of the Plan.
- 7.1.3. Objective NH52 refers to views and prospects and requires that due regard will be paid in assessing development applications to the span and scope of the view / prospect and the location of the development within that view / prospect.
- 7.1.4. Policy EN13 of the Plan states that it is policy ‘to facilitate the development of wind energy sources where proposals are consistent with the landscape preservation objectives of the Plan, the protection of the natural and built environment and the visual and residential amenities of the area’.
- 7.1.5. Wind Energy Objective CCE6 states that it is policy to encourage the development of wind energy in accordance with the County Wicklow Wind Energy Strategy and in particular to allow wind energy exploitation in most locations in the County subject to:
- consideration of any designated nature conservation areas (SACs, NHAs, SPAs, SAAOs etc) and any associated buffers;
  - impacts on Wicklow’s landscape designations;

- particular cognisance and regard being taken of the impact on wind turbines on residential
- amenity particularly with respect to noise and shadow flicker;
- impacts on visual and recreational amenity;
- impacts on 'material assets' such as towns, infrastructure and heritage sites;
- consideration of land cover and land uses on or adjacent to the site; and
- best practice in the design and siting of wind turbines, and all ancillary works including access roads and overhead cables.

7.1.6. Having regard to the provisions of the Wicklow County Development Plan, the proposed development may be considered acceptable in principle in terms of policy context, subject to consideration of the proper planning and sustainable development of the area and to the carrying out of EIA and AA.

## 7.2. **Visual amenity and landscape character**

7.2.1. The Planning Authority refused permission on the basis that the proposed development due to the size and scale of the proposed turbines, the location of the site within Listed Prospect 54 and the cumulative impact arising from existing and permitted wind developments would form a significant visual intrusion in the landscape.

7.2.2. The potential impact upon the landscape character and the visual amenities of the area have been cited by a number of observers to the appeals and also by the Prescribed Body, Failte Ireland. Failte Ireland in their submission to the Planning Authority raised concerns at the location of the wind farm within an area designated as 'less favoured' in the Wicklow County Wind Strategy. They noted that the heritage of Co. Wicklow is of significant importance and, that the proposed development has the potential to have a negative impact upon tourism in the area. Mountaineering Ireland, Observers to the appeals raised the matter of the visual impact of the proposed development specifically the impact upon the Wicklow Mountains landscape.

- 7.2.3. The observers, Wicklow Uplands, also noted that the site is located within an area 'less favoured' for wind energy projects as set out in the Wind Energy Strategy for the County. Furthermore, they raised concern that the site is located within Prospect no. 54 which is listed in the Development Plan for protection. The observers Frances Roache and Others and Pat Casey TD also raised the visual impact of the proposed development. The observer Yvonne Whitty cited the potential visual impact of the proposed development upon the cultural and archaeological heritage of the area.
- 7.2.4. The proposed wind farm at Ballymanus lies within an Area of High Amenity – 3(c) The Southern Hills. It is described in the Landscape Assessment of the County Development Plan (Appendix 5) as lands generally following the 300m contour comprising of 1) the mountainous leg from Moylisha running north-west of Shillelagh, Tinahely and Aughrim 2) the Croghan Mountain area south of Aughrim and Woodenbridge and 3) the Kilcavan Gap and Hillbrook area. As illustrated on figure 2.1 of Appendix 5, Landscape Sensitivity Map for the County, the site is located in an area categorised as low to medium sensitivity. As per Map 3 of the Wicklow Wind Energy Strategy – Appendix 6 of the County Development Plan the site is located within an area categorised as 'less favoured' for wind energy development.
- 7.2.5. In relation to the current proposal the development of 11 no. wind turbines with an overall height of up to 150 metres represents a significant alteration in the landscape in particular as the turbines are located in an area designated Area of High Amenity. The appeal site forms part of a landscape where there are many houses and farms and the alteration of the landscape will therefore have an impact. This impact, and concerns relating to this impact, is reflected in many of the submissions.
- 7.2.6. The issue of landscape and visual impact is addressed within Chapter 11 of the submitted EIAR. The landscape is described in the EIAR as the southern end of the Wicklow Mountains containing an elongated ridge. The northern half of the study area contains the core of the Wicklow Mountains. While to the south of the site the undulating landscape of hills and valley gradually dissipates to more gentle rolling terrain. The EIAR considers the landscape and visual impact of the proposed development within a study area with a radius of 20km. A Zone of Theoretical Visibility (ZTV) study was undertaken and is included with the application.

- 7.2.7. The theoretical visibility is constant for circa 2-3km in all directions and it remains to a distance of 10km to the south and south west. There will be no theoretical visibility to some areas within the study area including to the south-east and towards the core of the Wicklow Mountains to the north.
- 7.2.8. The Wind Energy Development Guidelines provide guidance for various landscape character types. I consider that the appeal site can be described as predominately 'hilly and flat farmland' with some aspects of 'transitional marginal landscape' and the Guidelines provide guidance in terms of the location, spatial extent, spacing, layout, height and cumulative effect of wind energy projects in this landscape type.
- 7.2.9. With regard to visual impacts, the EIAR identifies 28 Viewshed Reference Points based on various key views, designated scenic routes/views, local community views, centres of populations and amenity/heritage features. Photomontages have been provided for each VRP, and each photomontage provides a direct comparison between the permitted development and the proposed development for each view. Having visited the site and surrounding area, I consider that the 28 VRPs are representative and provide an adequate basis for assessing the visual impact of the proposed development from a broad range of vantage points.
- 7.2.10. Of the 28 VRPs, 5 are deemed to experience a Moderate visual impact, with a further 5 experiencing a Slightly-Moderate visual impact. The VRPs experiencing a Moderate visual impact are located between 0.86km and 13km from the proposed development. The significance of the impact arises primarily from the visual sensitivity of the receptors and, in the case of the closer range views, it arises from the magnitude of the impact.
- 7.2.11. The viewpoints which I consider to be most significant are:
- VRP Ref: DR3 – the local road at Coolahullin
  - VRP Ref: DR5 – the R747 near Mucklagh Bridge
  - VRP Ref: DR6 – the R747 near Mucklagh
- 7.2.12. When viewed from VRP Ref: DR3 on the local road at Coolahullin all of the turbines would be fully or partially visible, with the four turbines at Preban and Askakeagh

being visible above the skyline. The viewing location is downhill from the turbines which emphasises their height and dominance.

7.2.13. When viewed from VRP Ref: DR5 on the R747 near Mucklagh Bridge, six of the turbines would be fully visible from that location and they would be visible above the skyline. The viewing location is downhill from the turbines which emphasises their height and dominance.

7.2.14. When viewed from VRP Ref: DR6 on the R747 near Mucklagh, seven of the turbines would be fully visible and they would be visible above the skyline. Two turbines would be partially visible from that location. The viewing location is downhill from the turbines which emphasises their height and dominance.

7.2.15. Both VRP Ref: DR5 and VRP Ref: DR6 are located within Listed Prospect No. 54. Listed Prospect No. 54 – Origin at Coolalug, Mucklagh, Tomnaskela and Kilpipe across the Derry Water River towards south Wicklow Mountains. Objective NH52 refers to listed views and prospects and states that it is a Development Plan objective to protect listed views and prospects from development that would either obstruct the view /prospect from the identified vantage point or form an obtrusive or incongruous feature in that view /prospect. Due regard will be paid in assessing development applications to the span and scope of the view / prospect and the location of the development within that view / prospect. The proposed turbines would extend across the landscape for circa 3.3km within the listed prospect and with a maximum overall height of 150m to blade tip from existing ground level would be highly visible and strident features which would breach the skyline and would have a significant negative impact upon Listed Prospect No. 54 and on the visual amenities of the area.

7.2.16. The EIAR also considers the cumulative visual impact of the proposed development with other permitted or operational wind farms within the 25km study area.

Ballycumber wind farm, a permitted scheme of 6 no. turbines with a maximum blade tip height of 130m, is currently under construction and is located circa 3km to the south-west. Ballyshanog wind farm, with two turbines, lies circa 7km to the south-west and Raheenleagh wind farm is situated circa 9km to south-east. A cumulative ZTV map was submitted to illustrate the visibility of the proposed development and

the locations where other wind farms will be visible. The cumulative ZTV indicates that it is the wind farm at Ballycumber which is most likely to be viewed in conjunction with the proposed wind farm. The cumulative impact of the proposed wind farm in combination with the Ballycumber wind farm is particularly illustrated from VRP Ref: DR6 on the R747 near Mucklagh.

7.2.17. In conclusion, I would consider that the overall cumulative impact, with particular regard to permitted wind farm at Ballycumber which is currently under construction and already visible, would unduly detract from the overall visual quality of List Prospect No. 54 and the High Amenity Area and would have an unacceptable impact on the visual amenities of the area. I consider, therefore, that planning permission should be refused on this basis.

### **7.3. Traffic and Access**

7.3.1. The Chapter 14 of the EIAR deals with the topics of transport, traffic and access. In essence, an important consideration for the proposal is how construction traffic will access the appeal site with minimal disruption and damage to the existing road network. Observers to the appeal raised the matter of the level of traffic which would be generated during the construction phase. Transport Infrastructure Ireland in their submission to the Planning Authority stated that in relation to the proposed turbine haul route that any works to National Road junctions shall comply with relevant TII publications. In relation to the proposed cable route options to cross the M11 this would require consultation with TII.

7.3.2. The preferred route as outlined by the applicant is to travel from Dublin Port or Rosslare Europort. It is noted in the EIAR that a final shipping port has not been determined. Anticipated abnormal load delivery options are provided with two potential routes using the Motorway and National road network. The first route is from Dublin Port via M50, M11, N11, N80 to Bunclody with further options off regional and local roads to access the lands at Ballymanus. The second route is from Rosslare Europort via, N25, N11, N80 to Bunclody then via the regional and local roads to the site.

7.3.3. The two routes to the site from Bunclody are (1) via R746, R725 east, R748, R747, L6304 and L3205 to the site entrances and (2) via R746, R725 west, R749, L3205 to

the site entrances. Table 14.3 of the EIAR sets out the Abnormal Load Points of Interest for the route options. A vehicle Swept Path Analysis was carried out of the locations identified as constraint areas. There are several locations particularly on the route from Rosslare Europort towards Bunclody which would require the temporary removal of signage and street furniture to facilitate the movement of abnormal loads. On the regional and local roads, upgrade and repair works would be required at the junction of the R747 and L6304 at Coolalug and the junction of L6304 and L3205 at Drummin. A crossing of the L3205 the Bridge at Ballinglen is identified as a constraint. Jennings O'Donovan Consulting carried out an inspection of the bridge and determined that structurally it has the capacity to facilitate abnormal loads subject to the loads being in accordance with the limits allowed by Regulation 2003, S15 of 2003.

- 7.3.4. The construction phase is over a 12 month period. The predicted traffic movements during the construction phase are detailed in Section 14.5.2 of the EIAR. The completion of the access roads, crane pads and the met mast area would be carried out over 20 weeks and would generate 106 HGV movements per day. The construction of turbine and met mast foundations would occur over 22 weeks and deliveries arising from this would occur over 11 days with a total of 44 HGV movements. In terms of abnormal loads, it is estimated that there would be 88 to be delivered at an average of 11 loads per week. It is estimated that a maximum of 60 car movements per day would be generated by construction workers.
- 7.3.5. During the operational phase the impact of traffic is described as negligible in the EIAR. Traffic would arise as a result of servicing and maintenance of the wind farm. However, this would be very limited. In terms of cumulative impacts, the traffic associated with the grid connection has been considered in section 14.5.5 of the EIAR. It is noted that it is highly likely that the construction phase of the proposed wind farm and cable route will overlap. It is estimated that during the construction of the cable route that there would be an additional 9 no. HGV's per day and 13 no. cars with 1 no. mini bus. This would represent a very limited amount of additional vehicular movements.
- 7.3.6. I do not consider that the proposal would result in significant traffic generation during construction or operation. Traffic issues can be appropriately managed through a



construction traffic management plan. I accept the conclusion of the EIAR, that the proposed development is not likely to result in a significant impact on the road network or on existing users and consider that, subject to the implementation of the mitigation measures outlined in the EIAR and a condition requiring a construction traffic management plan to be agreed with the Planning Authority, the proposed development is acceptable with regard to traffic and transport impacts. Should the Board decide to grant permission, I consider it appropriate to also attach conditions requiring the undertaking of a roads and bridge survey and the payment of a financial contribution and/or bond towards the restoration of the local road network following the construction phase.

- 7.3.7. In terms of access to the site, the second reason for refusal issued by the Planning Authority refers to the proposed site entrances. It is stated that inadequate information was provided in relation to sight distances at the proposed entrances and that it was considered that the proposed development could endanger public safety by reason of serious traffic hazard.
- 7.3.8. The applicant has sought to address the matter as part of the first party appeal with the submission of a traffic and access report. Two new access points to the site are proposed. Site entrance 1 at Preban and site entrance 2 at Roddenagh.
- 7.3.9. Site entrance 1 is located at Preban on the L3205. It is proposed to provide access to the wind farm on Preban Hill during the construction phase. Drawing number 16226-SA-001 indicates the proposed new entrance 65m to the west of Preban Bridge and 20m to the west of an entrance serving a dwelling and a number of agricultural buildings. Sightlines of circa 160m are indicated to the east from the proposed entrance to the eastern side of Preban Bridge. Sightlines of 160m are indicated to the west along the public road subject to the existing hedge being trimmed back. Sight visibility west in the direction of Ballinglen is somewhat restricted due to the incline of the local road and the existing roadside boundary to the west of the proposed entrance which is characterised by mature trees and hedgerow. Therefore, in order to achieve adequate sightlines, the roadside boundary hedgerow to the west would be required to be trimmed for a distance of circa 90m from the entrance. In relation to this matter I would note that the area indicated for the existing hedge to be trimmed back is outside the site area or the

area indicated as part of the overall landholding as illustrated on the submitted plans and drawings.

- 7.3.10. While, I note that, it would appear that, the applicant does not have control over the adjoining land or the consent of the landowner/s to carry out hedge trimming to improve sightlines to the west, I also note that the use of the proposed entrance for construction access will be subject to a detailed construction traffic management plan. Therefore, the movement of traffic along the L3205 to west would be controlled with in-situ traffic management during the construction phase and specifically when the entrance is in use. Section 14.6 of the EIAR refers to mitigation measures and states that during the construction phase, traffic management controls will be implemented by the developer in accordance with the NRA publication, 'Traffic Signs, Manual (2010). The implementation of traffic management controls will ensure that construction traffic can enter and exit the site safely, with minimum disruption to other road users and also that traffic on the local road is safely managed. Accordingly, I am satisfied with the vehicular access arrangements at site entrance 1.
- 7.3.11. In relation to site entrance 2 at Roddenagh the Municipal District Engineer raised concerns regarding the proximity of the proposed entrance to the junction between L-2143 and L-7137. The first party appeal was accompanied by revised drawings. Drawing No: 16226-SA-002 indicates the proposed upgrade of the existing forestry entrance to facilitate access of abnormal loads. Sightlines of 160m are indicated to the east and west at the proposed entrance off the Roddenagh road to facilitate the movement of abnormal loads. At the existing forestry entrance at Roddenagh, as indicated on Drawing No: 16226-SA-003 it is proposed to widen the road along the southern side for approximately 200m. This area is within the site boundary. Sightlines of 160m are indicated to the north-west and south-east of the proposed entrance. Having regard to the revised drawings submitted in relation to the vehicular access arrangements from the Roddenagh road and the existing forestry entrance which it is proposed to upgrade, which indicate the provision of sightlines of 160m in each direction at both access points, subject to the provision of the sightlines as indicated on Drawing no: 16226-SA-002 & Drawing No: 16226-SA-003,

I consider the proposed vehicular entrance arrangements at that location would be acceptable.

#### 7.4. Environment Impact Assessment

##### Introduction

- 7.4.1. This application was submitted after 16 May 2017, the date for transposition of Directive 2014/52/EU amending the 2011 EIA Directive. The Directive has not, however, been transposed into Irish legislation to date. In accordance with the advice on administrative provisions in advance of transposition contained in Circular letter PL1/2017, it is proposed to apply the requirements of Directive 2014/52/EU.
- 7.4.2. The 2014 Directive did not make any changes to Annex 1 or 2 of Directive 2011/92/EU which identifies projects for the purposes of EIA. Therefore, Schedule 5 of the Planning and Development Regulations, 2001 (as amended), for the purposes of EIA, still applies. Therefore, the subject proposed development of an 11 no. turbine wind farm comes within the scope of Part 3 (i) "*Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts*", which is a class of development requiring the submission of an EIAR.
- 7.4.3. An assessment of whether the information contained in the EIAR complies with the relevant legislative provisions (article 94 of the Planning and Development Regulations 2000) is required.
- 7.4.4. Under the provisions of Directive 2014/52/EU the following information is required to be provided by the developer;
- (a) a description of the project comprising information on the site, design, size and other relevant features of the project;
  - (b) a description of the likely significant effects of the project on the environment;
  - (c) a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;
  - (d) a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main

reasons for the option chosen, taking into account the effects of the project on the environment;

(e) a non-technical summary of the information referred to in points (a) to (d); and

(f) any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.

- 7.4.5. In relation to the above I am satisfied that a comprehensive description of the project comprising information on the site, design, size and other relevant features of the project is provided within Section 3 of the EIAR. This includes details of three options for connection to the national grid which would be subject to a separate planning application but which are required for the purposes of EIA.
- 7.4.6. Regarding the provision of a description of the likely significant effects of the project on the environment the matter is addressed separately in relation to each topic examined in the EIAR.
- 7.4.7. In relation to a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment, this is also provided within the EIAR.
- 7.4.8. Regarding the exploration of reasonable alternatives, the applicant carried out a site finding exercise. This is set out in Section 2 of the EIAR. Table 2.2 details the alternative wind farm locations studied. Five alternative locations in Co. Wicklow and Co. Wexford are provided. A description of each site and the potential for wind farm development was given. It was concluded from this exercise that the lands at Ballymanus were suitable for wind energy development and that it should be examined in more detail.
- 7.4.9. Regarding the provision of a non-technical summary, I consider that an adequate summary of the EIAR in non-technical language is provided in Volume 1.
- 7.4.10. In relation to the additional information specified in Annex IV of Directive 2014/52/EU it should be noted that the subject proposal does not involve demolition works. All other relevant issues set out in Annex IV, I consider have been satisfactorily addressed.

7.4.11. The third party appellant considered that the EIAR did not adequately consider human health, reasonable alternatives or satisfactorily address the matter of grid connection. I am satisfied that the EIAR has fully addressed the matters of human health, reasonable alternatives and the options for grid connection which are subject to EIA but does not form part of this planning application.

7.4.12. In conclusion, I am satisfied that the information contained in the EIAR complies with article 94 of the Planning and Development Regulations 2000, as amended, and the provisions of Article 5 of the EIA Directive 2014.

#### Environmental Impact Assessment

7.4.13. Article 3 of the EIA Directive (as amended by the 2014 Directive) refers to the obligation on the Competent Authority to carry out EIA. It sets out the following factors which are required to be identified, described and assessed in order to establish the direct and indirect significant effects of a project on those factors:

- (a) population and human health;
- (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;
- (c) land, soil, water, air and climate;
- (d) material assets, cultural heritage and the landscape;
- (e) the interaction between the factors referred to in points (a) to (d).

7.4.14. The following examination draws on the EIAR, the first and third party appeals, the submissions made by observers, prescribed bodies and the local authority, the applicant's response to same, and my site visits and analysis. It has regard to the receiving environment, the characteristics of the proposed development, likely significant impact of the proposal on the environment both direct and indirect, and mitigation measures proposed in order to eliminate, reduce or control effects on the environment. Cumulative impacts with existing, permitted and planned development where appropriate are referenced and assessed throughout.

7.4.15. I am satisfied that the EIAR, taken in conjunction with the other details available, including the local authority's report and observations received, is adequate to

enable the Board to carry out an environmental impact assessment and to make an adjudication on this application.

7.4.16. For the purposes of EIA, I will make my examination under the following topics as set out in 2014 Directive. (a) Population and Human Health (b) Biodiversity (c) Land, soil, water, air and climate (d) Material Assets, cultural heritage and the landscape (e) Interaction of the factors.

#### 7.4.17. **Population and Human Health**

7.4.18. The third party appellants and a number of the observers to the appeals raised concern specifically in relation to potential impacts to population and human health. Chapter 9 of the EIAR relates to human beings. It considers the potential impact of the proposed development on population, socio-economic issues, land use and services, residential amenity, tourism, property values, health and safety issues.

7.4.19. In terms of socio-economic issues, I concur with the EIAR that there will be a direct and indirect impact. During the construction phase the project would have a temporary positive impact on the local economy. The EIAR estimates that following construction and during operation of the project €36 million would be retained in the national economy and that it will be beneficial also to the local economy.

7.4.20. In relation to land use impacts, during construction there will be disturbance to existing land uses in terms of livestock grazing on pastures and limited traffic restrictions. The development would result in a permanent impact to forestry in the area with the felling of trees.

7.4.21. In terms of tourism impacts, during the construction phases there would be restricted access for walkers using the Coillte lands. In relation to potential impact during abnormal load deliveries it is considered that there will be any significant impact as the site is not located on a tourist route.

7.4.22. Regarding impacts to residential property this would primarily occur during the construction phase which would generate noise, dust and cause temporary effects to access to local properties.

7.4.23. During the operational phase it is set out in the EIAR that it will generate socio-economic benefits to the national, regional and local economy. Concerning land

uses during the operational phase, the wind farm would have no significant impacts. During the operational phase there will be a visual impact on visitors to the area. It is stated in the EIAR that this is not necessarily considered a negative impact.

- 7.4.24. In terms of the potential impacts to residential amenity during the operational phase the primary impacts were identified as arising from potential noise and shadow flicker. Having regard to the distances between the closest dwellings and the proposed wind farm, it is stated in the EIAR that it is not considered that there will be a significant impact on the property values of the dwellings.
- 7.4.25. A Health and Safety Plan is provided for the construction phase including for the transportation of oversized loads. Regarding human health it is stated in the EIAR that the predominant impacts to human health as a result of wind farm development are generally due to nuisance caused by excess noise, excess shadow flicker, increased traffic, increased dust and reduction in air quality. The matter of impacts from electric and magnetic fields (EMF) was raised following consultation with the local community. In regard to this it is stated in the EIAR that scientific research has not yet confirmed the negative impacts of EMF generated by wind farms. Overall, it was concluded that health impacts are unlikely.
- 7.4.26. During the decommission phase the impacts are likely to be similar as to the construction phase but to a lesser degree. Mitigation measures are set out in Section 9.5 of the EIAR. A Community Liaison Strategy will be provided to cover all the phases of the project and a Community Liaison Officer will be appointed to address issues as they arise. During the construction phase the Coillte lands would be inaccessible. In relation to mitigation for land use impacts, signage will be provided to direct users away from the tracks. Following construction of the scheme an improvement to forest trails could be provided in partnership with Coillte Teoranta.
- 7.4.27. Potential impacts to human health could arise from noise generated. The potential noise impact of the proposed development is set out in Chapter 10 of the EIAR.
- 7.4.28. The matter of low frequency sound and infrasound is discussed in Section 10.2.4 of the EIAR. Infrasound and low-frequency noise (ILFN) are airborne pressure waves that occur at frequencies  $\leq 200$  Hz. A publication of the German Institute for

Standardisation published in 2006 is cited in the EIAR. It is advised in the German Standard DIN45680 – Measurement and Assessment of Low-Frequency Noise Emissions in the Neighbourhood, that “at frequencies under 20Hz (infrasound), there is no pronounced auditory sensation because pitch is no longer perceived. Nevertheless, infrasound is not completely inaudible..”. Section 10.2.4.3 of the EIAR refers to infrasound in the context of wind energy. An article from an Institute of Acoustics Bulletin is cited, titled ‘Agreement about relevant factors for noise assessment for wind energy projects’. A section of the article states, “A report for the DTI in 2006 by Hayes McKenzie concluded that neither infrasound nor low frequency noise was a significant factor at the separation distances at which people lived. This was confirmed by a peer review by a number of consultants working in this field.”

7.4.29. It was concluded in the EIAR in relation to low frequency or infrasound that, on the basis of the information available that the matter of low frequency or infrasound did not warrant further investigation and that it would not impact human health. Regarding low frequency or infrasound, the Board may be aware from previous cases of the research of Dr. G Leventhall carried out for the Department for Environment, Food and Rural Affairs in the United Kingdom. I would note the document ‘A Review of Published Research on Low Frequency Noise and its Effects’ prepared by Dr. G Leventhall for DEFRA, 2003. Dr. Leventhall states that despite the numerous published studies there is little or no agreement about the biological effects of infrasound or low frequency sound on human health. The low frequency hearing thresholds are set out in the document. At 4Hz it is 107dB, at 10Hz it is 97dB and at 20Hz it is 79dB. Therefore, high levels of infrasound are required to exceed the hearing thresholds at such low frequencies. Dr. Leventhal concluded in his report that would be no serious consequences to peoples’ health from infrasound exposure.

7.4.30. The EIAR identifies a total of 154 receptors within 756m and 2,258m of the proposed turbines. Baseline monitoring was carried out on Thursday 9th of February and Thursday 23rd of February 2017 at 4 no. locations in the vicinity of the appeal site for a range of wind speeds from 4-12 m/s. The wind speeds recorded and background La90 at quiet daytime and ETSU-R-97 [Institute of Acoustics (2013) Guide Practice



Guide to the Application of ETSU-R-97 for the Assessment of Rating of Wind Turbine Noise]. All recorded levels were below the ETSU-R-97.

- 7.4.31. The six properties with the greatest predicted noise level as a result of the proposed wind farm are set out in Table 10.9 and Table 10.11 of the EIAR. The predicted noise levels are compared with ETSU limits. The provided data indicates that predicted noise levels would not breach the limits for day or night.
- 7.4.32. A cumulative assessment was also carried out which considers the noise impacts from six additional wind turbines operating at the approved Ballycumber site. The predicted noise levels as indicated in Plate 10.14 and Plate 10.16 of the EIAR do not exceed the ETSU-R-97 limits or the limits set out in the Wind Energy Development Guidelines (2006).
- 7.4.33. As set out in Section 10.5 of the EIAR, while no significant impact is anticipated mitigation measures will be implemented during construction. It is not anticipated that any residual impact will occur following the completion of construction works. Mitigation measures are also proposed to ensure the scheme is in compliance with noise limits as set out in the ETSU-R-97 and Wind Energy Development Guidelines. I would consider, having regard to the proposed mitigation measures as outlined in Section 5.10 of the EIAR, that the overall noise implications from the proposed development would not adversely impact on the amenities of the area.
- 7.4.34. Shadow flicker is a further issue which has the potential to impact population and human health. A shadow flicker assessment utilising WindPRO software was undertaken for the 154 no. receptors located within 10 rotor diameters (i.e. 1,030m) of a turbine. The assessment provides 'worst case' shadow flicker impacts for daily and annual scenarios, as well as the 'expected' shadow flicker for the annual scenario, which is based on historical records from the Kilkenny meteorological station for the probability of sunshine.
- 7.4.35. The Wind Energy Planning Guidelines recommends that Shadow flicker at neighbouring dwellings within 500m should not exceed 30 hours per year or 30 minutes per day. The modelling is conducted in relation to shadow flicker generated from two turbine models, the N117 3MW turbine and the GE 2.85-103 turbine. The shadow flicker study indicates, in relation to the N117 3MW turbine using the worst

case scenario that at 32 of the 154 shadow receptors exceeded the 30 minutes. While all other receptors were within the 30 minutes.

- 7.4.36. In relation to the GE 2.85-103 turbine, using the worst case scenario, it is stated that at 27 of the 154 shadow receptors shadow flicker exceeded the 30 minutes. While all other receptors were within the 30 minutes. It is stated in the EIAR that ‘when considering the real case scenario and factoring in average sunshine hours given by the weather observation station at Kilkenny and the onset of wind distribution that exceedances in the 30 hours per year or 30 minutes per day are unlikely.
- 7.4.37. Mitigation measures are proposed by the applicant in the event that exceedances in the limits set out Wind Energy Planning Guidelines are experienced. The proposed mitigation, as set out in Section 12.6, states that shadow flicker arising from the proposed development, or in combination with other permitted development in the vicinity, should not exceed 30 hours per year or 30 minutes per day at dwellings or other receptors. Should a different turbine model be used the applicant will submit prior to construction a report prepared by a suitably qualified person to the Planning Authority in accordance with their requirements indicating that the development is in compliance with the shadow flicker requirements at sensitive receptors. If required, the development shall be fitted with equipment and software to control shadow flicker. If required, the applicant will provide screening of the development to address shadow flicker.
- 7.4.38. Taking into consideration the application of the worst case scenario assumptions as set out above and the application of guideline thresholds referenced for properties within 500 metres of a turbine to all properties within the 10 rotor diameters, in addition to the measures to be employed should the relevant parameters be exceeded, I consider that the assessment is robust and that the potential impact arising from shadow flicker on properties in the vicinity would not be significant. I consider that the issue can be adequately addressed by way of condition comparable to that employed in other applications for wind farm development.
- 7.4.39. It is proposed to connect to the national grid via a 38kV underground cable from 38kV substation to one of three optional locations. Option (A) 110kV substation on a brownfield site adjacent to the existing Shelton Abbey 110kV electrical substation,

Option (B) 110kV substation within disused quarry in proximity to the existing Shelton Abbey 110kV electrical substation, Option (C) connection directly at the Arklow 220kV electrical substation. The underground grid connection predominately is located along the public hard surface roadway. The final section of cables at the townland of Shelton Abbey would be located on industrial/commercial lands. During construction phase there would be some limited impact on the movement of people and temporary noise which would be generated while development is taking place. There will be no operational impact on population or human health as the grid connection cable will be laid underground.

7.4.40. Therefore, in relation to the proposed grid connection options, having regard to the all submissions and documentation provided including the details contained in the EIAR, I am satisfied that none of these would be likely to give rise to significant effects on population or human health.

7.4.41. Having considered the likely effects of the proposed development on population and human health as set out above, I consider that the project will not result in a significant effect on population or human health.

#### 7.4.42. **Biodiversity**

7.4.42.1. The third party appellants and a number of observers have raised concerns in relation to potential impacts to biodiversity. The observers cited potential impacts to protected species including Freshwater Pearl Mussel, Lamprey, Red Kite, Red Grouse and Bats. Inland Fisheries Ireland in their report to the Planning Authority noted that the Ow, Derry Water and Aughrim River catchment is an important salmonid system and that the Freshwater Pearl Mussel was recorded in the Aughrim River. An Taisce in their submission to the Planning Authority also raised potential impacts to Red Kite in the area.

7.4.42.2. Chapter 5 of the EIAR addresses the potential impacts of the proposed development on ornithology. A survey of the site was carried out for breeding birds in summer 2012. A day walk over survey was conducted on the 9<sup>th</sup> of June 2014 to update the 2012 baseline information. Further surveys were carried out for wintering birds in winters 2012/13 and 2106/17. An extensive list of breeding status species were

recorded during the surveys in 2012 and 2014 this is set out in table 5.3 of the EIAR. An extensive list of wintering birds recorded is set out in table 5.4.

- 7.4.42.3. In relation to the Red Kite which is listed in Annex I of the Birds Directive it is noted that there were no sightings in the summer and winter surveys of 2016/2017. There was a sighting in 2015 with no further sightings.
- 7.4.42.4. Potential impacts will occur, during construction and operation. The development will result in the loss of conifer forest and improved grassland and some hedgerow. The area of forest proposed to be felled will be replanted. Regarding the loss of improved grassland this is an artificial habitat and no species of conservation importance are dependent on this habitat. Therefore, no significant impact would arise due to the loss of grassland.
- 7.4.42.5. During the operation of the wind farm the risk of collision by small birds is considered low. Large birds of prey are vulnerable to collision with wind turbines. The risk of collision to Red Kite is considered low. It was concluded in the EIAR that there would be no cumulative impact when the proposed wind farm at Ballymanus is considered with the two permitted wind farms at Ballycumber and Raheenleagh. No significant impact is anticipated in relation to ornithology. Mitigation measures will be implemented during all phases of development and operation including a monitoring programme.
- 7.4.42.6. Chapter 6 of the EIAR addresses the potential ecological impacts of the proposed development. It provides a detailed review of the existing terrestrial and aquatic ecology on site and within the wider vicinity. The EIAR includes a comprehensive and detailed survey of ecology of the site and surrounding area. A desk study was carried out combining data from a number of Consultees including National Parks & Wildlife Service, Inland Fisheries and Bat Conservation Ireland.
- 7.4.42.7. Field surveys work was conducted in relation to habitats, mammals and bats. It was carried out over a number of days in July, August, September and December 2012 and in November 2014. Additional site visits were carried out in January 2016 and

March 2017 following revisions to the site layout and reduction in the number of turbines.

- 7.4.42.8. It is noted in the EIAR that the lands of the proposed development are not subject to any conservation designations. The closest designated sites are Slaney River SAC 5km to the south-west, Wicklow Mountains SAC 8.5km to the north and Wicklow Mountains SPA 9.7km to the north.
- 7.4.42.9. Fauna records available from the NPWS for the four 10km squares in which the wind farm site is located indicate the presence of red squirrel and marsh fritillary butterfly. Other species recorded within a 10km radius of the site include red squirrel, fallow deer, sika deer, hedgehog, Irish hare, badger, Irish Stoat, otter, viviparous lizard, common frog, freshwater pearl mussel, river lamprey and sea lamprey. The two predominant habitats within the site are grassland and conifer plantation.
- 7.4.42.10. During the construction phase potential impacts would result from ground clearance and the removal of vegetation. The development would entail the removal of a small area of habitat with the site including some sections of hedgerows/earthen banks. However, it is proposed to retain the majority of field boundaries. In relation to potential impact upon fauna it is confirmed in the EIAR that there will be no loss of any bat roots, holts, setts or dens.
- 7.4.42.11. Potential impacts on fisheries and protected aquatic species would arise during construction and operational phases due to run-off of storm water and the possibility of accidental spillages. Impacts without mitigation have the potential to have a major negative impact. Watercourses within the site are tributaries of a salmonid watercourse which also contains freshwater pearl mussel, brook, river and sea lamprey which are species listed under Annex II of the Habitats Directive. The clearance of forestry would also have the potential to release nutrients, silt and sediments into the catchment of the Ow River and Derry Water River.
- 7.4.42.12. During the operational phase impacts upon fauna would occur due to disturbance and also loss of areas of habitat for feeding and breeding. Potential impacts on bats

during the operational phase of the wind farm would be due to damage and disturbance of foraging habitat and commuting corridors, damage and disturbance of roots, increased collision risk and disorientation of bats in flight through the emission of ultrasound noise.

7.4.42.13. Mitigation measure for the construction phase to protect habitats include the provision of temporary fencing around watercourses and springs. Clearance of areas on site would occur outside the breeding months of birds from 1<sup>st</sup> March to 31<sup>st</sup> August as set out in Section 46 of the Wildlife Act, 2000. The felling of conifers will only occur in a 25m radius around each turbine to reduce the potential release of nutrients, silt and sediments into watercourses and into the catchment which the freshwater pearl mussel is found.

7.4.42.14. Oil interceptors will be attached to all surface water drainage. All water courses will be fenced off. Bunds, siltation ponds and hydrocarbon and grit interceptors will be used on site as appropriate to mitigate run-off. Measures will be taken to prevent silt and sediment draining downstream including the use of silt traps and that drainage channels will be designed to taper out before entering the aquatic buffer zone. Further mitigation measures are proposed including the use of brash mats to support vehicles on soft ground to reduce peat and soil erosion, the monitoring and maintenance of roads, drains and culverts throughout the felling process. The monitoring of water quality will take place in the vicinity during the construction phase.

7.4.42.15. Mitigation during the operational phase will involve the monitoring of the development on protected species including bats. It is recommended that a three-year post construction bat detector activity survey and bat corpse monitoring study be carried out. Should the study confirm that bat fatalities are occurring as a result of collisions with turbines additional mitigation in consultation with NPWS will be carried out.

7.4.42.16. It is proposed to connect to the national grid via a 38kV underground cable from 38kV substation to one of three optional locations. Option (A) 110kV substation on a

brownfield site adjacent to the existing Shelton Abbey 110kV electrical substation, Option (B) 110kV substation within disused quarry in proximity to the existing Shelton Abbey 110kV electrical substation, Option (C) connection directly at the Arklow 220kV electrical substation. The underground cable would be installed almost entirely in the public road network apart from where the road crosses rivers/streams and the rail line. A section of the proposed cable route would run through the Avoca River Valley. The cable route will be via the existing bridge opposite Glenart. As the works would take place predominately within the existing roads it would not result in disturbance of woodland birds or the local Red Kite population.

7.4.42.17. The location for the proposed substation under Option (A) is within a hardstanding area adjacent to the existing Shelton Abbey 110kV electrical substation. The location for the proposed substation under Option (B) is the site of a former quarry/burrow pit close to the existing Shelton Abbey 110kV electrical substation. This location has been recolonised and is considered less favourable in the EIAR from the perspective of ecology.

7.4.42.18. Option (C) is to connect directly to the Arklow 220kV electrical substation. The Arklow 220kV electrical substation is situated on the western side of the R772 and to the northern side of Arklow. It lies circa 2.8km to the east of the Shelton Abbey 110kV electrical substation. This grid connection option would involve the installation of a further section of underground cable from Shelton Abbey via the public road to the Arklow 220kV electrical substation and therefore would not result in an undue impacts upon existing habitats or ecology.

7.4.42.19. Therefore, in relation to the proposed grid connection options, having regard to the all submissions and documentation provided including the details contained in the EIAR, I am satisfied that none of these would be likely to give rise to significant effects on biodiversity.

7.4.42.20. The EIAR in my view has adequately described the baseline environment and correctly identified, described and evaluated the potential impacts which could arise from the proposed wind farm development on biodiversity and with the incorporation

of appropriate mitigation measures as set out in the EIAR particularly in relation to the protection of watercourses, I would agree that the residual impacts would not be significant during either the construction or operational phases.

**7.4.43. Land, Soil, water, air and climate**

7.4.44. In relation to the matter of land use, the site of the application contains a mix of agriculture and commercial forestry. The proposal would require the removal of circa 1.6 hectares of forestry. If the proposed development were not to proceed the existing uses on the site, namely commercial forestry and agricultural use, would continue.

7.4.45. Observers have raised concerns regarding potential impacts to water supply.

7.4.46. The potential impact of the proposed development on the geology, hydrological environment, hydrology and water quality is addressed in Chapter 8 of the EIAR. The appeal site is characterised by a hilly or mountainous topography with elevations ranging from 130m to 388m OD. The area is drained by Ow and Derry Water Rivers both which drain into the Aughrim River which is a tributary of the Avoca River. The bedrock in the area is schist while silt and clay are the predominant soils.

7.4.47. The GSI mapping indicates that the vulnerability rating of the aquifer underlying the site is extreme. However, as there is low permeability of the bedrock underlying the site there is low potential for significant ground water dispersion.

7.4.48. There are a number of private wells within 1km of the site. It is noted in the EIAR that the location of wells has been mapped. However, it is advised that some of the wells are not precisely mapped due the level of data of available. Potentially six turbines are located up gradient of private dwellings which have groundwater supply. However, a setback of over 520m is provided and therefore the potential impact on groundwater supply would be negligible. There is an on-site spring located 160m to the north-west of proposed turbine T7. It supplies drinking water to a local landowner. Surveys indicate that no wind farm development is proposed within the groundwater catchment to that source. Further spring water sources have been highlighted at Kiladuff and Preban. It is concluded in the EIAR that no impacts are expected and no significant indirect impacts are expected.



- 7.4.49. Potential construction phase impacts include changes to surface water runoff and subsurface flows due to the construction of access tracks and foundations and cable trenches, spillage of chemicals, oils or concrete, alkaline leaching from concrete foundations, damage to soil structure from heavy plant and machinery. Similar potential impacts arise during operational and decommissioning phases.
- 7.4.50. I consider that the EIAR adequately identifies and assesses the potential impact of the proposed development on the hydrological environment, and I consider that it provides detailed mitigation measures to protect water quality, primarily through mitigation by avoidance of sensitive aquatic areas.
- 7.4.51. In addition to mitigation by design to limit potential adverse impacts on water quality and flooding, the EIAR sets out detailed mitigation measures to be employed during construction (trafficking, excavations and drainage), for tree felling, cabling works, turbine delivery and including monitoring and maintenance during construction as set out in the Outline CEMP. Additional mitigation measures are proposed for the operational period. The proposed development is not expected to result in any significant adverse impacts on the water environment with the implementation of the proposed mitigation measures.
- 7.4.52. I am satisfied, overall, that the development would not have a significant adverse impact on water quality subject to the proper implementation of the proposed mitigation measures. These measures are comprehensive and are described as pre-emptive and proactive, with ongoing inspection, water quality monitoring and maintenance.
- 7.4.53. Chapter 15 of the EIAR assesses the potential impact of the proposed development on air and climate. In relation to air quality, dust emissions from the construction phase would have the greatest impact. It is noted that construction traffic can also impact upon air quality.
- 7.4.54. There is no data available on the air quality in the vicinity of the site. The closest EPA air quality monitoring stations are at Bray, Co. Wicklow circa 39km from the site and at Enniscourty, Co. Wexford circa 41km from the site. The air quality is recorded as 'Good' at the Bray monitoring station based on EPA data from 2017. At

the monitoring station at Enniscourty where monitoring took place between 2013-2015 levels of NO<sub>2</sub>, SO<sub>2</sub> and PM<sub>10</sub> were within acceptable limits.

- 7.4.55. Regarding carbon emissions, the EPA in their projections as set out in 'Ireland's Greenhouse Gas Emissions Projector to 2020' consider that Ireland will exceed its emission targets from 2013-2020. With further emissions projected to increase between 2020-2030. Renewable energy generation is estimated to save 778 thousand tonnes of fossil fuel which is associated with CO<sub>2</sub> emissions. It is noted that wind generation is likely to be the largest contributor to this. Furthermore, the operation of the wind turbines does not give rise to any emissions to air.
- 7.4.56. The proposed development has the potential to avoid several thousand tonnes of CO<sub>2</sub> annually that otherwise would have been generated by the average Irish Power generation mix. Regarding the impact on air quality during the construction phase soiling effects have the potential to occur up to 50m from the source with PM<sub>10</sub> effect occurring 15m from the source. The closest house would be 605m from T9. At this distance there would be no air quality impacts from construction.
- 7.4.57. In relation to carbon losses it is predicted that 24,149 tonnes of CO<sub>2</sub> equivalents would be lost to the atmosphere due to the construction of the wind farm and 528 tonnes of CO<sub>2</sub> equivalents would be lost to the atmosphere due to deforestation.
- 7.4.58. After the first six months of operation the wind farm will have offset the equivalent amount of carbon released during manufacturing of the turbines and construction of the scheme. It is concluded in the EIAR that there will be no significant cumulative impacts on air quality. Mitigation measures are proposed for the construction phase to limit dust generation. In this regard a Dust Control Plan will be implemented.
- 7.4.59. Having reviewed the foregoing, given the inherent temporary duration and impact of the proposed construction works, coupled with measures to ensure best practice site management and dust minimisation, I am satisfied that the construction of the proposed development will not result in any significant impact on air quality in the surrounding area. Similarly, given the nature of the development proposed, I would not anticipate any significant detrimental impact on air quality during the operational phase.

7.4.60. It is proposed to connect to the national grid via a 38kV underground cable from 38kV substation to one of three optional locations. The underground cable route would run for approximately 19km from the site of the proposed wind farm to Shelton Abbey. There are three proposed options for connection to the national grid. Option (A) 110kV substation on a brownfield site adjacent to the existing Shelton Abbey 110kV electrical substation, Option (B) 110kV substation within disused quarry in proximity to the existing Shelton Abbey 110kV electrical substation, Option (C) connection directly at the Arklow 220kV electrical substation.

7.4.61. The proposed grid connection route passes through 6 no. surface water sub catchments Derry Water Lower, Tomanierin, Aughrim 1, Goldmine 2Upper, Goldmine 1Lower and Avoca 1 Lower. The receiving waters of these sub catchments are the Derry Water River, Aughrim River and Avoca River. The majority of the proposed grid connection route is located along the carriageway of existing roads and therefore this would significantly reduce the potential for impacts to water quality. Furthermore, no works are proposed within streams. The grid connection route at watercourse crossings would be via existing bridges and culverts. In relation to the proposed works at Shelton Abbey 110kV electrical substation any potential impacts would be temporary and localised. In terms of potential impact from the proposed grid connection options on air and soil, the closest properties to the route are a minimum of 1m from the proposed location. In relation to the location of the proposed 110kV substation adjacent to the existing Shelton Abbey 110kV electrical substation it is within an existing industrial/commercial area. The closest building is a commercial building which is over 60m away. It is considered that the installation of the grid connection cable would result in the generation of dust emissions. However, the impact would be localise and temporary.

7.4.62. Therefore, in relation to the proposed grid connection options, having regard to the all submissions and documentation provided including the details contained in the EIAR, I am satisfied that none of these would be likely to give rise to significant effects on land, soil, water, air and climate.

**7.4.63. Material assets, cultural heritage and landscape**

7.4.64. The Observers to the appeals raised the issues of visual impact and impact upon the archaeological and cultural heritage.

7.4.65. As set out in Chapter 7 of the EIAR the site has extensive areas of forestry cover. The majority of the planted conifers are non-native Sitka Spruce. Regarding potential impacts it will require the felling of 1.6 hectares of trees to facilitate the development. It is noted that the loss of 1.6 hectares of forest to an alternative economic enterprise will have no negative impact on the economic viability of the forestry enterprise.

7.4.65.1. In relation to mitigation measures it is noted that wind-thrown risk is high at the Ballymanus site. However, the proposed development does not increase this risk. The mitigation measures provided for include the maximising of the usage of existing forest tracks, felling to be carried out by trained professionals and mitigation measures in relation to surface water management and ecology to be carried out. I am satisfied that the development would not have significant adverse forestry impacts.

7.4.65.2. Chapter 16 of the EIAR assesses the potential impact of the proposed development on telecommunications, civil and military aviation and broadcast media infrastructure. Wind turbines have the potential to impact on this infrastructure by blocking, deflecting or scattering transmission signals or radio/microwave links.

7.4.65.3. There are no telecommunications masts on the site. The closest lies 4km to the south-east. The applicant has consulted with the relevant bodies in this regard, and copies of correspondence are included in the EIAR. The response from RTE indicated that there may be some risk of localised interference to reception of Saorview. In order to address this a Protocol Agreement would be signed between the parties.

7.4.65.4. With regard to potential aviation impacts, the EIAR states that mitigation measures will be taken including that turbines will be fitted with aviation warning lights and marked on aviation charts and that the Irish Aviation Authority, as per their

recommendation in the report dated 26th of July, 2017, issued to the Planning Authority, will be notified of as-built co-ordinates prior to erection of the turbines. Should the Board be minded to grant permission, these aviation safety requirements should be attached as a condition. Having regard to the foregoing, I am satisfied that the proposed development will not have a significant effect on communications and aviation infrastructure.

7.4.65.5. The Observation submitted by Yvonne Whitty primarily focused on potential impacts to archaeology and cultural heritage. Specific reference is made to the following listed monuments Bivallate ringfort WI039-001-Ballinglen, Bivallate ringfort WI039-002, Enclosure WI039-003-Ballinglen and Holy Well WI034-035 in terms of their proximity to the proposed wind turbines. The potential negative visual impact to wider historic landscape was also a matter of concern to the observer. An Taisce in their submission to the Planning Authority also raised the potential impact to archaeological heritage of the area.

7.4.65.6. Chapter 13 of the EIAR assesses the potential direct and indirect impacts of the proposed development on archaeology and cultural heritage. It also considers the cumulative impacts with the grid connection. The EIAR considers an archaeological study area of 3km around the turbines. The baseline study found that there are 28 no. Recorded Monuments within the site area.

7.4.65.7. Table 13.1 in the EIAR details the recorded monuments with the study area which lie closest to the turbines. W0134-035 – Holywell at Roddenagh is 1km from T3. W1039-001 – Ringfort at Ballinglen lies 106m from T8. W1039-002 – Ringfort at Ballinglen lies 192m from T8 and 72m from the substation/compound. A further 3 no. recorded monuments at Ballinglen which are enclosures are located 215m from T6 and T7.

7.4.65.8. A total of 16 no. recorded monuments are located within 100m of the proposed grid connection route options. 7 no. recorded monuments are within the Preban Ecclesiastical Complex and 4 no. are within the Kilbride Church & Graveyard. There are no Protected Structures within the study area boundary. Three protected

structures are located within 3km of the closest turbine. The closest St. John's Church at Preban is situated 1,072m from T5. Annacurragh Catholic Church is 2,433m from T3 and Ballinglen Bridge is 1,648m from T10. It is set out in the EIAR that none of the Protected Structures or their curtilage will be altered or materially affected by the proposed wind farm and therefore there would be no direct negative effects. Table 13.6 sets out the structures listed in the National Inventory of Architectural Heritage in Aughrim Village and in the vicinity. It is stated that for all NIAH structures there would be no significant visual impacts.

7.4.65.9. In terms of potential impacts during construction, direct impacts may arise due to damage cause to both known and unknown sub-surface archaeological features. WI034-035 a holy well, is the closest monument to a turbine it lies 1km from T3. It is situated within forestry and would not be directly impacted by the proposed turbines or road infrastructure. WI039-001 a ringfort is located 26m from a proposed road. WI039-002 a ringfort is located 58m from the proposed internal road, 192m from T8 and 72m from the construction compound. WI039-003 an enclosure is situated 215m from T6 and T7 and 36m from the proposed internal road. The mitigation measures proposed to protect these features include that they be fenced off prior to commencement of construction and that buffer zones be provided under the guidance of a suitably qualified archaeologist. Further mitigation is proposed including archaeological testing of the areas of proposed roads, turbine bases, crane pads, substation and the site compound.

7.4.65.10. It is proposed to connect to the national grid via a 38kV underground cable from 38kV substation to one of three optional locations. Option (A) 110kV substation on a brownfield site adjacent to the existing Shelton Abbey 110kV electrical substation, Option (B) 110kV substation within disused quarry in proximity to the existing Shelton Abbey 110kV electrical substation, Option (C) connection directly at the Arklow 220kV electrical substation.

7.4.65.11. In relation to the grid connection route options, the Preban Ecclesiastical Enclosure WI039-011/001-008 would lie in close proximity to the route. No direct impacts anticipated. WI040-001 a holy well is located on the roadside along the grid

connection route. It is recommended in the EIAR that measures be put in place during the construction phase to avoid potential direct impacts. Monitoring by an archaeologist of this section of the road is recommended. WI040-21 an ecclesiastical enclosure located at Kilbride is situated to the south of the public road. Archaeological monitoring is recommended as potentially archaeological remains may exist outside the original graveyard enclosure. St. John's Church, Protected Structure is located opposite Preban Ecclesiastical site and it is recommended that archaeological monitoring along this section of the road be carried out.

7.4.65.12. There are a number of river and railway bridges along the grid connection route. In order to avoid direct impacts to the bridge arches it is recommended that archaeological monitoring be carried out. St. Kevin's Church and graveyard at Ballykillageer Upper lies adjacent to the public road. It is recommended that archaeological monitoring take place during excavation of the grid route.

7.4.65.13. In terms of the site of the substation at Shelton Abbey it is noted that there are a number of Protected Structures, Recorded Monuments and NIAH structures in the vicinity. However, no direct impacts are anticipated.

7.4.65.14. In relation to the cumulative impacts it is stated that construction impacts will not increase as a result of the proposed grid connection and substation. Regarding potential impacts during operation, direct impacts are unlikely as a result of the operation of the wind farm. Furthermore, no direct impacts are associated with the grid connection options or substation at Shelton Abbey.

7.4.65.15. Potential indirect impacts would relate to impacts upon the setting of archaeological monuments and cultural heritage sites. The potential indirect impacts for the construction stage are set out on table 13.18 of the EIAR. Regarding monuments which lie closest to the proposed turbine locations, it is noted that some turbines may be visible from monuments and that the setting and context of the monuments would be altered. Similarly, in relation to protected structures and NIAH structures in the surrounding areas of Preban and Aughrim a number of turbines would be visible within the visual settings of the buildings.

7.4.65.16. On the basis of the foregoing, I am satisfied that the proposed development, subject to the implementation of suitable mitigation measures, is unlikely to have any significant impact on features of archaeological or cultural heritage interest.

7.4.65.17. In relation to the proposed grid connection options, having regard to the all submissions and documentation provided including the details contained in the EIAR, I am satisfied that none of these would be likely to give rise to significant effects on material assets, cultural heritage and landscape.

7.4.65.18. Regarding potential impact to transportation and traffic, the Board is referred to my assessment of this issue at Section 7.3 above and which I consider is adequate for the purposes of EIA. In my assessment of transportation and traffic I concluded that the proposed vehicular accesses arrangements were acceptable including the proposed site entrances and the details of proposed turbine haul route.

7.4.65.19. In relation to the matter of impacts to the landscape and visual amenity, the Board is referred to my assessment of this issue at Section 7.2 above and which I consider is adequate for the purposes of EIA. In my assessment of landscape and visual impact, I concluded on the basis that the site is located within List Prospect No. 54, that the proposed development, due to its height, scale and siting on a prominent ridge would be visually obtrusive and therefore, would seriously injure the visual amenities of the area.

#### 7.4.66. **Interactions**

7.4.66.1. Chapter 17 of the EIAR relates to interactions between the various aspects of the environment addressed in the EIAR. The identified interactions include:

- i. Ecology/Hydrogeology, Hydrology & Water Quality
- ii. Ecology/Forestry/Geology, Soils
- iii. Ecology/Noise



- iv. Ecology/Forestry
- v. Hydrogeology, Hydrology & Water Quality /Forestry
- vi. Geology/Soils & Peat Stability/Archaeology & Cultural Heritage
- vii. Telecommunications & Aviation/Human Environment
- viii. Landscape & Visual/Archaeology & Cultural Heritage
- ix. Landscape & Visual /Human Environment
- x. Landscape & Visual /Forestry
- xi. Noise/Transport, Traffic and Access
- xii. Noise/Human Environment
- xiii. Transport, Traffic and Access/Human Environment
- xiv. Transport, Traffic and Access/Air and Climate
- xv. Air and Climate/Forestry
- xvi. Human Beings/Geology, Hydrogeology, Hydrology & Water Quality

7.4.66.2. I consider that the interactions identified are the relevant ones in the context of EIA and that they do not lead to significant environmental impacts beyond those already identified for each of the individual environmental topics, as set out and assessed above.

**7.4.67. Reasoned Conclusion on the Significant Effects**

7.4.68. Having regard to the examination of environmental information contained above, and in particular to the EIAR and supplementary information provided by the developer, and the submissions from the planning authority, prescribed bodies, appellants, and

observers in the course of the application, it is considered that the main significant direct and indirect effects of the proposed development on the environment are as follows:

- The landscape impact which will not be avoided, mitigated, or otherwise addressed by means of condition.

7.4.69. Given the significant adverse nature of this impact, the Board will note that I have already recommended that it constitutes a basis for refusing planning permission (see section 7.2 above).

## 7.5. **Appropriate Assessment**

7.5.1. An Appropriate Assessment Screening Report was submitted with the application, which addresses both the proposed wind farm and the grid connection options (which does not form part of the planning application).

7.5.2. The appeal site is not located within any Natura 2000 site. The route of the proposed grid connection options are not located within any Natura 2000 sites. The screening report identified seven European sites within 15km of the site and/or the proposed grid connection options. The closest European site, Slaney River Valley SAC (Site code 000781) lies 5km to the west of the appeal site.

7.5.3. The following sites are within 15km of the site and/or the proposed grid connection options, Wicklow Mountains SAC (Site code 002122), Wicklow Mountains SPA (Site code 004040), Vale of Clara (Rathdrum Wood) SAC (Site code 000733), Deputy's Pass Nature Reserve (Site code 000717), Kilpatrick Sandhills SAC (Site code 001742) and Buckronev-Brittis Dunes and Fen SAC (Site Code 00729).

7.5.4. Having regard to the separation distances between the appeal site and/or the proposed grid connection options and these Natura 2000 sites and based on the concept of source-pathway-receptor, there is no pathway/linkage between the designated sites and the appeal site. The proposal would not result in any habitat loss or reduction in the quality of the habitat and subsequently the conservation status of these designated sites.

7.5.5. The Conservation Objectives for the Slaney River Valley SAC refer to; freshwater pearl mussel (*Margaritifera margaritifera*), sea lamprey (*Petromyzon marinus*), brook

lamprey (*Lampetra planeri*), river lamprey (*Lampetra fluviatilis*), allis shad (*Alosa alosa*), twaite shad (*Alosa fallax fallax*), salmon (*Salmo salar*), estuaries, mudflats and sandflats not covered by seawater at low tide, Otter (*Lutra lutra*), water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation, old sessile oak woods with *Ilex* and *blechnum* in British Isles, alluvial forests with *alnus glutinosa* and *fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*).

7.5.6. The possible impacts of the proposal on the conservation status of the designated site include loss/reduction of habitat, disturbance of key species, habitat or species fragmentation, reduced species density and decrease in water quality and quantity. It is noted that the appeal site is remote from the designated site and there is no direct or indirect links to the site including a hydrological link. It is, therefore, concluded that there is no direct, indirect or cumulative impacts on the designated site and that a Stage 2 Appropriate Assessment is not required.

7.5.7. In conclusion, it is reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on the Slaney Valley SAC [Site Code (000781)], or any other European site, in view of the site's Conservation Objectives, and a Stage 2 Appropriate Assessment is not therefore required.

## 7.6. Other issues

### Invalid Application

7.6.1. The third party appellants consider the application to be invalid on the basis that it did not include the consent of the land owner's for the grid connection.

7.6.2. It is set out by the first party that the grid connection does not form part of this application and that it will be the subject of a future application. The application provides details of three options for grid connection to enable EIA and Appropriate Assessment of the proposed development.

7.6.3. There is no basis, therefore, to consider the application for planning permission to be invalid.

7.6.4. Planning Authority Assessment Issues

- 7.6.5. The third party appellant stated that the Planning Authority did not carry out an adequate Environmental Impact Assessment specifically addressing an assessment of biodiversity and population and human health. In relation to those issues, I would note that it is not a function of the Board to adjudicate on such matters. Furthermore, the matters have been addressed in the examination of the EIA as set out above at section 7.4.

## 8.0 Recommendation

8.1. I recommend that permission be refused for the reasons and consideration set out below:

## 9.0 Reasons and Considerations

1. The site of the proposed development is located in an area which is designated as an Area of High Amenity in the current Wicklow County Development Plan and as an area less favoured for wind farm development as set out in the Wicklow Wind Energy Strategy in Appendix 6 of the Wicklow County Development Plan 2016 – 2022. Furthermore, the site is located within List Prospect No. 54 which features views across the Derry Water River towards the south Wicklow Mountains. The proposed development, by reason of its height, scale and siting on a prominent ridge would be visually obtrusive. Furthermore, the cumulative impact of the proposed development with the permitted windfarm to the west at Ballycumber would interfere with the character of the landscape and with a prospect of special amenity value, which it is necessary to preserve. The proposed development would seriously injure the visual amenities of the area and would, therefore, be contrary to the proper planning and sustainable development of the area.

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Siobhan Carroll  
Planning Inspector

4<sup>th</sup> of May 2018