



An
Bord
Pleanála

Inspector's Report PL02.247401

Development

7 No. turbines, 38kV substation, meteorological mast and associated works to replace previous permission PL02.239141 (10/154)

Location

Taghart South and North, Glasleck and Ralaghan, Shercock, Co. Cavan

Planning Authority

Cavan County Council

Planning Authority Reg. Ref.

16/74

Applicant(s)

Taghart Energy Limited

Type of Application

Permission

Planning Authority Decision

GRANT

Type of Appeal

First and Third Party

Appellants

1. Taghart Energy Limited
2. The Dhuish Environmental Group

Observer(s)

None

Date of Site Inspection

11th January 2017

Inspector

Niall Haverty

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1.0 Site Location and Description

- 1.1. The appeal site, which has a stated site area of 25.09 ha, is located in an upland area of County Cavan, in the townlands of Taghart South and North, Glasleck and Ralaghan. The site and surrounding area is enclosed by a triangular arrangement of Regional Roads (R178, R165 and R162) with the towns of Bailieborough, Shercock and Kingscourt located at the three vertices. Bailieborough is located c. 6km to the south west, Kingscourt is located c. 7km to the south east and Shercock is located c. 4.5km to the north of the appeal site.
- 1.2. There are two discrete site boundaries for the proposed development. The main wind farm site boundary is irregular in shape, comprising a mix of circular areas surrounding each turbine location and linear areas along cable routes and access tracks. A number of local roads pass alongside and through the appeal site. A quarry adjoins part of the site, and the site surrounds, but does not include, Taghart Lough, which is a small lake measuring c. 120m by 160m. The appeal site and surrounding area generally comprises an undulating drumlin landscape of improved grassland with field boundaries defined by hedgerows, as well as some areas of exposed rock and dry heath scrub. The predominant land use in the area is agriculture and includes a significant number of one-off houses and agricultural structures. There is also a forestry plantation adjoining the site to the north.
- 1.3. A separate site boundary is located at the junction of the R162 Regional Road and the L3520 local road, where a temporary junction upgrade is proposed to facilitate the transportation of turbine components to the site.
- 1.4. Lough an Leagh mountain, which is designated as a High Landscape Area and scenic viewing point in the County Development Plan, is located c. 3km to the south, just south of the R165, it covers an area of approx. 3km in length by up to 1km wide and rises to a height of c. 290m above sea level.
- 1.5. An existing wind farm with ten wind turbines, known as Gartnaneane wind farm, is located c. 2km to the west of the appeal site. Planning permission has also been granted, but not yet implemented, for five wind turbines at Raragh and Corrinshingo, c. 5-6km to the south east (Ref. PL02.236608).

2.0 Proposed Development

2.1. The proposed development consists of:

- The erection of seven 3.2MW wind turbines with a hub height of 73.5m and rotor diameter of 103m, resulting in a maximum height of 125m and associated foundations.
- Construction of 38kV substation and compound and underground cabling.
- Staff welfare facility.
- Wastewater treatment system and percolation area.
- Crane hardstandings.
- Three site entrances and access tracks.
- Permanent meteorological mast (maximum height of 83m).
- Temporary upgrade of the R162/L3520 junction.

2.2. The total electrical output of the proposed development will be 22.4MW and it is stated in the EIS that planning permission is being sought for a period of 10 years, with an operational lifespan of 25 years.

2.3. It is intended to connect the proposed wind farm to an existing 110Kv substation at Meath Hill, which is located c. 12.5km south east of the appeal site, however the grid connection does not form part of the proposed development. Two options for the grid connection route (overhead line and underground cable) are described and addressed in the EIS submitted with the application

2.4. The proposed development is intended to replace a previously granted permission for nine 99.5m high wind turbines and associated development (Ref. PL02.239141; Reg. Ref. 10/154) which has yet to expire. While the site boundaries associated with the permitted and proposed development overlap, the turbine locations differ. The rationale given for the proposed development is that the number of turbines in the permitted development was reduced from 24 to 9 on foot of requests for further information from both Cavan County Council and the Board and that this affected the viability of the scheme, necessitating a requirement to use larger more efficient turbines.

3.0 Planning Authority Decision

3.1. Decision

3.1.1. Cavan County Council decided to grant planning permission and the following Conditions are relevant to this appeal:

- C5: All environmental mitigation measures set out in EIS and further information to be implemented in full.
- C6: Lifespan of turbines to be 25 years from date of commissioning.
- C7(a): No micro-siting permitted. No alteration to turbine location within grant of permission.
- C9: Wind turbine noise arising from proposed development and in combination with other existing or permitted wind energy development shall not exceed the greater of 5dB(A) above background noise levels or 43dB(A)L90, 10min when measured externally at dwellings or other sensitive receptors. Noise compliance monitoring programme to be agreed.
- C10: Shadow flicker control and mitigation measures.
- C18: Monitoring and reporting programme for birds and bats to be submitted.
- C19: Pre-commencement badger survey to be undertaken.
- C26: Recommendations outlined in report on protection of the smooth newt to be carried out in full.

3.2. Planning Authority Reports

3.2.1. The report of the Planning Officer can be summarised as follows:

- Outstanding surface water management issues following submission of further information can be addressed by condition.
- Main threat to any newt population will be during construction and can be addressed with mitigation measures.
- No non-involved receptors exceed the noise limit set out in the Guidelines, but some are very close to the limit. Set back distances are greater than

extant permission and development is considered acceptable from a noise perspective.

- None of the non-involved receptors will exceed 30 hours per year of shadow flicker. While a large number of non-involved receptors exceed the worst case minutes per day, this is not indicative of expected values. Shadow flicker should not be an issue with proposed mitigation measures.
- Visual impact is acceptable from distance viewpoints, and main concern is from nearby dwellings. Considering the reduction in turbine numbers and the increased setback distance to receptors compared with the extant permission, the proposed development is acceptable in respect of visual impact.

3.3. Other Technical Reports

- Municipal District Engineer (quoted in planning officer's report):
 - Potential live drain under L3520 to be surveyed for capacity, integrity and maintenance.
 - Modifications to surface water management proposal at Turbine T4 required to prevent water flowing across public road.

3.4. Prescribed Bodies

3.4.1. Inland Fisheries Ireland

- All watercourses must be surveyed in detail, assessed for aquatic biodiversity and changes to river morphology should be avoided.
- Concern regarding soil stability, particularly in peat areas.
- Attention should be paid to drainage arrangements and site hydrology.
- Further details on construction measures and prevention of pollution required.
- All crossings of watercourses should be kept to a minimum, and following consultation with IFI.

- Instream works should only be carried out during open season (1st May to 30th September).
- If permission is granted, a detailed method statement must be sent to IFI before works commence.

3.4.2. An Taisce

- Planning Authority should ensure that the development does not cause a serious negative impact on the surrounding landscape, view and prospects, water quality, residential amenities, species and habitats.

3.5. **Third Party Observations**

3.5.1. A number of third party observations were made at both application and further information stage. The issues raised by a number of observers were generally the same as the third party appeal, while the other issues raised can be summarised as follows:

- Noise impacts will be excessive.
- Shadow flicker will be in excess of Guidelines and Condition attached to extant permission.
- 43 houses are located within 500m of turbines, of which only 12 are financially involved. This is in breach of Guidelines.
- 10 year permission will hold community to ransom and render homes unsaleable. It implies that Gate Access has not been arranged, and Guidelines may change in the interim.
- Construction traffic impacts and haulage route.
- Cumulative impact with Gartnaneane wind farm.
- Overhanging of third party lands by turbine blades.
- Health impacts due to noise, shadow flicker and sleep disturbance.
- Description of project is misleading. This is not an amendment application.

4.0 Planning History

4.1. Appeal Site

4.1.1. ABP Ref. PL02.239141; Reg. Ref. 10/154

Planning permission was granted for nine wind turbines with a hub height of 64m and rotor diameter of 71m and associated development. Permission had originally been sought for 24 No. turbines but was reduced on foot of requests for further information issued by both the Planning Authority and the Board.

4.1.2. Reg. Ref. 14/85

Permission was refused by Cavan County Council for amendments to the previously permitted Taghart Wind Farm to provide for an increase in maximum height of the nine turbines from 100m to 126m (hub height of 85m and rotor diameter of 82m) and an increase in height of anemometer mast from 65m to 85m. Permission was refused on the basis that the Planning Authority was unable to carry out an EIA due to the inadequacy of the EIS submitted and could not therefore conclude that the proposed development would be acceptable in terms of its impact on the environment.

4.2. Neighbouring Sites

4.2.1. Reg. Ref. 00/1820

Permission granted to Eirtricity Developments Ltd. to construct a windfarm comprising nine turbines, substation/control centre, compounds, meteorological mast/anemometer at Gartnaneane, c. 2km to the west of the appeal site.

4.2.2. Reg. Ref. 01/791

Permission granted to William Farrell to construct one wind turbine, access road, hardstanding and site works at Gartnaneane.

4.2.3. ABP Ref. PL02.236608; Reg. Ref. 09/270

Permission granted to PWWP Developments Ltd. for five wind turbines, anemometry mast, substation and associated development at Raragh and Corrinshigo, Kingscourt, Co. Cavan, c. 5-6km to the south east of the appeal site.

Permission had originally been sought for seven wind turbines. This permission has not yet been implemented.

5.0 Policy Context

5.1. Cavan County Development Plan 2014-2020

- 5.1.1. The statutory plan for the area is the Cavan County Development Plan 2014 – 2020. The appeal site is located in an area designated as a ‘stronger rural area’ and is removed from any designated Special Area of Conservation (SAC), Special Protection Area (SPA) or proposed Natural Heritage Area (pNHA).
- 5.1.2. Section 4.7.3 of the Development Plan relates to renewable energy and states that it is an objective of the Planning Authority to encourage and facilitate renewable forms of energy production. It also states that it is the policy of the Planning Authority to adopt a favourable approach to wind energy developments provided they are sited so as not to cause a serious negative impact on the special character and appearance of designated conservation areas, protected structures or sites of archaeological importance.
- 5.1.3. Objectives PIO115, PIO116 and PIO117 set out detailed guidance for wind energy projects.
- 5.1.4. The preparation of a Wind or Renewable Energy Strategy and a Landscape Character Assessment are listed as Priority Two, to be prepared within years three and four of the Development Plan. Neither document appears to have been published yet.
- 5.1.5. Five main Landscape Character Areas are identified in the County, with the appeal site located within Area 5, the Highlands of East Cavan. Lough an Leagh Mountain, a designated High Landscape Area, and the associated scenic viewing point SV8 Lough an Leagh Gap is located c. 3km to the south of the appeal site. The Kingscourt/Dun a Ri Area of Special Landscape Interest and associated Special Heritage Site is located c. 6km to the south east. The Development Plan includes a number of Objectives to protect these areas.

5.2. **Wind Energy Development Guidelines for Planning Authorities 2006**

- 5.2.1. The Wind Energy Development Guidelines 2006 are the key source of guidance on the assessment of planning applications for wind energy projects. The guidelines indicate the need for a plan led approach, and set out the main environmental issues to be considered.
- 5.2.2. Section 3.1 of the Guidelines states that the Development Plan must achieve a reasonable balance between responding to overall Government Policy on renewable energy and enabling the wind energy resources of the planning authority's area to be harnessed in a manner that is consistent with proper planning and sustainable development. The assessment of individual wind energy development proposals needs to be conducted within the context of a 'plan led' approach.
- 5.2.3. Section 3.7 states that consideration of any wind energy development in or near designated areas of natural heritage must be subject to Ireland's obligations under the Habitat's Directive and the EU (Birds) Directive. Section 3.8 notes that the visibility of a proposed wind energy development from designated views or prospects would not automatically preclude an area from future wind energy development but the inclusion of such objectives in a development plan is a material factor that will be taken into consideration in the assessment of the planning application. Section 3.9 states that wind energy developments are not incompatible with tourism and leisure interests, but care needs to be taken to ensure that insensitively sited wind energy developments do not impact negatively on tourism potential.
- 5.2.4. Chapter 5 provides guidance on environmental implications. It is recognised that natural heritage may be impacted by wind energy development but that in coming to a decision the planning authority should also consider the importance of the development of wind energy projects including those proposed on designated sites, in view of their strategic importance in contributing significantly to the achievement of the targets by decreasing dependence on fossil fuels, with subsequent reductions in greenhouse gas emissions. Birds may be impacted by wind energy arising from disturbance, collision mortality, barrier to movement and direct loss or degradation of habitats for breeding, feeding and or roosting purposes. Ground conditions,

including a landslide and slope stability risk assessment for all stages of the project, should be considered.

- 5.2.5. Section 5.6 discusses noise impacts, which should be assessed by reference to the nature and character of noise sensitive locations i.e. any occupied house, hostel, health building or place of worship and may include areas of particular scenic quality or special recreational importance. In general noise is unlikely to be a significant problem where the distance from the nearest noise sensitive property is more than 500m.
- 5.2.6. Section 5.12 notes that careful site selection, design and planning and good use of relevant software can help to reduce the possibility of shadow flicker in the first instance. It is recommended in that shadow flicker at neighbouring offices and dwellings within 500m should not exceed 30 hours per year or 30 minutes per day. The potential for shadow flicker is very low at distances greater than 10 rotor diameters from a turbine.
- 5.2.7. Chapter 6 relates to aesthetic considerations in siting and design. Regard should be had to profile, numbers, spacing and visual impact and the landscape character. Account should be taken of intervisibility of sites and the cumulative impact of developments.
- 5.2.8. The Minister for Housing and Planning announced on 11 December 2013 a public consultation process in respect of revisions to the 2006 Guidelines. The revisions relate primarily to noise (including distance) and shadow flicker and have yet to be finalised and formally adopted. The main proposals are as follows:
- The setting of a more stringent absolute noise limit (day and night) of 40dB for future wind energy development. This limit is an outdoor limit and it is noted that in general the reduction of noise levels between the outside and inside of a dwelling is approximately 10dB.
 - A mandatory setback of 500m between a wind turbine and the nearest dwelling for amenity considerations.
 - Proposes to attach a condition to all future permission for wind farms to ensure no shadow flicker at any dwelling within 10 rotor diameters of a wind

turbine with the requirement that necessary measures are taken if shadow flicker does occur to eliminate same, such as turbine shut down.

- Additional information required in relation to the operator of the turbine for the purposes of monitoring conditions applied.

5.3. **Ireland's Transition to a Low Carbon Energy Future 2015-2030**

5.3.1. This document is a complete energy policy update, which sets out a framework to guide policy up to 2030. Its objective is to guide a transition, which sets out a vision for transforming Ireland's fossil fuel-based energy sector into a clean, low carbon system. It states that under Directive 2009/28/EC the government is legally obliged to ensure that by 2020, at least 16% of all energy consumed in the state is from renewable sources, with a sub-target of 40% in the electricity generation sector. It notes that onshore wind will continue to make a significant contribution but that the next phase of Ireland's energy transition will see the deployment of additional technologies as solar, offshore wind and ocean technologies mature and become more cost-effective.

6.0 **The Appeals**

6.1. A first party appeal against specific conditions and the duration of the permission and a third party appeal were lodged by Taghart Energy Limited and the Dhuish Environmental Group, respectively. Their grounds of appeal can be summarised as follows.

6.2. **Grounds of First Party Appeal**

- Condition 7(a) which restricts micro-siting of turbines and access tracks will prevent any immaterial amendments to locations on foot of geotechnical investigations. EIS was based on 20m micro-siting allowance. The applicant proposes an alternative condition that allows micro-siting deviations to be agreed by way of a pre-commencement compliance submission.
- Condition 9, which relates to noise controls, does not take account of the recommendations of the ETSU-R-1997 document, which allows for higher

noise limits where receptor is financially involved in a project. ETSU-R-1997 also recommends limit of 45dB(A), rather than the 43dB(A) specified in Condition 9. The applicant has proposed an alternative condition.

- EIS stated that a 10 year planning permission was sought, but this did not form part of the Planning Authority's decision. Additional time is required due to requirement for a separate permission for grid connection infrastructure, other consents and potential for delays. Wind Energy Guidelines for Planning Authorities 2006 state that longer durations may be granted where appropriate.

6.3. **Grounds of Third Party Appeal**

- EIS states that it was prepared in accordance with EIA Directive 97/11/EC rather than EIA Directive 2011/92/EU. Planning Authority should not have accepted or validated EIS.
- EIS failed to include description of grid connection. Violates judgments in ECJ case C-50/09, O'Grianna & Others v An Bord Pleanála (2014/19 JR) and An Taisce v An Bord Pleanála (IEHC 633].
- EIS failed to include Social Impact Assessment and Environmental Health Impact Assessment.
- No Strategic Environmental Assessment has been undertaken for the project or for energy in Ireland.
- Pre-planning meeting between applicant and Planning Authority without public participation breaches Aarhus Convention and Public Participation Directive 2003/35/EC. Convention and Directive require public participation at an early stage when all options are open to the competent authority.
- Some houses are within 400m of the proposed turbines, with a larger number within 500m. This is non-compliant with CDP and Wind Energy Guidelines for Planning Authorities.
- Assessment of application has not been compliant with the Government's Framework for Sustainable Development in Ireland.

6.4. **First Party Response to Third Party Appeal**

6.4.1. Galetech Energy Services, acting on behalf of the applicant, submitted a response to the third party appeal. The response can be summarised as follows:

- All issues raised in the appeal were previously ventilated in the course of the Planning Authority's assessment, including the further information submitted.
- Sole reason for refusal of planning application Reg. Ref. 14/85 was the absence of certain environmental information which prevented an EIA from being undertaken. There was no legislative basis to the refusal, and issues such as noise, visual impact, shadow flicker etc. were deemed acceptable.
- Planning history demonstrates that site is eminently suitable for a wind farm.
- Proposed development is materially different and legally discrete from Reg. Ref. 14/85, which was an amendment to the extant permission.
- EIS meets all of the requirements of EIA Directive 2011/92/EU and Schedule 6 of the PDR. The appellant has not provided any instances of alleged deficiencies, and neither did the Planning Authority.
- There is no requirement under the EIA Directive to present an EIS in any particular way. There are specific provisions for competent authorities to request further information if required and this shall be considered by the Planning Authority/Board when carrying out an EIA.
- Any differences between Schedule 6 of the PDR and Annex IV of the EIA Directive 2011/92/EU are of an editorial nature and are within the margin of discretion left over to Member States in transposing EU law.
- Legislation precludes refusal of planning permission based on any alleged lack of environmental information in the EIS, unless the Planning Authority/Board has first sought to address any alleged deficiencies through a request for further information.
- EIS provides a full description of the proposed grid connection and route corridor, including an assessment of two grid connection options. O'Grianna Judgment requires an integrated environmental assessment of the wind farm

and grid connection, but does not require a single planning application for both elements.

- EIA Directive does not require an Environmental Health Impact Assessment to be submitted. All issues regarding the likely impact on the environment and human health are fully addressed in the EIS.
- The proposed development is a 'project' to which the EIA Directive applies, not a 'plan' or 'programme' to which the SEA Directive applies. The SEA Directive does not apply to this project. An SEA has been carried out for the Cavan County Development Plan 2014-2020, including a strategic assessment of the likely environmental effects of wind energy.
- The relevant provisions of the Aarhus Convention and associated EU Directives have been transposed into Irish law via the PDA 2000, as amended. The planning application has been submitted in accordance with section 34 of the PDA, and there is no obligation to enter into public consultation or to facilitate public participation prior to submitting a planning application.
- The planning application and appeal processes allow for public participation and consultation.
- The proposed set-back distances for the turbines fully complies with national and local planning policy.
- The most pressing sustainable development challenge of our time is to decarbonise the energy system. National strategic energy policy seeks to stimulate the penetration of renewable energy through wind energy generation.
- Proposed development represents a significant planning gain over the extant permission due to fewer turbines, greater set back distances and reduced impacts on the local community. Moderate increase in height will be imperceptible and all noise and shadow flicker requirements can be fully adhered to.

6.4.2. The applicant included their further information submission as an appendix to their response, stating that it also addressed in detail the issues raised in the third party appeal.

6.5. **Third Party Response to First Party Appeal**

- None.

6.6. **Planning Authority Responses**

6.6.1. Response to First Party Appeal:

- Conditions 7(a) and 9 were included in the Board's previous grant of permission on the site.
- No objection to a 10-year permission if the Board deem it appropriate.

6.6.2. Response to Third Party Appeal:

- The Planning Authority's response was received outside the appropriate period.

6.7. **Observations**

6.7.1. No submissions/observations are on file from any other party.

7.0 **Assessment**

7.1. **Key Planning Issues**

7.1.1. This assessment is twofold, in that it relates to:

- (i) Third party appeal against Grant of permission.
- (ii) First party appeal against Conditions and duration of permission.

7.1.2. Having regard to the information presented by the parties to the appeal and in the course of the planning application and my site inspection, I consider the key planning issues can be considered under the following headings:

- Principle of the proposed development.

- Landscape and visual impact.
- Peat stability.
- Water pollution.
- Noise.
- Shadow flicker.
- Transport and access.
- Other matters
- First party appeal against Conditions
- Environmental Impact Assessment.
- Appropriate Assessment

7.2. Principle of Proposed Development

7.2.1. There is a positive presumption in favour of renewable energy projects at National, Regional and Local levels. This is reflected in the Wind Energy Development Guidelines for Planning Authorities, 2006, the Regional Planning Guidelines for the Border Region 2010-2022 and the Cavan County Development Plan 2014 – 2020.

7.2.2. As outlined above, the Cavan County Development Plan, 2014 – 2020 sets out detailed policy and objectives in relation to wind energy development. While there is currently no Wind/Renewable Energy Strategy in place for the County, it is the policy of the Planning Authority to adopt a favourable approach to wind energy development subject to protection of the environment and the character of sensitive areas.

7.2.3. The planning history of the appeal site is also a relevant consideration. The Board has already assessed a development proposal at this location and determined that a wind farm consisting of nine wind turbines was acceptable on the basis that it would accord with National and County policies, would not seriously injure the amenities of the area or of property in the vicinity, would be acceptable in terms of visual impact, would not seriously injure the ecological or cultural heritage of the area, would be acceptable in terms of traffic safety and convenience and would not be prejudicial to public health.

- 7.2.4. The proposed development relates to a smaller number (7 versus 9) of larger turbines (126.5m versus 100m) when compared to the permitted development, and while such a development can be considered acceptable in principle given its location, regard has to be had to its environmental impacts, including the visual impact on the landscape, impact on local residents and the amenities of the area including noise and shadow flicker, impacts on ecology, cultural heritage and accessibility/traffic and drainage issues.
- 7.2.5. In conclusion, therefore, having regard to the policies and objectives of the County Development Plan, the national guidelines, the planning history of the subject site and the revised development proposal, I consider that the principle of the subject development is acceptable, provided that it does not adversely impact on the environment, the amenities of the area or on local residents.

7.3. Landscape and Visual Impact

- 7.3.1. The EIS 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. The key findings of this study are that it is a classical ZTV for a drumlin landscape, with extensive visibility within 5km, and a sand ripple pattern between 5 – 15km, indicating extensive visibility from drumlin hills and complete screening within intervening valleys. Between 15 – 20km patches of sporadic coverage occur to the northwest, southwest and east. I note that the ZTV can be considered to be somewhat conservative, since it doesn't allow for screening by vegetation or buildings. A comparative ZTV was also submitted, which illustrates the increased visibility of the proposed development, when compared to the permitted development. This ZTV indicates a slight overall increase in visibility, with the main increase being to the south at a distance of 10 – 20km.
- 7.3.2. The Wind Energy Development Guidelines provides guidance for various landscape character types. I consider that the appeal site can be described as 'hilly and flat farmland' 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.

- 7.3.3. The EIS considers the landscape sensitivity of the appeal site and study area to be low, due to existing wind energy development in the area, the presence of existing telecommunications structures, conifer plantations, quarries and dense local road networks. The magnitude of the landscape impact is also considered to be low, again owing to the presence of existing and permitted wind energy development in the area, the small physical footprint of the structures. The EIS therefore considers the landscape impact to be Slight-Imperceptible. While I concur that the landscape sensitivity is low, I would consider the magnitude of the landscape impact to be medium, since the proposed development will locally alter the landscape character defined by the relationship between Taghart Lough and the surrounding uplands by introducing new uncharacteristic elements. This would result in the significance of the landscape impact being Slight.
- 7.3.4. With regard to visual impacts, the EIS identifies 23 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 23 VRPs are representative and provide an adequate basis for assessing the visual impact of the proposed development from a broad range of vantage points.
- 7.3.5. Of the 23 VRPs, 9 are deemed to experience a Moderate visual impact, with a further 6 experiencing a Substantial-Moderate visual impact. 5 of the 6 VRPs experiencing a Substantial-Moderate visual impact are located within 1km of the proposed development and the significance of the impact arises from the interaction of a medium sensitivity receptor with a high magnitude impact, due to the close-range views of the turbines. The sixth VRP experiencing a Substantial-Moderate visual impact is VRP15, which represents the view from Lough an Leagh. This arises from the interaction of a high sensitivity receptor with a medium magnitude of impact.
- 7.3.6. The viewpoints which I consider to be most significant are:

- VRP5: Short-range view representative of local community views. Five of the turbines are substantially visible above the skyline. Viewing location is downhill from the turbines which emphasises their height and dominance.
- VRP6: Elevated view across Taghart Lough. The turbines are seen at close range, and the lateral extent of the turbines across the view tends to dominate the landscape.
- VRP7: Similar to VRP5.
- VRP8: View from Corlea Church, a protected structure. Five of the turbines are seen at significant scale, although with a degree of openness between them and in the panoramic vista in the opposite direction. Turbines tend to dominate the few dwellings and field patterns.
- VRP9: Similar to VRP5 and VRP7.
- VRP10: Uphill vista with wind turbines visible behind Barleystone factory and associated storage yard and quarry. Five of the turbines are tightly grouped in this view and visible at varying heights above the skyline, with two outliers to the north west. The combination of the industrial development and the wind energy development leads to a degree of visual clutter and untidiness in this pastoral landscape.
- VRP12: View from the R165 along a drumlin valley aligned with the wind farm. All seven turbines are visible above the skyline, with a wide lateral extent and linear arrangement. The Gartnaneane wind farm is also partially visible from this location, such that they tend to read as a single development.
- VRP15: View from Lough an Leagh designated scenic view. This is an elevated viewpoint with an almost 360-degree panoramic view. The immediate context is a mix of heathland and conifer plantation with several telecommunications mast, while lowland areas are defined by pastoral farmland and scattered housing. The existing Gartnaneane wind farm is highly visible in this view, with the Mulananalt wind farm and Old Mill wind farm faintly visible in the distance. The proposed development will be seen at a similar scale but broader extent than the Gartnaneane development,

resulting in a co-dominant visual presence. Five of the turbines will be seen as a coherent cluster, with two outlying turbines to the west, which serves to bridge the gap between the two wind farms to a degree. I consider that the telecommunications structures and Gartnaneane wind farm serve to provide a level of visual absorption capacity in this view.

- VRP19: Similar to VRP6 – close-range views from centre of site in area surrounding Taghart Lough.
- VRP23: Elevated vista across rolling drumlin landscape with all seven turbines visible above the skyline. The turbines are similarly spaced, with the blade rotation envelope above the ridgeline which provides for a visually satisfying composition.

7.3.7. The EIS also considers the cumulative visual impact of the proposed development with a number of other permitted or operational wind farms within the 20km study area. A cumulative ZTV map was submitted to illustrate the visibility of the proposed development and the locations where two or more wind farms will be visible. The cumulative ZTV indicates that there are extensive inter-drumlin valleys which will have no visibility of any turbines, while the areas which will have sole views of the proposed development are relatively limited. While multiple wind farms will be visible from a substantial proportion of the study area, only from a few very high ridgelines, such as Lough an Leagh, will five wind farms be visible. With regard to the 23 VRPs identified by the applicant, there is relatively limited intervisibility (other than Lough an Leagh) and this is representative of the undulating drumlin landscape and the predominance of relatively short-range views. In the few VRPs where the proposed development is visible in conjunction with the Gartnaneane wind farm, they typically read as a single development.

7.3.8. With regard to the grid connection, the EIS notes that all cables will be laid underground within the public road and it therefore considers that any landscape and visual impact will be negligible. I concur with this conclusion.

7.3.9. With regard to mitigation measures, the EIS notes that it is not feasible to screen wind farms due to their size, but considers that the site selection and design process has been used to mitigate impacts in accordance with the guidance set out in the Wind Energy Development Guidelines for 'hilly and flat farmland'. It also

states that specific mitigation measures such as use of non-reflective matt finishes, underground cables and landscaping works will reduce the impacts.

- 7.3.10. Having reviewed the site selection and layout guidance in the Wind Energy Guidelines, I consider that the proposed development has been adequately designed with respect to the site context, the landscape character and the range of sensitive views to and from the site. While the layout of the seven turbines appears irregular from a number of VRPs, I consider that the complex field pattern, undulating landscape and variable ground cover serves to provide a landscape that has adequate visual absorption capacity to accommodate this turbine layout without creating undue visual confusion or disharmony.
- 7.3.11. Wind turbines, due to their size and scale tend to be highly visible and dominant within the local landscape. This is clearly shown in the numerous close-range VRPs, where turbines are visible above the skyline. However, I consider this to be preferable to a situation where turbine blades are cutting against ridgelines. This visibility quickly reduces due to the drumlin topography, and the lateral spacing of the turbines. While I am conscious of the increasing proliferation of wind farms within this geographic area and the potential cumulative visual impact of same, I am satisfied that the overall visual impact is within tolerable limits, given the limited scale of the proposed development and the limited number of locations where more than two wind farms are visible.
- 7.3.12. With particular regard to the High Landscape Area and scenic viewing point at Lough an Leagh, I consider that while the proposed development will undoubtedly have a visual impact, the view from Lough an Leagh is not a pristine wilderness view, but is instead a panoramic view of a pastoral landscape, subject to a range of scattered development, including agricultural structures, one-off housing, telecommunication masts, quarries, conifer plantations and roads. The existing and permitted wind farms at Gartnaneane and Corrinshigo/Raragh, respectively, as well as a number of more distant wind farms are already visible and I consider that the proposed development would not unduly detract from the overall visual quality of the scenic viewing point and High Landscape Area and would not have an unacceptable impact on the rural character or visual amenities of the area.

7.3.13. Finally, the fact that the Board has previously considered a wind farm development at this location to be acceptable is a material consideration in my view, albeit that the nine turbines granted under Ref. PL02.239141 in 2013 were c. 100m high, compared to c. 125m for the seven proposed turbines and were in slightly different locations. The comparative photomontages demonstrate to my satisfaction that the landscape and visual impacts of the proposed development are not significantly different from those that the Board has previously deemed to be acceptable.

7.4. **Peat Stability**

7.4.1. Trial pitting was undertaken during the preparation of the EIS. This found that the depth to bedrock tends to be shallow, ranging from 0.5m to 2m. The trial pits generally encountered weathered sandstone, shale or turbidite fragments overlaid by clay loams, which is consistent with GSI mapping. It is of note that peat was only encountered in one of the trial pits (Turbine 2), where it comprised a shallow slightly peaty clay topsoil layer. Due to the soil being a mix of clay and peat, and the bedrock level being close to the surface, the EIS considers that the risk of a peat slide at this location is negligible. Having regard to the limited extent of peaty clay, and its shallow depth, I concur with this interpretation.

7.5. **Water Pollution**

7.5.1. The appeal site is characterised by drumlin topography with elevations ranging from 220m to 270m AOD and is split between three catchment areas, the Erne to the north (Turbine 1), the Glyde to the east (Turbines 2, 3 and 5) and the Boyne (Turbines 4, 6 and 7) to the south west. Within the Erne catchment the area is drained by two unnamed streams which drain into the River Erne via Lough Sillan. Within the Glyde catchment the area is drained by three small unnamed streams which drain to the Lagan River (a tributary of the Glyde). Within the Boyne catchment the area is drained by an unnamed stream which flows in a south westerly direction.

7.5.2. The GSI mapping indicates that bedrock aquifer classification is generally poor and unproductive except for local zones, and is covered by low permeability soils. The

combination of slopes, low permeability soils and moderate to high rainfall increases the potential for runoff and pollutants to enter surface water bodies.

- 7.5.3. 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. The EIS notes that no watercourse crossings will be required, although a number of drainage ditches will be culverted or diverted.
- 7.5.4. A series of mitigation measures are proposed, including 20m buffer zones from watercourses, 5m buffers from land drains, use of existing access tracks where possible, drainage ditches alongside access tracks with spillways onto vegetated ground at regular intervals and level spreaders at the end of each drainage run to control erosion and remove suspended solids. ACO channels are proposed at each access point to the local roads to prevent run-off onto roadways. It is also proposed to store all oils and chemicals in bunded compounds, to provide spill kits and to maintain and refuel vehicles either off-site or in hardstanding areas with drip trays to contain any spillages. With regard to potential alkaline pollution of groundwater or surface water, it is proposed to use sulphate resistant concrete for foundations and crane pads.
- 7.5.5. With regard to residual impacts, the EIS notes that the access tracks will result in some changes to the hydrological regime, principally in the way that surface water run-off occurs over the site and the risk of erosion of track surfaces with resultant sediment laden run-off. However, it is considered that the drainage arrangements and level spreaders will minimise this impact, resulting in a negligible residual effect. No other significant residual effects are identified.
- 7.5.6. In terms of cumulative effects, the EIS notes that the existing Gartnaneane wind farm is at a distance of 2km, and considers that the potential for cumulative impacts is insignificant due to scale of the proposed development, the separation distance and the hydrological environment.
- 7.5.7. I note that Inland Fisheries Ireland made an observation to the Planning Authority in respect of the proposed development. The applicant, in their response to the

request for further information, contended that the observation is a pro forma submission which raises issues that are addressed in the EIS. I consider that the issues raised by IFI primarily relate to construction practices and methodologies and can be addressed in a construction management plan, to be agreed with the Planning Authority.

7.5.8. With regard to the staff welfare facility, a Site Characterisation and Site Suitability Assessment for the proposed wastewater treatment system was submitted. The aquifer is categorised as poor (Pi) with extreme vulnerability and a groundwater protection response of R2. A trial hole was excavated with a depth of 2.1m. No groundwater was encountered and bedrock was encountered at 1.8m. The subsoil comprised clay with presence of shale rock. 'P' and 'T' percolation tests were undertaken. The T test result was 82.08 min/25mm which indicates that the subsoil has poor percolation characteristics. The P test result was 56.62 min/25mm, again indicating that the topsoil has poor percolation. It is therefore proposed to construct a proprietary wastewater treatment system with a soil polishing filter.

7.5.9. I consider that the EIS adequately identifies and assesses the potential impact of the proposed development on the hydrological environment, and I consider that with the undertaking of construction with full regard for best practice and with the imposition of suitable conditions requiring the submission of a Construction Management Plan and agreement of drainage details with the Planning Authority, that the proposed development will not have a significant residual effect on the hydrological environment.

7.6. **Noise**

7.6.1. The EIS identifies a total of 83 receptors within ten rotor diameters of the proposed turbines (i.e. 1,030m). This includes 77 existing receptors, 5 permitted receptors and 1 noise survey location at a house which is now derelict. Of these 83 receptors, 23 are located within 500m of a turbine, of which 18 are not economically involved in the proposed development. The closest occupied receptor is H48, which is located 268m from a turbine and it is of note that this property belongs to a landowner economically involved in the proposed development. I note that no non-involved dwellings are located within 400m of a turbine location, and the closest non-involved receptor is H21, which is located 401m from the nearest turbine.

- 7.6.2. With regard to separation distances, it is of note that the Board issued a request for further information in respect of the previous appeal on the site (Ref. PL02.239141), which specified a minimum separation distance of 400m – 500m, which could be reduced where a letter from the householder was provided indicating acceptance of the potential impacts.
- 7.6.3. The 2006 Wind Energy Development Guidelines state that in general a lower fixed limit of 45 dB (A) or maximum increase of 5 dB(A) above background noise at nearby noise sensitive locations is considered appropriate to provide protection to wind energy development neighbours. It also notes that in very quiet areas, the use of a margin of 5dB(A) above background noise at nearby noise sensitive properties is not necessary to offer a reasonable degree of protection and may unduly restrict wind energy developments which should be recognised as having wider national and global benefits. Therefore, in low noise environments where background noise is less than 30 dB(A), it recommends that the day time level of LA90,10min of the wind energy development noise be limited to an absolute level within the range of 35 – 40 dB(A). It also denotes that separate noise limits should apply for day time and for night time and that a fixed limit of 43 dB will protect sleep inside properties during the night. It also states that in general, noise is unlikely to be a significant problem where the distance from the nearest turbine to any noise sensitive property is more than 500 metres.
- 7.6.4. I note that paragraph 24 of ETSU-R-97 recommends that both day and night time lower fixed limits be increased to 45dB(A) and that consideration should be given to increasing the margin above background where the occupier of the property has some financial involvement in the wind farm.
- 7.6.5. The noise model included both the seven proposed turbines as well as the existing ten turbines at Gartnaneane Wind Farm, c. 2km to the west. The five permitted but not yet constructed turbines at Corinshigo/Raragh were not included for the stated reason that they are located 5km to the south east, and are too distant to have an in combination noise impact with the proposed development.
- 7.6.6. A baseline noise survey was undertaken at four locations in the vicinity of the appeal site for a range of wind speeds from 4-12 m/s, as measured at the on-site meteorological mast. I note that the survey data appears to date from 2010. While

this is clearly somewhat dated, there does not appear to have been any significant changes in the site context in the intervening years such as would result in a material change in the noise baseline. The recorded daytime noise levels ranged from 25 – 29dB(A) at low wind speeds to 47 – 57dB(A) at higher wind speeds, while the night-time noise levels ranged from 20 – 22dB(A) at lower wind speeds to 40 – 49dB(A) at higher wind speeds.

- 7.6.7. The noise model subsequently predicts the noise level at all 83 receptors within 1,030m of a turbine, and can be considered to be a conservative assessment due to utilising the lowest of the background noise levels found across the four survey locations for each wind speed. The planning criterion is based on this background level + 5dB or the lower fixed limits set out in the Wind Energy Guidelines and ETSU-R-97 document.
- 7.6.8. The EIS acknowledges that one property (H48) will be marginally outside acceptable limits with a predicted noise level of 46.4dB(A), but the EIS states that this landowner is economically involved in the proposed development and has agreed to the predicted noise levels. However, there does not appear to be any evidence on file to indicate that this is the case. I also note that a second property (H46) is also indicated in the model results as being outside acceptable noise level, being 45dB.
- 7.6.9. Since a number of the receptors are close to the acceptable limit for noise, and having regard to the site context and location of 23 properties within 500m of a turbine, I consider that the Condition attached to the extant permission, which limits noise to 5dB(A) above background noise levels or 43dB(A), is appropriate in this instance. I also recommend that a Condition requiring noise compliance monitoring be imposed and noise mitigation where necessary, should the Board be minded to grant permission.
- 7.6.10. Finally, I also consider that the use of micro-siting, as sought by the applicant, could potentially result in noise limits being exceeded in respect of other receptors, and I therefore recommend that a Condition be imposed restricting the use of micro-siting on the site.
- 7.6.11. Subject to these Conditions, I consider that the proposed development will not result in a significant residual noise impact on sensitive receptors.

7.7. Shadow Flicker

7.7.1. A shadow flicker assessment utilising WindPRO software was undertaken for the 82 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 Clones meteorological station for the probability of sunshine. The EIS states that the model is unable to provide 'expected' daily impacts, since any particular day could be sunny or cloudy for all or part of the day.

7.7.2. The EIS states that the shadow flicker results for both the 'worst case' and 'expected' scenarios are inherently conservative due to various modelling assumptions. The assumptions common to both scenarios include the following:

- Receptors are modelled in greenhouse mode – i.e. constructed of glass with no solid walls or other screening. Also assumes no closed blinds/curtains.
- Model assumes a 'lunar landscape' with no vegetation or other obscuring features between wind turbines and receptors.
- Assumes that sunny conditions coincide with times of day at which shadow flicker will occur at each receptor.

7.7.3. Additional assumptions for the 'worst case' scenario include:

- Assumption that sun is always shining and turbine rotor is always spinning.
- Turbine rotor tracks the sun by yawing as the sun moves.
- No downtime for any turbine assumed.

7.7.4. Due to the separation distance of the Gartnaneane wind farm from the appeal site (c. 2km), the EIS did not consider that a cumulative assessment was necessary. Having regard to the Wind Energy Guidelines recommendation that the potential for shadow flicker at distances greater than 10 rotor diameters from a turbine is very low, I consider this approach to be satisfactory.

7.7.5. I note that the Wind Energy Planning Guidelines recommends the following in respect of shadow flicker:

- Shadow flicker at neighbouring offices and dwellings within 500m should not exceed 30 hours per year or 30 minutes per day.

- At distances greater than 10 rotor diameters from a turbine, the potential for shadow flicker is very low.
- Where shadow flicker could be a problem, developers should provide calculations to quantify the effect and where appropriate take measures to prevent or ameliorate the potential effect such as turning off a particular turbine at certain times.

7.7.6. The modelling indicates that three of the receptors will exceed the recommended 30 hours of shadow flicker per year in the 'expected' scenario. These are H34 (32:43), H42 (35:49) and H48 (58:09). These three receptors are stated to be dwellings occupied by landowners economically involved in the proposed development. In terms of the 'worst case' scenario, I note that 53 of the 82 receptors are at or in exceedance of the recommended 30 hours per year and 52 are at or in exceedance of the recommended 30 minutes per day.

7.7.7. While the 'worst case' shadow flicker impacts for hours per year and days per year are in excess of the Guidelines for more than half of the receptors, I note the extremely conservative assumptions that underpin the assessment. The Board should also be aware that 52 of the 83 receptors are located at a greater setback distance from a turbine when compared to the previous scheme for which the Board granted permission (Ref. PL02.239141), with the result that no non-involved receptors are now located within 400m of a turbine.

7.7.8. The EIS does not propose any mitigation measures to address shadow flicker, due to what it says are relatively low levels of shadow flicker. It does, however, note that shadow flicker can be monitored and mitigated through the use of sensors and computer controls which shut down particular turbines for time periods where excessive shadow flicker levels are predicted to occur. This is expanded upon in the further information response, but it is unclear to me whether the applicant is proposing to install these mitigation measures or not.

7.7.9. I consider that the 'worst case' results are extremely conservative and do not give a realistic assessment of the potential impacts. I consider that the 'expected' scenario provides a more realistic, yet suitably conservative, assessment of the likely impacts. In the 'expected' scenario, only three houses will exceed the recommended 30 hours of shadow flicker per year and those houses are

economically involved in the proposed development. The applicant states that these economically involved receptors have accepted the potential impact, however there is no evidence on file to indicate that this is the case. Furthermore, the Wind Energy Guidelines do not state that increased shadow flicker impacts are acceptable at receptors involved with the project. Notwithstanding this, I note that shadow flicker can be mitigated through monitoring and turbine control systems and therefore I recommend that, if the Board is minded to grant permission, that a suitable Condition be imposed to ensure monitoring of shadow flicker and the implementation of suitable mitigation measures to prevent any exceedances of the recommendations set out in the Wind Energy Guidelines for any receptors.

- 7.7.10. In addition to a Condition requiring monitoring and mitigation of any shadow flicker impacts, I consider that it is appropriate to restrict the use of micro-siting of the wind turbines in this instance, due to the proximity of receptors and to ensure that shadow flicker is suitably controlled.
- 7.7.11. Subject to these mitigations, I consider that the residual shadow flicker impacts of the proposed development will not be significant.

7.8. Transport and Access

- 7.8.1. Due to the nature of the proposed development, the construction phase represents the peak traffic-generating phase of development, due to both construction and staff vehicles, as well as the abnormal loads associated with the turbine tower sections and blades. The proposed transportation route for these abnormal loads is via the M50 to the M3 to the R162 to the L3520. This will require the temporary upgrading of the R162/L3520 junction, c. 2km north east of the appeal site in order to facilitate the turbine deliveries.
- 7.8.2. Three access points to the site are proposed, two of which are existing farm entrances which will be upgraded, with one new entrance on the L7550 at the south of the site. 4km of c. 5m wide access tracks will also be constructed to facilitate access to turbine locations.
- 7.8.3. The EIS identifies the potential suppliers of ready mix concrete and aggregates in the area and the likely haulage route for each. Having regard to the proximity of an

operational quarry to the appeal site, the EIS states that this would be the preferred supplier.

7.8.4. The predicted traffic movements during the construction phase are 112 abnormal loads, 2,069 HGV trips and 2,979 van trips over the 12-18 month construction period. During the operational phase, 1.6 LGV trips per day are estimated for servicing and maintenance. Having regard to the duration of the construction phase, I do not consider that the proposal would result in significant traffic generation during construction or operation, and that traffic issues can be appropriately managed through a construction traffic management plan. I do note, however, that the traffic associated with the grid connection has not been considered in this section of the EIS. However, since the grid connection will comprise cables buried in the road verge, the traffic impact associated with this element of the project is unlikely to be significant.

7.8.5. I accept the conclusion of the EIS, 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 EIS and a Condition requiring a construction traffic management plan to be agreed with the Planning Authority, that the proposed development is acceptable with regard to traffic and transport impacts. If the Board is minded 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.

7.9. **Other Matters**

7.9.1. **Grid Connection**

7.9.1.1. The grid connection does not form part of the proposed development. The EIS states that “it is predicted with a high degree of certainty” that the connection will be to be Meath Hill 110kV substation, located c. 12.5km south east of the appeal site. A letter from ESB Networks to Galetch Energy relating to a connection offer for Taghart Windfarm was submitted with the response to the request for further information. The reference for the grid connection is DG175, which was previously attached to Cregg Windfarm and the stated capacity of the Taghart Windfarm as per

the letter is 20.06MW. I note that the letter was dated 20th May 2016, with an expiry date for the offer of 22nd August 2016.

7.9.1.2. While the wind farm and the grid connection can be considered to form part of a single project, I do not consider that they have to form part of a single planning application in order to comply with the O’Grianna Judgment. As long as the potential cumulative environmental impacts of the wind farm and grid connection are adequately described and assessed in the EIS, then I consider that the planning application is consistent with the provisions of the O’Grianna Judgment.

7.9.1.3. Section 2.7.2 of the EIS describes two routes for the grid connection from the proposed wind farm to Meath Hill substation, one comprising overhead lines and one comprising underground cables. The two routes are illustrated on Figure 2.6 of the EIS. The overhead line option will traverse agricultural fields with single wooden pole powerline, while the underground option would entail the burying of a cable in a trench excavated along the public road. The EIS considers that neither option is likely to have significant environmental effects, and Table 2.2 sets out the likely impacts of both options for the same range of environmental topics as used elsewhere within the EIS. The underground option is utilised in the wider EIS assessment, on the basis that the overhead option is outside the control of the applicant due to the requirement to cross third party lands. Each chapter of the EIS addresses the potential impacts arising from the grid connection, where relevant, and I have addressed this in the section entitled Environmental Impact Assessment below and elsewhere in this report where appropriate.

7.9.1.4. I am satisfied that the applicant has submitted sufficient information with the planning application, including the EIS and AA Screening Report, to enable the Board to undertake a cumulative assessment of any significant adverse impacts on the environment and on European sites arising from the overall wind energy project, comprising the wind farm and grid connection.

7.9.2. **Aarhus Convention and Public Participation Directive**

7.9.2.1. The third party appellant contends that pre-planning meetings between the applicant and Planning Authority without public participation was in breach of the Aarhus Convention and the Public Participation Directive (2003/35/EC). The appellant also contends that the lack of public participation in the project from the

beginning of the process is contrary to both the Aarhus convention and the Public Participation Directive, which require public participation at an early stage when all options are open to the competent authority.

7.9.2.2. The applicant has responded to this issue, and I concur with the applicant's position, that the provisions of both the Aarhus Convention and the Public Participation Directive, which the EU introduced to implement the Convention, have been given effect through the mechanisms in the Irish planning system that allow the public to make observations on planning applications, to appeal any planning decision to An Bord Pleanála, and ultimately to seek a Judicial Review of a planning decision where necessary.

7.9.2.3. There is currently no requirement for an applicant for planning permission to enter into public consultation or to facilitate public participation prior to making an application. While it may be beneficial to undertake such consultation, there is no legal obligation to do so. The planning application was the subject of public notices, and the appellant has availed of the public participation mechanisms of the planning system to make their observation to the Planning Authority and their appeal to the Board. I am therefore satisfied that the provisions of the Aarhus Convention and Public Participation Directive have been followed in this instance.

7.9.3. **Strategic Environmental Assessment**

7.9.3.1. The third party appellant states that a Strategic Environmental Assessment (SEA) of the project should have been undertaken. I note that article 2(a) of the SEA Directive requires an SEA to be carried out in respect of plans or programmes. I consider the proposed development to constitute a 'project', rather than a 'plan' or 'programme', and it is therefore subject to the provisions of the EIA Directive rather than the SEA Directive. I also note that the proposed development will be considered within the context of the Cavan County Development Plan and other national plans and programmes in relation to wind energy which have been subject to SEA, where appropriate.

7.10. **First Party Appeal Against Conditions**

7.10.1. **Condition 7(a): Micro-siting**

7.10.1.1. The applicant is seeking to remove Condition 7(a) in order to allow for a deviation of up to 20m in turbine and access track locations.

7.10.1.2. I note that the Wind Energy Development Guidelines state at Section 5.3 that:

“Provision must be made for carrying out site-specific geo-technical investigations in order to identify the optimum location for each turbine. These investigations may suggest minor adjustments to turbine location. In order to accommodate this practice there should be a degree of flexibility built into the planning permission and EIS. The extent of flexibility will be site specific but should not generally extend beyond 20 metres. Any further changes in location beyond the agreed limits would require planning permission.”

7.10.1.3. Having regard to the proximity of the turbines to existing houses, and the noise and shadow flicker results set out in the EIS which are at the higher end of the acceptable range in a number of cases, it is clear that this is a sensitive and constrained site. The applicant will have been aware of these constraints from the previous planning application on the site, for which the Board similarly restricted the use of micro-siting. Having regard to the site context and the planning history, I consider that the onus was therefore on the applicant to undertake sufficient site investigation works in order to ensure that the proposed turbine locations are technically feasible from a geotechnical and construction viewpoint.

7.10.1.4. Having regard to the proximity to existing houses and the predicted noise and shadow flicker impacts which are close to the maximum permissible in a number of cases, I therefore consider that the restriction on the use of micro-siting for turbine locations should be retained.

7.10.2. **Condition 9: Noise**

7.10.2.1. The applicant has appealed Condition 9, which relates to noise controls, and contends that the Condition does not take account of the recommendations of the ETSU-R-1997 document, which allows for higher noise limits where receptor is financially involved in a project. The applicant also states that ETSU-R-1997 recommends a limit of 45dB(A), rather than the 43dB(A) specified in Condition 9. The applicant’s appeal includes a proposal for an alternative condition.

7.10.2.2. The issue of noise is addressed in Section 7.3.10 above. The EIS acknowledges that one economically involved property (H48) will be marginally outside acceptable limits with a predicted noise level of 46.4dB(A), while a second property (H46) is at the margin of acceptable noise level, being 45dB. The applicant contends that a higher noise level should be utilised for economically involved receptors, but they have not submitted any evidence to indicate that the owners of these properties are aware of and accepting of these elevated noise levels. Since a number of the receptors are close to the acceptable limit for noise, and having regard to the site context and location of 23 properties within 500m of a turbine, I consider that Condition 9 is appropriate in this instance and should be retained.

7.10.3. **Duration of Permission**

7.10.3.1. The applicant is also appealing the duration of the permission, and is seeking that it be increased to 10 years to take account for potential delays associated with the other required consents. I note that the statutory notices for the planning application did not state that a 10-year duration of planning permission was being sought, although it was stated in the EIS and the cover letter submitted with the application. The duration of permission is a material issue that is likely to be of interest to local residents, and therefore should have been referenced in the statutory notices in my opinion. Notwithstanding this, I consider that a 10 year duration is reasonable in this instance, as it will make reasonable allowance for any potential delays associated with the consenting process or construction delays.

7.11. **Environmental Impact Assessment**

7.11.1. **Adequacy of Environmental Impact Statement**

7.11.1.1. An Environmental Impact Statement, prepared by Irish Wind Construction Management Ltd. was submitted with the application. The EIS follows the grouped format structure, with each topic assessed in a separate chapter and it includes a Non-Technical Summary and various technical appendices, drawings and photomontages.

7.11.1.2. The third party appellant has claimed that the EIS submitted is not adequate on the basis that it was prepared in accordance with EIA Directive 97/11/EC rather than

EIA Directive 2011/92/EU and that it failed to include a Social Impact Assessment and Environmental Health Impact Assessment. The appellant also contends that the EIS failed to include a description of the grid connection and that it violates judgments in ECJ case C-50/09, O’Grianna & Others v An Bord Pleanála (2014/19 JR) and An Taisce v An Bord Pleanála (IEHC 633).

- 7.11.1.3. The applicant has responded by stating that the EIS is compliant with Irish and European requirements and that the issue of the grid connection was addressed in the EIS.
- 7.11.1.4. Having read the EIS, associated drawings and documentation and the further information submitted to the Planning Authority, I consider that it generally meets the requirements of EIA Directive 2011/92/EU and includes all of the information required to be contained in an EIS, as set out in article 94 and Schedule 6 of the Planning and Development Regulations 2001, as amended, and Annex IV of the Directive. This is clearly tabulated in the applicant’s response to the Planning Authority’s request for further information, and was resubmitted with the response to the third party appeal. There is no requirement under the EIA Directive to prepare an Environmental Health Impact Assessment or Social Impact Assessment, although I note that health and socio-economic issues are addressed in Chapter 3 of the EIS, which is entitled ‘Human Beings’.
- 7.11.1.5. With regard to the grid connection and compliance with the O’Grianna Judgment, this is dealt with in more detail elsewhere in this report, but I concur with the applicant’s view that the grid connection is described and addressed in the EIS and that the Judgment requires an integrated and cumulative environmental assessment of the wind farm and grid connection, but does not require a single planning application to be made for both elements.

7.11.2. **Consideration of Alternatives**

- 7.11.2.1. The issue of alternatives is addressed in Section 2.3 of the EIS. No alternative locations were considered on the basis that the location has already been assessed by both Cavan County Council and An Bord Pleanála as being suitable for a wind farm, and that the proposed development essentially represents an amendment of the permitted scheme (although it has been submitted as a standalone planning application, rather than an amendment application). In terms of alternative designs,

the EIS states that the site layout was developed in an iterative exercise based on a number of factors, including the previous ABP assessment and various environmental factors. Since the requirement under Schedule 6 of the PDR and the EIA Directive is simply to outline the main alternatives studied by the developer and the reasons for his choice, rather than to outline every potential alternative, I am satisfied that the issue of alternatives has been adequately addressed in the EIS.

7.11.3. Human Beings

- 7.11.3.1. Chapter 3 of the EIS relates to human beings and community. It considers the potential impact of the proposed development on population, employment, community, tourism, property values, health and safety issues and land use.
- 7.11.3.2. In terms of employment, I concur with the EIS that there will be a direct and indirect impact, although this will primarily be a short term impact, during the 12 – 18 month construction process. The EIS estimates that €5 million would be retained in the local economy, comprising c. 25% of the total project cost.
- 7.11.3.3. In terms of community impacts, land rental costs will supplement farm incomes of landowners. It is also proposed to establish a community fund of €3,200 per turbine per year, equating to an annual sum of €22,400 for the 25 year lifespan of the development. The applicant also proposes contributing €500 per annum towards the electricity costs of each non-financially involved householder within 1,030m of a turbine (i.e. 10 x rotor diameter), equating to 82 No. properties. I consider that these measures represent an appropriate level of community gain that will serve to ameliorate the introduction of wind energy development within the local community.
- 7.11.3.4. With regard to the potential impact on property values, the EIS refers to the RICS Oxford Study which tested the impact of wind farms on property values on a number of sites in Cornwall in the UK. This study found that apparent changes in value disappear when examined more closely and that assessing such impacts is a complex and emotive subject. A Study undertaken by Sustainable Energy Ireland in 2003 is also referenced, which found that 12% of respondents felt that a wind farm had impacted negatively on the value of their property while 80% did not.
- 7.11.3.5. A drawing indicating the location of receptors within 400m, 500m and 1,030m of each turbine and a table comparing the setback distance of all dwellings within

500m of a turbine for both the permitted and proposed developments was submitted in response to the Planning Authority's request for further information. This indicates that the number of non-economically involved dwellings located within 500m of a turbine has decreased from 23 to 21, with the closest non-involved dwelling now being situated 401m from a turbine. By way of comparison, the closest economically involved dwelling is located 268m from a turbine. The issues of noise, shadow flicker and visual impact resulting from these separation distances are addressed elsewhere within this report.

7.11.3.6. Having considered the likely effects of the proposed development on human beings and community, I consider that the project will result in a positive socio-economic impact, and will not result in a significant effect on property values or human health.

7.11.4. **Flora and Fauna**

7.11.4.1. Chapter 4 of the EIS addresses the potential ecological impacts of the proposed development. I note that the assessment draws heavily on the results of ecological surveys and studies undertaken between 2010 and 2012 in connection with the previous planning application at the site (PL02.239141) and those studies, which are based on a different number and layout of turbines, are included as appendices. The EIS states that this was supplemented by a walkover survey of the appeal site and grid connection route undertaken during October 2015. The EIS notes that this was at the end of the flowering season for most plants, but considers that it allowed habitats to be identified with a high degree of confidence.

7.11.4.2. The appeal site and grid connection route are not located in or within 15km of any Special Areas of Conservation or Special Protection Areas. There are a number of SACs and SPAs in the wider area, and these are considered under the heading of Appropriate Assessment. The closest site designated for conservation is Ballyhoe Lough pNHA (Site Code 001594) which is located c. 1km to the east of the grid connection route.

7.11.4.3. The then-named Department of Arts, Heritage and the Gaeltacht was consulted in the EIS preparation process for the permitted wind farm development and responded to note that they had concerns regarding the growing number of wind farms proposed in the north Cavan area and the potential in-combination effects these may have on habitats and species of conservation interest. I note that the

Department only issued a holding response during consultation in respect of the EIS for the proposed development, and no observation was subsequently made by them.

- 7.11.4.4. A total of 14 habitats were identified within the study area in accordance with the Fossett classification. The majority of these are considered to be of 'Local Importance – Lower Value' or 'Local Importance – Higher Value', with the Glyde River being of 'County importance' since it is a suitable habitat for a number of freshwater species. The impacts on terrestrial habitat will primarily be related to the loss of small areas due to turbine and access road construction, with the most significant impact being in relation to the location of the proposed anemometer on dry siliceous heath/recolonising bare ground habitat mosaic. With regard to freshwater habitats, there are potential impacts on surface water quality, particularly during construction phase, as a result of run-off of sediments, fuels, oils etc. However, I am satisfied that the undertaking of construction in accordance with a suitable construction management plan which has been agreed with the planning authority will serve to mitigate this impact.
- 7.11.4.5. In terms of non-volant mammals (i.e. mammals other than bats), a range of species were encountered of Local Importance (Higher Value). These included hares, foxes, pygmy shrew, badgers and feral goats. Impacts will be limited to small-scale loss of habitat and disturbance from construction works. I do not consider this impact to be significant.
- 7.11.4.6. With regard to bats, the study area is considered to be of overall low suitability for bats based on National Biodiversity Data Centre mapping, although it is noted that it is highly suitable for certain bat species, such as the Common Pipistrelle, Natterer's bat and Soprano Pipistrelle. Bat surveys were undertaken in 2010, 2011 and 2012, which indicates that bats are fairly widespread within the study area but that there are no substantial bat roosts in the vicinity and no highly sensitive or valuable feeding sites for bats. The presence of the bats is deemed to be of Local Importance – Higher Value. The potential impacts on bats relate both to loss of scrub/hedgerow habitats, impacts on feeding patterns, ultrasonic interference, risk of collision. Various mitigation measures are proposed to address these potential impacts, including the maintenance of a 50m buffer distance between all wind turbines and planting, 50m buffer distance between all wind turbines and forestry,

200m buffer between all wind turbines and sites with high bat roost potential, and ensuring that all associated buildings are built in a manner that prevents bat occupancy. The EIS also proposes that the site be checked by a bat specialist for the presence of bat casualties in a properly planned and thorough manner and an examination of the area for feeding and commuting bats in summer and autumn should be carried out to identify if the turbines are affecting resident or passing bats. If casualties are identified during operation, the EIS states that a strategy to limit the losses will be implemented, including the cessation of operation of turbines at particular times of year or certain times of night at low wind speeds. Having regard to the surveys and information submitted, I am satisfied that while bats are present in the area, the site is not a major roosting or feeding site, and I consider that the residual impact will be slight. However, given that all bat species in Ireland are protected species, I recommend that if the Board is minded to grant planning permission, that a specific condition requiring the submission of a monitoring and reporting programme for birds and bats for the agreement of the Planning Authority, following consultation with the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

7.11.4.7. The appeal site is located within an area identified as being of low bird sensitivity to wind energy developments, based on National Biodiversity Data Centre mapping. Bird surveys undertaken recorded two Annex I bird species using the study area. These were a single Golden Plover feeding on improved grassland and peregrine falcons breeding in the quarry adjacent to the appeal site. Three red list species were also recorded, Golden Plover, Meadow Pipit and Grey Wagtail. A wide range of other bird species were also recorded, which are typical species in farmland and upland areas. Overall, the bird species recorded within the study area are evaluated as being of County importance. Potential construction phase impacts relate to loss of habitat and disturbance, while operational phase impacts relate to collisions with wind turbines. The EIS cites UK studies which found that upland breeding birds such as Meadow Pipit, Skylark, Red Grouse and Snipe did not suffer disturbance from wind farm developments, and generally fly low to the ground to avoid predators, thereby minimising collision risks. The only bird species considered to be particularly vulnerable to collision are the single pair of Mute Swans observed nesting on Taghart Lough. Peregrine Falcons are not considered to be vulnerable to

collision due to their high visual acuity and high manoeuvrability in flight. Whooper swans have been recorded on small lakes in the study area but no evidence was found regarding their use of the appeal site. The proposed mitigation measures for birds are generally limited to the undertaking of clearance and habitat removal outside of bird breeding season and replanting of hedgerows etc. The EIS also undertakes to carry out an annual survey of the Peregrine and Mute Swan nest-sites for a five year period post-construction to assess any impacts on these long-lived species. Having regard to the low bird sensitivity of the area, and the results of the bird surveys, I am satisfied that the residual impact of the proposed development will be slight.

7.11.4.8. The appeal site drains to three catchments, the Erne to the north, the Glyde to the east and the Boyne to the south west. All three catchments are known to contain salmonid spawning and nursery habitat. The River Glyde is considered as being of County Importance for fish. The wetland fringe of Taghart Lough and some drainage ditches are identified as possibly being of importance to amphibians such as the Common Frog and Smooth Newt. On foot of a request for further information, the applicant submitted a report setting out specific mitigation measures for the Smooth Newt. Subject to the implementation of mitigation measures outlined above for watercourses, and those for Smooth Newts, I do not consider that there will be a significant impact on fish, amphibians or other aquatic ecology.

7.11.4.9. The EIS in my view has adequately described the baseline environment and correctly identified, described and evaluated the potential impacts which could arise on flora and fauna from the proposed wind farm development and with the incorporation of appropriate mitigation measures as set out in the EIS particularly in relation to the protection of watercourses, I would agree that the residual impacts would not be significant during either the construction and operational phases.

7.11.5. **Soil and Geology**

7.11.5.1. Chapter 5 of the EIS describes the soils and geology underlying the appeal site, based on a desktop study, supplemented by a site walkover and trial pitting. The bedrock underlying the site comprises two generalised units – Silurian metasediments and volcanics, and Ordovician metasediments. Two geological faults cross the appeal site, and two shallow wells have been identified within the

vicinity of the site. The EIS states that other wells, if they exist, are likely to be very localised due to the highly consolidated nature of the bedrock.

7.11.5.2. During the construction phase a series of potential impacts are identified, arising from both the wind farm construction and the grid connection. These include soil erosion, ground contamination from oil and chemicals, destruction of soil by heavy vehicles. As set out elsewhere in my report, I consider the risk of a peat slide during construction to be negligible, due to the limited extent of peaty clay, and its shallow depth. The key potential impact identified for the operational phase is ground contamination from oil/fuel leaks. A series of mitigation measures are outlined, including the construction of stone access tracks, the use of bunded storage and serviced vehicles, and the provision of silt fences, wheel washes and buffer zones from ditches. The predicted residual impacts are stated to be slight.

7.11.5.3. I consider that the mitigation measures outlined will be sufficient to ensure that there will be no significant impact on soils and geology, and if the Board is minded to grant permission, I recommend a Condition be included requiring a Construction Management Plan to be submitted to the Planning Authority for agreement.

7.11.6. **Water**

7.11.6.1. The potential impact of the proposed development on the hydrological environment is addressed in Chapter 6 of the EIS, supplemented by the Further Information submitted to the Planning Authority on 16th August 2016. My assessment of this aspect of the EIS is set out in Section 7.5 above.

7.11.7. **Air and Climate**

7.11.7.1. I concur with the conclusions drawn in the EIS, that the proposed development will have a positive impact on air quality and climate during the operational phase, since it will assist in meeting national and international requirements to increase renewable energy production and reduce greenhouse gas emissions. During the construction phase there is the potential for dust emissions, but I consider that this can be addressed through a construction management plan to be agreed with the Planning Authority and suitable mitigation measures. On this basis, I do not consider that there will be any significant residual effects on air and climate as a result of the proposed development.

7.11.8. **Landscape and Visual Impact**

7.11.8.1. My assessment of this aspect of the EIS is set out in Section 7.3 above.

7.11.9. **Archaeology and Cultural Heritage**

7.11.9.1. Chapter 9 of the EIS 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 to the Meath Hill 110kV substation. The EIS considers an archaeological study area of 1km around the turbines and a wider 5km area. The baseline study found that there are no Recorded Monuments, Protected Structures or other recorded features of archaeological or heritage interest within the appeal site. There is one Recorded Monument (ringfort, not visible above ground) within the 1km study area, and no National Monuments within either the 1km or 5km study areas. There is one Protected Structure (St Joseph's Church, Corlea) within the 1km study area with five additional Protected Structures within the 5km area. There are also two structures recorded on the NIAH Building Survey within the study area (St Joseph's Church and a farmhouse).

7.11.9.2. Due to the potential indeterminable impact of construction works on unrecorded remains, the EIS proposes archaeological monitoring under licence from the Department during the construction phase as a mitigation measure, which I consider to be an acceptable means of mitigating the impact and reducing any residual effects. Should the Board be minded to grant permission, I recommend that a suitably worded condition requiring the preparation of an Archaeological Impact Assessment of the site prior to commencement of work on site be attached to any grant of planning permission.

7.11.9.3. During the operational phase, the EIS considers that the development will have a minor residual visual impact on the one Recorded Monument, one Protected Structure and two NIAH structures listed above, and a negligible visual impact on the five Protected Structures within the 5km study area. Having visited the site and inspected the photomontages submitted with the application, I concur with this conclusion. With regard to Corlea Church which is a Protected Structures and NIAH building, four turbines will be visible from the church at a distance of c. 0.74 – 1.0km. The view from the church can be seen on photomontage Figure 9 (Viewshed

Reference Point 8). I consider that these separation distances combined with the undulating nature of the landscape in this area serve to reduce the impact of the turbines. Furthermore, since the church is on the eastern side of the local road, while the turbines are all to the west, the impact is significantly lessened, since the turbines will not be visible in the principle views of the front elevation of the church from the public road.

7.11.9.4. In considering the impact of the grid connection on archaeology and cultural heritage, the EIS considers a 100m wide study area between the appeal site and the Meath Hill 110kV substation. The proposed grid connection will comprise an underground cable within the public road and roadside verge, and there are no Recorded Monuments, Protected Structures or NIAH structures on the line of the grid connection. There are three Recorded Monuments, one Protected Structure and three NIAH structures within the 100m study area. Since the cable will be buried within the road/verge, there is unlikely to be any direct impact on these features, but I concur with the proposed mitigation of undertaking archaeological monitoring of earthworks.

7.11.9.5. 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.

7.11.10. Noise

7.11.10.1. The potential noise impact of the proposed development is set out in Chapter 10 of the EIS, as supplemented by the Further Information submitted to the Planning Authority on 16th August 2016. My assessment of this aspect of the EIS is set out in Section 7.6 above.

7.11.11. Shadow Flicker

7.11.11.1. Shadow Flicker is addressed in Chapter 11 of the EIS, supplemented by the Further Information submitted to the Planning Authority on 16th August 2016. My assessment of this aspect of the EIS is set out in Section 7.7 above.

7.11.12. Infrastructure and Communications

7.11.12.1. Chapter 12 of the EIS 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. The applicant has consulted with the relevant bodies in this regard, and copies of correspondence are included in the EIS. This indicates that no significant impacts or interference are expected as a result of the proposed development. The EIS indicates that residual effects are unlikely but that a programme of post-construction monitoring will identify any interference should it occur, and address it by means of appropriate remedial measures.

7.11.12.2. With regard to potential aviation impacts, the EIS states that turbines will be fitted with aviation warning lights and marked on aviation charts, and that the Irish Aviation Authority will be notified of as-built co-ordinates prior to erection of the turbines. This is in accordance with the IAA's response to the applicant during consultation. Should the Board be minded to grant permission, these aviation safety requirements should be incorporated as a Condition.

7.11.12.3. Having regard to the foregoing, I am satisfied that the proposed development will not have a significant effect on communications and aviation infrastructure.

7.11.13. Transport and Access

7.11.13.1. Chapter 13 of the EIS addresses the potential traffic and transport impact of the proposed development. My assessment of this aspect of the EIS is set out in Section 7.8 above.

7.11.14. Interactions

7.11.14.1. Chapter 14 of the EIS relates to interactions between the various aspects of the environment addressed in the EIS. The identified interactions include:

- 1) Human Beings/Noise
- 2) Human Beings/Shadow Flicker
- 3) Human Beings/Landscape & Visual Impact
- 4) Human Beings/Infrastructure and Telecommunications

- 5) Human Beings/Traffic Impact
- 6) Landscape & Visual Impact/Tourism
- 7) Landscape & Visual Impact/Archaeology
- 8) Flora & Fauna/Soils & Water
- 9) Archaeology/Soils & Water
- 10) Archaeology/Access

7.11.14.2. I consider that the interactions identified do not lead to significant environmental impacts beyond those already identified for each of the individual environmental topics, as set out and assessed above.

7.11.15. **Conclusion**

7.11.15.1. Having regard to the above, it is my view that the significant environmental effects arising as a consequence of the development have been adequately identified and assessed.

8.0 **Appropriate Assessment**

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

8.2. The appeal site is not located within or adjacent to any Natura 2000 sites, and there are no Natura 2000 sites within 15km of the appeal site or grid connection route. The closest such sites and their distance from the appeal site and grid connection route are as follows:

- Stabannan-Braganstown SPA (Site Code 004091): c. 16.5km to the east.
- Killyconny Bog (Cloughbally) SAC (Site Code 000006): c. 16.5km to the south.
- River Boyne and River Blackwater SPA and SAC (Site Codes 004232 and 002299, respectively): c. 17.5km to the south.
- Dundalk Bay SPA (Site Code 004025), c. 22.5km to the east.

- Lough Sheelin SPA (Site Code 004065), 25km to the south west.
- Lough Oughter Complex SPA and SAC (Site Code 004167 and 000007, respectively): c. 30km to the west.
- Slieve Beagh SPA (Site Code 004167), c. 40km to the north west.

8.3. The proposed wind farm is located near the intersection of three catchments areas; the Erne to the north, the Glyde to the East and the Boyne to the south west. The AA Screening Report notes that since the site is located at the boundary of the three catchment areas, watercourses will be headwaters of minor streams that join other watercourses before entering designated areas at a considerable distance downstream. The AA Screening Report considers that due to this distance and the weak hydrological connectivity that there is no potential for significant impacts on larger waterbodies downstream, including the Natura 2000 sites. Subject to standard best practice construction controls being utilised during construction, I concur with this view.

8.4. The AA Screening Report limits its detailed consideration to three Natura 2000 sites that are designated for bird species such as Hen Harrier, Greylag Goose and Whooper Swan which are not confined to the boundaries of the designated areas. These sites and their conservation interests are set out below:

- Stabannan-Braganstown SPA (004091): Greylag Goose (*Anser anser*)
- Lough Oughter Complex SPA (004049):
 - Great Crested Grebe (*Podiceps cristatus*)
 - Whooper Swan (*Cygnus cygnus*)
 - Wigeon (*Anas penelope*)
- Slieve Beagh SPA (004167): Hen Harrier (*Circus cyaneus*)

8.5. The three sites have the same Conservation Objective, “to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA”, while Lough Oughter Complex SPA has a second Conservation Objective, “to maintain or restore the favourable conservation condition of the wetland habitat at Lough Oughter Complex SPA as a resource for the regularly-occurring migratory waterbirds that utilise it”.

- 8.6. Having regard to the distance to the Natura 2000 sites, I concur with the AA Screening Report that there is no potential for direct impacts on the Natura 2000 sites, but that there is potential for indirect impacts arising from the risk of collision of sensitive bird species (i.e. Whooper Swan and Hen Harrier) with the proposed turbines, or disturbance to those species.
- 8.7. With regard to Hen Harriers, the Slieve Beagh SPA is c. 40km distant from the appeal site, and the typical hunting range of these birds is stated to be up to 10km. The only record of Hen Harriers within the 10km grid squares within which the development is located dates from 1968-1972. The appeal site is also considered to be sub-optimal habitat for breeding Hen Harriers, as they are confined to moorland and young forestry plantations. While there is a conifer plantation adjacent to the appeal site, it is a mature, densely grown, plantation and the small area of heath present is adjacent to an active quarry. I therefore consider that the proposed development is not likely to result in a significant effect on Hen Harriers in general or on the conservation interests of the Slieve Beagh SPA.
- 8.8. With regard to Whooper Swans, the Lough Oughter Complex SPA is located c. 30km distant from the appeal site. While Whooper Swans have been recorded on smaller lakes within 15km of the proposed development, there is no evidence that they feed or roost within the appeal site and none were recorded during the bird surveys undertaken in connection with the proposed development. Therefore, while locally important numbers of Whooper Swans may pass through the appeal site on route to feeding or roosting grounds, it is unlikely that nationally or internationally important numbers use such a flight line given the lack of evidence. It is also of note in this regard that the appeal site and surrounding area is identified by Birdwatch Ireland as an area of low sensitivity for birds to wind energy developments on the National Biodiversity Data Centre mapping. It does not therefore appear that the proposed development will have a significant direct or indirect effect on the Lough Oughter Complex SPA.
- 8.9. 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 following European sites: Stabannan-Braganstown SPA (Site Code 004091), Lough Oughter Complex SPA (Site Code

004049), Slieve Beagh SPA (Site Code 004167), or any other European site, in view of the sites' Conservation Objectives, and a Stage 2 Appropriate Assessment and submission of a NIS is not therefore required.

9.0 Recommendation

9.1. I recommend that planning permission should be granted, subject to conditions as set out below.

10.0 Reasons and Considerations

10.1. Having regard to:

- (a) national policy with regard to the development of alternative and indigenous energy sources and the minimisation of emissions of greenhouses gases;
- (b) the Wind Energy Development Guidelines for Planning Authorities issued by the Department of the Environment, Heritage and Local Government in 2006;
- (c) the policies of the planning authority as set out in the Cavan County Development Plan 2014-2020;
- (d) the character of the landscape and the topography surrounding the site;
- (e) the characteristics of the site and of the general vicinity;
- (f) the planning history of the site and the pattern of existing and permitted development in the area, including other wind farms;
- (g) the distance to dwellings or other sensitive receptors from the proposed development;
- (h) the Environmental Impact Statement;
- (i) the submissions made in connection with the planning application;

it is considered that the proposed development, subject to compliance with the conditions set out below, would be acceptable in terms of impact on the visual amenities and landscape character of the area, would not seriously injure the amenities of property in the vicinity, would not be prejudicial to public health and would be acceptable in terms of traffic safety and convenience. The proposed

development would therefore be in accordance with the proper planning and sustainable development of the area.

11.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the further plans and particulars submitted to the planning authority on the 16th day of August, 2016, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.

2. The period during which the development hereby permitted may be carried out shall be ten years from the date of this order.

Reason: Having regard to the nature of the proposed development, the Board considered it appropriate to specify a period of validity of this permission in excess of five years.

3. This permission shall be for a period of 25 years from the date of commissioning of the wind farm. The wind turbines and related ancillary structures shall then be decommissioned and removed unless, prior to the end of the period, planning permission shall have been granted for their continuance for a further period.

Reason: To enable the planning authority to review its operation in the light of the circumstances then prevailing.

4. All environmental mitigation measures set out in the Environmental Impact Statement and associated documentation, including the further information submitted to the planning authority, shall be implemented in full, except as may otherwise be required in order to comply with the following conditions.

Reason: In the interest of protection of the environment.

5. (a) No micro-siting is hereby permitted. The location of any turbine shall not be altered without a prior grant of planning permission.

(b) This permission shall not be construed as any form of consent or agreement to a connection to the national grid or to the routing or nature of any such connection.

Reason: In the interest of residential amenity and of clarity.

6. (a) The permitted turbines shall have a maximum tip height of 125 metres. Details of the turbine design, height and colour shall be submitted to, and agreed in writing with, the planning authority, prior to commencement of development.

(b) Cables within the site shall be laid underground.

(c) The wind turbines shall be geared to ensure that the blades rotate in the same direction.

(e) Notwithstanding the exempted development provisions of the Planning and Development Regulations, 2001, and any statutory provision replacing or amending them, no advertising material shall be placed on or otherwise affixed to any structure on the site without a prior grant of planning permission.

(f) The access tracks within the site shall be surfaced in suitable material, acceptable to the planning authority, and shall not be hard topped with tarmacadam or concrete.

(g) Roads, hard-standing areas and other hard-surfaced areas shall be completed to the written satisfaction of the planning authority within three months of the date of commissioning of the windfarm.

(h) Soil, rock and other materials excavated during construction shall not be left stockpiled on site following completion of works. Excavated areas shall be appropriately restored within three months of the date of commissioning of the wind farm, in accordance with details to be submitted to, and agreed in writing with, the planning authority.

Reason: In the interest of the amenities of the area.

7. Details of aeronautical requirements shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development, following consultation with the Irish Aviation Authority. Prior to the commissioning of the turbines, the developer shall inform the planning authority and the Irish Aviation Authority of the co-ordinates of the as-constructed tip heights and co-ordinates of the turbines and wind monitoring mast.

Reason: In the interest of air traffic safety.

8. Wind turbine noise arising from the proposed development, by itself or in combination with other existing or permitted wind energy development in the vicinity, shall not exceed the greater of:

(a) 5 dB(A) above background noise levels or

(b) 43 dB(A) L90,10min

when measured externally at dwellings or other sensitive receptors. All of the noise mitigation measures set out in the submitted documentation shall be fully complied with.

Prior to commencement of development, the developer shall submit to and agree in writing with the planning authority a noise compliance monitoring programme for the subject development, including any mitigation measures such as the de-rating of particular turbines. All noise measurements shall be carried out in accordance with ISO Recommendation R 1996 "Assessment of Noise with Respect to Community Response," as amended by ISO Recommendations R 1996-1. The results of the initial noise compliance monitoring shall be submitted to, and agreed in writing with, the planning authority within six months of commissioning of the wind farm

Reason: In the interest of residential amenity.

9. (a) The proposed development shall be fitted with appropriate equipment and software to suitably control shadow flicker at nearby dwellings, including control or turbine rotation, in accordance with details which shall be submitted to, and agreed in writing with, the planning authority prior to the commencement of development.

(b) Shadow flicker arising from the proposed development, by itself or in combination with other existing or permitted wind energy development in the vicinity, shall not exceed 30 hours per year or 30 minutes per day at existing or permitted dwellings or other sensitive receptors.

(c) A report shall be prepared by a suitably qualified person in accordance with the requirements of the planning authority, indicating compliance with the above shadow flicker requirements at dwellings. Within 12 months of commissioning of the proposed wind farm, this report shall be submitted to, and agreed in writing with, the planning authority. The developer shall outline proposed measures to address any recorded non-compliances, including control of turbine rotation. A similar report shall be provided by the developer to the planning authority at such time intervals as may be required by the planning authority.

Reason: In the interest of residential amenity.

10. Prior to the commencement of development, the developer shall agree a protocol for assessing any impact on radio or television or other telecommunications reception in the area. In the event of interference occurring, the developer shall remedy such interference according to a methodology to be agreed in writing with the planning authority, following consultation with other relevant authorities and prior to commissioning the turbines.

Reason: In the interest of residential amenity.

11. (a) Prior to commencement of development, details of the following shall be submitted to, and agreed in writing with, the planning authority:-

- (i) a Transport Management Plan, including details of the road network/haulage routes, the vehicle types to be used to transport materials on and off site, and a schedule of control measures for exceptional wide and heavy delivery loads,
- (ii) a condition survey of the roads and bridges along the haul routes to be carried out at the developer's expense by a suitably qualified person both before and after construction of the wind farm development. This survey shall include a schedule of required works

to enable the haul routes to cater for construction-related traffic. The extent and scope of the survey and the schedule of works shall be agreed with the planning authority/authorities prior to commencement of development,

(iii) detailed arrangements whereby the rectification of any construction damage which arises shall be completed to the satisfaction of the planning authority/authorities,

(iv) detailed arrangements for temporary traffic arrangements/controls on roads, and

(v) a programme indicating the timescale within which it is intended to use each public route to facilitate construction of the development.

(b) All works arising from the aforementioned arrangements shall be completed at the developer's expense, within 12 months of the cessation of each road's use as a haul route for the proposed development.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: To protect the public road network and to clarify the extent of the permission in the interest of traffic safety and orderly development.

12. The construction of the development shall be managed in accordance with a Construction Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including:

(a) Location of the site and materials compound(s) including area(s) identified for the storage of construction refuse.

(b) Location of areas for construction site offices and staff facilities.

(c) Details of site security fencing and hoardings.

(d) Details of on-site car parking facilities for site workers during the course of construction.

- (e) Details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site.
- (f) Measures to obviate queuing of construction traffic on the adjoining road network.
- (g) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network (including the installation of wheelwash facilities on the site);
- (h) Alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public road or footpath during the course of site development works.
- (i) Details of construction hours, including for deliveries of materials to the site.
- (j) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels (where not already provided for in documentation submitted with the application and appeal).
- (k) Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater.
- (l) Off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soils.
- (m) Details of a site drainage management plan, in accordance with the documentation and mitigation measures provided in the Environmental Impact Statement, as amended, and the other documentation submitted with the application and appeal, incorporating a detailed silt management plan and pollution prevention plan, and including appropriately-sized silt traps and/or settlement ponds as required, to be prepared by a suitably qualified drainage engineer or equivalent professional with experience of drainage design, to the satisfaction of the planning authority.
- (n) A programme for the on-going monitoring of water quality during the construction period.

Prior to the commencement of construction, proposals for environmental monitoring of construction works on site by an ecologist and by an environmental scientist or equivalent professional, including the monitoring and implementation of construction stage mitigation measures and illustrating compliance with the requirements set out above shall be submitted to, and agreed in writing with, the planning authority, together with associated reporting requirements. A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the planning authority.

Reason: In the interest of amenities and safety.

13. Water supply, waste water treatment and surface water attenuation and disposal shall comply with the requirements of the planning authority for such works and services.

Reason: In the interest of public health

14. The developer shall review usage by bats and birds of the wind farm site and document bat and bird casualties through an annual monitoring programme, which shall be submitted by the developer to, and agreed in writing with, the planning authority prior to commencement of development. This programme shall be developed in consultation with the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, and shall cover the entire period of the operation of the wind farm.

Reason: To ensure appropriate monitoring of the impact of the development on the fauna of the area

15. On full or partial decommissioning of the wind farm or if the wind farm ceases operation for a period of more than one year, the masts and the turbines concerned shall be removed and all decommissioned structures shall be removed, and foundations removed or covered with soil to facilitate re-vegetation, within three months of decommissioning.

Reason: To ensure satisfactory reinstatement of the site upon cessation of the project.

16. The developer shall facilitate the archaeological appraisal of the area affected by any roadways/widened roadways and/or foundations associated with the turbines, and shall provide for the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall –

- (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operations (including hydrological and geotechnical investigations) relating to the proposed development,
- (b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and
- (c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

17. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the reinstatement of public roads which may be damaged by the transport of materials to the site, coupled with an agreement empowering the planning authority to apply such security or part thereof to the satisfactory reinstatement of the public road. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: In the interest of traffic safety and the proper planning and sustainable development of the area.

18. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such

other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site upon cessation of the project, coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: In the interest of orderly development and visual amenity and to ensure satisfactory reinstatement of the site.

19. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to the commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

Niall Haverty
Planning Inspector

24th March 2017