An Bord Pleanála

Inspector's Report

FILE REFERENCE:	PL05E.244417
Location:	Clogheravaddy, Meenagranoge and Meenachan, Donegal PO, Co. Donegal
Proposed Development:	Wind energy project up to 7 wind turbines, new internal access tracks, upgrade existing tracks, underground cabling, electrical substation.

APPLICATION DETAILS:

Applicant:	Clogheravaddy Wind Farm Limited
Planning Authority:	Donegal County Council
P.A. Reference:	14/51305
P.A. Decision:	Refuse Permission

APPEAL DETAILS:

Appeal Type:	First Party against Refusal
Observer:	Joseph Brennan

INSPECTOR:	Sarah Moran
Date of Site Inspection:	26th and 27th April 2015

1.0 SITE LOCATION AND DESCRIPTION

1.1 The site is located in south western Co. Donegal, at the western edge of the Bluestack mountains and approximately 12km northwest of Donegal Town and 10 km south of Glenties. It is situated in the townlands of Clogheravaddy, Meengranoge and Meenachan. This is a sparsely populated area of lowlying peatlands, dotted with lakes. The dominant land uses are low intensity agricultural pastureland, cut over bog and forestry plantations. The area is characterised by scattered residential development, particularly at various elevations along the R262 to the north of the site. There is a Jehova's Witness Meeting Hall on the opposite side of the R262, facing the site. There is a facility resembling a breakers yard located to the rear of the closest residential property to the site. There are also several residential properties nearby to the south of the site, on the other side of Killin Hilll and accessed via local roads.

1.2 The site is accessed via the L5795, a minor local road off the R262 and covers a stated area of 49ha. It slopes up from the R262 and is clearly visible from the Regional Route. Most of the site is at or below the 180m contour line, however the southern (higher) end of the site rises to circa 224m at the summit of Killin Hill There are several unsurfaced access tracks within the site. As in the EIS on file, the site may be divided into the following 3 distinct areas:

- The northern (lower) part of the site, closest to the R262. This is characterised by cut over bog interspersed by areas of degraded blanket bog and degraded wet heath. This area is used for sheep grazing with some turf cutting.
- The south eastern section of the site is almost entirely covered by a well-established commercial coniferous forest plantation (circa 50 ha of forest according to the EIS). There is a forest access track within the area, which leads to a clearing with an 80m high meteorological mast.
- The south western area is dominated by thin, peaty soils over bedrock (degraded wet heath) and is used primarily for grazing sheep. This is the highest part of the site. There are two small wetland / lake areas in this section of the site. The larger of the two, close to the site boundary, is called Lough Anure.

1.3 Tullinlough lake is situated nearby to the east of the site and Black Lough is nearby to the west. An unnamed watercourse to the north of the site runs into Tamur Lough and on to the Corker River. The site is also drained to the south and east by the Eany River and its tributary streams.

1.4 There is a 110 kV overhead power line across the northern end of the site. This connects to an ESB substation at Binbane, approximately 700m to the east of the site entrance, on the other side of the R262. An overground ESB 110 KV power line runs to the north and east of the site and

overground ESB 38 kV power lines run to the north, east and west of the site.

1.5 There are no Natura 2000 sites within the site boundary. However, Lough Nilan Bog SPA, SAC and pNHA is located nearby to the north and incudes Tamur Lough. There are no National Monuments within the site or in its immediate vicinity. The'Bluestack Way' walking route passes 4.5 km to the north east of the site behind Binbane Mountain. The 'Bluestack Way Alternative Route' passes along part of the R262 in front of the site.

2.0 PROPOSED DEVELOPMENT

2.1 The proposed development is a 19.95MW wind farm comprising 7 no. 2.85MW turbines. According to the EIS, each proposed turbine has a hub height of 77m and a 103m diameter rotor, giving a total tip height of 126.5m. Each turbine site would also have an external transformer within an enclosure typically 2.7m high and an 18m circular hardstanding. The development also includes:

- Road works with a new site entrance from the L5795, also alterations to the junction of the R262 and L5795 and widening of the L5795 to facilitate abnormal loads. Temporary off-site works at Eanybeg Bridge to facilitate the delivery of abnormal loads.
- Construction of 2.18km of new access tracks in and around the site and upgrading of circa 1.4km of existing access tracks, including the construction of drains and structures across watercourses within the site (culverts).
- Underground cabling, to be laid in trenches typically 0.6m wide by 0.8m deep,
- Electrical substation including control building, compound and hardstanding area. The compound has a stated total area of approximately 620m^2. Served by self-contained chemical toilets and washing facilities with an integrated waste water holding tank;
- Temporary construction compound served by a sealed waste storage system, parking area for up to 20 cars, bunded fuel storage area and other ancillary works;
- Peat storage and spoil deposition areas.

2.2 A 10 year permission is sought. The construction stage of the project is anticipated to last for approximately 12 months, with a further period of 3 months to fully complete the restoration works around each turbine. The operational life of the wind farm is expected to be 25 years, after which it is likely to be decommissioned.

2.3 The application is accompanied by an Environmental Impact Statement (EIS) and a Natura Impact Statement (NIS).

2.4 The applicant has submitted additional proposals for grid connection along with the grounds of appeal. The proposed underground cable route runs from the site electrical substation alongside the wind farm access track to the site entrance where it joins the L5667 public road. It then runs within the road verge, crossing a stream at a concrete deck bridge. It continues in third party lands running parallel to the R262 until it reaches Binbane substation. Addenda to the EIA and NIS, which assess environmental and ecological impacts of the route, are also submitted.

3.0 PLANNING HISTORY

3.1 Subject Site

3.1.1 <u>07/20517 ABP PL05.226520</u>

Donegal County Council granted permission to Saporito Ltd for a 9.2 MW windfarm with 4 no. 2.3 MW wind turbines with a hub height of 64m and a blade diameter of 71m; associated access roads and standing areas; ancillary drainage works on a site measuring 9.3 ha. The site generally coincided with the northern side of the subject site, i.e. the area served by the main access track.

The decision was subject to a third party appeal. The Inspector's report recommended a request for further information to comprise an assessment of avifauna to include seasonal bird surveys carried out on the site and adjacent habitats in its vicinity, also consideration of potential use of the site by species of conservation interest, having due regard to the proximity of Lough Nillan Bog SPA and pNHAs in the vicinity and potential impacts on migratory species, breeding species and flight paths. The Board decided to grant permission without doing so. The Board order stated:

In deciding not to accept the Inspector's recommendation to refuse permission the Board noted that the Inspector found the site generally suitable for a windfarm development. The Board had particular regard to the comprehensive baseline surveys of ecology and also ornithology on the adjacent windfarm project site (Killin Hill Windfarm appeal reference number PL 05.226845) and having regard to this information and the characteristics of the landscape and land uses of Killin Hill, the Board considered that adequate information was available to them in relation to avifauna and was satisfied that the project would not have an adverse impact on bird species or on any ecologically designated sites in the general vicinity.

The permitted development has not been constructed. The applicant submits that the proposed development would replace this permission.

3.1.2 09/20482 ABP PL05.2235693

3.2.1 Relating to a site adjoining and partially overlapping with that of PL05.226520. Donegal Council granted permission to Saporito Ltd. for a 9.2 MW wind farm comprising 4 no. additional turbines to the east of those permitted under PL05.226520. This decision was appealed by a third party. On appeal, the Planning Inspector recommended permission, however the Board refused permission on 23rd September 2010 for the following reason:

Having regard to the nature and limited extent of the survey information that is included in the Environmental Impact Statement relating to flora and fauna and specifically relating to birds on a nearby site and the proximity of the site of the proposed development to Lough Nillan Bog pNHA, cSAC and SPA designated for its undisturbed and intact blanket bog habitat, rare breeding and migratory bird species and concentration of breeding Golden Plover, foraging habitat for Merlin and resident Red Grouse listed under annex 1 of the Bird Directive and also a feeding area for Greenland White Fronted Geese, the Board is not satisfied on the basis of the information submitted with the planning application and the appeal and having regard to the nature of the terrain involved, that any further expansion of Wind Turbines on this site would not have a potentially significant negative impact on bird habitats and bird migratory paths in the area. The proposed development would, therefore, be contrary to development plan policy to protect natural heritage and would be contrary to the proper planning and sustainable development of the area.

The Board Direction issued with the decision also stated:

In deciding not to accept the Inspector's recommendation to grant permission, the Board considered that it would not be appropriate to rely on the bird survey carried out for a nearby site for any further expansion of the wind farm.

The Board also had concerns with regard to how the issue of peat stability was addressed in the Environmental Impact Assessment having regard to the DOEHLG Guidelines which recommend a rigorous assessment of ground conditions including a landslide and slope stability assessment for all stages of a project. The Board noted the Inspectors recommended condition as set out in the supplementary report regarding the issue of peat stability requiring a risk assessment to be carried out after the grant of planning permission rather than as part of the planning application. The Board were of the view that this issue should be dealt with as part of the planning application, but having regard to the substantive reason for

refusal as set out above decided not to pursue this issue further in the instant appeal.

3.2 Adjacent Site Killin Hill 06/21459 ABP PL05.226845

3.2.1 Relating to a site to the south west of the subject site, also accessed via the L5795. Donegal County Council granted permission to Killin Hill Windfarm for 3 no. turbines with 64m hub height and 71m rotor diameter, access tracks, a 38kV substation, a 40m high meterological mast and associated works. This decision was appealed by a third party. The Inspector's report recommended refusal on grounds of inadequate EIS. The Board considered the appeal concurrently with PL05.226520 and granted permission on 22nd October 2008. The Board Order stated:

In deciding not to accept the Inspector's recommendation to refuse permission, the Board considered that the Environmental Impact Statement together with the Additional Information submitted to the planning authority and the consideration of the application by the Inspector provided an adequate level of information to enable the environmental impact of the proposed development to be appropriately assessed. It was considered that the Inspector's concerns in relation to water quality could be addressed by means of condition. The Board was satisfied that the extent of the proposed development was adequately described and considered that the visual and landscape impacts of the proposed development were acceptable at this location.

The permitted development has not been constructed to date.

4.0 PLANNING AUTHORITY DECISION

4.1 Third Party Submissions

4.1.1 Joseph Brennan

The observer has an address at Shallogans, Fintown, Co. Donegal. He strongly objects to the proposed development and generally objects to any additional wind energy developments in this part of Co. Donegal. Concerns about potential development of additional wind farms on other Coillte owned lands in the area. The grounds of objection may be summarised as follows.

Procedural issues:

- The application is unclear with regard to the exact hub height and rotor diameter.
- There have been alleged breaches of planning at other nearby wind farms.

- Lack of clarity regarding the status of the current proposal in the light of the previous permission and refusal on the site. Possibility that some turbines may be legacy / redundant from other projects, and that there could be cumulative impacts.
- Safety risk posed by proposed turbines.
- Lack of public consultation prior to lodging the application with the planning authority. It is submitted that the planning authority delayed in making the details of the planning application available online, also that important documentation was not available during the period for third party submissions.

Peatland and Forestry Impacts:

- Concerns about peatland impacts. The submission refers to the Board's refusal of permission for 25 no. wind turbines at Straboy, Glenties, Co. Donegal in 2013, ref. PL 05B.240166. The Board refused permission on grounds relating to (i) adverse impacts on the conservation objectives of the West of Ardara/Maas Road cSAC (000197), which had a direct hydrological connection to the site and (ii) proposed peat repositories would constitute an unacceptable risk of pollution of nearby watercourses. The observer is very familiar with the area and submits that the boglands have already deteriorated due to forestry, sheep grazing and turf cutting. Potential for a bog burst such as happened at Derrybrien.
- Is it submitted that there are up to 3 no. Annex I habitats within the site, i.e. soakaway / infilling depressions, areas of upland blanket bog and of wet heath, therefore this site is unsulitable for wind farm development.
- Adverse impacts on the existing forest at the site, which is a carbon sink. Difficulty of enforcing recommended mitigation measures.

Red Grouse Impacts:

- Concerns about impacts on the Red Grouse. The observer is engaged in a grouse conservation project (Cró na mBraonáin) on Achla Mountain to the north of the proposed site. The EIS refers to a pair of Red Grouse on the site, which are very rare. The survey conducted for the EIS was very limited, only 2 no. transects in the tape lure survey. The observer questions the survey method carried out, potential for agitation of the male of the pair. Disputes the likelihood that only a single male bird was spotted. Need to protect the existing pair on the site. The immediate territory is already hugely fragmented by forestry.
- The adjacent Cró na mBraonáin Red Grouse Sanctuary may be only a few 'stepping stone sites' away from Clogheravaddy, i.e. there may be a distinctive ecological connectivity between the appeal site and designated conservation sites.

Freshwater Pearl Mussel Impacts:

- This issue arose in the course of PL240166. In that case, the EPA stated serious concerns about this issue, particularly impacts on the Oily River and its catchment. Concerns about impacts on the Oily River from recent road works in the vicinity and the use of inadequate 'silt traps'

Landscape and Visual Impacts:

- Cumulative impacts along with other wind farms currently visible from the N56/R262. There are also 2 no. permitted extensions at Corkermore and Loughderryduff.
- The EIS assessment of this issue is inadequate and underestimates the likely full extent of visual impacts. The proposed turbines are much larger than others in Donegal.
- Development would destroy the acknowledged sense of remoteness and tranquillity of the area.

Noise, Shadow Flicker and People:

- The EIS underestimates impacts on local residents. It relies on the outdated 2006 Guidelines.
- Shadow flicker impacts due to the very large scale of the turbines.
- Critique of the proposed new noise limits in the DoELHG guidelines. Noise impacts on local residents depend on topography, ground cover, wind direction, climatic conditions and wind speed and not just distance. Greater risk of noise impacts due to the large scale of the proposed turbines. It is submitted that noise impacts travel over a much greater distance in a rural area such as this.
- Concerns about vibration and shadow flicker impacts at the nearby Corkermore wind farm.

4.1.2 Louis & Joan Hanlon

The observers have an address at Glenview, Tullyard, Glenties, Co. Donegal. The main points made may be summarised as follows:

- The site is located in an area that is not favoured for wind farm development under the Donegal County Development Plan.
- No new wind farm developments should be considered while the Wind Energy Guidelines are under review.
- ABP inspector recommended refusal for a 3 turbine wind farm at Killin Hill, ref. 06/21459. The subject development would have much greater impacts.
- Very limited public consultation. Inadequate availability of electronic information on the proposed development from the Planning Authority. Unclear how many companies are involved in the application.
- Proximity of site to many residences and schools, e.g. at Inver. Adverse health impacts from wind turbines and 110kV power lines.
- Devaluation of property in the area.

- Lack of understanding r.e. noise impacts on human and animal health. Already noise impacts from other wind farms in the area.
- Concerns about scale of forestry removal and environmental impacts due to peat and rock excavations. Concerns about adverse impacts on turbary rights on the site.
- Danger of landslides. Potential for bog burst with resultant deterioration of water quality in local rivers. Surface water run-off during construction could cause damage to the freshwater habitat and specie sin local rivers including the Freshwater Pearl Mussel and Otter. The EPA Strive Report "*Management Strategies for the Protection of High Status Water Bodies*" (2010) identified 3 no. kills of Freshwater Pearl Mussel which "were attributed to wind farm related activity, a new bridge, strengthening of an old bridge and a large drain", with reference to the Corkermore area and wind farm. The terrain is similar at Clogheravaddy.
- Safety concerns as turbines have fallen and gone on fire and blades have fallen / blown off, close to the main road between Donegal town and Glenties. The site is very close to the Bluestack Way. The submission refers to recent incidents when blades fell off wind turbines in the area.
- Disturbance to protected species of flora and fauna close to and in SACs. Particular conservation should be given to impacts on the Golden Eagle and the Red Grouse. Impacts on natural habitats.
- Adverse visual impacts and consequent impacts on tourism. The R262 is a tourist route. Impacts on the coastal area including Inver Bay. Concerns that wind farms would become obsolete.
- Adverse traffic and road impacts during the construction phase.
- EIS is inadequate as it does not fully address the protection of the Freshwater Pearl Mussel, the ecological value of the site location and surrounding special protection areas and protected species, also noise and impacts on residential amenities.

4.2 Submissions by Prescribed Bodies to Planning Authority

4.2.1 Inland Fisheries Ireland

The submission recommends measures to prevent pollution of surface water bodies during construction including management of fuel and oil products on site and of surface water run off from roads and turbine bases, also peatland management measures. Consideration should be given to the likely increase in surface water flow from the site, which has the potential to alter the downstream prevailing hydrological regime and impact on the fisheries resource.

4.2.2 Irish Aviation Authority

Recommends conditions in the event of permission being granted.

4.2.3 National Roads Authority

No objection in principle. Any works to the national road network to facilitate turbine delivery to be agreed with the NRA and the planning authority, subject to certain requirements. The NRA considers that it is critical that prior to decision to grant permission, the applicant should undertake a full assessment of all structures on the national road network along the haul route, in order to check their capacity to accommodate any abnormal load proposed. The NRA is seriously concerned that the applicant has not submitted any technical load assessment of structures in support of the application. A license may be required from the NRA for any trenching or cabling proposals.

4.2.4 An Taisce

The following points are noted:

- An Taisce objects to the development based on the absence of a clearly defined restriction on carrying out any construction works during the breeding season from March 1st to August 31st inclusive, as part of the mitigation measures specified in the NIS. The disturbance and displacement of key species may occur during the construction works carried out during the breeding season. The NIS submitted is not absolute on this point.
- It is submitted that the NIS assessment of impacts on key bird species does not take into account the foraging range of the 3 no. Annex I bird species which use Lough Nillan Bog SPA (site code 004110), i.e. the Golden Plover, the Merlin and the Dunlin. The site lies 1.3km from the nearest edge of Lough Nillan Bog SPA, foraging range from the nest site during the breeding season is 5km for the Merlin, a core range of 3 km and maximum range of 11km for the Golden Plover and a core range of 500m and a maximum range of 3km for the Dunlin (according to Scottish National Heritage). The Lough Nillan Bog SPA also provides one of only two known bogland feeding areas used by the Sheskinmore Lough Greenland White-fronted Goose flock.

4.2.5 NPWS (Department of Arts, Heritage and the Gaeltacht)

The NPWS submitted an email comment to the planning authority. The submission by William Cormacan, Ecologist, NPWS, is based on a review of the submitted EIS and NIS and states:

"*It is noted that some of the avifauna survey work dates bact to 2010/2011. This has been complimented by additional work in 2014. I consider the level of survey sufficient to assess the potential impacts from*

the proposed development. I note the proposed mitigation measures and the conclusion of the Natura Impact statement … The Department has no comments/recommendations regarding nature conservation."

4.3 Technical Reports on File

4.3.1 The planning report recommends refusal for the reasons set out below.

4.3.2 The AA screening report on file notes that there are 8 no. Natura 2000 sites within 10 km of the site, as set out in the NIS. It concludes that there would be no significant impact on any Natura site by way of bird impacts or peat slippage.

4.4 Refusal of Permission

4.4.1 The planning authority refused permission on 8th January 2015 for the following 4 no. reasons:

1)
The proposed development is located in a prominent and strident position within a scenic and elevated rural landscape of tourism significance and which itself is an element informing the natural and scenic landscape context of the 'Bluestacks Way', a designated scenic walkway identified in Section 10.12 of the County Development Plan 2012-2018 (as varied); is framed by a designated 'view and prospect' in the townland of Letterfad to the east of the site (as identified in Map 8 of the County Development Plan 2012-2018 (as varied), and is otherwise is sited in a strident, prominent and proximate manner in the direct line of view from the Regional Road R262. It is a policy of the Planning Authority (Policy E-P-11, County Development Plan 2012-2018 (as varied) to "Facilitate the development of appropriate wind energy proposals in 'Areas Open to Consideration' as identified on the 'Wind Energy Map No. 9', subject to (inter alia) a requirement that such proposals accord with Sections 6.3 – 6.9 of the Wind Energy Development Guidelines, Guidelines for Planning Authorities, 2006". It is also an objective of the said Plan (Objectives TOU-O-3 and TOU-O-8) to, inter alia, "support strong tourism identity areas" and "to recognise the importance of walking routes". Furthermore, it is a policy of the PLanning Authority (Policy NH-P-14, County Development Plan 2012-2018, (as varied) to (inter alia) "seek to preserve views and prospects of special amenity value and interest".

Section 6.4 of the Wind Energy Development Guidelines notes that "the spatial extent of a wind energy development should be balanced and in scale with its landscape context", whilst Section 6.8 notes that "turbine height is critical … and must be carefully considered so as to achieve visual balance and not to visually dominate". It is considered that the

proposed development, by reason of its siting, scale, height and cumulative spatial extent (by itself and taken together with extant permissions for wind turbine development) would result in unbalanced development of excessive scale and one which would adversely dominate the natural and scenic amenities of the local landscape, particularly when viewed from Regional Road R262 and more particularly in a manner materially and significantly injurious to the natural and rural amenities enjoyed by users of the Bluestacks Way and to the integrity of the designated view at Letterfad. Accordingly, it is considered that to permit the proposed development would be contrary to the Wind Energy Development Guidelines, would materially contravene Objective TOU-3 and 8 and Policies E-P-11 & HH –P-14 of the County Development Plan and would thereby contrary to the proper planning and sustainable development of the area.

2)
The application site contains several species and their dependent habitats that are protected under the Wildlife Act as evidenced by the EIS submitted in support of the subject application. It is a policy of the Planning Authority (Policy NH-P-5, County Development Plan 2012-2018 (as varied) to "require consideration of the impact of potential development on habitats of natural value that are key features of the County's ecological network and to incorporate appropriate mitigating biodiversity measures into development proposals". On the basis of the information submitted in support of the application and having regard specifically to the inadequate and/or complete absence of any detailed proposals providing for the mitigation of adverse impacts and effects on multiple species protected under the Wildlife Act, the Planning Authority is not satisfied that the proposed development would not have an adverse impact on fauna within and in the vicinity of the application site or on their dependent habitats. Accordingly to permit the development would materially contravene the aforementioned policy of the County Development Plan 2012-2018 (as varied) and would thereby be contrary to the proper planning and sustainable development of the area.

3)
The dominant soil type within the application site has been identified as blanket peat. Having regard to the fact that (a) certain areas within the site have been deemed unsuitable for turbine construction due to the potential risk for peat slippage and (b) to the fact that the development proposal provides for the construction of an access road through such an 'unsuitable' area and otherwise proposes development in close proximity to areas deemed 'unsuitable' due to risk of peat slippage, the Planning Authority is not satisfied that the works required to construct the proposed development would not give rise to an unacceptable risk to peat stability failure and/or landslide in the area, with consequential risks of water

pollution and other. Accordingly, to permit the development would be contrary to the proper planning and sustainable development of the area.

4)
The proposed haul route for turbine components includes several areas where accommodation works will be necessary to facilitate the delivery of abnormal loads, inclusive of (a) works to Eanybeg Bridge, a structure that is included on the National Inventory of Architectural Heritage and (b) works where third party consent of relevant landowners will be required. It is the opinion of the Planning Authority that the works proposed to the haul route, but more particularly Eany Bridge, constitute development which requires the benefit of planning permission, therefore having regard to the fact that the said works are not the subject of the application for planning permission and that the necessary consent(s) from affected third party landowners have otherwise not been submitted in support of the application, the Planning Authority is not satisfied that an appropriate and safe delivery route can be provided for components associated with the proposed wind farm development. Accordingly, to permit the proposed development would be prejudicial to traffic safety, prejudicial to the orderly development of the area and thereby contrary to the proper planning and sustainable development of the area.

5.0 GROUNDS OF FIRST PARTY APPEAL

5.1 Appeal Submission

The main points made may be summarised as follows.

General Points:

- The Board granted a 10 year permission for 4 no. turbines at the site under PL05.226520. The Board's stated reasons for granting permission in that instance are noted.
- The Planning Inspector recommended permission in the case of PL235693. The Board refused permission for one reason only, relating to a lack of bird survey data, and stated that it would not be rely on bird survey data from an adjoining site. This issue has been addressed in the current application with significant additional bird survey data having been collected, analysed and presented in the EIS. In addition, the issue of potential impacts on Lough Nillan Bog SPA has been dealt with in a comprehensive NIS.
- Both the EIS and NIS have been assessed by the NPWS, which states no objection to the development.
- In both the 2007 and 2009 applications, the Board determined that the lands in question were generally suitable for wind farm development.

- The submission refers to national policy regarding the development of alternative and indigenous energy sources and the minimisation of emissions of greenhouse gases.
- The site is generally suitable for wind farm development due to the wind resource available. The location of a permitted wind farm nearby at Killin Hill is also noted.
- It is submitted that the conclusions reached in the planning report on file are generally based on misinterpretation and improper regard for the planning history for the lands and the information contained in the application.
- The Board is requested to set aside the decision of the planning authority and to grant a 10 year permission as sought in the application and in line with that previously granted at the site under PL226520.

Visual Impact:

- The developments proposed under PL226520 and PL235693 are the same as the current proposal from a visual impact perspective. Both the Board's Inspectors and Donegal County Council, in both the previous applications, considered that the site was capable of accommodating the development of first 4 and then 8 no. wind turbines of 99.5m without causing significant visual impact. While PL235693 was refused, this was not on landscape and visual grounds. There have been no significant changes in Development Plan policy since the date of the previous applications (notwithstanding the fact that a new County Development Plan has been adopted in the intervening period).
- The site is located well within an area considered 'open to consideration' for windfarms in the Donegal Wind Energy Strategy and located some distance from areas designated as 'not favoured' and the proposed development is modest in scale.
- The appeal submission includes a new report, montages and graphics prepared by Macroworks. The appeal contends that these clearly demonstrate that the visual impact of the development is not significant. The comparative Zone of Theoretical Visibility (ZTV) map in the report shows that there will be only a marginal increase in the extent of theoretical visibility from the altered layout and taller turbines proposed under the current scheme compared to the permitted 4 turbine development. An even lower degree of increase would occur in respect of the previously proposed 8 turbine scheme considered acceptable by Donegal County Council under PL235693.
- The report includes comparative photomontages from viewpoints referred to as being of concern in the planning report on file. It is submitted that these indicate that the current proposal does not represent a marked increase in landscape and visual impacts compared to previous schemes that were considered to be acceptable in this regard by Donegal County Council and An Bord Pleanala.

- It is submitted that the Planning Authority has taken an overly simplistic approach to the assessment of visual impacts. Just because the development may be clearly visible from a range of near and distant receptors does not mean it will have significant adverse impacts on visual amenity.
- It is unclear how the development would materially contravene Objective TOU-3 and 8 (tourism policies) and Policies E-P-11 (wind energy policy areas) and NH-P-14 (views and prospects) of the County Development Plan. It is submitted that the development clearly does not conflict with any of the development standards set out in Chapter 10, Section 10.6 of the Donegal County Development Plan. In particular, the view listed in the refusal reason (in the townland of Letterfad) is located over 5km from the development site. This view is shown on Map 8 as in a north to north-westerly direction, away from the subject site. The Macroworks report indicates that the impact on this view is 'slight'.
- It is submitted that the development would not have any significant impact on the Bluestacks Way walking route. While it is accepted that the R262 between Frosses and Glenties is likely to support a reasonable proportion of tourist traffic, it is a conduit rather than a significant tourist feature in its own right and this is reflected in the absence of any scenic route or scenic view designations in the county Development Plan. The appeal refers to the Fáilte Ireland document '*Guidelines on the Treatment of Tourism in an Environmental Impact Statement*' (2011).
- It is submitted that the planning authority has misquoted sections 6.4 and 6.6 of the DOEHLG Wind Energy Guidelines and that the full text should be taken into consideration.
- The Macroworks submission notes the following additional points:
  - The project Landscape and Visual Impact Assessment (LVIA) concluded that none of the visual impacts of any of the selected receptors was considered to be greater than of 'Moderate Significance' and that this in itself was rare for a commercial wind energy proposal. This reflects the robust nature of the receiving landscape and visual context.
  - It is a misconception for the planning authority to suggest that the current proposal represents a substantially greater visual impact than previous proposals due to the modest increase in height, i.e. that the magnitude of visual impact for a wind energy development increases in direct proportion to the height or proposed number of turbines. Considerable experience in relation to wind farm extensions and height increase proposals has shown that such increases can be difficult to perceive and are unlikely to result in a higher impact classification. This low degree of incremental effect is acknowledged in the Scottish Natural Heritage Guidelines *Siting and Designing Wind Farms in the Landscape* (2014), which state

that there is not a directly proportional relationship between visual impact and increased turbine size. This is because a wind farm is viewed within a surrounding context which varies and because the actual size of a wind turbine is usually difficult to judge.

- The submission includes a comparative ZTV map of permitted and proposed developments. It is submitted that this indicates a very low level of additional visibility (3.9% increase).
- The assessment provides comparative cumulative photomontages with the permitted development and the current proposal for 4 no. vantage points mentioned in the planning report on file. The conclusion notes that the increased height of the proposed turbines has the greatest visual impact at vantage points closest to the site. at wider distances (generally >2-3m), the variation in turbine height becomes less noticeable. Therefore, the increased height of the turbines has little consequence for the visual impact of the scheme in the landscape setting of broad terrain and land use patterns.
- It is submitted that the considerable increased productive capacity of the current proposal is not reflected in the nuanced difference between it and the comparative developments.
- The planning authority has adopted an overly simplistic approach in basing its refusal on the 'prominent position' of the site. Just because the site may be clearly visible from a range of near and distant receptors does not mean that it will have significant adverse impacts on visual amenity. The LVIA is based on consideration of the sensitivity of receptors and the visual presence (relative prominence) of the proposal was well as its aesthetic effects when determining the significance of visual impacts.
- The highest level of visual impact on the Bluestacks Way in the LVIA is 'moderate'. This is from viewpoint AH2, which is in very close proximity to the subject site. It is also on a section of the Bluestacks Way Alternative Route, which offers walkers the opportunity to avoid a steep mountain pass further to the east by walking along a section of the R262. The scenic amenity enjoyed by those crossing the rugged mountain pass is clearly greater than those option for the alternative regional route. This is reflected in the reduced sensitivity (medium) attributed to the AH2 receptor location compared to the more mountainous AH1 viewpoint location further to the east (high sensitivity).
- The ZTV map submitted with the planning application indicates that a very small proportion of the Bluestacks Way and the Donegal Way further to the west have theoretical views of the proposed development. Further analysis for the appeal indicates that only 20.6% of the Bluestacks Way proper has theoretical views of the turbines at distaces beyond 6 km. This figure increases to 95.2% for the Bluestacks Way alternative route, which passes close to the site along the R262. However, this section of the walking route is not

considered to be as sensitive as the main route through the Bluestacks Range. No part of the Donegal Way within the study area had any view of the proposed turbines. Of the 124km of way-marked walking routes within the study area, only 20.8% of this network is theoretically exposed to views of the proposed development and the vast majority of this figure is accounted for by the Bluestacks Way Alternative Route.

- The submission notes that long distance walking routes are a journey over a variety of landscapes. Man made features need not detract from the journey as long as they are appropriately sited and designed. Given that the proposal lies beyond the context of the Bluestack range within an anthropogenic landscape context, it is not considered to significantly detract from the experience of users of the Bluestacks Way. Consequently, it is not in material contravention to objective TOU-O-8 as suggested in the refusal reason.
- The significance of impacts on views from the R262 is moderated by the robust nature of the landscape to the west of the road and the clear and comprehensible view of the scheme within a context where the turbines do not dominate the landform or land use patterns in terms of scale or extent.
- The R262 provides a strong delineation between the western extents of the Bluestack Range and the transitional landscape of forest plantations, power lines and peat harvesting that more strongly informs the landscape character of the proposed site. This delineating function is reflected in the close association between the R262 and the boundary between the 'Bluestack Mountains' Landscape Character Area (LCA) and the 'Ardara Boglands' LCA, which contains the site.
- Whilst it is accepted that the R262 between Frosses and Glenties is likely to support a reasonable proportion of tourist traffic, it is a conduit rather than a significant tourist feature in its own right and this is reflected in the absence of any scenic route or scenic view designations in the County Development Plan. Furthermore, with the recent establishment of the Wild Atlantic Way tourist route around the Donegal coastline, tourist traffic is likely to reduce on the R262 between Frosses and Glenties.
- Designated scenic views are almost entirely unaffected by the proposal. The scenic designations within the study area tend to be orientated away from the subject site, towards the Donegal coastline or the Bluestack Mountains. The nearest potentially affected designated view is DR2 at Letterfad, which is orientated to the north west towards the Bluestack Range while the view of the proposed wind farm is to the west / south west in a less rugged and more managed landscape setting. This is an unambiguous view of the wind farm, which highlights its appropriate siting and design.

The LVIA acknowledges a mid to high degree of sensitivity for this visual receptor but this is balanced by a low order magnitude of impact resulting in an overall impact of 'slight'.

- The site is located in an area that corresponds to the 'mountain mooreland' classification in the DOEHLG Wind Energy Guidelines. The Guidelines support the siting and design of wind energy developments in such areas .

Ecological Issues

- It is submitted that the planning authority has made significant factual errors in relation to the potential ecological impact of the proposed development.
- Comprehensive baseline avifauna surveys have been prepared. The positive comment on file by the NPWS ecologist on file is noted, this specifically considered the survey data in the EIS and AA to be sufficient.
- On this basis, it is submitted that there is no merit in the stated refusal reason and that the claim that the development would contravene County Development Plan policy NH-P-5 is factually incorrect.
- Further details relating to ecological issues are provided in a report by Ecology Ireland submitted with the appeal. In particular, the report submits that the restriction of construction activities to outside the bird breeding season would be unnecessary and inappropriate with regard to:
  - The adjacent Lough Nillan Bog SPA is designated for both breeding and wintering bird species. Construction activity outside the breeding season would considerably extend the construction period and would be disproportional considering the bird community present at the site.
  - The EIS fully assessed the potential for impacts on breeding and wintering birds and, in the light of this assessment, a restriction of construction to the winter period cannot be justified.

  The report also submits that the EIS includes additional site surveys to address deficiencies identified in the EIS of PL235693.

Peat Stability:

- The Peat Stability Assessment in the EIS identified no areas of the site where construction works were not advised. It is submitted that the planning authority did not have due regard to this assessment.
- The appeal submission includes a report by AGEC Ltd, which confirms that the proposed construction road would not be constructed in an 'unsuitable' area. The road in question actually currently exists.
- An additional report by Hydro Environmental Services Ltd relating to geology, hydrogeology and water quality impacts is also submitted in support of the appeal.

Transportation:

- A detailed and comprehensive chapter in the EIS clearly sets out the proposed turbine haul route and provides detailed analysis of works required to facilitate the transport of turbine components from the delivery port (Killybegs) to the site. It identifies 6 no. Points of Interest (POIs) along the route where varying degrees of accommodation works would be required. Of these, only one (POI 5 at Eanybeg Bridge), requires temporary works on third party lands. POI 6 is located within the planning application boundary. All other POIs require only minor temporary accommodation or strengthening works, all of which are contained within the existing road verges – i.e. within the road corridor wayleave as defined under the Roads Acts.
- The applicant intended to carry out temporary works at Eanybeg Bridge and its approaches under a road opening license issued by Donegal County Council. The applicant does not agree with the assertion of the planning authority that the works in question would constitute development which requires planning permission.
- The applicant has consulted with their haulage contractor, Collett, which has specific experience of transporting turbine components. Collett has carried out a detailed 3D model simulation swepth path analysis of Eanybeg Bridge (submitted as Appendix 4 of the appeal). The analysis confirms that it is possible to safely cross the bridge without the need to carry out any work to the bridge or third party lands. The concerns of the planning authority on this issue can be fully addressed through the use of specialist transport equipment thereby nullifying any concern in relation to the need for works which may or may not require the benefit of planning permission.
- The applicant notes the NRA comments submitted to the planning authority. The appeal submission states that all works along the national road network would be temporary works which consist of the strengthening or local widening of the carriageway edge. It is intended that these works which will consist of the laying of hardcore at the edge of the road will be fully reinstated following the delivery of the turbine components to the development site. A full road safety audit is not necessary due to the temporary nature of the works, in order to facilitate an abnormal load. Notwithstanding this, the works will be carried out under licence (road opening licence) and will be fully compliance with the NRA Design Manual for Roads and Bridges (DMBR) for temporary road works. All abnormal loads would require specific permits in accordance with the provisions of the Road Traffic (Construction Equipment and Use of Vehicles) Regulations 2003, which would be issued by Donegal County Council.
- The applicant has requested Jennings O'Donovan Consulting Engineers to carry out a technical assessment of the ability of the bridges and culverts along the haul route to accommodate the expected abnormal loads. The appeal submission includes a letter

from same setting out the findings of these investigations. It confirms, based on a physical investigation of all structures along the haul route, that they are capable of supporting the maximum expected axial loads.

Grid Connection:

- The applicant has submitted additional proposals for grid connection in the light of the recent O'Grianna case, along with EIS and NIS addenda to consider the revised proposals. The appeal submission states:

  "… *given that grid connection is well understood in relation to the current application, the Applicant in compliance with the High Court Judgement, is submitting an EIS and NIS addendum for consideration by the Board as part of its EIA, AA and the required 'de novo' consideration of the application.*"

6.0 THIRD PARTY SUBMISSION TO BOARD

6.1 The observer wishes to support the refusal of permission. The main points made may be summarised as follows.

Procedural Issues:

- The observer states that correspondence he submitted to the planning authority did not appear on its website until 23rd December 2014. The subsequent comment of William Cormacan (NPWS) is noted. It is submitted that the NPWS comment was in response to the observer's submission to the planning authority.
- DOAHG correspondence to the Cloghervaddy project manager on 9th September 2014, ref. GPre00317/2014, outlined a series of concerns regarding impacts on Lough Nillan Bog SPA and on Annex I species including Greenland White-fronted (GWF) Goose, Dunlin, Golden Eagle, Hen Harrier, Merlin, Golden Plover and the Red Grouse. Also concerns about impacts on the freshwater habitat and on species in the Corker / Oily River and Eany Waters catchments, including freshwater pearl mussel and otter, both species listed in Annex II of the EU Habitats Directive. (There is a similar letter with the EIS Table 6.1 P.48) There is a contradiction between these concerns and the NPWS submission to the planning authority.

Greenland White Fronted (GWF) Geese:

- The avi fauna data of 2010-2011 on file is deficient and dated.
- The site is less than 0.5 km away from Lough Nillan Bog SPA, which is used by GWF Geese. The applicants have not adequately addressed the risks associated with this type of development to migratory GWF geese. The AA focuses on direct impacts on local European sites but

not flight corridors for listed avi fauna. There is a lack of survey, flight path and collision risk information with the application.

- The impact analysis is based on the data collected during pre-planning monitoring. This was insufficient time for an Annex I species, need for variable monitoring methods pertaining to distinct lifecycles of different species. The EIS appears to be based on too much 'desktop' work and too little 'on site' observation.
- Inadequate hours spent at each Vantage Point (VP) with regard to Scottish Natural Heritage guidance, also inadequate crepuscular surveys.
- The site is surrounded by areas used by GWF Geese. The observer submits an extract from the "*Bird Atlas 2007-2011 The Breeding and Wintering Birds of Britain and Ireland*", which indicates several wintering grounds at Sheskinmore, Durnesh Lough (Rossknowlagh) and the Pettigo bogs. There is a likelihood that birds would travel between these areas in the vicinity of the site. Also an extract from the OPW document '*Ireland's Wetland Wealth*' (1993), which lists the Sheskinmore habitat as one of national importance.
- Wider issue of GWF Goose migratory routes from Greenland and Iceland in the autumn and the return migration in spring. The Donegal area is on this flight path as birds travel south towards the Wexford slob lands. VPs should have taken place at these times also. An extract from "*The Migration Atlas Movements of the Birds of Britain and Ireland*" is submitted in support of this comment.
- The Board decision of PL.235693 is noted in this regard.

Red Grouse:

- The observer manages a Red Grouse conservation project (Cró na mBraonáin Habitat & Red Grouse Sanctuary) on Achla Mountain between Fintown and Glenties, north of the subject site. County Development Plan NH-P-15 states a policy to ensure the protection of the sanctuary given its high concentration of Red Grouse and importance to the national Red Grouse population. It is the only privately managed site in Co. Donegal, the other being within Glenveagh National Park, both are listed in the recently published 10 year national Red Grouse Species Action Plan.
- If there are a pair or more of Red Grouse at Clogheravaddy, it may be an important link along a chain of designated sites in the area, i.e. there is a distinct ecological connectivity between the appeal site and the designated conservation sites.
- The EIS suggests that the same male was flushed 5 times and observed it in flight with a mate and on a 6th occasion. This is highly irregular. The several NPWS and Birdwatch Ireland surveys that the observer participated in on his lands never managed to flush the same bird more than twice. The observer disputes that only a single male was raised. A bird approaching the surveyor on the first transect and

arriving from the west on a second transect, only 500 linear metres away, is unlikely to the same bird. Chapter 6, 6.1.3.2 of the EIS notes that there is a slight possibility of a second male bird recorded to the south of Transect 1 but it is unlikely that the area held more than one breeding pair. The observer contends that this was hugely significant. It ties in with another statement in the grouse section of the EIS that a family covey of 4 birds were flushed from Killin Hill in October 2010 and a single displaying male was heard throughout crepuscular surveys to the east of the site. A breeding site is known at Black Lough to the west of the site. This habitat is not untypical of that used by Red Grouse but they are very elusive.

- The best plot of open heath land on the site for grouse would be decimated / fragmented by the construction of 2 turbines (WTG01 and WTG02). Furthermore, the best place within the site for foraging grouse, the abandoned 'bog holes', would be given over to peat repository dumps. However no Red Grouse survey work was carried out here. The observer has an informed opinion that, given the recorded presences of Red Grouse at the site and in the vicinity, there are likely to other red grouse beyond the conifers where no survey work was done, a few 'stepping stones' away from Cró na mBraonáin.

Bat Impacts:

- Bat activity at the site was concentrated almost entirely along the forest edge, where the wind farm will be located. Construction activity is likely to disturb/destroy the bat population.
- There are likely to be old bat roosting sites (old ruins) to either side of the R262 in an easterly / north easterly direction from the site. If bats roost at these locations, they would fly across the site to feed at the edge of the conifer plantation. There are other possible bat roosting site to the east / south east of the proposed development. Post construction monitoring would be too late. Pre-construction monitoring would be more beneficial.

Site boundary:

- The proposed development should not be allowed to proceed until the already permitted development is complete. The site boundaries are inconsistent between the documents on file. A track leading to the site south of the L5795 is shown within the site boundary on most documents but is outside the site boundary in the OS map accompanying the appeal, ref. drawing no. P1245-0115-A4-001-OOA of 29th January 2015.
- Concern that an attempt is being made to conjoin sites or split them. The current application is an amalgamation of companies operating in the area. There are right of way issues. Issue of turbiary rights.

Eany Bridges:

- Concern about potential impacts on the Eany Bridges. The observer questions whether the Collet study is based on a site inspection. No acknowledgement of the significant bend before the bridge. The photograph submitted indicates travel away from the site and not that of the turbine delivery route. There is a huge risk to the bridge. There have been several accidents in recent years in Co. Donegal where cranes and specialist wind lorries have toppled over into Donegal bogs. A minor bridge over the Owenea River, on an important local road around Glenties town, collapsed when a gravel truck drove over it.
- The Eanymore Bridge less than 1 km south of the Eanybeg would be even more of a challenge for turbine delivery. The road condition is even worse and there is a moderate to steep downhill approach to the bridge on a more acute bend. The approach edges are extremely poor for some distance and there is an Eircom pole route on the edge of the road. There is extreme subsidence on the inside of the sharp left hand corner leading downhill into the bridge.

Bluestacks Way Impacts:

- There have been high profile incidences of turbine failure/collapse at Corkermore, Loughderryduff and Meenacloghspar Anarget.
- The Observer agrees with the opinion of the planning authority that the site has a prominent and strident position within a scenic and elevated rural landscape. The turbines would be visually dominant due to excessive height, particularly when compared to adjacent turbines of different heights.
- Particular visual impacts on the arc of Binbane Hill, Carnaween, Binasruell, Lavagh More and the peak of the Cruacha Gorma. These are some of the most popular hiking peaks in Donegal. Visibility on the Eglish, Sruell and Eany beg river valleys.
- The development would have greater cumulative impacts than the 4 turbines already permitted at the site.

7.0 RELEVANT PLANNING POLICY

7.1 DoEHLG Wind Energy Guidelines 2006 and Proposed Amendments

7.1.1 Wind Energy Guidelines 2006

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 an 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.

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.

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.

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.

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.

Chapter 6 discusses aesthetic considerations and the siting and design of wind farm developments. Consideration is also given to landscape character types as a basis for practical application of siting and design guidelines. Section 6.5 provides guidance on cumulative effects.

7.2.1 Proposed Amendments to 2006 Guidelines

The Department of the Environment, Community and Local Government is currently conducting a targeted review of its Wind Energy Development Guidelines in relation to noise, proximity and shadow flicker. It is proposed to update the relevant sections of the existing Guidelines on these specific issues. A draft consultation document was produced in December 2013, which proposed the following revisions to the 2006 Guidelines:

- A more stringent absolute outdoor noise limit (day and night) of 40 dB for future wind energy developments, to apply to the combined sound level of all turbines in the area, irrespective of which wind farm development they may be associated with.
- A mandatory setback of 500m between a wind turbine and the curtilage of the nearest dwelling, for amenity considerations.
- A condition to be attached to all future planning permissions for wind farms to ensure that there will be no shadow flicker at any dwelling within 10 rotor diameters of a wind turbine. If shadow flicker does occur, the wind energy developer/operator should be required to take necessary measures, such as turbine shutdown for the period necessary to eliminate the shadow flicker.

A consultation period was allowed, up to 21st February 2014 (which time has now passed).

7.2 Border Regional Authority Regional Planning Guidelines (BRA) 2010-2022

7.2.1 The BRA includes counties Donegal, Sligo, Leitrim, Cavan, Monaghan and Louth. The RPG for the border region recognise that renewable energy through the development of wind, biomass, and water have particular regional potential. The guidelines support the identification and provision for transboundary facilities and recognise that significant dividends can accrue from developing an appropriate renewable energy mix, such as combinations of wind, wave and tidal, to ensure consistency of supply.

7.2.2 Section 5.5 of the Guidelines refers to renewable energy development. It identifies the Border Region as being

"… *ideally located to make significant contributions, through wind energy, to the revised targets for renewable energy generation (RES-E) of 40% with resulting economic benefits*".

The Guidelines also state;

"*Local Authorities will provide landscape sensitivity analysis, in support of the regional strategy on renewable energy generation, to further refine locations suitable for development.*"

Renewable energy strategic objective INFO8 states:

"*Develop a balanced portfolio of renewable technologies and support Gate 3 projects and associated infrastructure including small renewable and low carbon projects subject to relevant environmental assessments.*"

7.3 Donegal County Development Plan 2012-2018 (as amended)

7.2.1 Natural and Built Heritage Policies

NH-P-1:
It is a policy of the Council to ensure development proposals do not damage or destroy any sites of international or national importance, designated for their wildlife/habitat significance.

NH-P-2
It is the policy of the Council to ensure the protection of Natura 2000 sites in accordance with the EU Habitats Directive (92/43/EEC) and have regard to the relevant conservation objectives, qualifying interests and threats to the integrity of these Natura 2000 sites.

NH-P-5
It is a policy of the Council to require consideration of the impact of potential development on habitats of natural value that are key features of the County's ecological network and to incorporate appropriate mitigating biodiversity measures into development proposals.

NH-P-10
It is a policy of the Council to protect landscapes of Especially High Scenic Amenity (EHSA) and views and prospects and to preserve the character of distinctive regional, local and cultural landscapes in the County.

NH-P-14
It is a policy of the Council to seek to preserve the views and prospects of special amenity value and interest, in particular, views between public roads and the sea, lakes and rivers. In this regard, development proposals situated on lands between the road and the sea, lakes or rivers shall be considered on the basis of the following criteria:

- Importance value of the view in question.
- Whether the integrity of the view has been affected to date by existing development.
- Whether the development would intrude significantly on the view.
- Whether the development would materially alter the view.

In operating the policy, a reasonable and balanced approach shall be implemented so as to ensure that the policy does not act as a blanket ban on developments between the road and the sea, lakes and rivers.

NH-P-15
It is the policy of the Council to ensure the protection of Cró na mBraonáin habitats and Grouse sanctuary given its high concentration of Red Grouse and its importance to the national Red Grouse population, which is a protected species under the EU Birds Directive.

BH-P-4
It is a policy of the Council to ensure retention of historic structures (and parts of structures), including their functional and decorative details, in accordance with current conservation guidelines and best practice.

7.2.2 Wind Energy Policies

Section 7.2.1 sets out the approach to wind energy development, which is based on an analysis of areas suitable for wind energy development within the County, based on a range of factors. The strategy identifies the following, as indicated in Map 9 of the Plan:

Areas Open to Consideration:
These areas are open to consideration for appropriate wind energy proposals. They have been identified having regard to a range of factors, including wind energy potential, existing grid connections, proposed grid connections, natural heritage designations and landscape sensitivity, the road infrastructure is adequate and where likely conflict with natural heritage designations can be protected.

Not Favoured:
Areas where wind energy proposals will not be favoured have been identified due to the significant environmental, heritage and landscape constraints. These include; SAC and SPA (Natura 2000) Sites, NHAs, unspoiled areas of EHSAs, Areas of Fresh Water Pearl Mussel, important views and prospects. It is considered that these areas have little or no capacity for wind energy development.

Policy E-P-9
It is the policy of the Council that development proposals for wind energy shall be in accordance with the requirements of the Wind Energy Development Guidelines: Guidelines for Planning Authorities, 2006 (or as may be amended).

Policy E-P-10:
It is the policy of the Council to facilitate the development of renewable energy, through the development of on and offshore wind energy proposals, in accordance with the proper planning and sustainable development of the area.

Policy E-P-11
It is the policy of the Council to:
(1) Facilitate the development of appropriate wind energy proposals in the "Area Open to Consideration" as identified on the Wind Energy Map No. 9, and
(2) Not favourably consider wind energy proposals in those areas identified "Not Favoured" on the Wind Energy Map No. 9.

Policy E-P-16
It is the policy of the Council to support the clustering of wind farms within the vicinity of existing or proposed grid connections and existing operational and approved windfarms to achieve economies of scale and to minimise the spatial extent of environmental impacts.

Policy E-P-18
It is a policy of the Council to permit proposals to extend existing or permitted wind farms. Where such proposals can satisfy the Planning Authority that they are in accordance with the Wind Energy Guidelines 2006 (DoEHLG) and the potential cumulative impacts of further on-site construction upon, landscapes, habitats, soil stability and environmental habitats do not result in significant environmental damage.

Policy E-P-20:
It is a policy of the Council that potential impacts on natural, built and cultural heritage including impacts on archaeological monuments and watercourses are assessed as part of wind farm development proposals. Where such impacts are identified, mitigation measures such as buffer zones, separation distances and access arrangements should be employed as appropriate.

7.2.3 Tourism Policies and Objectives

TOU-O-3
To support strong tourism identity areas and create all ancillary facilities necessary for a quality holiday destination.

TOU-O-8
To recognise the importance of walking routes and cycleways and to preserve public rights of way which give access to the seashore, mountain, lakeshore, riverbank or other place of natural beauty or recreational utility in the County, including those listed in Chapter 10 of the Plan.

TOU-P-1
It is a policy of the Council to safeguard the natural landscape qualities and environmental habitats of the County.

TOU-P-3
It is a policy of the Council not to permit development proposals which would detract from the visual quality/amenity on either the approach roads to, or the views to be had from significant tourism attractions.

7.2.4 Development and Technical Standards for Wind Energy

Section 10.6.5
Wind turbines must meet the requirements and standards set out in the DEHLG Wind Energy Development Guidelines 2006, or any subsequent related Guidelines and in addition must not be located within:
(a) The zone of visual influence (ZVI) of the Glenveagh National Park.
(b) The zone of influence/ flight path at Donegal Airport.

7.2.5 Development Plan Maps

Map 8 of the Plan indicates Areas of Especially High Scenic Amenity and designated views and prospects. Map 9 indicates areas Open to Consideration and Not Favoured for wind energy developments. The Draft Landscape Character Map indicates that the site is located generally within the Ardara Bogland (35) area.

7.2.6 County Development Plan Variation No. 2 and Ministerial Direction

Variation No. 2 to the County Development Plan 2012-2020, made on 30th June 2014, amended Chapters 7 and 10 of the Plan regarding wind energy. However, on October 3rd 2014, the Minister for the Environment, Community & Local Government issued a Direction under section 31 of the Planning and Development Act 2000 (as amended). According to the Donegal County Council website, the Direction had immediate effect and meant that those amendments that were made through Variation No. 2 were deleted from the Plan.

8.0 PLANNING ASSESSMENT

8.1 The subject appeal and supporting documentation are to be assessed as follows:

- Principle of Development
- Legal Issues and Grid Connection
- Landscape and Visual Impacts
- Tourism Impacts
- Ornithological Impacts
- Other Ecological Impacts
- Peatland Impacts
- Noise
- Shadow Flicker

- Proposed Road Works
- Planning Conclusion and Recommendation

The Environmental Impact Assessment and Natura Impact Assessment are set out separately below.

8.2 Principle of Development

8.2.1 Refusal reason no. 1 states that the proposed development would materially contravene objectives TOU-3 and 8 and policies E-P-11 and NH-P-14 of the Donegal County Development Plan 2012-2018 (CDP). Section 37(2)(b) of the Planning and Development Act 2000 (as amended) provides that, where a planning authority has decided to refuse permission on the grounds that a proposed development materially contravenes the development plan, then the Board may only grant permission where it considers that:

(i) The proposed development is of strategic or national importance,
(ii) There are conflicting objectives in the development plan or the objectives are not clearly stated, insofar as the proposed development is concerned, or
(iii) Permission for the proposed development should be granted having regard to regional planning guidelines for the area, guidelines under section 28, policy directives under section 29, the statutory obligations of any local authority in the area, and any relevant policy of the Government, the Minister or any Minister of the Government, or
(iv) Permission for the proposed development should be granted having regard to the pattern of development, and permissions granted, in the area since the making of the development plan.

8.2.2 Development of energy from wind sources is supported in national and regional guidance. Government policy in relation to wind farms is largely set out in the DoEHLG Wind Energy Guidelines 2006, issued under section 28 of the Act. Within these Guidelines, there is a presumption in favour of wind farm developments in suitable circumstances. CDP Policy E-P-14 relates to the protection of views and prospects of special amenity value, objective TOU-P-3 relates to the protection of the visual quality/amenity of approach roads to views or significant tourist attractions and objective TOU-O-8 relates to the importance of walking routes and cycleways. However, according to the Guidelines, the visibility of a wind farm from designated views or prospects would not automatically preclude an area from such development. The strategic importance of wind farms in reducing dependence on fossil fuels needs to be considered. It is clear that the Guidelines envisage wind farm developments even where CDP policies might appear to indicate that they should not be located within a

particular area. The Guidelines also require that individual proposals should be considered within the context of a 'plan led' approach and that planning authorities identify areas which are considered acceptable for wind energy developments following an analysis of amongst other factors their wind energy potential. Map 9 of the CDP indicates that the subject site is located within an area 'Open for Consideration' for wind energy development. These areas have been identified having regard to a range of factors, including wind energy potential, existing grid connections, proposed grid connections, natural heritage designations and landscape sensitivity, the road infrastructure is adequate and where likely conflict with natural heritage designations can be protected. The CDP states a general policy to permit proposals at such locations subject to compliance with the DoEHLG Wind Energy Guidelines and other site specific issues, ref. Policy E-P-11. It is considered that the proposed development is generally in accordance with Policy E-P-11 and with the Wind Energy Development Guidelines and that section 37(2)(b)(iii) would therefore apply.

8.2.3 There is an existing 110kV overhead power line running across the northern end of the site. This connects to the existing Binbane ESB 110kV main electrical substation, which is located 400m from the site boundary, on the opposite side of the R262. With regard to this existing electricity infrastructure and to the permitted windfarm developments at the subject site and at the adjacent Killin Hill site (PL05.226845), it is considered that the proposed development would be in accordance with CDP policy E-P-16:

It is the policy of the Council to support the clustering of wind farms within the vicinity of existing or proposed grid connections and existing operational and approved windfarms to achieve economies of scale and to minimise the spatial extent of environmental impacts.

8.2.4 The site is located outside all of the areas designated areas of Especially High Scenic Amenity as per Map 8 of the Plan, and outside all other areas specifically described as unsuitable for wind energy development in the plan, i.e. the zone of visual influence (ZVI) of the Glenveagh National Park.and the zone of influence / flight path at Donegal Airport.(Section 10.6.5). Therefore, the site is not located in an area where any specific exclusions apply.

8.2.5 On the basis of the foregoing, and having regard to the fact that permission has already been granted for a wind energy development at the site under the previous CDP, ref. PL05.226520, it is considered that the Board may grant in permission in this case if it is minded to do so, as section 37(2)(b)(iii) applies. In addition, as the site does not fall within an area where specific exclusions apply, the development is acceptable in

principle at this location and should be considered on its merits, in accordance with national and local policy on wind energy developments.

8.3 Legal Issues and Grid Connection

8.3.1 The recent case Pol O Grianna and Others v An Bord Pleanála is of particular importance to all wind farm cases. It related to ABP case PL04.242223 (12/05270). The applicant, Framore Ltd., sought a 10-year planning permission for a 6-turbine wind farm (13.8MW), electricity sub-station, borrow pit, access roads, cables and associated site works at the townlands of Derragh, Rathgaskig & Lack Beg near Ballingeary, Co. Cork. The application was accompanied by an EIS and by an AA screening report. The planning authority granted permission but the decision was appealed by third parties. The Inspector recommended permission subject to conditions. The Board decided to grant permission subject to conditions. Condition no. 4 states:

"*This permission shall not be construed as any form of consent or agreement to a connection to the National Grid.*
Reason: In the interest of clarity."

8.3.2 The Board decision was the subject of judicial review. Paragraph 26 of the O Grianna judgement notes that the Board decision did not involve any assessment of the potential environmental impacts of the grid connection stage of the wind farm development. Paragraph 27 states;

"*I am satisfied that the second phase of the development in the present case, namely the connection to the national grid, is an integral part of the overall development of which the construction of the turbines is the first part … The wind turbine development on its own serves no function if it cannot be connected to the national grid. In that way, the connection to the national grid is fundamental to the entire project, and in principle at least the cumulative effect of both must be assessed in order to comply with the Directive*."

The judgement therefore concludes that the wind farm and its grid connection are in reality one project. Paragraph 30 notes that Recital 2 of the EIA Directive states that effects on the environment should be taken into account at the earliest possible stage in all the technical planning and decision making processes. Paragraph 28 states:

"*It seems to me that the fact that the developer is at the mercy of ESB Networks as far as the details of the plans for that connection to the grid is concerned, cannot absolve the developer from compliance with the Directive in every respect*."

Paragraph 32 states:

"… *it points to a prematurity in the seeking of permission for the construction of the wind farm ahead of the detailed proposals for its connection to the national grid from ESB networks … It may mean that the developer must wait longer before submitting its application for planning permission. But it seems to me likely at least that even if a Phase 1 permission is granted with a condition such as Condition 4 contained therein, no sensible developer would complete phase 1 of the development without having been granted permission for the connection to the national grid, or without having been assured that the connection phase is exempted development. In that way, it is difficult to see any real prejudice to the developer by having to wait until the necessary proposals are finalised by ESB Networks so that an EIS for the entire project can be completed and submitted, and so that a cumulative assessment of the likely impact on the environment can be carried out in order to comply with both the letter and spirit of the Directive*."

The Court quashed the Board's decision on the grounds of 'project splitting'.

8.3.3 The Board asked the Court to send the matter back to the Board so that it might complete an EIA of the whole project, i.e. both wind turbines and grid connection, rather than the developer having to recommence a new planning application process. This, in the Board's view, would be wasteful in terms of time and cost, and would not be in the interests of fairness or justice. The applicant opposed remittal to the Board, on the basis that the Board has no power to request a further or revised EIS from the applicant, and because the previous invalidity could not be cured in any event. On April 16th 2015, the High Court agreed to remit the subject wind farm application PL04.242223 (12/05270) back to the Board rather than require the entire planning process to be recommenced before the planning authority. However, at the time of writing, the applicant has sought leave to appeal the remittal decision to the Supreme Court.

8.3.4 The proposed development has a potential installed capacity of 19.95MW (7 x 2.8 5MW turbines). There is an existing 110kV overhead power line running across the northern end of the site. This connects to the Binbane ESB 110kV main electrical substation, which is located 400m from the site boundary, on the opposite side of the R262. Despite the existing electricity infrastructure at the site and in its immediate vicinity, the initial application does not include any substantial details of grid connection and this aspect of the development is not considered in the submitted EIS. The cover letter submitted with the application, dated 5th November 2014, states that a 10 year permission is sought for the following reason:

"*This is required in order to allow time for sufficient grid connection capacity to be made available to construct all of the turbines in the proposed development. Clogheravady Wind Farm Ltd. has accepted a connection offer for 9.2MW of grid capacity from the Distribution System Operator (ESBN) at Binbane – across the road from the proposed development – and also has an application pending with ESBN for the required remaining grid capacity. Additional capacity may also become available to Clogheravaddy Wind Farm Ltd. from existing contracted capacity associated with other proposed windfarms in the area within the 10 year life span of the planning permission (if granted). If there is a delay in obtaining additional grid connection capacity, it is likely that the project will be developed in stages.*"

8.3.5 The first party appeal submits additional details of the proposed grid connection. This comprises an underground cable running from the site substation, along the internal access tracks and the L5795 local road (within the road verge) and along the R262 to the Binbane substation across the road. From the L5795 bridge, the cable will run parallel to the existing cable that serves the Corkermore wind farm to the west of the site. The EIS addendum notes that the dominant habitat along the route is semi-natural wet grassland. There are no habitats that correspond to Annex I habitats and no designated sites. There are no recorded archaeological, architectural or cultural heritage features along the route. The final detailed cable route and design will be subject to ESB approval. The proposed development has a signed Gate 3 agreement from ESB networks (ESBN) to export 9.7kVA at a connection voltage of 38kV to Binbane 38/110kV substation (note discrepancy with the original statement of 9.2MW). This proposal involves works at the Binbane substation. The applicant intends to lodge a modification application to ESBN in Q2 2015. The road works are subject to a Road Opening Licence issued by Donegal county Council Roads Authority. The submission includes addenda to the EIS and NIS for consideration, in order to address the legal issues outlined above.

8.3.6 The above submissions provide a general picture of the proposed grid connection but there are certain shortcomings, i.e.:

- The applicant does not have a Gate 3 offer for the entire capacity of the proposed development, i.e. the additional 10.25MW.
- The applicant does not have agreement from ESBN for the necessary works to the Binbane substation;
- Part of the proposed underground cable route would run along the public road, outside the subject site.

However, given that:

- The applicant already has a Gate 3 offer for a substantial part of the development.
- There is an existing ESBN substation in close proximity to the site;

- The proposed cable route is along the public road and does not cross third party lands.

It is considered that the proposed grid connection is sufficiently well developed to allow for consideration of the development. The submitted EIS addendum has been circulated with the grounds of appeal and can be considered in conjunction with the originally submitted EIS as part of the Board's EIA. The NIS addendum can likewise be considered as part of the Board's AA. The applicant's grid connection proposals are considered acceptable on this basis. The adequacy of the EIS and NIS are considered in detail below.

8.4 Landscape and Visual Impacts

8.4.1 The development site is characteristic of the "Mountain Moorland" landscape type as identified in the Wind Energy Development Guidelines (2006). The Guidelines note that it may be acceptable to locate wind energy development on ridges and peaks in these areas. Larger wind energy developments can generally be accommodated because they correspond in terms of scale. All spacing and layout options are usually acceptable, however random layouts are best for hills as the open expanse of these landscapes can absorb a number of wind energy developments. There are generally no height restrictions. The proposed scheme is in accordance with these recommendations as it is situated on a hillside within an undulating area of hills that is characterised by a mix of land uses.

8.4.2 The site is not located within a CDP 'Area of Especially High Scenic Amenity' and there are no protected views or prospects or designated scenic routes in the immediate vicinity, ref Map 8. The site is in an area classified as 'normal' landscape, where it is the policy of the planning authority to adopt a positive attitude towards development proposals. It is also located in an 'Area Open to Consideration' for wind energy development following an analysis of various factors including landscape sensitivity and visual amenity, ref. Map 9 of the Plan. Notwithstanding, it is proposed to address the visual impact of the development on the landscape within both the local and wider environment. The Landscape and Visual Impact Assessment (LVIA) carried out in the EIS using photomontages is used within this report for reference. I also visited the locations of all of the listed viewpoints identified in the LVIA and took photographs from certain views that were considered to be of particular significance.

8.4.3 Refusal reason No. 1, relating to landscape and visual impacts, specifically mentions the 'Bluestacks Way' walking route. The route runs from Donegal Town past Lough Eske and over the Bluestack range north west towards Glenties. While the main trail runs circa 6km northeast of the

site, in the southern foothills of the Bluestacks Mountains, there is a lower 'alternative route' loop, which takes in the stretch of the R262 in front of the development site.

8.4.4 The EIS LVIA identifies the following primary areas that have visibility of the site:

- Areas in close proximity to the site including the Bluestacks Way Alternative Route
- The Bluestack Mountains and other areas to the north and northwest of the site.
- Wider area including areas to the north east of Ardara, areas to the south east of the site, the N56 between Ardara and Killybegs, Rossknowlagh and areas on the southern side of Donegal Bay.

I consider that these conclusions are reasonable with regard to the distances involved, to local topography and vegetation and to my own site inspections. Each of these areas may be considered separately as follows, with regard to the EIS LVIA.

8.4.5 <u>Areas in Close Proximity Including the Bluestacks Way Alternative Route</u>

Refusal reason no. 1 refers to the visibility of the scheme from the Bluestacks Way 'alternative route', which runs along the R262 to the north east of the site. The development would be clearly visible from the R262 and local roads to the east of the site. The brow of Killin Hill limits visibility to the south of the site. The LVIA includes viewing points AH2 and LC4, located along the R262 'Bluestacks Way Alternative Route'. The main findings may be summarised as follows.

AH2
Bluestack Way on R262 at Lettermore. View west across the development site. The site is viewed within a gently rolling landscape of moorland and forest plantations with occasional rock outcrops. The proposed turbines are all clearly visible in silhouette in a relatively condensed cluster, a distinctive feature that will draw the eye. The EIS deems the overall cumulative visual impact to be moderate. The EIS addendum, which considers visual impacts associated with the proposed grid connection, notes that the proposed underground cable will have no foreseeable visual or landscape impact.

LC4
R262 intersection with local road at Tamur. There is a view south east across the development site. All turbines in the development would be visible from this vantage point. The turbines are fully exposed to southbound motorists in direct alignment with the R262 and would be one of the defining aspects of the view. The EIS states that the turbine layout is highly legible from this location; all blades rotate freely above the

skyline; the profile of the scheme reflects that of the underlying ridge; there is a minor degree of clutter generated in conjunction with a foreground utility pole. The EIS deems the overall cumulative visual impact to be moderate-slight.

The turbines would undoubtedly be prominently visible against the skyline when viewed from the R262. The development would therefore result in a dramatically different vista from the current hillside of bog and coniferous forest. However, it is noted that permission has already been granted for 4 no. turbines at the site under PL05.226520, each with a tip height of circa 99.5m, and that the 3 no. turbines permitted at Killin Hill would also be visible from this location. The first party appeal submission includes additional analysis of views from these points by Macroworks, which compares the permitted and proposed developments, along with the Killin Hill scheme. The supplementary LVIA concludes that, although the proposed development involves 7 turbines with a tip height of 126.5m, there would be only a marginal increase in the magnitude of the overall landscape and visual impact. The clustered layout of the proposed development has a slightly higher sense of development intensity but often results in a reduced visual envelope compared to the 4 turbine development. Having regard to the submitted photomontages and to my own site inspection, I concur with this point.

I note that the R262 is not a designated scenic route, despite the designation of a stretch of it as part of the Bluestacks Way. The first party appeal submits that the 'alternative route' offers walkers the opportunity to avoid a steep mountain pass further to the east by walking along a section of the R262. The scenic amenity enjoyed by those crossing the rugged mountain path is clearly greater than those opting for the alternative regional route. It is also submitted that the significance of the impact on views from the R262 is moderated by the robust nature of the landscape to the west of the road and the clear and comprehensible view of the scheme within an anthropogenic landscape context of forest plantations, power lines and peat harvesting. This point is accepted.

While the concerns of the planning authority and the third party observer are noted, the visual impacts on the R262 and the immediate site vicinity are considered to be acceptable with regard to the above points.

8.4.6 Areas to the North and Northwest Including the Bluestacks Way

Section 9.5.1.1 of the EIS states that the highest level of landscape impacts are likely to occur at the south western extents of the Bluestacks mountain range in the vicinity of Binbane Mountain. This is due to the high level of sensitivity attributed to the area. Views towards the site from the Bluestacks Way and the southern foothills of the Bluestacks Mountains

are designated for protection in Map 8 of the County Development Plan. Map 8 also indicates the Bluestacks Mountains as an area of Especially High Scenic Amenity.

The LVIA includes viewing points AH1, DR2 and AH3 which are located on the Bluestacks Way route. The main findings for each point may be summarised as follows.

AH1:
Bluestack Way at Eglish. This is an extensive view from an elevated location over the valley in which the development site is located. Several wind turbines are visible in the distance. The proposed scheme would be fully visible as a small part of a dramatic mountainscape and would be one of the few distinctive manmade features in view. Although they are a man-made feature in a remote and naturalistic vista, they are a part of the more managed landscape well beyond the immediate setting. Thus, they are not considered to be a significant detraction on the character of the view. Overall moderate-slight visual impact.

DR2
Local road at Letterfad (refusal reason no. 1 specifically refers to views from this location). This is an enclosed upland setting within the south-eastern foothills of the Bluestacks. Approximately 6 turbines in the Anarget development are visible in the opposite direction (east). There is a strong sense of rural tranquillity in this sparsely populated locality. A clear and unambiguous view of the turbines at a modest scale, a distinctive feature in this enclosed upland setting (the perception of complete turbines is more aesthetically pleasing than stunted turbines). The proposed development would be prominently visible in combination with the permitted Killin Hill turbines. Overall slight visual impact.

AH3:
Bluestack Way at Meenakilwirra. This is an extensive and panoramic vista from a remote and tranquil point on the Bluestack Way. The hub and blades of one turbine and the blades of two others would be visible above the Bluestack ridgeline. The view of blades rotating against the skyline ridge can give rise to visual irritation, however there is a low degree of visibility and the turbines do not interrupt a sensitive section of the skyline ridge. Overall visual impact is slight.

I viewed the site from the above vantage points along the Bluestacks Way. I also walked / drove substantial stretches of the Bluestacks Way and associated Bluestacks Drive route. I disagree with the above assessment in that I consider that there is a greater overall impact at DR2 than the other viewing points. However, I generally concur with the above conclusions. The proposed scheme would be visible in the distance, at a

scale where it can be absorbed into the wider landscape. It is also set in a context of an anthropogenic landscape of rolling farmland, conifer plantations and cutaway bogs along with roads, housing, etc. This is in accordance with the recommendations of the Wind Energy Development Guidelines for 'Mountain Moorland' landscapes, which note that the open expanse of these landscapes can absorb a number of wind energy developments. The additional LVIA submitted with the appeal, which compares the magnitude of visual impacts of the current proposal and that permitted at the site under PL05.226520, concludes that the increase in magnitude would be even less at this distance. I am therefore satisfied that the scheme would not have a significant adverse impact on views from the Bluestacks Way or on the associated Area of Especially High Scenic Amenity.

8.4.7 Wider Area

The development would be visible in the distance in views from areas further to the north west, i.e. LVIA viewing points MR1 and MR2. However, given the intervening distance and topography, the same points apply as for the Bluestacks Way. Moreover, there are no scenic views towards the site from this area, all are towards the coast. While the development would be more prominently visible from the N58 between Dunkineely and Mountcharles and the R262 north of Mountcharles, including Frosses, views would be intermittent as turbines would be partially screened by topography and vegetation.

There would be a clear view of the turbines from vantage point LC3, a local road at Lough Namafin, to the south west of the site. Although the road is not designated as a scenic view, it enjoys a panoramic vista to the north west, towards the Bluestack Mountains. The LVIA deems the cumulative impact at this location to be 'moderate'. However the planning authority does not state any particular concerns about this visual impact and, given the lack of landscape designations, it is considered to be acceptable.

The site is visible in the distance from views to the south east, including at Rosssknowlagh beach where Map 8 of the County Development Plan indicates protected views over Donegal Bay. The development would be visible at this location within a wide panorama (LVIA viewing point DR1), which includes several other wind farms. Given the intervening distance and the scale of the proposed scheme, it can easily be visually absorbed. The LVIS concludes that the overall cumulative impact on this view would be moderate-slight and I concur.

8.4.8 Conclusion

Having regard to the above, is considered that the development would not have any significant adverse impact on designated views and prospects. While it is acknowledged that the change likely to arise is considered to be negative at some locations, it is not considered a significant one that would constitute unacceptable detrimental effects on the character or values of the area. Section 3.8 of the Wind Energy Guidelines is noted in particular:

"*The visibility of a proposed wind energy development from designated views or prospects would not automatically preclude an area from future wind energy development…*"

It is also noted from the EIS addendum that there would be no additional visual impacted associated with the proposed underground grid connection route.

8.5 Tourism Impacts

8.5.1 Refusal reason no. 1 states that the development would contravene CDP tourism objectives TOU-O-3 and TOU-O-8. Relevant CDP tourism policies, as set out above, generally relate to the protection of the tourism resource of scenic landscapes, views and routes. Refusal reason no. 1 refers to objective TOU-0-3:

To support strong tourism identity areas and create all ancillary facilities necessary for a quality holiday destination.

However, it is likely that this was in error and that policy TOU-P-3 actually applies:

It is a policy of the Council not to permit development proposals which would detract from the visual quality/amenity on either the approach roads to, or the views to be had from significant tourism attractions.

Objective TOU-O-8 relates to the protection of walking routes and cycleways.

8.5.2 Section 14.4.4 of the EIS considers tourism impacts. It quotes Fáilte Ireland Guidelines (included as an appendix to the EIS), which state:

"*It is important to note that there appears to be evidence that the visitor's expectations of 'beautiful' scenery does not exclude an admiration of new modern developments – such as wind farms – which appear to be seen as indicative of a modern, informed and responsible attitude to the environment.*"

The EIS also cites a range of tourism research studies carried out in Ireland and the UK, which indicate that there is no conclusive evidence of a correlation between the development of a wind farm and an adverse impacts on tourism in a local area. The EIS concludes that the development will have no significant impact on tourism.

8.5.3 Section 3.9 of the Wind Energy Guidelines states:

"*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. The results of survey work indicate that tourism and wind energy can co-exist happily.*"

The proposed development is located in an area where wind farms are acceptable in principle and where no specific restrictions apply. As discussed above, it is considered that the development would not have a significant adverse visual or landscape impact on any designated scenic routes or protected views, including the Bluestacks Way and views from Rossknowlagh beach. There is no evidence that the development would have any adverse impact on any other specific tourism product either in the immediate vicinity or the wider area. As noted in the Inspector's report of PL05.226520, the site is well removed from the main tourist attractions in the county including Glenveagh National Park, marine based leisure activities, beaches, golf courses, etc.

8.5.4 To conclude, it is considered with regard to the above that the development would not have any adverse impacts on either tourism amenities in general or on any specific tourism product. Therefore, the development would not contravene CDP tourism policies and objectives, including in particular Objective TOU-O-3 and TOU-O-8.

8.6 Ornithological Impacts

8.6.1 The EIS and the NIS refer to significant potential impacts on birds and both the third party observer and the submission of An Taisce to the planning authority raise particular concerns in relation to bird impacts. It is therefore considered that the issue warrants detailed consideration in its own right. This section should be read in conjunction with the Environmental Impact Assessment undertaken in section 9.0 and the Appropriate Assessment undertaken in section 10.0 below.

8.6.2 Potential impacts on birds generally relate to habitat loss/change, disturbance during construction and disturbance or collision during the operation of the wind farm. The development would result in a direct habitat loss of 3.7 ha, most of which is conifer plantation, which is of

relatively low value for breeding or wintering birds. The open bog and heath habitat to the north and west of the site has some potential as habitat for upland species such as Golden Plover. However, there is no evidence that these areas are used by wintering birds with any regularity. The EIS also does not anticipate any significant reduction of breeding species diversity as a result of the clearance and construction activities in the conifer plantation. The potential for disturbance during the operation of the wind farm will mostly affect birds associated with the conifer plantation. The EIS considers that the wide availability of alternative habitats with sufficient carrying capacity will reduce such impacts. Potential impacts on specific sensitive species are considered below. All other recorded bird species are not regarded as being particularly sensitive to disturbance displacement and/or barrier movement arising from wind farm development. The EIS notes that site surveys recorded very few flights at potential collision height and states that the risk of significant fatalities of birds at the operational wind farm is extremely low. It is noted, however, that this conclusion is reached in the absence of any detailed assessment of collision risks such as a collision risk model, based on bird survey data for the site.

8.6.4 There are potential impacts on several specific bird species of conservation concern, i.e. the Red Grouse, the Whooper Swan, the Greenland White Fronted (GWF) Goose, the Golden Plover and the Meadow Pipit. Each may be considered separately as follows.

8.6.5 Red Grouse

Red Grouse is a Red-listed Bird of Conservation Concern in Ireland (BoCCI list) and is listed on Annex II of the EU Birds Directive. The BirdWatch Ireland document *Birds of Conservation Concern in Ireland, 2014–2019* states that the species has been red-listed due to long term breeding population decline over 25 years The BirdWatch Ireland website states that Co. Donegal is a year-round stronghold of the species. The EIS states that a breeding site is known to exist from Black Lough nearby to the north west of the site and that the relatively poor heather cover throughout the development site constitutes sub-optimal foraging and breeding habitat for Red Grouse.

The EIS assessment of bird impacts is based on several surveys of the site. Surveys were carried out by Scott Cawley Environmental Consultants from October 2010 to September 2011. VP surveys were carried out on a monthly basis during this period, i.e. 12 months, with 6 hours of coverage per month from each location. An upland breeding bird survey was carried out from April to June 2011 (3 visits) at the site and a 500m buffer. Dusk surveys were used on each visit to record Red Grouse. A breeding season VP survey was carried out in 2014, using two simultaneous VPs. Each VP

was surveyed for a total of 24 hours between April and July 2014. Early (April 2014) and later (July 2014) season hinterland surveys of areas within 6km of the proposed site boundary were carried out over 4 days to record the presence of key species in the wider area (April 16th and 30th, July 23rd and 30th). All local lakes and nearby areas designated for the protection of breeding and/or wintering birds were visited during the hinterland surveys. A tape-lure playback for Red Grouse was carried out on March 6th 2014. The EIS appendix 6.1 provides a schedule of ecological surveys at the site.

Bird survey data from the EIS of PL05.226845 (Killin Hill wind farm application) notes an observation of a pair of Red Grouse close to Black Lough. The subject EIS notes that a family covey of 4 birds was flushed from Killin Hill in October 2010. The breeding bird survey in 2011 observed a pair of Red Grouse within the 500m buffer zone around the site. Crepuscular surveys during May and June 2011 heard a single Red Grouse calling close to the eastern woodland edge of the site. No Red Grouse were recorded at the site during the VP surveys of 2010-2011. The tape lure playback study carried out in March 2014 confirmed the presence of a breeding pair of Red Grouse in the open areas at the north of the subject site. Both male and female birds were observed. The EIS states that the impression was that a male bird which responded widely to playback was defending a very large territory, however there is a possibility that there was a second male bird recorded to the south of transect 2. Red Grouse pellets were recorded at a 3 no. locations in summer 2014, one in the northern part of the site and 2 no. at or close to the southern site boundary. There were no subsequent direct observations of Red Grouse at, or adjacent to the site or during the hinterland survey of April to July 2014. The EIS concludes that, given the lack of evidence of the continued presence of Red Grouse on site during the summer period, it is unlikely that there was a successful breeding attempt within the site in 2014. It is possible that the pair observed in March 2014 may have bred elsewhere in the wider locality or dispersed following a failed nesting attempt.

The EIS notes that the potential for disturbance to Red Grouse during construction/operation is very low as the development footprint does not directly impact on any area identified as being of importance for breeding or wintering for the species. Most of the development (5 turbines) is within closed canopy conifer plantation, which is or relatively low value to breeding and wintering birds and of no value to Red Grouse. It is known that Red Grouse can persist in low numbers across degraded bogland habitats with poor heather cover but that population densities are markedly lower in these areas. There was no evidence of Red Grouse using the degraded heathland habitats where 2 of the 7 turbines will be located. Red Grouse is not regarded as being particularly sensitive to disturbance

displacement and/or barrier to movement arising from wind farm development. No Red Grouse flight lines were recorded during the VP surveys and this species generally flies near ground level and well below the rotor swept area. The grid connection will be via underground cable and presents no risk to Red Grouse. Proposed mitigation measures include monitoring during and after construction but there is no proposal to limit construction to the breeding season. The EIS states that the residual impact on birds would be 'neutral imperceptible'.

The third party Observer, who manages a Red Grouse conservation project on Achla Mountain to the north of the site, considers it likely that the site could be used by the Red Grouse as breeding habitat, due to the observation of a family group at Killin Hill, to the possible presence of more than one male bird as observed in the 2014 tape lure survey and to the presence of a known breeding habitat nearby at Black Lough. It is submitted that the development could have adverse impacts on the Red Grouse due to the fragmentation of open heath land and to the proposed location of peat repository dumps at abandoned 'bog holes', which are potential foraging sites for the species. County Development Plan policy NH-P-15 states a policy to ensure the protection of Cró na mBraonáin habitats and Grouse sanctuary.

The Scottish Natural Heritage (SNH) document *Recommended Bird Survey Methods to Inform Impact Assessment of Onshore Wind Farms* (May 2014) provides the following guidance on bird surveys, which is considered relevant:

- The main breeding and wintering bird survey areas should extend at least 500m beyond the development/planning application boundary. For access tracks and grid connections, the survey area should be 500m either side of the proposed limits of variation of the route. However, depending on the species using the area, there may be a need for further species or species group-specific survey to establish nest, roost or display sites up to 6km from the proposed development site (no specific guidance provided for Red Grouse).
- Survey design should be based around times when birds are likely to be most active.
- Survey work should span all times of the year. SNH recommends survey for a minimum of 2 years to allow for variations in bird use between years.
- All leks (mating arenas) for woodland grouse species should be identified within 1.5km of the proposed wind farm site. Disturbance or displacement to wintering and migrant waterfowl can occur on both roost sites and feeding areas, so surveys for both of these should be considered.
- VP survey must not take place simultaneously with any other fieldwork on the site, as it may cause disturbance and invalidate the VP survey

results. The VP survey should cover the defined survey area encompassing the proposed turbine envelope, or the maximum extent of potential turbine layouts, and should extend to 500m beyond the outermost proposed turbines. VP surveys should be spread over the full daylight period available and across all calendar months when the species is present or likely to be so. Migration watches should take account of key periods for the target species to be surveyed. The document recommends a minimum of 72 hours per VP location divided between seasons (36 hours breeding and 36 hours non-breeding) per year. Each VP watch should be a series of watches each of not more than 3 hours continuous duration at a time. They are designed to form a representative sample of bird flight activity and a sample of, for example, 12 x 3 hour watches is better than fewer longer watches.

I note that VP survey work was carried out in two separate years. The details of the 2010-2011 surveys, as provided in Appendix 6.1 of the EIS, generally comply with the above requirements. However, it is noted that the 2014 VP surveys fall short in terms of total number of hours and time of year. In addition, VP surveys were carried out at the same time as general breeding bird surveys in April and June 2014, which is not recommended. Overall, it appears that the survey work carried out during both periods is somewhat limited with regard to the above SNH recommendations.

Having regard to the known observances of Red Grouse at the site and in the vicinity, it appears that the area is potentially used as a breeding site. According to the BirdWatch Ireland information, the species is a ground bird and not usually seen in flight unless flushed. It breeds in a nest on the ground, i.e. the more open areas of the site. I note that 2 of the proposed turbines are located in an open area at the south western part of the site. Given that the Red Grouse species is red listed due to declining breeding population, there would be a significant impact if it were disturbed during construction. The avoidance of construction activity during the breeding season, as recommended by An Taisce in their submission, would reduce the possibility of a negative impact. There is further potential for disturbance to the breeding and wintering population during the operation of the wind farm, however this is difficult to assess in the absence of any collision model in the EIS. Given the lack of survey information and information regarding potential operational impacts, I consider that the applicants have not adequately demonstrated that a significant residual impact is unlikely to arise.

8.6.6 Whooper Swan

The Whooper Swan species is listed under Annex I of the EU Birds directive and is thought to be sensitive to disturbance form wind farms.

There was one sighting of 2 no. Whooper Swan feeding at Tullinlough, nearby to the east of the site, in January 2011. The EIS states that current studies indicate that disturbance effects on Whooper Swan can occur up to a maximum of 600m distance from wind turbines. The nearest proposed turbine would be located approximately 300m from the nearest part of Tullinough and partly screened by conifer plantation. The location where the two Whooper Swans were recorded is over 600m from the nearest turbine. The EIS concludes that, given the distance of the nearest proposed turbine and the infrequent use of these lakes by the Whooper Swans, the potential for disturbance effects on Whooper Swan is considered negligible. I note that this is based on limited survey data as discussed above.

8.6.7 Greenland White-Fronted (GWF) Goose

GWF geese are an Annex I bird species. The 2010/2011 census of the national wintering population is 12,510 birds, or which approximately 1,100 occur in Donegal. These are primarily found at Lough Foyle and Lough Swilly, with a small flock of c. 40 birds moving between Sheskinmore, Lough Nillan and Dunfanaghy and a further small flock of c. 70 birds at Pettigo. It is noted that the maintenance of the species is one of the Conservation Objectives of Lough Nillan Bog SPA, located 0.5 km to the north of the site. The Site Synopsis notes that the site provides one of only two known bogland feeding areas used by the Sheskinmore Lough GWF geese flock.

The development site is not known to be used by the geese, with the nearest observed feeding site at Tamur Lough c. 1 km to the west (34 birds observed feeding by Scott Cawley in October 2011), within Lough Nillan SPA. The EIS states that Tamur Lough is a foraging site for the Sheskinmore flock. A single small flock (6 birds) flew across the development site on November 21st 2010. The flock arrived from the north and flew southwards at a constant height of 60m to the western edge of the coniferous plantation within the site to disappear over Killin Hill. It is not known if the flight was of birds arriving into the area (on migration) or of birds moving between feeding sites. There were no further observances of GWF geese at the site or within the 6km hinterland.

Potential impacts on GWF geese relate to disturbance or collision during the operational phase of the wind farm. According to the EIS, current research indicates that disturbance effects (which also equates to displacement) on goose species can occur up to a maximum of 600-800m distance from wind turbines. These disturbance effects usually result in reduced numbers of birds rather than a complete absence of individuals. The EIS considers that the observance of GWF geese was a commuting flight and notes that the closest known feeding area at Tamur Lough is

over 1.5 km form the site boundary, i.e. greater than the 600-800m disturbance distance. The nearest turbine is 1.3 km from the edge of Lough Nillan Bog SPA. The EIS concludes that the development site does not appear to be a regular foraging site or commuting route for the species and, on this basis, concludes that the development will not have any negative impact on GWF geese.

The third party Observer submits that there are GWF goose wintering grounds around Sheskinmore and South East Donegal, at Durnesh Lough and the Pettigoe bogs, i.e. the development site is on a commuting route. GWF geese arrive in Britain and Ireland between late September and the third week of October and wintering geese leave Ireland in the second or third week of April. Thus, there is a dual risk that the proposed development could have adverse impacts on both the Sheskinmore flock and/or on internationally migrating flocks.

As discussed above, there are several noted deficiencies in both the breeding bird survey and the VP survey data on file, with regard to the best practice methods recommended by SNH. In addition, collision impacts have not been modelled, a significant potential impact for the GWF goose species. The SNH guidance also recommends that GWF geese distribution surveys should be undertaken in areas of suitable habitat when the survey area lies within the core foraging distance of SPA's for these species or other major roosts unless it can be established from existing data that the area is not utilised for feeding. The survey area should extend to 500m from the proposed development site. Given that the SPA extends to within 500m of the site, it is considered that further survey data of GWF geese would be necessary to satisfactorily establish the extent of any likely impacts.

8.6.8 Golden Plover

Golden Plover is also protected under Annex I of the Birds Dorective. The species is a qualifying interest of Lough Nillan Bog SPA.

A total of 5 no. Golden Plover were recorded in flight during one VP watch in October 2010. Of these, 4 no. were to the south of the site on the upper slopes of Killin Hill flying in a westerly direction at a height of approximately 10 m and one was within the site at a similar height flying east. The EIS states that these were likely to have been either wintering birds arriving from Iceland, or breeding birds departing for Continental Europe. The site is of no known breeding or foraging value to the species, although there is potential breeding habitat of open moorland with low sward height and flat areas on raised ground within the site. The nearest known breeding site is within Lough Nillan Bog SPA 0.5km to the northwest. The EIS considers it unlikely that the site is located near a

major flyway for the species due to the small numbers recorded. This conclusion appears to be reasonable. However, due to the deficiencies in bird survey data as discussed above, it is considered that further information would be necessary to satisfactorily establish the extent of any likely impacts.

8.6.9 Meadow Pipit

Meadow Pipit which is also on the BoCCi Red List, was recorded during all 4 monthly VP surveys in April to July 2014. In July, large numbers of Meadow Pipit, including fledged and post-breeding birds were observed at and in the vicinity of the site. The EIS states that there were very few flight lines noted of species of elevated conservation concern during site surveys. There were even fewer flights at potential collision height and the evidence from field studies suggests that the risk of significant fatalities of birds at the operational wind farm is extremely low. Meadow Pipit is a passerine bird and as such, according to SNH guidance, it is not potentially threatened by wind farms. Thus, there are no significant concerns regarding potential impacts.

8.6.10 Proposed Mitigation of Potential Birds Impacts

Section 6.5.1 of the EIS sets out the following proposed mitigation measures:

- Hours of construction limited to daylight hours.
- Toolbox Talk during construction phase; maintenance of a wildlife register during construction and operation; reporting of any bird sightings during construction.
- No night time lighting of the construction compound, substation and wind farm, except for low level aviation warning lights. Other light minimisation measures.
- Waste storage measures.
- Monitoring of bird activity in the year of construction and the first 3 years post construction. Upland breeding bird surveys to be carried out and winter VP surveys in accordance with SNH methodology.
- Fatality monitoring programme for the first 3 years of operation.

8.6.11 Birds Impacts Conclusion

The EIS concludes that residual birds impacts would be 'neutral imperceptible'. However, I am not satisfied that the information submitted provides an adequate basis for this conclusion. Given the identified deficiencies in survey data and the lack of information regarding flight paths in the area and potential collision impacts, I consider that the applicants have not adequately demonstrated that a significant residual impact is unlikely to arise. This is of particular concern with regard to the

Red Grouse and GWF geese species, the latter of which are qualifying interests of Lough Nillan SPA, 0.5 km from the site.

8.7 Other Ecological Impacts

8.7.1 The matter of ecology is dealt with in this section but is also addressed in the Appropriate Assessment undertaken in section 9.0 below and in the Environmental Impact Assessment undertaken in section 10.0. This section should be read in conjunction with those sections. The primary ecological impacts as identified in the EIS and NIS relate to impacts on bats and other mammals and impacts on habitats. Each may be considered separately as follows.

8.7.2 Bat Impacts

A bat survey of the site was carried out by Woodrow Sustainable Solutions for Scott Cawley in 2011 and is submitted in its entirety as an appendix to the EIS. Monthly bat surveys were carried out during the period May to October 2011, including roost surveys and dawn and dusk transect surveys, also static detector surveys. The surveys found no evidence of roosting bats and general bat activity recorded was relatively low. Surveys of 12 no. potential roost locations to the north of the site did not find any active roosts. A minimum of 4 no. bat species were recorded. There were signs that the forest edge is used as a commuting corridor by both Leisler's Bat and a Myotis species. It also appears that the area of cutover bog on the northern side of the site is used by bats for both feeding and commuting. Additional bat surveys carried out at the site by Ecology Ireland in July and August 2014 found a total of 3 bat species, i.e. Leisler's Bat, Common Pipistrelle and Soprano Pipistrelle. Leisler's Bat is listed as 'near threatened' on the Irish Red Data list of Mammals. It is the only large bat species that is widespread and abundant in Ireland. Both Common and Soprano Pipistrelle are listed as an Annex IV species of the EU Habitats Directive. The EIS concludes that, based on the information available, the development site has habitats that are used by foraging and commuting bats and is considered to be of Moderate value, locally important for bats overall.

Potential bat impacts during construction relate to disturbance or loss of roosting bats in the conifer plantation, also impacts associated with construction lighting and run off. Potential operational impacts relate to collision risk and to barotrauma. Leisler's Bat is considered to have a somewhat greater mortality risk at wind farms then the other species recorded at or adjacent to the site, as is a strong and relatively high flying species. Proposed mitigation measures include pre and post construction surveys, supervision by an ecologist during construction and monitoring of bat activity during the year of construction and for 2 year afterwards. The

EIS concludes that residual impacts on bats will be 'neutral imperceptible'. This conclusion seems acceptable based on the information available. I am satisfied that the potential for significant bat impacts does not arise with regard to the species present and to the lack of roosting sites in the vicinity.

8.7.3 Other Fauna

The EIS identifies the following potential impacts on other flora and fauna:

- A fox den and a badger sett were recorded during mammal surveys carried out at the site between April and August 2014. These burrow systems are noted located within 100m of the proposed construction layout and will not be directly impacted upon.
- Both the Eany and Oily Rivers are salmonid and both catchments have extant but non-SAC populations of Freshwater Pearl Mussel listed on Annex II and V of the Habitats Directive. In the absence of mitigation, run-off and siltation to watercourses could potentially lead to adverse impacts on these species.
- Common frogs were regularly observed throughout the site, they probably breed in bog pools / drains across the site. Track widening and construction of hard standing areas and turbine bases could reduce the amount of suitable breeding habitat for frogs at the site.

Potential impacts on fauna generally relate to the construction phase only. The EIS notes that any disturbance to fauna occurring during construction would be temporary in duration and would not result in permanent impacts. The habitat loss is limited in extent and could be absorbed by other extensive areas of conifer plantation nearby. A major run-off or peat slide event could result in mortality and/or loss of habitat, particularly aquatic habitats and species. Proposed mitigation measures include site surveys prior to construction and clearance and ecological supervision. The EIS states that track widening and construction of hard standing areas and turbine bases could potentially reduce the amount of suitable breeding habitat for frogs at the site. The proposed mitigation measures include checking areas to be used for peat storage for the presence of frogs and spawn. No significant residual impacts are identified.

Refusal reason no. 2 refers to inadequate and/or absent proposed mitigation measures for adverse effects on species protected under the Wildlife Act. The planning report on file notes a lack of proposed mitigation measures for potential impacts on frogs and badgers. The additional report by Ecology Ireland submitted with the grounds of appeal comments that general mitigation measures have been provided and that more detailed mitigation measures are unnecessary as no adverse ecological impacts were identified. It is accepted that there is limited assessment of these matters in the EIS. However, further details are provided in the

supplementary Ecology Ireland Report. In addition, given the widespread and abundant presence of frogs at the site (as noted on the site visit), the distance of the proposed turbines from the observed fox den and badger sett (see EIS figure 6.6) and the extensive availability of similar habitat in the immediate vicinity, I do not consider that significant adverse impacts are likely. Potential impacts on water quality and consequent impacts on aquatic habitats and species are considered separately below.

8.7.4 Habitats Impacts

Habitats information in the EIS is based on site surveys carried out in July and August 2014. There are 3 no. habitats within the site boundary linked to those listed under Annex I of the Habitats Directive, i.e. Soakaway/Infilling depressions, 2 areas of Upland Blanket Bog and 2 areas of Wet Heath. These habitats, particularly Upland Blanket Bog and Wet Heath have been degraded by both historic and ongoing peat extraction, sheep grazing, drainage and adjacent afforestation, which has reduced the quality and altered characteristics (structure and function) of the habitats. Some areas of Upland Blanket Bog (lower slopes and mid-west and eastern section) are rated B, high value, nationally important. The remaining areas of Wet Heath and Upland Blanket Bog are rated locally important. An area of Poor Fen and Flush habitat, which is also considered to be of conservation importance, occurs primarily as a result of peat cutting/draining activities and is therefore considered a modified habitat, rated D moderate value, locally important.

The EIS notes that direct habitat loss is low as the development would have a permanent land take of 3.7ha. A total of 5 of the proposed turbines are located within the conifer plantation, which is of low ecological value. The remaining 2 turbines and associated access tracks are located in degraded Wet Heath habitat. The construction footprint does not impact on any intact Annex I habitat. There will be a sight negative impact on existing habitats and plant species present. There is potential for impacts on wet and waterlogged habitats through hydrological or water quality impacts through drainage changes, increased siltation, nutrient release and/or contaminated run-off. Proposed mitigation measures include limited hours of construction, monitoring of various species, management of artificial lighting during construction, waste management and peat management measures. Appendix 6.7 of the EIS comprises a Habitat Management Plan. The EIS concludes that residual habitats impacts will be ‘neutral imperceptible’.

Potential impacts on peatlands are discussed further below. It is noted that a small area of Japanese Knotweed, an invasive species, was observed at the site and along the grid connection route. It is important that mitigation measures are implemented to prevent the spread of this species within the

site or beyond. The EIS proposes eradication of the existing patch and this is considered desirable.

The EIS addendum considers all habitats present or directly adjacent to the grid connection route. None of the habitats identified have any special conservation status with regard to the Habitats Directive. Works associated with the grid connection could result in potential negative impacts on surrounding wet and waterlogged peatland habitats and waterbodies, through hydrological or water quality impacts such as drainage impacts, increased siltation, nutrient release and/or contaminated run-off. The addendum includes proposed mitigation measures to be implemented during construction and concludes that there would be an imperceptible residual impact on the existing habitats and botanical species of the site and general locality.

Having regard to the below assessment of peatland and hydrology impacts, it is considered that the proposed development will not result in significant adverse impacts on habitats at the site, or at linked habitats in the vicinity, subject to the strict implementation of the detailed mitigation measures provided.

8.8 Hydrology and Peatland Impacts

8.8.1 Existing Hydrology

Figure 7.7 of the EIS indicates site drainage. The site is on a topographical divide that separates two regional surface water catchments. The eastern and south-eastern sections of the site are located in the Eany Water surface catchment. There are 2 no. streams in this part of the site (S2 and S3) that run through the forestry plantation, then converge and flow into Tullinlough Lake. There are also erosional features in this part of the site, west of the conifer plantation, i.e. striations created as a result of peat erosion by surface water flow. A total of 5 of the turbines are located in this catchment area. The northern and western sections of the site are located in the Glen-Oily-Bungosteen-Glenaddragh-Coastal catchment (GOBG Coastal catchment). There are 2 streams (S1 and S4), several manmade drainage ditches and 2 no. small lakes/wetland areas. This catchment drains to the Oily River via the Corker River. A total of 2 no. turbines are located in this catchment. There is also a network of forestry and bog drains within the site. The Oily Upper Surface Water Body (SWB) is assigned an overall “high status” and the Tullinlough SWB is assigned an overall ‘good status’ Both SWBs are assigned ‘Not at Risk’ to forestry related suspended solids impacts. There is a risk of contamination of extant, but non-SAC populations of Freshwater Pearl Mussel (Annex II listed) in both catchments. The

northern part of the site drains to Tamur Lough, which is within Lough Nillan Bog SAC and SPA.

Groundwater vulnerability at the site is assumed to be 'extreme' as all proposed turbine sites are located in areas where peat is <3m. In addition, site observations suggest that the mineral subsoil thickness is not significant. However, due to the low permeability nature of the bedrock aquifer underlying the site, there is low potential for groundwater dispersion and movement within the aquifer, making surface water bodies more vulnerable than groundwater at the site. There are no private dwellings/wells hydraulically down-gradient of the development.

8.8.2 Existing Peatland Habitat and Peat Stability Assessment

Blanket peat is the dominant soil type at the site with areas of peaty podzolic soils in the central area of the site. Hydro Environmental Servies (HES) and AGEC Geotechnical Services carried out a total of 185 no. peat probes throughout the site. Peat depths recorded across the site during this process ranged from 0 to 3.8m with an average of 1.1m. The deepest peat was found at the low-lying western / north western corner of the site. Bedrock outcrops are numerous on the south western corner of the site with the deepest peat in this area being found in pockets amongst the outcrops. No signs of significant slumping or instability of peat were noted within these areas. Peat depths are typically <2m in the areas of existing access roads, with localised peat depths of up to 3.4m. Peat depths are typically <1m at the locations of the proposed new access roads, with localised depths of up to 1.5m recorded. At the 7 proposed turbine locations, peat depths ranged from 0 – 1.3m with an average of 0.6m. The terrain on the site is undulating and localised steeper slopes are present (up to 15° in the central area of the site). Slope inclinations at the turbine locations range from 1° to 7.5° with an average of 5°. Ground conditions comprised mainly of peat overlying firm clay overlying weathered bedrock. From the exposures inspected on site during the walkover, no weak layer of material beneath the base of the peat was noted.

No evidence of past failures or any signs of significant peat instability were noted on site. There are no recorded peat failures at the site. AGEC carried out peat strength testing at the site. This indicated undrained shear strengths of in the range of 8 to 29kPa with an average value of about 17kPa. Peat strengths recorded within the proposed infrastructure envelope were high and indicative of well drained peat. Peat strengths at sites of known peat failures are generally very low, for example the undrained shear strength at the Derrybrien failure was estimated at 2.5kPa. AGEC carried out a Factor of Safety (FoS) peat stability assessment of the site. The FoS provides a direct measure of the degree of stability of a peat slope. A FoS of <1.0 indicates that a slope is unstable;

a FoS of >1.0 indicates a stable slope. The minimum required FoS is 1.3 based on *BS6031:1981 Code of Practice for Earthworks*. The analysis carried out by AGEC of 155 no. FoS points at turbine locations, roads, substation and compound found that all points are above the 1.3 FoS minimum. The findings of the AGEC assessment may be summarised as follows for ease of reference:

Location / Turbine No.	**Average Peat Depth (m)**	**Slope Angle (°)**	**F.o.S. Undrained***	**F.oS. Drained***
T1	0.6	7.5	2.81	3.01
T2	0.7	7.0	2.87	3.08
T3	1.0	1.0	20.84	22.56
T4	0.2	5.0	7.09	7.64
T5	0.3	3.0	10.93	11.82
T6	0.8	6.0	4.05	4.36
T7	0.8	4.0	6.05	6.54
Const. Compound	0.5	4.0	6.14	6.62
Substation	0.5	5.0	7.66	8.28

*FoS figures include a surcharge loading equivalent to 1m of stockpiled peat, for a worst case scenario.

The assessment concludes that the site has an acceptable margin of safety and is considered to be at low risk of peat instability. It is considered that the peat stability assessment is satisfactory and demonstrates that peatland conditions at the site are generally suitable for development subject to the implementation of mitigation measures.

8.8.3 Drainage Design and Mitigation Measures

The potential risk to surface and ground waters during the construction phase arises from runoff and erosion from site surfaces, drainage channels and earth works areas with the potential for suspended solids entering surface waters. Excavation of peat could also lead to a rise in suspended solids. There is a risk of water contamination from accidental spillages of contaminants, particularly hydrocarbons. The construction of new infrastructure also has the potential to alter or interrupt existing site drainage.

The development has been designed to avoid hydrological constraints as per Figure 7.10 of the EIS. There is a 50m buffer to natural surface water features (streams and lakes), which is in accordance with the recommendations of Inland Fisheries Ireland (IFI). There is a reduced 15m buffer to modified watercourses S2 and S3, this is justified on the basis of their ephemeral nature and low ecological status due to modification by forestry activities. The 15m buffer is breached by access tracks at 3 no.

locations, specific mitigation measures are proposed for these (see below). In addition, the grid connection route includes 4 no. watercourse crossings, design details are provided in the EIS addendum. There is no turbine development within the catchment to Tamur Lough, however the existing site access road is located in this part of the site. The development involves upgrading the access road and installing the grid connection in this area.

The EIS sets out a suite of drainage mitigation measures to be carried out during construction, including a surface water management plan by HES. The proposed measures are based on a methodology suitable for peatland situations, i.e. prevention of disturbance to natural drainage features and diverting clean surface water flow away from construction operations, followed by separate attenuation and treatment of construction run off. The measures include the use of individual settlement lagoons for each turbine, also filtration treatment (i.e. 'siltbuster' or equivalent), silt fences, silt bags, management of groundwater inflows, management of hydrocarbons, avoidance of wet cement batching at the site and ongoing surface water quality monitoring. No direct discharge to surface waters is proposed. Section 7.9 of the EIS sets out detailed mitigation measures for each element of the development, i.e. access tracks, each of the 7 no. turbines, the permanent substation, the temporary construction compound and the permanent peat storage area. The EIS includes specific additional mitigation measures for tree felling, for the access roads (see below) and for management of run-off from the peat storage area. The existing network of forestry drains at the site will be managed and used within the development, however there will be no direct discharge of untreated run off into this network. The proposed mitigation measures are generally in accordance with the recommendation of IFI as per their submission on file.

The proposed access tracks involve a new crossing over watercourse S3 leading towards turbine T3 and 2 no. watercourse crossing upgrades where the existing road crosses. Both watercourses are of low ecological importance and are ephemeral (i.e. likely to absent during dry periods). They will be culverted under the access tracks, also in accordance with IFI recommendations. The access tracks will also encounter peat erosion gullies, culverts are also to be provided at these locations. The EIS considers hydrological impacts due to road widening on the L5795 and at the junction of the L5795 and the R262. The EIS addendum includes a construction method statement for the grid connection works and considers water quality and peatland impacts. The connection method is via 38kV underground cable within ducts as per standard ESB specification. Ducts are installed by open trenching along the road verge and by directional drilling under the R262. Water courses are crossed at 4 no. locations along the route, all outside the development site. The above

identified mitigation measures are to be implemented. No significant residual impacts on site drainage are anticipated.

With regard to residual impacts during the operational stage of the development, the 3.7ha surface area would result in some additional run-off, assessed as negligible in the EIS with regard to local meteorological data. Potential hydrological impacts during the operational phase are therefore limited to additional runoff during storm rainfall events, which could result in erosion of watercourses and impact on aquatic ecosystems. These are managed by the permanent drainage features installed during construction, i.e. interceptor drains, swales, check dams and stilling ponds. No significant residual effects on local or downstream hydrology are anticipated.

Section 7.6.12 of the EIS states that there are no known populations of Freshwater Pearl Mussel within 6km. The EIS does not anticipate significant residual impacts on Freshwater Pearl Mussel populations in the Oily and Eany catchments due to the proposed surface water management measures and to the downstream distances to the relevant site. The cumulative hydrological impact assessment considers potential impacts on the Eany and Oily catchments in conjunction with permitted/proposed/constructed wind farm developments at Killin Hill, Mennybradden, Corkermore and Anarget. It concludes that there will be imperceptible cumulative impacts as a result of the construction and operation of the proposed development.

The EIS does not envisage significant residual impacts. I consider this to be a creditable conclusion, based on the satisfactory implementation of the proposed mitigation measures.

8.8.4 Peatland Impacts

Table 7.16 of the EIS estimates that a total of 19,950m^3 of peat would be excavated to facilitate the development. The EIS addendum does not provide specific figures for the amount of peat affected by the grid connection works, however it notes that the blanket bog along the route can be classified as low importance as the majority of the peat has already been degraded by forestry drainage, peat cutting or land improvement work. The EIS and Peat Management Plan set out measures to prevent contamination of peat by hydrocarbons and concrete and peat damage by machinery. It is noted that the tree felling methodology also includes consistent proposals to prevent peat damage by vehicles or machinery. Peat restoration is to be carried out at the turbine sites during construction. The majority of peat excavated along the grid connection route is to be reinstated as trenches are backfilled. There are also detailed proposals for the storage of peat during construction both at the turbine

sites and at a designated peat storage area located in relict cut-over peat areas. This area is to be drained by a swale and stilling ponds. The EIS does not envisage any significant residual impacts on peat.

Ongoing mitigation measures include monitoring of possible peat movements by way of sighting posts. The Habitat Management Plan submitted aims to re-establish areas of Wet Heath or Upland Blanket Bog (T1, T2 locations) where the habitat has been removed; to re-instate the peat deposition areas with re-established peatland vegetation; to undertake ongoing monitoring. The preliminary habitat management plan submitted with the EIS sets out proposals to restore functional peatland habitat at areas affected by the proposed works. The overall aim is to restore and reinstate a peatland vegetation community characteristic of the surrounding habitats and to stabilise the peat deposition area so as to restore the ecological quality of the area in the long term. There are specific measures for wet heath, upland blanket bog and peat deposition areas. The restoration would be followed by long term monitoring

This proposed peat management approach is considered acceptable and an appropriate means to storing peat material and restoring peatland areas.

Refusal reason no. 3 refers to the construction of an access road and other works in 'unsuitable' areas of the site and the consequent potential risk of peat slippage. AGEC carried out a qualitative risk assessment using the results of the stability analysis and other site specific factors. No areas of the site were identified to have a peat slide risk. The results are presented in a hazard zonation plan for the site (figure 4). There are 3 no. areas of '*Areas with an elevated or higher risk [deep, relatively weak peat]*', located in the south western part of the site. There are no construction works proposed for these areas. The map also indicates "*Areas where construction of turbines is not advised. This does not include the construction of access routes*" (my underlining). The existing access track to turbines nos. T06 and T07 passes through one such area, the buffer zone around stream S2 on the eastern side of the site, which drains to Tullinlough Lake. This access track is to be upgraded to facilitate the development.

The peatland stability assessment notes that the existing access tracks at the site have been constructed using a displacement technique where stone boulders have been pushed into the peat forming the foundation for the access track and finished on the surface with granular till. A detailed construction methodology for upgrading the access roads is provided in the peatland management plan. This involves widening the tracks by 2-3m to a finished roads width of circa 5m by excavating the in-situ peat to a more competent strata below the peat, then backfilling. Consideration was

given to the use of floating roads, however such roads are generally only used where peat depths of >1.5m and slope angles of <5 degrees are present. I noted that the IFI submission on file states that that floating roads must be considered where peat depths >1m are encountered, which is not the case here. Figure 2 of the peatland assessment, '*Peat depth contour plan*", indicates a peat depth of 0.5-1 m at this specific location. There are detailed proposals to manage drainage, peat removal and storage as part of the access track construction works. The drainage layout detail drawing no. P1245-0914-A1-101-00A indicates the use of silt fences and drainage ditches to manage surface water around the track at this location. Water flowing towards stream S2 is culverted under the track. The proposed design is considered acceptable with regard to:

- Peat depths at this part of the site.
- The results of the qualitative risk assessment carried out by AGEC. This area is one which has a higher FoS, also there is no area at risk of peat slippage.
- The above rationale for the proposed construction method.
- The compatibility of this method with the existing access tracks at the site.
- The recommendations of Inland Fisheries Ireland.

8.9 Noise

8.9.1 The Wind Energy Development Guidelines (2006) specify a lower fixed limit of 45dB(A) or a maximum increase of 5dB(A) above background noise at nearby noise sensitive locations. In very quiet environments where background noise is less than 30dB(A), it is recommended that the daytime level of the $L_{A90,\ 10min}$ of the wind energy development noise be limited to an absolute level within the range of 35-40dB(A). A fixed limit of 43dB(A) is recommended as a night time noise limit. The 2103 review of the Wind Energy Development Guidelines produced a draft document for public consultation, which proposed a fixed noise limit of 40dB $L_{A90,\ 10min}$ as an appropriate limit for both day and night time. The Guidelines note that, in general, noise is unlikely to be a significant problem where the distance from the nearest turbine to any noise sensitive property is >500m. The draft consultation document produced in 2013 as part of a review of the 2006 Guidelines proposes an absolute noise limit of 40 dB $L_{A90\ 10min}$. to apply to outdoors locations within the curtilage of noise sensitive properties. A setback of 500m to all sensitive properties is also recommended.

There are 17 no. residential properties in the vicinity of the site (Figure 2.5 of the EIS). Most of these are to the north, along the R262, however there are 3 no. properties accessed via local roads to the south east of the site. Background noise monitoring was carried out at 3 no. Noise Monitoring Locations (NMLs), i.e. the nearest 3 houses to site (H1, H3 and H5),

between 22nd August 2014 and Friday 5th September 2014. Noise levels were recorded for 'quiet daytime and night time' at wind speeds of 4-12m/s. The recorded noise levels were between 35-53 dB, which is consistent with normal noise levels for a rural location.

Operational noise levels were predicted using a computer noise model SoundPLAN, based on the recorded noise levels at the nearest locations and sound power level data provided by the turbine manufacturer. No barrier attenuation assumptions were used. Noise levels were predicted for H1, H2, H3 and H4, the closest properties to the north of the site, H5 and H6, the closest properties to the south, H10, an individual property nearby to the south on the other side of Killin Hill and H13, H14 and H15, a cluster of properties on the other side of the R262. The results as presented in the EIS may be summarised as follows.

Property ID	**Distance to Nearest Turbine (m)**	**Nearest Turbine**	**Background Noise at Nearest NSL 4 m/s wind speed**		**Predicted Noise Level (dB L_{A90}) for wind speeds of 4-12 m/s at 10m Above Ground Level**
			QDT	**NT**	
H1	795	5	35.0	43.0	25-37.1
H2	833	5	35.0	43.0	24.4-36.5
H3	731	7	35.0	43.0	25.4-37.5
H4	758	7	35.0	43.0	25-37.1
H5	1,142	6	39.5	43.0	22.4-34.5
H6	1,203	6	39.5	43.0	21.9-34.0
H10	1,089	1	39.5	43.0	20.0-32.1
H13	952	7	35.0	43.0	23.4-35.5
H14	974	7	35.0	43.0	23.6-35.7
H15	1,057	5	35.0	43.0	22.6-34.7

These are predicted noise levels as a result of the operation. The noise analysis in the EIS is deficient in that it does not present figures for the cumulative resultant noise level at each location, i.e. background noise + predicted noise as a result of turbines. However, it is accepted that the predicted noise levels of wind energy development noise are all generally within the range of 35-40 dB(A), as recommended in the Guidelines. It is also noted that all turbines are substantially more than 500m away from residential properties, the nearest being 731m between H3 and T7. In addition, the projected noise levels do not exceed 40dB L_{A90}, as proposed in the 2013 Guidelines review.

Cumulative noise levels from the combined impact of the proposed development and the 4 no. proposed/permitted turbines at Killin Hill were modelled for the same receiver locations. These were generally within the same range as those of the proposed development; none exceeded 40dB

L_{A90}. There are no foreseeable operational noise impacts associated with the grid connection.

The projected noise levels are considered to be acceptable and in compliance with policy requirements.

8.9 Shadow Flicker

8.9.1 The 2006 Wind Energy Development Guidelines note that shadow flicker effects last for a short period and happen only in certain specific combined circumstances, i.e. when the sun is shining and is at a low angle (after dawn and before sunset), and the turbine is directly between the sun and the affected property, and there is enough wind energy to ensure that the turbine blades are moving. The Guidelines note that potential for shadow flicker is very low at distances greater than 10 rotor diameters from a turbine. They recommend that shadow flicker at neighbouring dwellings within 500m should not exceed 30 hours per year or 30 minutes per day. The 2013 consultation draft document produced from a review of the Guidelines states:

"*Modern wind turbines have the facility to measure sunlight levels and to reduce or stop turbine rotation if the conditions that would lead to shadow flicker at any neighbouring property occur. Thus in practice with careful site design and appropriate mitigation, and most critically the use of appropriate equipment and software, no existing dwelling or other affected property (e.g. existing work places or schools) should experience shadow flicker*."

The review document recommends that all dwellings or other affected properties within a 10 rotor diameter radius from each individual turbine should be included in the flicker study area. If the shadow flicker prediction model indicates that there is potential for shadow flicker to occur at any particular dwelling, then measures which provide for turbine shut down to eliminate shadow flicker should be clearly specified.

8.9.2 A shadow flicker study is submitted. The "worst case" calculation is based on the sun shining at all possible astronomical times of the day with 100% solarisation intensity, also the turbine rotors moving at all times and always oriented perpendicular to the sun, producing the highest possible shadow impacts. The "real case" calculation is based on sunshine data from a weather station at Clones, 89km southeast of the site and wind direction data from the existing meteorological mast at the site. The study considers all sensitive receptors within 1,030m (10 rotor diameters) of a proposed turbine, i.e. Shadow Receptors (SR) 1 to 17, all located along the R262 to the north of the site, as per Figure 10.1 of the EIS. Of these, only SR1, 2, 3, 4, 11, 13 and 14 were located within 10,030m of a wind

turbine. The 'worst case' calculation found that 3 no. receptors experience shadow flicker:

SR	Shadow hours per year (h/year)	Shadow days per year (days/year)	Max shadow hours per day (h/day)
SR3	32:36	66	0:35
SR4	31:53	76	0:33
SR14	5:01	24	0:16

As the sunshine hours from the Clones weather station are available in monthly figures, it was only possible to present the 'real case' figures in terms of hours per year. The 'real case' calculation presents the following:

Shadow Receptor	Shadow Flicker real case (hours/year)
SR3	05:58
SR4	03:04
SR14	00:22

Most of this impact was caused by turbine no T7 (the closest to residential properties). As can be seen, the 'worst case' calculations for SR3 and SR4 exceed the recommended minimum of 30 hours per year and the minimum of 30 minutes per day. However, the 'real case' figures fall well below the recommended number of hours per year.

8.9.3 The shadow study includes a cumulative analysis of the combined shadow flicker impacts of the proposed development along with the permitted turbines at Killin Hill and Meenybradden. This does not indicate any significant additional shadow flicker impact. The EIS concludes that, based on 'real case' conditions, it is highly unlikely that there will be an unacceptable impact from shadow flicker, however mitigation measures can be implemented if they arise. Section 10.4 sets out proposed mitigation measures, including screening, window blinds and turbine control.

8.9.4 The shadow analysis undertaken and resulting conclusions are considered to be reasonable and I do not consider that the development would have significant shadow flicker impacts on nearby dwellings.

8.10 Proposed Road Works

8.10.1 The development involves road works along the turbine component haul route and the proposed grid connection route. The turbine components are to be shipped to Killybegs Port in Co. Donegal, then transported by flatbed trucks (abnormal loads) from Killybegs to the site, via the R263, N59 and R262. The EIS identifies a total of 6 no. Points of Interest (POIs)

along the route. The grid connection involves installing cable trenches along the side of the R5795 and the R262, to Binbane substation on the R262. Impacts along the stages of the route may be considered separately as follows.

8.10.2 Killybegs to the N59/R262 Junction

No road improvements are required / proposed at POIs 1 and 2, which are bends in the N59 at Bruckless Harbour. POI 3 is the R262/N59 junction, where it is proposed to strengthen 2 no. overrun areas in the public verge. These works are generally acceptable, however it is noted that the NRA submission on file comments that all structures along the proposed haul route should be subject to an assessment to confirm their capacity to carry abnormal loads. The NRA is 'seriously concerned' that no technical load assessment has been undertaken. The NRA considers it critical that a full assessment of all structures along the national road on the haul rote is carried out prior to permission being granted. In addition, the planning authority considers that the works along the haul route, and in particular the Eanybeg Bridge works, constitute development which requires planning permission, also that necessary consents from third party landowners have not been submitted.

The first party appeal clarifies that, aside from POIs 5 and 6, all POIs require only minor temporary accommodation or strengthening works, all of which are contained within the existing road verges, i.e. within the road corridor wayleave as defined under the Roads Acts. The works will consist of the laying of hardcore at the edge of the road, to be fully reinstated following the delivery of turbine components to the development site. It is submitted that a full road safety audit is not required as the works are not permanent. The works will be carried out under a Road Opening Licence and the transport will take place subject to an abnormal load permit issued by Donegal County Council. The need for planning permission to carry out the works is contested.

The appeal submission includes a technical assessment of the ability of bridges and culverts along the route to accommodate the expected abnormal loads, which was carried out by Jennings O'Donovan. The assessment is based on a physical inspection and tape survey. It also notes that the R263/N59 route has already been used successfully to access the Corkermore wind farm in Donegal and for a further 3 no. wind farms in Co. Tyorne. The assessment concludes that the spans for stone arch bridges along the R263 and N56 are capable of supporting the maximum axial load applied by the movement of typical abnormal loads. It is noted that the 'typical' abnormal loads, as indicated in Appendix 1 of the submission, do not correspond with the description of the proposed development as set out in Chapter 3 of the EIS. However, given that the

tower will be transported in 4 no. segments and that the proposed blade length is only 1m longer than that considered in the Jennings O'Donovan study, the findings are considered to be generally acceptable.

8.10.3 R262 Bridges

This is the most contentious part of the haul route. Refusal reason no. 4 specifically refers to Eanybeg bridge. In addition, the observation of Joseph Brennan states particular concerns about impacts on both the Eanymore and Eanybeg bridges. The general concerns of the NRA, as set out above, are also noted.

POI 4 is at Eanymore Bridge, where it is proposed to strengthen 3 no. areas and to remove hedges and fences from 'obstacle free' areas, some of which are located in third party lands. Of greater concern, however, are the proposed works to Eanybeg Bridge (POI 5). The bridge is recorded as being of Regional importance in the National Inventory of Architectural Heritage (NIAH, ref. no. 40909325). The NIAH description and appraisal note that the structure is a multi-arched road bridge dating to circa 1780. It retains its early character and form due to its robust construction. The assessment notes that it is an integral element of the built heritage of the local area. Detailed photographs of the bridge and surrounding roads, taken during the site inspection, are enclosed.

The proposed works to the Eanybeg Bridge comprise temporary road widening onto 40m of third party lands and temporary removal of a section of the bridge parapet wall structure. This involves lowering the parapet wall by removing 2 or more courses of masonry and installing a temporary removable safety barrier system on the bridge to the same height and length as the original parapet wall. It is envisaged that a sandbagged, water filled type plastic barrier system would be used, to allow efficient removal immediately before turbine components transit the bridge, with immediate replacement afterwards. These works are projected to take place over a period of 4-8 weeks. The EIS states that this proposal was prepared in consultation with Donegal County Council roads service. It concludes that the proposed works will have a temporary imperceptible direct construction impact. There will be a residual imperceptible visual operational impact on the structure.

The first party appeal submits that the applicant intended to carry out temporary works at the bridge and approaches under a road opening licence issued by Donegal County Council. The appeal submission includes new proposals for turbine delivery. The proposed haulage contractor, Collett, has specific experience of transporting turbine components and has acquired specialist trailers to facilitate the safe transportation of turbine blades to the development site. A swepth path

analysis of Eanybeg Bridge is submitted (3D model simulation). The analysis concludes that it is possible to safely cross the bridge with the turbine blades using specialist transport vehicles, without the need to carry out work to the bridge or third party lands. However, the drawing submitted, ref. 275953-100A1.4, indicates that caution is required as the rear of the blade will oversail the offside of the approach to the bend, also the blade vehicle will oversail the parapet wall on the near side of the bridge. The Jennings O'Donovan study concludes that the arches of the R262 bridges are capable of supporting the maximum axial load applied by the movement of haulage vehicles, as discussed above. There are a number of stone culverts not exceeding 1m span along the R262 route, these were found to be of sound condition and not of any concern.

The revised proposal submitted with the appeal is considered to be acceptable with regard to the technical reports by Collett and Jennings O'Donovan. In addition, it is noted that the applicant will have to obtain a Road Opening Licence and an abnormal load permit issued by Donegal County Council. Full details will therefore have to be agreed prior to the transport of turbine components.

8.10.5 Grid Connection and Road Works in Vicinity of Site

The development involves the installation of a new junction at the site access from the L5795, in order to accommodate HGVs. The L5795 will be widened but little other upgrading work to accommodate delivery of abnormal loads is foreseen. Temporary road widening / junction improvement will be required at the R262/L5795 junction (POI 6).

The EIS addendum and associated construction method statement provide details of road works associated with the grid connection. A 38kV cable will be installed in ducts within backfilled trenches along the edge of the L5795 and the R262. Full details of the process involved are provided in a construction method statement submitted with the EIS addendum. The cable will run within existing spare ducts with a bridge deck where the L5795 crosses a steam. The cable will run under the R262 in ducts installed by directional drilling under the road. This will involve excavation of an inception pit within private lands to the south of the R262 and a reception pit in ESB lands on the northern side of the R262. The cable will cross 3 other minor watercourses by ducts within trenches. The peatland and hydrological impacts of these works are assessed separately above. It is considered that there would not be any significant roads impacts subject to the implementation of satisfactory traffic management measures. The only grid connection works within the curtilage of the public road are expected at the bridge and the L5795. Traffic management controls are proposed and no significant roads issues are envisaged.

The Jennings O'Donovan report states that the concrete bridge on the L5795 is assumed to be fit for purpose to support the maximum permitted axial load applied by haulage vehicles. On this basis, the proposed works are considered to be acceptable.

8.10.6 Conclusion

The concerns of the NRA, planning authority and third party are noted, particularly with regard to Eanybeg Bridge. However, it is considered that the issues raised have generally been dealt with satisfactorily in the appeal submission. I am therefore satisfied that the development will not result in significant adverse roads impacts, subject to turbine haulage being carried out fully in accordance with the methods submitted.

8.11 Planning Conclusion and Recommendation

8.11.1 The proposed development is acceptable in principle with regard to the policies set out in the current Donegal County Development Plan 2012-2018. The development would not have any significant adverse visual or landscape impacts on designated views or prospects. It would not have any adverse impacts on either tourism amenities in general or on any specific tourism product, including the Bluestacks Way. I am satisfied that the development will not have any significant impact on bats and other fauna present at the site. The development will result in a low level of habitat loss (3.7ha) and I am satisfied that there will not be adverse peatland and/or hydrology impacts. Adequate measures have been proposed for the protection of surface water and peat management during construction. There will not be significant adverse impacts on residential amenities by way of noise or shadow flicker. The proposed turbine haul route and associated road works, as revised in the grounds of appeal, are acceptable subject to agreement with Donegal County Council.

However, the bird survey data submitted is inadequate to fully assess potential impacts on bird species, including the Red Grouse, the Greenland White Fronted Goose and the Golden Plover, the latter 2 of which are qualifying interests of Lough Nillan SPA, 0.5km from the site. I am therefore not satisfied that there will be no adverse impacts on these species.

9.0 ENVIRONMENTAL IMPACT ASSESSMENT

9.1 General

9.1.1 In accordance with the requirements of Article 3 of the European Directive, Directive 85/337/EEC, as amended by Council Directive 97/11/EC of 3rd March 1997, by Directive 2003/35/EC of the European Parliament and of

the Council of 26th May 2003, and Section 171A of the Planning & Development Act 2000-2010, the EIS submitted by the applicant is required to be assessed by An Bord Pleanála, as the competent authority. It is a requirement that the direct and indirect effects of the proposed project are identified, described and assessed in an appropriate manner, in accordance with Articles 4 to 11 of the EIA Directive. The following is an assessment of the main impacts identified, and which I consider to be most relevant to the subject site and development. Category 3(i) of schedule 5 of Part 2 of the Planning and Development Regulations 2001, provides that an EIS shall be prepared in respect of a planning application for the following development:

"*Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts*."

As the application involves a wind farm of 7 turbines with a maximum output of approximately 19.95MW, the proposed development is subject to mandatory EIA.

9.1.2 An EIS was submitted with the planning application, and is presented in 5 volumes:

- Volume 1 Main Report
- Volume 2 Figures
- Volume 3 Landscape Figures
- Volume 4 Appendices
- Non-Technical Summary

The EIS assesses the effects of the proposal on the environment in a grouped format and under the following headings: Ecology; Geology, Hydrogeology, Hydrology and Water Quality; Telecommunications and Aviation; Landscape and Visual; Shadow Flicker; Noise; Archaeology, Architecture and Cultural Heritage; Transport, Traffic and Access; Human Environment; Air Quality and Climate Assessment; Forestry. The cumulative impacts and interactions between the factors are also examined. In terms of each of the aforementioned environmental impacts, the EIS provides a description of: the existing environment; likely significant impacts; proposed mitigation measures; and residual impacts. There is an adequate summary of the EIS in non-technical language. The EIS takes into account the permitted wind farm developments in the vicinity of the site as part of the cumulative impact assessment.

9.1.3 An EIS addendum is submitted with the grounds of appeal. It assesses the effects of the proposal on the environment in a grouped format and under the same headings as the main EIS. There are 4 no appendices:

- NIS addendum

- Outline Construction Method for Grid Connection
- Ecological Assessment by Ecology Ireland
- Geology, Hydrogeology, Hydrology & Water Quality Impacts Assessment by Hydro-Environmental Services.

9.1.4 I am of the view that the information contained in the EIS and EIS addendum submitted accords with the provisions of Article 94 and Schedule 6 of the Planning and Development Regulations 2001.

9.2 Description of Proposed Development

9.2.1 The EIS describes the proposed development, including the site and the proposal's design and size, the timeframe of construction, operation and decommissioning and the project need and consideration of alternatives. Table 2.2 provides a list of 9 other applied / permitted / constructed wind farms within a 20km radius of the development site. Chapter 4 outlines the policy context including national energy policy and national, regional and local planning policy. Chapter 5 sets out details of scoping, public consultation and consultation with statutory and non-statutory stakeholders. The EIS addendum describes the site setting and the proposed grid connection in detail.

9.3 Likely Significant Direct and Indirect Effects

9.3.1 There is a large degree of commonality between the significant issues identified and assessed under the planning and appropriate assessments and the likely significant direct and indirect effects of the proposed development on the environment. The Environmental Impact Assessment as set out below should, therefore, be read in conjunction with the general planning assessment at section 8.0 above and the AA at section 10.0 below.

9.3.2 <u>Ecology</u>

The ecology chapter, which was compiled by Ecology Ireland Wildlife Consultants, considers impacts on habitats, birds, bats and other flora and fauna. Section 6 provides detailed information of various ecological site surveys in 2011 and 2014 and of their findings. Table 6.15 lists Natura 200 sites within 10km of the subject site, potential impacts on their qualifying interests are considered in the NIS. Section 6.4 considers potential ecological impacts, significant identified impacts are summarised as follows.

The EIS considers several specific bird species in detail, i.e. Red Grouse, Whooper Swan, Greenland White Fronted (GWF) Geese, Golden Plover and Meadow Pipit. Potential impacts at the construction and operational

stages are discussed with regard to habitat loss or change, disturbance/displacement and collision. The EIS does not envisage any significant disturbance of birds during the operational phase with regard to the intervening distance between turbines and the likely limits of potential disturbance effects for various bird species. The risk of significant fatalities due to collision is considered extremely low. Proposed mitigation measures include bird activity monitoring for the year of construction and for 3 years after and a fatality monitoring programme. The EIS concludes that residual impacts on birds would be 'neutral imperceptible'.

Bat surveys were carried out at the site in 2011 and 2014, roosting bats were not found within or adjacent to the site boundary. As it is possible that some bats may roost in the conifer plantation, there is some potential for the disturbance or loss of roosting bats during the construction phase, also potential impacts from construction lighting. Potential operational impacts on bats relate to collision risk and to barotrauma. Proposed mitigation measures are set out in section 6.5.2. The EIS concludes that residual impacts on bats would be 'neutral imperceptible'.

The EIS identifies potential impacts on other flora and fauna present at the site, i.e. foxes, badgers and frogs, also potential impacts on the Eany and Oily Rivers which are both salmonid and have extant but non-SAC populations of Freshwater Pearl Mussel. Mitigation measures are set out in sections 6.5.2 and 6.5.3. The EIS concludes that residential impacts on mammals and other fauna would be 'neutral imperceptible'.

Figure 6.12 maps the habitats present at the site. There are 3 no. habitats within the site boundary linked to those listed under Annex I of the EU Habitats Directive, i.e. Soakaway/infilling depressions, 2 areas of Upland Blanket Bog and 2 areas of Wet Heath. Some areas of Upland Blanket Bog (lower slopes and mid-west and eastern section) are rated B, high value, nationally important. The remaining areas of Wet Heath and Upland Blanket Bog are rated locally important. Direct habitat loss is low as the development would have a permanent land take of 3.7ha. Most of the proposed turbines are located within the conifer plantation, which is of low ecological value, only 2 turbines and associated access tracks are located in degraded Wet Heath habitat. The construction footprint does not impact on any intact Annex I habitat. There will be a sight negative impact on existing habitats and plant species present, due to hydrological or water quality impacts. There is some potential for a peat slippage event, which would have a negative impact on existing habitats and plant species. The residual negative impacts on wet 'peatland' habitats and associated species are considered 'neutral imperceptible' in the long term.

Section 6.4.2.6 conisders cumulative ecological impacts with regard to the 110kV overhead line across the northern half of the site and to other wind

farm sites in Co. Donegal. The cumulative magnitude of collision impacts to GWF geese and other bird species is negligible. There is potential for cumulative impacts with other wind farms including Killin Hill (permitted), Corkermore and Anarget (both constructed). These permitted/constructed developments occur in similar upland habitats and will result in a reduction in current habitat extent in the locality. However, the habitats that will be reduced in extent as a result of the proposed development are primarily of low ecological value. Potential cumulative impacts on wet peatland habitats and watercourses are considered 'neutral imperceptible' with adequate mitigation. There is no potential for cumulative impacts with other known projects on flora and habitats.

Section 6.6 concludes that, as the development has adequately considered the ecological issues into its design, it would result in an overall 'slight, positive residual impact'. The EIS addendum does not identify any significant additional ecological impacts.

I conclude that the general consideration of ecological impacts is satisfactory. However, I consider that the submitted bird survey data is insufficient to adequately assess potential ornithological impacts, particularly with regard to the potential use of the site by Red Grouse, GWF goose, Whooper Swan and Golden Plover. I also note the lack of a collision risk model assessment. I am not satisfied based on the information submitted that significant impacts will not arise.

9.3.3 Geology, Hydrogeology, Hydrology and Water Quality

The EIS considers groundwater, surface water and peatland impacts. There is a supplementary report on peatland impacts by AGEC as an appendix to the EIS.

The site predominantly consists of blanket peat with extensive forestry in the southeast of the site and cut-over peat in the north of the site. The open peat land areas contain numerous rock outcrops with some pockets of relatively deep peat. The peatland impact assessment is based on a total of 185 no. peat probes throughout the site. Peat depths recorded across the site during this process ranged from 0 to 3.8m with an average of 1.1m. AGEC carried out a Factor of Safety (FoS) peat stability assessment of 155 no. points at turbine locations, roads, substation. AGEC carried out a qualitative risk assessment using the results of the stability analysis and other site specific factors. No construction work is proposed within the elevated or higher risk areas identified on site. A detailed peat management plan is provided. The EIS concludes there will be a negative, direct, slight, high probability, permanent residual impact on peat, subsoil and bedrock as a result of excavations at the site.

The development has been designed to avoid hydrological constraints and areas of shallow peat, i.e. a 50m buffer zone for natural sensitive streams and wetland areas and a 15m buffer zone for modified watercourses (except for 2 no watercourse crossing upgrades and 1 no. water crossing, all to modified watercourses). The EIS includes a suite of mitigation measures for the construction stage of the development, to provide suspended solids from entering surface waters during construction, including specific additional mitigation measures for the wind farm access roads. The EIS states that the implementation of the proposed mitigation measures will result in no direct discharge of run-off from the development into any existing watercourse. The EIS does not anticipate significant residual impacts on Freshwater Pearl Mussel populations in the Oily and Eany catchments. The cumulative hydrological impact assessment considers potential impacts on the Eany and Oily catchments in conjunction with permitted/proposed/constructed wind farm developments at Killin Hill, Mennybradden, Corkermore and Anarget. It concludes that there will be imperceptible cumulative impacts as a result of the construction and operation of the proposed development. The EIS addendum considers water quality and peatland impacts associated with grid connection works. No significant residual impacts are anticipated.

The above assessment is satisfactory and the development is considered to be acceptable in terms of the potential impact on water and peatlands, subject to the strict implementation of the submitted mitigation measures.

9.3.4 Telecommunications and Aviation

There is potential for Electromagnetic Interference (EMI) from wind farms to nearby electromagnetic telecommunications services such as television, radio, mobile phone links, radar and aviation. There are no telecoms masts located at the site. Donegal Airport is approximately 36km north of the site. The turbines will be marked and lit in accordance with IAA requirements. There are no anticipated aviation impacts. Consultation was undertaken with telecommunications and aviation stakeholders prior to completion of the EIS. No unacceptable impacts were identified. Mitigation measures are proposed in the event of any impact on television signal, however this is unlikely. I am satisfied that the proposed development would not result in a significant impact on telecommunications or aviation.

9.3.5 Landscape and Visual

The EIS considers landscape and visual impacts within a 20 km zone of Theoretical Visibility (ZTV). The landscape and visual impact assessment (LVIA) assesses both visual impact and landscape impact. The EIS makes a clear distinction between the sensitive coastal and mountain landscapes of the wider study area (> 5km from site) and the upland bog of the central

study area (<5km from site). Table 9.7 identifies moderate-slight impacts on the Bluestack mountains, slight impacts on the Ardara Bogland, slight-imperceptible impacts on the Donegal Bay Drumlins, core mountain areas and remote coastal areas and imperceptible impacts on the rural drumlins and lowland valleys. A total of 19 viewing points are assessed in detail, including cumulative impacts along with other existing / permitted wind farm developments. Moderate visual impacts are identified at viewing point LC3 (local road near Lough Namafin) and AH2 (Bluestack Way on R263 at Lettermore). All the other vantage points have imperceptible, slight or moderate-slight visual impacts.

Table 7.10 sets out 7 existing and a further 7 permitted wind farms in the study area, which are included in the cumulative assessment. Almost all of the study area would have a view of the proposed development and/or other wind farms. The other wind farms commonly seen in conjunction with the proposed development are the adjacent Killin Hill scheme, the existing Anarget wind farm (6 turbines) in the Bluestack mountains to the northeast and the Corkermore wind farm (5 existing, 4 more permitted) on the same bog plateau to the west. There is a reasonable separation distance between the proposal and the Anarget and Corkermore developments. They are also of similar sizes. Together, these developments increase the sense of wind farm proliferation and dissemination within central study area. The Killin Hill scheme is likely to be perceived as a singular development from most receptor locations. However, it incorporates few smaller turbines with a wider spacing between them than the proposed development. There may be a confusion of scale and a degree of visual tension for viewers. The proposed wind farm would contribute an additional medium-low cumulative visual and landscape effect.

Section 9.4 sets out proposed mitigation measures, which have been integrated into the site selection and design process. The EIS concludes that the overall cumulative visual impact on the study area would be medium-low. I am satisfied that the development would not have a significant adverse visual impact on the Bluestacks Way or on any designated views or prospects. I do not consider that the additional visual or landscape impact of the development is of a magnitude that would warrant a refusal of permission.

9.3.6 Shadow Flicker

Cumulative shadow flicker modelling was carried out for all 17 houses in the vicinity, detailed analysis was carried out for houses within 1,030m of any turbine (equivalent of 10 rotor diameters). The analysis was based on worst case scenario, i.e. the sun shining at all possible astronomical times of the day and with 100% solarisation intensity, also that the turbine rotors

are moving at all times and orientated perpendicular to the sun. It is also assumed that there are no obscuring features/screening around the residences that would minimise potential for shadow flicker. The 'real case' analysis takes into consideration cloud coverage and wind direction. Estimated sunshine data was used from a weather station in Clones, 89km south east of the site and wind direction data was obtained from the measurement mast installed at the site. Cumulative shadow flicker modelling was carried out for the proposed development and proposed/permitted development at Killin Hill and Meenybradden.

The cumulative worst case scenario modelling assessment found that 2 no. receptors exceed the shadow flicker limits of 30 hours per year and 30 minutes per day for the worst case, i.e. receptors SR3 and SR4, houses to the north east of the site, on the southern side of the R262. Both receptors are over 500m from the site. The EIS concludes that, based on 'real case' conditions, it is highly unlikely that there will be an unacceptable impact from shadow flicker, however mitigation measures can be implemented if they arise. Section 10.4 sets out proposed mitigation measures, including screening, window blinds and turbine control. The shadow flicker analysis and resulting conclusions are considered to be reasonable.

9.3.7 Noise

Potential noise impacts are generally related to the operational stage of the development. The EIS noise assessment comprises baseline data and noise modelling of the scheme. Background noise monitoring was carried out at the nearest 3 houses to site (H1, H3 and H5), between 22nd August 2014 and 5th September 2014. Operational noise levels were predicted using a computer noise model for houses nos. H1, H2, H3, H4, H5, H6, H10, H13, H14 and H15. The projected noise levels did not exceed 40dB L_{A90} at any of the locations. This is in compliance with the recommendations of the Wind Energy Development Guidelines and the 2013 Consultation Draft Review of the Guidelines. Cumulative noise levels from the combined impact of the proposed development and the 4 no. proposed/permitted turbines at Killin Hill were modelled for the same receiver locations. These were generally within the same range as those of the proposed development; none exceeded 40dB L_{A90}. There are no foreseeable operational noise impacts associated with the grid connection.

The EIS also considers predicted construction nose impacts. There will be works less than 700m from the residential properties, i.e. construction and access routes, however they will be over a relatively short duration and would not be expected to cause any breach of guidelines values. The EIS addendum proposes mitigation measures for grid connection works.

The submitted noise analysis is satisfactory and I consider that significant noise impacts will not arise.

9.3.8 Archaeology, Architecture and Cultural Heritage

The EIS considers archaeological impacts within a radius of 1km from the site and recorded monuments / protected structures within 5km. A field inspection of the site was carried out on 18th August 2014. There are no National Monuments or other sites of historic importance within the development site or study area. There are no anticipated impacts to Recorded Monuments or to any protected structure. The access track to the wind farm is located on a townland boundary within the site. In addition, the access track from T1 and T2 to T3 will truncate a townland boundary. Research shows that Bronze Age material can be found on boundaries. The access track will have a permanent, imperceptible, direct construction impact on one townland boundary

Road works along the proposed turbine delivery route will involve works to a structure listed on the National Inventory of Architectural Heritage (NIAH), i.e. Eanybeg Bridge, ref. no. 40909325, where the structure is recorded as being of Regional importance. The proposed works will have a temporary imperceptible direct construction impact. There will be a residual imperceptible visual operational impact on the structure.

The EIS does not identify any cumulative impacts. No additional residual impacts are identified. Proposed mitigation measures comprise archaeological monitoring and recording subject to approval by the National Monuments Service of the Department of Arts, Heritage and the Gaeltacht. The above assessment is generally acceptable. It is noted that the issue of impacts on Eanybeg Bridge has been resolved by way of a revised transportation proposal submitted with the appeal.

9.3.9 Transport, Traffic and Access

Traffic impacts generally relate to the construction stage of the development. NRA traffic count information from 2007 and a peak hour survey of the R262/N56 junction on 22nd August 2014 were used to identify traffic volumes on the R262. Current NRA traffic information for 2014 was used to identify traffic volumes on the N56. Table 13.2 sets out projected traffic movements associated with construction activities, based on quantities of materials to be used over the anticipated 1 year construction period. Civil engineering works (roads, foundations, etc.) and electrical works (cable laying, electrical installation) are projected to be completed before turbine delivery, i.e. traffic impacts will not coincide.

Turbine deliveries are expected to take place over 9 weeks, i.e. 84 abnormal loads associated with 7 turbines to be delivered on an average of 9-10 loads per week. The proposed haul route follows the R263 north from Killybegs Harbour, the N56 east towards Donegal Town and the R262 north to the application site. The EIS identifies 6 no. individual Points of Interest (POIs) and outlines proposed works at each. There are also additional works at the R262/L5795 junction and at the site entrance from the L5795. Swepth path analysis was carried out at each of these locations. No specific environmental impacts are identified along the haul route.

There will be approximately 14 no. daily HGV movements at the site (worst case scenario). This would result in a <10% increase in overall traffic on the N56 and R262. The EIS notes that increases in traffic flows of less than 10% have negligible impact as daily variance in traffic flows can be of equal magnitude. However, there would be a 56.6% increase in HGV traffic flows on the R262, due to very low baseline levels. This is identified as a 'moderate' impact, although there will not be any capacity issues. Section 16.3 sets out proposed mitigation measures, comprising a Construction Traffic Management Plan to be prepared in consultation with Donegal County Council. Local residents and Garda are to be notified of deliveries. The condition of the highway is to be recorded before and after completion of construction. Proposed traffic safety measures are outlined. Residual impacts are minor, i.e. modest and temporary localised delays.

The EIS addendum states that the grid connection works will generate an additional 2-3 HGV movements per day over a 4—6 week period. This is not considered environmentally significant subject to the implementation of proposed traffic management measures.

The above traffic impact analysis is considered to be generally acceptable and I am satisfied that the traffic impact of construction works will not be adverse. It is noted that the EIS does not give detailed consideration to the environmental impacts of works along the haul route and it is considered deficient in this respect.

9.3.10 Human Environment

The site is located in the townlands of Clogheravaddy and Mennagranoge. In the 2011 census, Clogheravaddy had a population of 15 persons in 3 no. houses. There were no houses or inhabitants in Mennagranoge. The development will have no significant impact on population numbers during the operational phase. There may be some short, temporary impacts on residential amenities during construction due to noise and traffic. There will be no significant impact on land use. The development will contribute to national policy objectives regarding the reduction of CO_2 emissions by

31,826 tonnes per annum. There would be a positive economic impact in terms of expenditure within the Irish economy and job creation, also business rates paid to Donegal County Council. Table 5.3 presents a review of tourism research studies in Ireland and the UK, it is submitted that these findings indicate that there is no conclusive correlation between the development of a wind farm and adverse impact on tourism in a local area. The EIS concludes that the development will have no significant impact on tourism. The development would be designed, constructed, operated and decommissioned in accordance with relevant Health and Safety legislation, there will be no likely significant impacts on health and safety. No turbines will be located within fall over distance to any public right of way and will be located at least 500m from any occupied dwelling. The EIS addendum states that there are no foreseeable additional impacts on human environment associated with grid connection. On balance, I am of the view that the proposed development would not have any significant impact on human beings.

9.3.11 Air and Climate

Potential air quality impacts primarily relate to dust emissions during the construction phase. Based on meteorological information from Belmullet Meteorological Station, typically 246 days per annum are “wet”, i.e. significant dust generation will be unlikely for at least 67% of the time due to meteorological conditions. The EIS does not provide any specific figures on potential dust emissions during construction. Mitigation measures are proposed to minimise dust emissions. The development is expected to lead to a beneficial impact on climate by displacing a potential 72 GWh of fossil-fuel derived electricity. The EIS calculates projected Greenhouse Gas (GHG) emissions due to peat removal and the loss of c. 5 ha of forests. The generation of electricity during the wind farm operation will lead to net savings in terms of GHG emissions with a net positive annual impact on GHG emissions of the order of 0.05% of the total GHG emissions in Ireland in 2012. The EIS concludes that there will be a negligible impact on air quality and climate. The EIS addendum does not envisage any additional cumulative air quality or climate impacts associated with grid connection. On balance, the proposed development is considered to be acceptable in terms of the potential impact on air quality and climate.

9.3.12 Forestry

The site includes approximately 50 ha of forestry planted in 1994 and 1999. There are 2 no. commercial forestry species planted, i.e. Sitka Spruce and Lodgepole Pine. Tree growth has generally been very poor due to several factors including the underlying blanket peat, competing vegetation and high exposure. The forest is unthinned and extremely

varied in terms of tree height and timber volume growth. Section 16.2 sets out a forest inventory i.e. details of cultivation and drainage, species, stocking, fencing, access and growth of each species. The proposed development will require the felling of 5.06ha of trees. All felling is associated with infrastructure requirements and no turbulence felling is required. The felling is to be carried out in a single phase in advance of wind farm construction, in compliance with a Limited Felling Licence from the Forest Service in the Department of Agriculture, Food and Marine. The 5.06ha to be felled will be planted on an alternative site as required by the Forest Service policy (details of location not provided). Potential impacts on the stability of retained trees are considered. Table 16.2 sets out a schedule of required felling and associated wind throw risk. Section 16.4 sets out proposed mitigation measures. A tree felling methodology is submitted. Given the poor productivity and timber quality associated with the site, the loss of 5.06 ha would have no negative impact on the economic viability of this forestry enterprise. There are no forestry impacts associated with the proposed grid connection. Having regard to the poor quality of the existing forest at this site and to the limited footprint of the proposed development, I am satisfied that the development would not have significant adverse forestry impacts.

9.3.13 Interactions

Table 17.1 presents a matrix of interactions. There are potential for significant impacts between ecology / geology / hydrology / hydrogeology / water quality. Poor peat management, storage or peat slip could result in impact on terrestrial and aquatic ecology. There is potential interaction between landscape and visual impacts / human environment as a cluster of residential properties along the R262 will experience the turbines at distances of circa 1km. Other, less significant, impacts include ecology / noise and ecology / forestry. All of the aforementioned have been assessed above and I am of the view that the interactions identified are unlikely to cause or exacerbate any potentially significant environmental impacts.

9.4 Conclusion

9.4.1 I have considered the EIS and all submissions/observations received which are relevant to impacts on the environment, inspected the site, and have assessed the direct, indirect, and cumulative effects of the development on the environment. Having regard to the above, I am of the opinion that the direct and indirect effects on the environment of the proposed development have been identified and described. It is my view that, excepting my concerns in respect of the impact on several bird species which I outline in greater detail in the AA below, the potential

impact of the proposed development can be adequately mitigated and is not likely to result in a significant impact on the environment.

10.0 APPROPRIATE ASSESSMENT

10.1 Introduction

10.1.1 The obligation to undertake AA derives from Article 6(3) and 6(4) of the Habitats Directive. AA involves consideration of whether the plan or project alone or in combination with other projects or plans will adversely affect the integrity of a European site in view of the site's Conservation Objectives and includes consideration of any mitigation measures to avoid, reduce or offset negative effects. This determination must be carried out before a decision is made or consent given for the proposed plan or project. Consent can only be given after having determined that the proposed development would not adversely affect the integrity of a European Site in view of its Conservation Objectives. This section of the report considers the likely significant effects of the proposal on the European sites with each of the potential significant impacts assessed in respect of each of the Natura 2000 sites considered to be at risk and the significance of same. The assessment is based on the submitted Natura Impact Statement (NIS) by Ecology Ireland (October 2014) and the NIS Addendum, also by Ecology Ireland (January 2015).

10.2 The Project and Its Characteristics

10.2.1 Section 2.1 of the NIS provides a description of the proposed project, comprising:

- 7 no. wind turbines with maximum tip height of 126.5m;
- External transformers at the turbines (typically 2.7m high);
- Hard standing areas adjacent to each turbine;
- An electrical substation including control building, compound and hardstanding area;
- Approximately 3.58km of internal access tracks connecting turbines and the electrical substation to the R262, including 2.18km of new access track and 1.4km of upgraded existing track;
- Cable installation;
- A temporary construction compound including associated parking and turning areas;
- Peat storage areas;
- Alterations to the junction of the R262 and L5795 and widening of the L5795;
- Temporary off-site works at and on the approach to Eanybeg Bridge to facilitate the delivery of abnormal loads.

10.2.2 The NIS addendum provides details of the proposed grid connection, which will be via a 38kV underground cable. The cable will run from the site substation along the internal site access tracks to the site entrance. It will then run along the L5795 serving site, to the junction with the R262. It will run along the southern side of the R262, crossing 3 no. watercourses, then under the R262 to the Binbane substation.

10.3 The European Sites Likely to be Affected (Screening)

10.3.1 The Stage 1 AA (screening) is set out in detail in the NIS. The screening assessment notes that the development site does not lie within or adjacent to any European sites. Section 2.2 of the NIS notes 8 no. Natura sites within a 10 km boundary. The same 10km radius and sites are included in the NIS addendum. No reason is provided for the selection of a 10km boundary, such as use of the Source-Pathway-Receptor model. It is considered that this is a significant lacuna in the information provided in the NIS, which may impact upon the Board's ability to carry out AA. This matter is discussed further in the concluding section below.

10.3.2 The following table outlines the 8 sites in question, notes their distance to the development site and their qualifying interests.

Name of Site	Site Code	Distance from Appeal Site (km)	Qualifying Interests/Features of Interest
Lough Nillan Bog SPA	04110	0.5	• Merlin *Falco columbarius* (breeding) • Golden Plover *Pluvialis apricaria* (breeding) • White-fronted Geese *Anser albifrons flavirostris* (wintering) • Dunlin *Calidris alpine schinzii* (breeding)
Lough Nillan Bog SAC	00165	0.6	• Oligotrophic waters containing very few minerals of sandy plains (*Littoerelletalia uniflorae*) [3110] • Blanket Bog (* if active only) [7130]
Meenaguse / Ardane Bog SAC	00172	5.3 (5.2km to cable route)	• Blanket Bog (* if active only) [7130]
Meenaguse Scragh SAC	001880	8 – 10 (see below)	• Northern Atlantic wet heaths with *Erica tetralix* [4010]
Ardara Bog / West of Maas Road SAC	00197	7.1	• Estuaries [1130] • Mudflats or sandflats not covered by seawater at low tide [1140] • Large shallow inlets and bays [1160] • Atlantic salt meadows (*Glauco-Puccinellietalia* maritimae) [1330]

			• Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes") [2120] • Fixed coastal dunes with herbaceous vegetation ("grey dunes") (Active only) [2130]* • Decalcified fixed dunes with *Empetrum nigrum* [2140]* • Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) [2150]* • Dunes with *Salix repens ssp. argentea* (*Salicion arenariae*) [2170] • Humid dune slacks [2190] • Machairs (* in Ireland) [21A0] • Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] • Northern Atlantic wet heaths with Erica tetralix [4010] • European dry heaths [4030] • Alpine and Boreal heaths [4060] • *Juniperus communis* formations on heaths or calcareous grasslands [5130] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] • Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] • Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*) [6510] • Blanket bogs (* if active bog) [7130] • Depressions on peat substrates of the Rhynchosporion [7150] • Alkaline fens [7230] • Geyer's Whorl snail *Vertigo geyeri* [1013] • Freshwater Pearl Mussel *Margaritifera margaritifera* [1029] • Marsh Fritillary *Euphydryas* (*Eurodryas, Hypodryas*) *aurinia* [1065] • Atlantic Salmon *Salmo salar* (only in fresh water) [1106] • Otter (*Lutra lutra*) [1355] • Common Seal (*Phoca vitulina*) [1365] • Petalwort (*Petalophyllum ralfsii*) [1395] • Slender Naid (Najas flexilis) [1833]
Donegal Bay (Murvagh) SAC	00133	8.7	• Mudflats and sandflats not covered by seawater at low tide [1140] • Fixed coastal dunes with herbaceous vegetation

			("grey dunes")* [2130] • Humid dune slacks [2190] • Harbour Seal *Phoca vitulina* [1365]
Donegal Bay (Murvagh) SPA	004151	8.7	• Great Northern Diver (*Gavia immer*) (wintering) [A003] • Light-bellied Brent Goose (*Branta bernicla hrota*) (wintering) [A046] • Common Scoter (wintering) (*Melanitta nigra*) [A065] • Sanderling (wintering) (*Calidris alba*) [A144] • Wetland and Waterbirds [A999]
Slieve Tooey / Tormore Is. / Loughros Beg Bay SAC	00190	10.0	• Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] • Decalcified fixed dunes with Empetrum nigrum* [2140] • Atlantic decalcified fixed dunes (Calluno-Ulicetea)* [2150] • Alpine and Boreal heaths [4060 • Blanket bogs (* if active bog) [7130] • Narrow-mouthed whorl snail (*Vertigo angustior*) *[1014]* • Otter (*Lutra lutrai) [1355]* • Grey Seal (*Halichoerus grypus*) *[1364]*

*Priority habitat/species

10.3.2 Section 3 of the NIS states that, following a desktop review of the findings of a range of baseline and specialist ecological surveys carried out at and adjacent to the site (2006 to 2014), it was not possible to rule out potentially significant impacts (either alone or in combination with other plans or projects) as a result of the proposed development. It was therefore deemed sufficient to move directly to a Stage 2 AA without completion of a detailed screening assessment report.

10.4 Identification of the Conservation Objectives of the European Sites

10.4.1 The following table identifies the Conservation Objectives for the sites in question noting whether the sites have general objectives or whether specific objectives have been developed for the site.

Name of Site	Site Code	Conservation Objectives
Lough Nillan Bog SPA	04110	The conservation objectives for Lough Nillan SPA generally relate to the maintenance of the bird species listed as Special Conservation Interests for the SPA:

		• Merlin *Falco columbarius* (breeding) • Golden Plover *Pluvialis apricaria* (breeding) • White-fronted Geese *Anser albifrons flavirostris* (wintering) • Dunlin *Calidris alpine schinzii* (breeding)
Lough Nillan Bog SAC	00165	The conservation objectives for Lough Nillan SAC generally relate to the maintenance of a favourable conservation condition of Annex I habitats: • Oligotrophic waters containing very few minerals of sandy plains (*Littoerelletalia uniflorae*) [3110] • Blanket Bog (* if active only) [7130]
Meenaguse / Ardane Bog SAC	00172	The conservation objectives for Meenaguse / Ardane Bog SAC generally relate to the maintenance of a favourable conservation condition of Annex I habitat: • Blanket Bog (* if active only) [7130]
Meenaguse Scragh SAC	001880	The conservation objective for Meenaguse Scragh SAC generally relates to the maintenance of a favourable conservation condition of Annex I habitat: • Northern Atlantic wet heaths with *Erica tetralix* [4010]
Ardara Bog / West of Maas Road SAC	00197	The conservation objectives for Ardara Bog / West of Maas Road Bog SAC generally relate to the maintenance of a favourable conservation condition of Annex I habitat and Annex II species: Annex I Habitats: • Estuaries [1130] • Mudflats or sandflats not covered by seawater at low tide [1140] • Large shallow inlets and bays [1160] • Atlantic salt meadows (*Glauco-Puccinellietalia* maritimae) [1330] • Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes") [2120] • Fixed coastal dunes with herbaceous vegetation ("grey dunes") (Active only) [2130]* • Decalcified fixed dunes with *Empetrum nigrum* [2140]* • Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) [2150]* • Dunes with *Salix repens ssp. argentea* (*Salicion arenariae*) [2170] • Humid dune slacks [2190] • Machairs (* in Ireland) [21A0] • Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] • Northern Atlantic wet heaths with Erica tetralix [4010] • European dry heaths [4030] • Alpine and Boreal heaths [4060] • *Juniperus communis* formations on heaths or calcareous grasslands [5130] • Semi-natural dry grasslands and scrubland facies on

		calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] • Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] • Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*) [6510] • Blanket bogs (* if active bog) [7130] • Depressions on peat substrates of the Rhynchosporion [7150] • Alkaline fens [7230] Annex II Species: • Geyer's Whorl snail *Vertigo geyeri* [1013] • Freshwater Pearl Mussel *Margaritifera margaritifera* [1029] • Marsh Fritillary *Euphydryas* (*Eurodryas, Hypodryas*) *aurinia* [1065] • Atlantic Salmon *Salmo salar* (only in fresh water) [1106] • Otter (*Lutra lutra*) [1355] • Common Seal (*Phoca vitulina*) [1365] • Petalwort (*Petalophyllum ralfsii*) [1395] • Slender Naid (Najas flexilis) [1833]
Donegal Bay (Murvagh) SAC	00133	The conservation objectives for Donegal Bay SAC relate to the maintenance of a favourable conservation condition of the following Annex I habitat and Annex II species. There are detailed targets for each habitat and species. Annex I Habitats: • Mudflats and sandflats not covered by seawater at low tide [1140] • Fixed coastal dunes with herbaceous vegetation ("grey dunes")* [2130] • Humid dune slacks [2190] Annex II Species: • Harbour Seal *Phoca vitulina* [1365]
Donegal Bay (Murvagh) SPA	004151	The conservation objectives for Donegal Bay SPA relate to the maintenance of a favourable conservation condition of Annex I bird species and associated habitats. There are detailed targets for each habitat and species. • Great Northern Diver (*Gavia immer*) (wintering) [A003] • Light-bellied Brent Goose (*Branta bernicla hrota*) (wintering) [A046] • Common Scoter (wintering) (*Melanitta nigra*) [A065] • Sanderling (wintering) (*Calidris alba*) [A144] • Wetland and Waterbirds [A999]
Slieve Tooey / Tormore Is. / Loughros Beg Bay SAC	00190	The conservation objectives for Slieve Tooey / Tormore Is. / Loughros Beg Bay SAC generally relate to the maintenance of a favourable conservation condition of Annex I habitats and Annex II species:

		Annex I Habitats: • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] • Decalcified fixed dunes with Empetrum nigrum* [2140] • Atlantic decalcified fixed dunes (Calluno-Ulicetea)* [2150] • Alpine and Boreal heaths [4060 • Blanket bogs (* if active bog) [7130] Annex II Species: • Narrow-mouthed whorl snail (*Vertigo angustior*) *[1014]* • Otter (*Lutra lutrai) [1355]* • Grey Seal (*Halichoerus grypus*) *[1364]*

*Priority habitat/species

10.5 Other Plans or Projects (In Combination Effects)

10.5.1 Section 4.5.2 of the NIS notes the following wind farms within 20 km that could potentially interact with the proposed wind farm (note that distances to the site boundary are not provided):

Site Name	Planning Status	No. of Turbines
Killin Hill	Permitted	3
Corkermore	Constructed	5 with PP for a further 4
Anarget	Constructed	6
Meenadreen	Constructed / permitted	9 (4 constructed)
Lough Cuill	Permitted	11
Loughderryduff	Constructed / permitted	20 (9 constructed)
Meenreagh (Meenachullalan)	Constructed	6
Cornacahan (Killybegs)	Constructed	3

10.5.2 The NIS also notes that the following proposed / permitted wind farms in close proximity to the subject site:

- Killin Hill (PL05.226845), 3 turbines permitted.
- Meenybraddan (13/51189), 1 turbine proposed but application withdrawn.

The NIS also notes the presence of a 110kV overhead line across the site.

10.5.3 As noted above, the NIS addendum considers potential impacts that arise as a result of the proposed grid connection.

10.6 Likely Significant Effects on Designated Sites

10.6.1 <u>Habitats Impacts</u>

The NIS and NIS addendum consider the following potential impacts on key habitats:

- No direct impacts the site is not located within the boundaries of any Natura 2000 site and does not include any key habitats relating to the conservation objectives of designated sites.
- Potential indirect impacts through hydrological links through the eastern and south eastern sections of the wind farm site, which are located in the Eany surface water catchment. The northern and western sections of the site are located in the Glen-Oily-Bungosteen-Glenaddragh-(GOBG) Coastal catchment. 6 of the proposed turbines are located in the Eany Water catchment and 1 turbine is sited in the GOBG Coastal catchment. The section of the site within the GOBG Coastal catchment drains to the Oily River via the Corker River. The Corker River originates from Tamur Lough, approximately 1km northwest of the site. The Corker River then flows in a westerly / south westerly direction for approximately 10km prior to merging with the Oily River. The section of the site within the Eany catchment predominantly drains to Tullinlough Lake, close to the eastern site boundary. Tullinlough Lake drains the Eany Water, approximately 4km downstream of the site. Annex I habitats potentially affected include Northern Atlantic wet heaths with Erica tetralix (4010) at Meenguse Scragh SAC and Blanket Bog (*if active only 7130) and Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) (3110), both of which occur in Lough Nillan SAC. Hydrological impacts could also impact on Annex II/IV species listed as qualifying species of Natura sites in the wider hinterland including otter at Ardara Bog / West of Maas Road SAC and Slieve Tooey/Tormore Is./Loughros Beg Bay SAC; also freshwater species including Freshwater Pearl Mussel, Atlantic Salmon at Ardara Bog/West of Maas Road SAC.
- There is no clear hydrological link between the site and Meenaguse / Ardane Bog SAC, Ardara Bog/West of Maas Road SAC or Slieve Tooey/Tormore Is./Loughros Bay SAC and, as a result, no potential for indirect impacts on water quality and associated habitats. Donegal Bay (SAC & SPA) may ultimately receive drainage from the site but it is located relatively distant from the site (8.7 km) and the habitats present are not especially vulnerable to run-off or increased siltation.
- There is a potential hydrological connection to Lough Nillan Bog SAC and SPA (within 1km of the site) through small watercourses to the north and west that drain to the Eany and GOBG Coastal catchments. Construction works including excavations and infilling operations could deposit material through the release of contaminated materials into watercourses associated with these designated sites.
- The grid connection cable route is not located within the boundaries of any European site and does not include any key habitats relating to the Conservation Objectives of the above European sites and will not

require any resources from these sites. There will be no direct loss of key habitats relating to the Conservation Objectives of the sites as a result of the proposed development. Indirect habitats impacts could occur via a potential hydrological connection between the small watercourses to the north and west of the site and Lough Nillan bog SPA and SAC, as described above. During installation of the cable, excavations and infilling operations could potentially deposit associated material either directly or indirectly through the release of contaminated materials into watercourses associated with these European sites.

10.6.2 Disturbance and Displacement of Key Species

The NIS and NIS addendum identify the following potential impacts relating to the disturbance and displacement of key animal species:

- The conservation objectives of Meenaguse Bog/West of Maas Road SAC, Donegal Bay SAC and Lough Nillan SAC primarily relate to habitats and potential impacts through disturbance and displacement are not of concern.
- Otter (Annex II/IV species) is a primary Conservation Objective of Ardara Bog/West of Maas Road SAC and Slieve Tooey/Tormore Is./Loughros Beg Bay SAC. Otter are primarily associated with aquatic habitats and may occasionally use watercourses in the vicinity of the proposed site for foraging and/or commuting. No otter or otter signs were recorded during ecological assessments of the site (2010-2014). Given the limited extent of riparian habitat affected by the proposed works, its location with regard to potential foraging/commuting areas for the species, significant impacts on local otter populations are considered unlikely.
- The remaining Conservation Objectives for the European sites in question are not concerned with terrestrial species and, given the site location with regard to other key species and the lack of a direct hydrological connection with these sites, it is unlikely that there will be a significant impact on local populations of such species as a result of the development.
- It is noted that none of the European sites identified within 10km of the site have any Conservation Objectives relating to bat species.

The NIS identifies the following potential impacts relating to the disturbance and displacement of key bird species:

- Merlin and Golden Plover were not recorded at, or in the areas adjacent to the site during the breeding season surveys and there was only one winter season sighting of commuting Golden Plover at the development site. The site is of no known breeding or foraging value to the species although there is potential breeding habitat of open moorland with low sward height and flat areas on raised ground within

the site. The nearest known breeding site for the Golden Plover is within Lough Nillan Bog SPA.

- Greenland White Fronted (GWF) Geese were observed in the vicinity of the development site on one occasion during the winter VP surveys. The sighting was of a commuting flight of a small flock. The nearest site where geese were observed was a single record of a feeding flock near Tamur Lough over 1.5km west of the site boundary. The nearest proposed turbine is over 1.3km from the edge of Lough Nillan SPA; a disturbance distance of 600-800m from operational wind farms has been recorded for GWF geese. The NIS concludes that the development would not result in a negative impact on GWF geese as it is not close to any area known to be used by foraging geese and does not appear to be on a regular commuting route for birds moving between roosting or feeding areas.
- The NIS concludes that, given the limited extent of habitat affected by the proposed works and the location of the proposed development with regard to potential foraging/commuting areas for these species, significant impacts through habitat loss and disturbance are considered unlikely.

The NIS addendum states that activities associated with the underground cable installation have limited potential to disturb and/or displace protected species. The works could potentially disturb or displace Otter (a Conservation Objective of several of the European sites as discussed above). However, for the same reasons as the rest of the development, significant impacts on local populations of Otter are considered unlikely. The remaining Conservation Objectives are for aquatic species and, given the site location and the lack of a direct hydrological connection, it is unlikely that there will be a significant impact on local populations as a result of the cable installation.

10.6.3 Collision Risks

The NIS identifies the following potential impacts relating to collision risks to bird species:

- No large flocks or feeding Golden Plover were recorded in the vicinity of the site. Due to the small numbers recorded, it is unlikely that the site is located near any major wintering area for the species. Similarly, two intensive breeding season surveys established that the site and adjacent areas are not used by breeding Golden Plover.
- Large raptors (Hen Harrier, Golden Eagle) were not recorded during dedicated bird surveys at the site. Considering the habitats present at the site, combined with the observed and known distribution of raptors, it is concluded that the proposed development would not result in a significantly elevated collision risk for these species.

- The largest concentrations of GWF geese that are recorded in Co. Donegal are primarily found at Lough Foyle and Lough Swilly. GWF geese were recorded on one occasion during VP surveys of the site (6 birds). Extensive desktop studies indicated that the site is not known to be used by the geese, with the nearest observed feeding site at Tamur Lough, 1.5km to the west (34 birds feeding in October 2011). The limited occurrence of this species in the area translates into a low collision risk for this species at the site. All evidence from field studies suggests that the risk of significant fatalities of birds at the operational wind farm is extremely low.
- There are no additional collision risks as a result of underground cable installation.

10.6.4 Cumulative / In-Combination Effects

The NIS states that there is some potential for cumulative impacts on habitats and species due to the combined impacts of the proposed development and the above identified permitted / constructed wind farm developments. The above named wind farms occur in upland areas which could potentially result in a reduction in the extent of upland habitats in the locality. According to the NIS, the habitats directly affected by the proposed development are primarily of low ecological value with only a limited extent of semi-natural habitats of moderate ecological value impacted. The small land take of the development (3.7ha) is also noted.

The 110kv line across the site and its polesets are designed to minimise impacts on birds and their flightlines. There are flight diverters on the overhead line. The NIS concludes that the cumulative magnitude of collision risks to GWF geese and other bird species is negligible.

The NIS addendum considers any additional impacts as a result of the proposed underground cable grid connection. No additional cumulative impacts are identified.

10.7 Mitigation Measures and Residual Impacts

10.7.1 The NIS identifies proposed mitigation measures to protect watercourses and associated habitats of European sites:

- Peat management measures, a Construction & Environmental Management Plan (CEMP) at the site. It is understood that the current drainage pattern of the site will be maintained at pre-construction flow rates and drainage patterns. The NIS states that there is thus no potential for significant surface water run-off impacts or indirect habitat loss or deterioration of the surrounding habitats as a result of construction works.

- Minimum hard standing areas and site clearing works including tree felling. Minimum consequent disturbance to habitats and flora.
- Use of suitable machinery and construction methods in areas of deep peat and/or poor ground conditions to prevent damage to the substrate and any remnant blanket bog/degraded heath habitat.
- Eradication of existing Japanese Knotweed near the site access to prevent it from spreading further.

10.7.2 The NIS identifies mitigation measures to protect bird species and their associated habitats at European sites. These include:

- Construction to take place during daylight to minimise disturbance to roosting birds or any active crepuscular / nocturnal bird species.
- Removal of forestry to be undertaken outside of the bird breeding season.
- Bird activity to be monitored in the year of construction and for 3 years post construction by a suitably qualified ecologist. Upland breeding bird surveys will be carried out and winter VP surveys to be undertaken. Fatality monitoring programme for the first 3 years of wind farm operation.
- Other construction and waste management measures.
- A preliminary Habitat Management Plan is submitted as an appendix to the EIS.
- A contingency plan for mitigation failure is provided.

10.7.3 The NIS addendum proposes additional mitigation measures regarding the grid connection including measures to prevent the spread of Japanese Knotweed, which is present along the roadside verge of the route, ecological supervision if the cable lay takes place during the bird breeding season and other construction measures.

10.7.4 Section 4.5 of the NIS concludes that there is no likelihood of any potential long term impacts on the key species and habitats that define the structure or function of the Natura 2000 sites as a result of the proposed development. Section 5 states a conclusion that, with the application of the proposed mitigation measures, the development will have no adverse impacts on the Natura 2000 sites in the wider hinterland. The NIS does not identify any residual cumulative / in combination impacts. The NIS addendum concludes that the likelihood of any adverse impacts on European sites as a result of grid connection is remote.

10.8 Appropriate Assessment Conclusion

10.8.1 The submitted NIS and NIS addendum have been considered with regard to the guidance provided in the DoEHLG document *Appropriate Assessment of Plans and projects in Ireland Guidance for Planning Authorities* (2010) and to recent Court judgements.

10.8.2 The Stage I Screening in the NIS sets out a list of European sites within 10km of the proposed development site. No rationale is provided for the selection of a 10km buffer zone. The DoEHLG Guidelines recommend a distance of 15km, which is often used to identify European sites that could potentially be affected by a development. The Source-Pathway-Receptor model can also be used to identify sites which could potentially be affected by a development, taking into account the precautionary principle. However, that has not been done in this case, rather it appears that an arbitrary buffer zone has been selected. While it is noted that the NPWS has not stated any concerns, it is considered that the applicant has not provided any objective scientific rationale for the consideration of these specific European sites and not others.

10.8.3 The enclosed maps indicate all European sites located within 15km of the development site. The search indicated the following 5 no. additional European Sites within the 15km buffer zone:

Name of Site	Site Code	Conservation Objectives
Durnesh Lough SAC	00138	The conservation objectives for Durnesh Lough SAC generally relate to the maintenance of a favourable conservation condition of Annex I habitats: • Coastal lagoons* [1150] • Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]
Durnesh Lough SPA	004145	The conservation objective for Durnesh Lough SPA is to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: • Whooper Swan (*Cygnus Cygnus*) [A038] • Greenland White-Fronted Goose (Anser albifrons flavirostris) [A395]
Lough Eske and Ardnamona Wood SAC	00163	The conservation objectives for Lough Eske and Ardnamona Wood SAC are generally to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected: Annex I Habitats: • Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110] • Petrifying springs with tufa formation

		(Cratoneurion)* [7220] • Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Annex II Species: • Freshwater Pearl Mussel (*Margaritifera margaritifera*) [1029] • Salmon (*Salmo salar*) [1106] • Killarney Fern (*Trichomanes speciosum*) [1421]
St. John's Point SAC	00191	The conservation objectives for St. John's Point SAC relate to the maintenance of a favourable conservation condition of the following Annex I habitats. There are detailed targets for each habitat: • Large shallow inlets and bays [1160] • Reefs [1170] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] • Meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] • Alkaline fens [7230] • Limestone pavements [8240] • Submerged or partially submerged sea caves [8330]
Sheskinmore Lough SPA	004090	The conservation objective for Sheskinmore Lough SPA is to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: • Greenland White-Fronted Goose (Anser albifrons flavirostris) [A395]

*Priority habitat/species

As can be seen, there are 5 no. additional European Sites that are not identified in the NIS but that are located within a 15km radius of the site. It is also noted that the Conservation Objectives of these sites refer to species that could potentially be affected by the proposed development, i.e. the Whooper Swan and the GWF Goose, the Freshwater Pearl Mussel and the Salmon.

10.8.4 It is also noted that the table AA1 of the NIS, which provides details of the European sites under consideration, does not include Meenaguse Scragh SAC (site code 001880). The map provided in the NIS (Figure AA2)

indicates that the extent of the SAC lies just outside the 10km buffer zone, however this is contradicted in Table 6.15 of the EIS, which indicates that the SAC lies 8km from the site. However, a site synopsis for the SAC and the related Conservation Objectives are provided as an appendix to the NIS.

10.8.5 In addition to the above matters, It is noted that the conclusions of the NIS regarding avi-fauna impacts are based on the findings of bird surveys carried out at the site in 2011 and 2014, as detailed in the EIS. The detailed discussion in above section 8.6 concludes that the survey data is deficient with regard to the best practice SNH recommendations. I have particular concerns with regard to potential impacts on Lough Nillan SPA, located 0.5km north west of the site. According to the site synopsis, the site comprises an extensive complex of blanket bog, wet heath, lakes, rivers and streams and supports an excellent range of bird species typical of peatland habitats. It has one of the largest known concentrations of breeding Golden Plover in the country and provides one of only 2 known bogland feeding areas used by the Sheskinmore Lough GWF Goose flock. Both the Golden Plover and the GWF goose have been noted at the subject site and the Whooper Swan has been noted in the vicinity. As discussed in section 8.6, the survey information available does not provide a full picture of local commuting and breeding patterns for these species. The SNH guidance document *Assessing Connectivity with Special Protection Areas* (July 2013) notes the following typical connectivity distances:

Species	**Range**
Golden Plover	Foraging distance during breeding season: Core range of 3km, with maximum range of 11km
Whooper Swan	Foraging range from night roost during winter season: Core range of less than 5km
GWF Goose	Foraging range from night roost during winter season: Core range of 5-8km.

On this basis. it is considered that the NIS does not satisfactorily demonstrated that potential impacts on European Sites will not arise.

10.8.6 In cases involving AA, consent can only be given after having determined that the proposed development would not adversely affect the integrity of a European site in view of the site's Conservation Objectives. In order to meet this test, no reasonable scientific doubt can remain as to the absence of adverse effects on the site, in view of the site's Conservation Objectives. The judgement of Kelly J. in Kelly v An Bord Pleanála 2013 No. 802 J.R. states that an assessment cannot be regarded as appropriate if it contains gaps or lacunae, lacks complete, precise, definitive conclusions capable of removing all reasonable scientific doubt as to the effects of the proposal on European Sites. I consider that the NIS

does not fully consider all potential impacts on such sites with regard to their Conservation Objectives as no rationale is provided for the selection of sites within a 10km radius only. In addition, on the basis of the information provided with the application and the appeal, including the NIS, and in light of the assessment carried out above, I am not satisfied that the proposed development individually, or in combination with other plans or projects would not adversely affect the integrity of Lough Nillan Bog SPA, in view of that site's Conservation Objectives. In such circumstances, the Board is precluded from granting permission.

11.0 CONCLUSION

11.1 This is the second application for amendment / enlargement of the wind energy development originally permitted on part of the subject site under PL05.226520 (4 no. turbines). The previous proposal for 4 no. additional turbines, ref. PL05.2235693 was refused for reasons relating to limited survey information on flora, fauna and particularly birds impacts, with regard to the proximity of the site to Lough Nillan Bog pNHA, cSAC and SPA. These issues have not been satisfactorily addressed in the subject application. As I conclude above in sections 8.6 and 10.8.5, the application does not include adequate information to prove beyond reasonable scientific doubt that the wind farm will not have adverse impacts on the Red Grouse, Golden Plover, Whooper Swan and Greenland White Fronted Goose species. There are particular concerns about impacts on Lough Nillan Bog SPA, located 0.5km from the development site, as the Golden Plover and White-Fronted Geese are listed as special conservation interests for this site. In addition, the submitted NIS is deficient due to the consideration of Natura 2000 sites within a 10km radius only and to the lack of a rationale for this limitation. I therefore conclude that the Board cannot accept the findings set out in the NIS and I consider that permission should be refused.

12.0 RECOMMENDATION

12.1 Having considered the contents of the application including the Environmental Impact Assessment and the Natura Impact Statement, the decision of the planning authority, the planning history of the site, the provisions of the Donegal County Development Plan 2012-2018, the provisions of the Guidelines for Planning Authorities in Wind Farm Development and Wind Energy Development (2006), the grounds of appeal and the responses thereto and the observation made to the Board, I recommend that permission be refused for the reasons and considerations set out hereunder:

REASONS AND CONSIDERATIONS

The appeal site lies within 15km of 13 statutorily designated European sites (Special Areas of Conservation and Special Protection Areas) and the site itself hosts bird species which are listed of Special Conservation Interest in a Special Protection Area in the vicinity of the site (Lough Nillan Bog SPA, site code 004110). It is the policy of the planning authority as set out in Policy NH-P-2 of the Donegal County Development Plan 2012-2018 to ensure the protection of Natura 2000 sites in accordance with the EU Habitats Directive (93/43/EEC) and have regard to the relevant conservation objectives, qualifying interests and threats to the integrity of these Natura 2000 sites.

The Board is not satisfied on the basis of the information contained in the Natura Impact Statement and other documentation supporting the planning application, that an appropriate or adequate assessment of the effects of the development on the environment has been carried out in accordance with Article 6(3) of the EU Habitats Directive or that the integrity of Special Areas of Conservation and Special Protection Areas would not be adversely affected by the proposed development, in particular, by virtue of the disturbance, barrier effects to movement and collision risk arising from the construction and operation of the wind farm on birds of Special Conservation Interest known to traverse the site and the network of SPA's in the vicinity of the site, notably the Red Grouse, Greenland White Fronted Goose, Golden Plover and Whooper Swan. In addition, the NIS considers designated sites within only a 10km radius of the development site and does not provide any rationale for this limitation such as the source-pathway-receptor model. In these circumstances, the proposed development would be contrary to Article 6(3) of the EU Habitats Directive, would contravene policy NH-P-2 of the Donegal County Development Plan 2012-2018, and would, therefore, be contrary to the proper planning and sustainable development of the area.

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Sarah Moran ,
Senior Planning Inspector,
9th June 2015