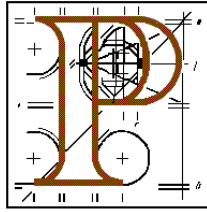


An Bord Pleanála



Inspector's Report

Appeal Reference: PL05E.245588

Development: Ten year duration of construction and operation of 4 no. wind farm turbines and all ancillary developments and associated site works at Crilly Townland, Tullylinn, Pettigo, Co. Donegal.

Planning Application

Planning Authority Donegal County Council
Planning Authority Reg. Ref. 13/51404
Applicants: Pro Vento Ireland PLC
Type of Application: Permission
Planning Authority Decision: Refuse permission

Planning Appeal

Appellants: Pro Vento Ireland PLC
Type of Appeal: First Party
Observer(s): None
Date of Site Inspection: 22nd January 2016

Inspector: Donal Donnelly

Appendices: Maps, photos, etc.

1.0 SITE LOCATION AND DESCRIPTION

- 1.1 The appeal site is located in the townland of Crilly to the south-east of Co. Donegal adjoining the Border with Co. Tyrone. The site is approximately midway between Pettigoe, Co. Donegal and Castlederg, Co. Tyrone. The surrounding area comprises of an upland drumlin landscape with forestry plantations, blanket bog and agricultural foothills.
- 1.2 The site is reached via Seegronan Road to the south-west of Killeter village, Co. Tyrone. This road provides access to rural dwellings and agricultural lands at its northern end and to Carrickaholten Forest further south, which lies across the border to the east of the site. Seagronan Road then becomes an agricultural track that continues a short distance along the Border before entering Co. Donegal and continuing along the eastern side of the appeal site for a distance of approximately 1km.
- 1.3 The northern boundary of the site is along the Border for a distance of approximately 370m. The site is roughly an inversed "L" shape that extends to the south for approximately 1km and west by 500m. The site sits atop and on the north-eastern side of Tullylinn Hill which rises to a height of 236m OD. The area of the site is 24.4 hectares and the actual land take of the proposed development will be 3.1 hectares.
- 1.4 The applicant's landholding (56 hectares) extends around the site up to the border to the east, west and north. These lands comprise of coniferous plantation to the west, heath and blanket bog to the north and grasslands to the east and south. The appeal site extends through all of these areas. The A tributary of the River Termon flows south along the eastern boundary of the landholding and lands generally slope down from west to east to the level of the river and associated wetlands.
- 1.5 To the south of the site at a distance of approximately 750m is the Lough Nageage Special Area of Conservation. The nearest dwelling to the site boundary is approximately 240m to the south. To the north-west the nearest dwelling in Co. Tyrone along Seegronan is at a distance of c. 1.5km from the site boundary.

2.0 PROPOSED DEVELOPMENT

- 2.1 A 10 year planning permission is sought for the construction of an electricity generating wind farm consisting of 4 no. wind turbines with blade diameter of up to 93m and a blade tip height of 126.5m. The hub height will be 80m. The proposal will also include the following:
- External wind turbine transformers;
 - Communications antennae;
 - A substation/ electrical control building;

- Turbine hardstands;
- A temporary contractor's compound;
- New access tracks and upgrade of existing tracks;
- A new site entrance;
- Drainage works including drainage channels and silt traps along the access track;
- Underground electrical cables;
- A permanent 80m high meteorological mast;
- All ancillary development and associated site works.

2.2 The upgrade of the existing access track and the new site entrance will take place within the Co. Tyrone side of the Border. Temporary road widening and improvement works are proposed along Seegronan Road and Crilly's Hill Road in Co. Tyrone. The proposal is therefore a transboundary development and a separate and concurrent planning application has been made to the Planning Service/ Strategic Planning Division of the DOENI for the access and haul route to the site.

2.3 The turbines will be located at distances of between 550m and 1,380m apart and at elevations of approximately 205m, 204m, 218m and 215m OD. Elevations throughout the site are between 180m and 240m OD. The turbines will be connected via underground cables alongside the proposed access track. Construction materials will be off-loaded and stored at the temporary construction compound during the construction period and crane pads will be constructed beside each turbine. Site drainage along tracks and hardstands is intended to manage surface water entering streams and to prevent soil erosion.

2.4 Connection of the wind farm to the electricity grid will be made under a separate planning application by the system operator. It is estimated that the wind farm will generate up to a maximum of 12MW of power.

2.5 The planning application includes an Environmental Impact Statement and Natura Impact Assessment.

3.0 ENVIRONMENTAL IMPACT STATEMENT

3.1 An Environmental Impact Statement, presented in three Volumes, was submitted in support of the application. Volume I of the EIS includes a non-technical summary, Volume II comprises the main reports and annexes and Volume III contains Figures and Visuals.

- 3.2 There are two parts to Volume II of the EIS; Part 1: Introduction and Context and Part 2: Assessment of Impacts on Environmental Aspects. Part 1 outlines the policy context and describes the site location and the proposal. An assessment of alternatives and site selection and design are also outlined, together with details of consultations and the public information programme.
- 3.3 Part 2 contains assessment chapters on Socio-Economic; Air and Climate; Ecology; Bats; Birds; White-Clawed Crayfish; Soils, Ecology and Water; Noise Impact Statement; Communications, Electromagnetic Production and Air Traffic; Haul Route Assessment; Landscape and Visual; Health and Safety; and Summary of Impacts & Mitigation.
- 3.4 The assessment chapters relevant to this appeal are summarised from the Non-Technical Summary as follows:

Socio-Economic

- 3.5 It is stated that the proposed wind farm provides an opportunity for economic advantages, job creation, employment and the use of local labour and resources. A report by the Wind Energy Association in 2005 found that 1.5 jobs per megawatt can be supported. The proposed development would therefore generate 18 jobs.
- 3.6 The applicant also proposes to establish a Community Benefit Fund that will be available to the community on both sides of the Border over the 25 year lifetime of the project.
- 3.7 With respect to shadow flicker, reference is made to Planning Policy Statement 18 (Planning and Environmental Policy Group, DOENI), which states that the potential for shadow flicker is very low at distances greater than 10 rotor diameters from a turbine. No shadow flicker is predicted to the closest house (300m), as it is located south of the site. Some level of shadow flicker is predicted to occur at 2 no. houses; however, there will be no exceedance of the daily or annual DoEHLG or PPS18 guideline shadow flicker limits.

Air and climate

- 3.8 It is stated that the energy generated by the proposed wind farm will displace energy generated by the combustion of fossil fuels. This will prevent the release of c. 14,013 tonnes of CO₂ over the 25 year life span of the project. It is stated that emissions from construction vehicles and dust emissions from construction works will not be significant. The impact of the wind farm in relation to air quality and climate is considered to be significant and positive.

Ecology

- 3.9 A total of 4.18 hectares of coniferous forestry plantation of low ecological value will be felled to accommodate turbines 1 & 3 and associated

hardstanding areas. Turbine 2 will be located in an area of modified blanket bog, wet heath and wet grassland with low to local ecological value. Turbine 4 is also located in an area of wet grassland habitat dominated by soft rush of low ecological value.

- 3.10 It is stated that the combined loss of discrete areas of habitat are not likely to significantly affect the future conservation status and will result in a low magnitude effect and impact of minor negative significance.

Bats

- 3.11 No roost sites were identified within the development site. The highest activity was recorded at the southern end of the coniferous treeline along the western boundary of the landholding. It is considered that the overall area surrounding the wind farm layout is not a prime habitat for foraging or commuting bats. There is a separation distance of over 200m from the nearest high potential foraging habitat and therefore the potential for the proposed development to negatively affect the local bat population is considered to be limited.

Birds

- 3.12 Hen Harrier and Snipe were identified on site as sensitive species and of conservation concern.
- 3.13 Foraging Hen Harrier will be displaced over the immediate area of the development during construction. The excluded area will be small. It is stated that 95% of flight registrations within the site boundaries were less than 30m in height, which is below the collision risk height.
- 3.14 It is estimated that 1.3 pairs of Snipe in 2009 and 2010 were in the marsh area in the south-east boundary of the development footprint. This area is not included for any major works.
- 3.15 It is concluded from data collected and following appropriate impact assessment that the likely effects on all bird species are not significant.

White-clawed crayfish

- 3.16 Two adult crayfish were identified in the watercourse to the south of the appeal site; however, this watercourse is not hydrologically downstream of the wind farm and would not therefore be affected by any silt-laden run-off from construction areas.
- 3.17 Water crossings will be minimised and a 50m buffer distance from all watercourses will be applied to avoid negative impacts to watercourses and suitable crayfish habitat along the stream forming the eastern boundary of the site and along the Termon River further downstream.
- 3.18 A detailed surface water management plan and mitigation measures are outlined in the EIS, as well as an Environmental Management Plan and Fuel Management Plan. A Habitat Management Plan will also include additional

measures to enhance the suitability of sections of stream to function as crayfish habitat and refuges. It is predicted that if these measures are implemented fully, the proposed development will not result in significant negative impacts to crayfish or their habitat.

Soils, Geology & Water

- 3.19 Geological Survey of Ireland soils map shows the area to be predominately overlain by blanket peat, with the eastern lower section containing deep mineral soil. The GSI bedrock map shows the site predominately underlain by the Claragh Sandstone Formation.
- 3.20 The site is mostly located in the Termon River surface water catchment. The stream along the eastern boundary flows approximately 2km south and the Termon River flows 20km before entering Lower Lough Erne. A small section of the site is within the sub-catchment of the River Derg and is upstream of the River Foyle and Tributaries SAC. The Lough Nageage SAC and the Lough Derg SPA are not hydrologically connected to the site.
- 3.21 Mitigation measures will nonetheless be implemented to include 50m buffers, silt fences, brash mats, specific drainage channels with filtered sediment, surface water quality monitoring and pre-emptive site drainage management.
- 3.22 A Peat Stability Assessment concluded that the potential for peat instability would be low given the relatively shallow peat depth and slopes.

Noise

- 3.23 Predicted noise levels and cumulative noise levels at nearest houses are stated to be below the limits recommended in the Wind Energy Development Guidelines, 2006. There is only one house within 1km of the site and all houses are stated to be up-wind of the dominant winds from the proposed development.
- 3.24 The prediction model is calculated as a worst case scenario and low frequency noise and vibration from the turbines is predicted to have a negligible impact on all residences in the locality.
- 3.25 Construction noise impacts will be temporary in nature.

Archaeological Heritage

- 3.26 Desk top studies suggest that the area surrounding the development site has experienced human activity since around 2,500 BC. There is potential for previously undiscovered archaeological remains to exist within the site.
- 3.27 There are two monuments of national/ regional importance in Co. Tyrone that would have inter-visibility with the proposed development. Any potential impact on their setting is considered to be minor and would not affect the public understanding of the sites.

Communications, Electromagnetic Production and Air Traffic

- 3.28 Wind turbines are not signal transmitters and components will comply with the European Commission Directive on Electromagnetic Compatibility (89/336/EEC).
- 3.29 In terms of interference with TV signals, the extent of problems will be much less with digital TV than with analogue.
- 3.30 Consultations have been carried out with airports and aviation bodies and it is confirmed that the wind farm will have no impact on the operation of airport services. Consultation with mobile phone providers have also noted no potential adverse impacts on service provision.

Visual and landscape impact

- 3.31 The proposed development is located in a rolling, upland area where agriculture and forestry are the primary land uses. Landscape policies on both sides of the Border have been taken into account in the preparation of the landscape and visual assessment.
- 3.32 There are no Especially High Scenic Areas of Views or Prospects in Co. Donegal in the vicinity of the site and the closest AONB is c. 23km north-east. It is considered that the overall sensitivity of the landscape is of a medium level and that the rolling topography and existing wind farm development will assist with the assimilation of the proposed development.
- 3.33 It is stated that photomontages demonstrate that the proposed development can be accommodated without creating a significant visual stacking effect. It is also noted that the windfarm will be screened by vegetation and the built environment.
- 3.34 The landscape and visual impact during the construction, including tree felling and peat extraction, is considered to be localised and temporary.

Roads and access

- 3.35 The majority of road works for the haul route will occur at Crilly's Hill Road where 4 no. temporary passing bays and road widening are proposed. Crilly's Hill Junction will also require widening and Seegronan Road will have 12 no. temporary passing bays.
- 3.36 The haul route was chosen following consultation with NI Roads Service and it is considered that the proposed route offers the least amount of disruption to local road users.

Health and safety

- 3.37 All works will be prepared in accordance with the various statutory Health and Safety and related Construction Regulations and with other related codes.

Grid connection

- 3.38 Following Donegal County Council's notification of decision to refuse permission (see section 4 below), supplementary information relating to the environmental impact of the grid connection was submitted to the Board.
- 3.39 The technical summary of the Evaluation of the Environmental Effects of the Proposed Underground Cable considers the installation of an underground high-voltage electrical cable to connect the proposed development with the NIE Networks substation at Magherakeel, Killeter, Co. Tyrone covering a distance of 9.1km mostly along public roads.
- 3.40 It is stated that the route of the proposed underground cable would cross a number of small watercourses, including tributaries of the Derg and Termon Rivers, whose catchments are known to support sensitive aquatic fauna (River Foyle & Tributaries SAC and Lough Nageage SAC).
- 3.41 It is considered that the cable installation will not cause direct impacts on any of these watercourses but there is a risk that it could cause pollution (suspended sediments, concrete waters, hydrocarbons, etc.) that could indirectly affect these watercourses, their aquatic fauna and the associated SACs. A range of mitigation measure are proposed to prevent or minimise pollution.

4.0 PLANNING AUTHORITY'S DECISION

- 4.1 Donegal County Council issued notification of decision to refuse planning permission for two reasons.
- 4.2 It is stated under the first reason that the proposed wind farm would result in an unacceptable adverse impact on the landscape character and visual amenities of the area due to cumulative impacts associated with existing wind farms and consented projects in the locality. Accordingly, it is considered that the proposal would give rise to significant transboundary environmental impacts.
- 4.3 Under the second reason, it is noted that there is an absence of a detailed assessment of the potential environmental impacts of the proposed grid connection and therefore the EIS and NIA are deficient in terms of content and do not demonstrate that the proposed development will not have a significant adverse impact on protected habitat and species.

5.0 TECHNICAL REPORTS

- 5.1 The recommendation to refuse permission, as outlined within the final Planning Report, reflects the decision issued by the Planning Authority.
- 5.2 Under the assessment of the application within the initial Planner's Report dated 18th December 2013, it is noted that the subject site is located in an "area open to consideration" for wind energy development. The principle of the proposed development is therefore considered acceptable.
- 5.3 It is noted that a full assessment of the application cannot be carried out until such time as the comments of the Transboundary State have been received. Two issues did arise in relation to the proximity of Natura 2000 sites and the distance of proposed turbines to a third party landholding.
- 5.4 It is stated that 2 no. SACs are within the sphere of influence and are hydrologically linked to the site. The proposed development is considered to have the potential to adversely affect these SACs as a result of increased sedimentation/ pollution etc. via drainage channels. There are numerous suggestions in respect of surface water management within the EIS and NIS but precise measures are unclear to the Case Planner.
- 5.5 Further information was sought from the applicant requiring the relocation of Turbines 3 & 4 so that they are a minimum of two rotor blades distance from third party property boundaries in accordance with the Wind Energy Development Guidelines. The applicant was also requested to submit a detailed and comprehensive surface water management plan for the subject site.
- 5.6 Issues raised from inter-departmental reports/ statutory referrals include the following:

An Taisce

- Potential to impact on two protected species – White Clawed Crayfish and Hen Harrier;
- Buffer zones should be provided along watercourses to ensure that heavy vehicles do no damage the site;

Inland Fisheries Ireland

- Detailed advice received on matters of bunding, drainage and culverting, embankments and cuttings, silt traps and settlement ponds, control of cement and concrete, track ruttings, peat stockpiling, construction methodology and attenuation for surface water drainage arrangements.

Department of Arts, Heritage and the Gaeltacht (Wildlife)

- If all mitigation measures are implemented in full, there would not be a significant adverse impact to any Natura 2000 site or to the wider environment.

Department of Arts, Heritage and the Gaeltacht (Archaeology)

- Archaeological monitoring should be carried out on all ground disturbances.

County Lab

- Silt traps to be maintained to ensure that no pollution occurs to watercourses.

- 5.7 The further information response was assessed in a second Planner's Report dated 13th August 2014. A letter of consent was included with the response from the adjoining land owner and therefore the locations of Turbines 3 & 4 are considered acceptable. The revised surface water management plan was also considered acceptable. A decision on the application was deferred pending a final response on transboundary consultations from DOENI.
- 5.8 A final Planning Report was undertaken (dated 28th August 2015) following completion of transboundary consultations. This included a summary of findings/ comments of note contained within the EIS accompanying the planning application.
- 5.9 Chapter 3 of the EIS deals with ecology where it is noted that the site is 269m from Lough Nageage SAC. The riparian wet grassland habitat along the eastern boundary is considered to be of national conservation value and a small area of regenerating blanket bog on the northern portion of the site is also classed as being of national conservation value. The stream to the south of the site is recognised in the EIS as being of national or international importance due to the presence of a population of white clawed crayfish.
- 5.10 Chapter 5 - Birds, highlights the presence of two sensitive species, i.e. Hen Harrier and Snipe. The EIS states that construction disturbance would be worst during the breeding season.
- 5.11 It is stated in Chapter 6 of the EIS that white clawed crayfish are supported by Lough Nageage and Lough Veenegreane. These are not hydrologically connected to the subject site but they are located within the Termon River catchment, within which the majority of the windfarm is located.
- 5.12 In terms of soils, geology and water, a suite of mitigation measures are outlined in Chapter 7. The applicant's consultants also state that the potential for peat failure is low given the relatively shallow depth of peat cover at turbine locations.

- 5.13 With respect to landscape and visual impacts (Chapter 12), it is stated in the Planner's Report that the concerns of DOENI must be taken into account; it is argued that the proposed wind farm would result in an unacceptable adverse impact on the landscape character and visual amenities of the area due to cumulative impacts associated with existing and consented wind farms. It is therefore considered by the Case Planner that the proposal would have significant adverse transboundary visual impacts and refusal of permission is recommended.
- 5.14 The Case Planner highlights that the EIS and Screening for Appropriate Assessment do not include an assessment of the potential environmental impacts of any grid connection. Reference is made to the judgement issued in the O'Grianna & Ors V An Bord Pleanála judicial review where it was held that the grid connection could not be separated from the balance of the project. It is therefore considered that both the EIS and NIS are deficient due to the absence of any assessment of the grid connection for the project.
- 5.15 The Natura Impact Assessment submitted with the application notes that the Lough Nageage SAC and the River Foyle & tributaries SAC are within the sphere of influence of the project site. Sections of the site are within the Erne catchment and the Lough Nageage SAC is also within this catchment. It is stated in the NIS that any disturbance to the Termon River downstream of the SAC could potentially have an adverse impact on Crayfish dispersing from or migrating to the SAC. It is noted that detailed mitigation measures are set out in the NIS to prevent the occurrence of any adverse impacts on any Natura 2000 site.
- 5.16 Issues raised from trans-boundary consultations included the following:

DOENI – Strategic Planning Division

- Proposal would result in an unacceptable adverse impact on the landscape character and visual amenities of the area due to cumulative impacts.

NIEA – Natural Environment Division

- Disruption to the hydrology of the site would result in loss of wet areas suitable for Snipe and must be avoided.
- No objection in principle on ornithological grounds subject to conditions including avoidance of construction work during breeding season.

NIEA – Water Management Unit

- No objection in principle and welcomes the incorporation of SuDS for environmental management of rainfall/ surface water.

RSPB

- Recommends submission of construction method statement and unavoidable vegetation removal outside of breeding season.

Strabane District Council

- Would like assurances that applicant have put in place adequate measures to prevent pollution of surface and groundwater.
- Information should be taken into account that there will be 110 permitted and proposed wind farms within a 10km radius of the site.
- Not all operational, approved and committed wind energy projects in the area have been included in the noise assessment.
- Means of processing wind farm applications should be agreed between Donegal County Council and NI planning authorities.

Department of Culture, Arts & Leisure

- There are two rivers and various watercourses on southern boundary that would be of concern to Inland Fisheries DCAL. Mitigations measures and monitoring regime recommended.

6.0 APPEAL GROUNDS

6.1 A first party appeal against the Council's decision was submitted on behalf of the applicant. Appended to this document is a landscape and visual review; an evaluation of the environmental effects of the proposed grid connection; and a noise review.

6.2 The grounds of appeal and main points raised in this submission are summarised as follows:

First Reason for Refusal

- In refusing the proposal on cumulative landscape and visual grounds, Donegal County Council are relying solely and heavily on the transboundary consultation process and are ignoring the fact that the site is "open for consideration" for wind energy. Landscape capacity was a consideration for designating such areas.
- In the 20km study area, of the 24 existing and consented wind farms, 18 of these are in N. Ireland. 17 of these have been approved by DOENI and the other single wind farm is with the Planning Appeals Commission. Proposal is by no means the tipping point between acceptable and unacceptable visual impact.
- Landscape and Visual Review submitted with the appeal includes photomontages from two slightly revised viewpoints. These examine the cumulative impact of the proposed development along with existing and consented wind farms.
- Nearest "Area of Especially High Scenic Amenity" as identified in the current Development Plan is approximately 15km away and nearest

designated views are at Lough Derg (9km to south-west) – Designated scenic view would be unaffected by the proposal.

- Two nearest Landscape Character Assessment (NI) areas are LCA 19 – Killeter Uplands and LCA 14 – Lough Bradan, which have a medium sensitivity overall.
- Landscape is eminently compatible with wind energy development – wind energy is already a characteristic feature without a sense of it being a defining feature.
- Closest “Area of Outstanding Natural Beauty” is the Sperrin AONB 23km north-east and outside the study area.
- Proposed windfarm will almost never be seen in isolation from other wind energy developments.
- Principal visual receptors are the B72 road and the Ulster Way walking route – there are a low number of receptors with the majority being of low sensitivity.
- Ulster Way is not recognised in any development plan, north or south and proposed development will not be the first windfarm along this route – it will form a very modest part of a sequential cumulative impact.

6.3 Additional points of note within the Landscape and Visual Review carried out by Macroworks in September 2015 are summarised as follows:

- Area remains a remote rural landscape that contains wind energy development rather than a being a wind energy landscape.
- Proposed windfarm forms part of a band of operational and permitted windfarm developments stretching from Barnesmore, Co. Donegal to Pigeon Top, Co. Tyrone – there are several clusters and the proposed development is contained within a central cluster.
- Photomontages show a scenario where the proposed development is seen in conjunction with existing and permitted schemes to the north-west and is less visible with the windfarms to the south-east. There is a spatial separation of viewsheds generated by the Bin Mountain ridgeline.
- In instances where the proposed turbines are aligned with other turbines (Viewpoints 1 & 5), there is a noticeable scale difference between the nearest and furthest that ameliorates any sense of visual clutter or stacking.
- Ulster Way is a long-distance national way-marked route that provides a richly varied journey – wind farms can be considered as landmarks as long as they are appropriately sited and designed.

- There is no distinction or abrupt transition in landscape character at the Border – there is a sense that the landscape and visual effect are greater because they occur at the Border.
- Viewpoint 7 – there will be no visual impact within Castlederg and this shows the absence of visibility from an important receptor. VP7a prepared for the appeal does not reveal visual impacts that were overlooked within the EIS.
- VP8a reveals a clearer view of the proposed windfarm along with Seegronan Wind Farm – it is not considered that this view reveals significant visual impacts or cumulative visual impacts.
- VP8a reinforces the fact that within this broad scale undulating landscape, screening by terrain and vegetation tends to limit the visibility of numerous wind energy developments from most locations.
- Only the partial blade sets of 20 of the existing and permitted 74 turbines that would potentially occur within 10km of VP8a can be seen.

Second Reason for Refusal

- Applicant did not include the precise details of grid connection when the application was submitted in 2013 as this is ultimately up to Northern Ireland Electric, the System Operator. O’Grianna v An Bord Pleanála judgement issued December 2014.
- Applicant would prefer to run an underground cable to the Magherakeel, Killeter, Co. Tyrone substation but ultimately the connection process and permission processes will be decided by NIE. However, other windfarms in the area are connecting to Magherakeel using underground cable.
- Cable would cover distance of 9.1km along public roads in the North – 60m would be within the site (*de minimus*).

6.4 A report prepared by NM Ecology Ltd. is submitted with the appeal that evaluates the environmental effects of the grid connection. This report identifies, quantifies and evaluates the impacts of the proposed development on ecosystems and their components, including designated sites, habitats, flora and fauna. The main findings of the report will be evaluated under the Environmental Impact Assessment and Appropriate Assessment in Section 13 below. In brief, the report concludes as follows:

- Underground cable will be installed in the foundations of roads for the entirety of the route – there will be no loss or disturbance of natural habitat.
- Underground cable will cross a number of small watercourses, including tributaries of the Derg and Termon Rivers – catchments are known to support sensitive aquatic fauna (River Foyle & Tributaries SAC and Lough Nageage SAC).

- Installation of underground cables will not cause direct impacts on any of these watercourses but there is a risk that it could cause pollution that could indirectly affect the watercourses, their aquatic fauna and the associated SACs.
- Range of mitigation measures will be implemented during all phases of development to prevent or minimise pollution of watercourses, and subject to successful implementation, there will be no significant impacts on any watercourses or their associated aquatic fauna.

Noise - Applicant's Response to transboundary consultation

6.5 A review by Marshall Day Acoustics of the EIS noise assessment was carried out to address issues raised by Derry & Strabane District Council. The following points were made in this review:

- Noise assessment within EIS was found to be in compliance with the Wind Energy Development Guidelines, 2006 and the Institute of Acoustics Good Practice Guide; Donegal County Council did not recommend refusal on grounds of noise impact.
- Assessment methodology is different in the North, resulting in a different limit value applicable to properties in each jurisdiction – ETSU- R-97: The Assessment and Rating of Noise from Wind Turbines, Department of Trade and Industry (UK) and the subsequent Good Practice Guide are applicable standards.
- These documents specify quiet daytime periods, as well as the night-time that are considered most sensitive to loss of amenity where separate noise limits are recommended. Standard allows noise level from turbines to be 43 dB(A) at night and 35 – 40 dB(A) during the day.
- Derry & Strabane District Council identified an additional seven windfarm sites and three properties that require further assessment.
- Cumulative assessment only required if predicted noise level from proposed development is within 10dB of the noise level from the existing/proposed wind farms in the vicinity – predicted noise levels relating to appeal site show that there are no wind speeds where the predicted noise levels from the proposed development are within 10dB of the existing cumulative noise from wind farms as identified. Impact of the windfarm will therefore be negligible.
- Noise will be well within acceptable limits; however, if Board has outstanding concerns, this could be addressed and managed by way of noise monitoring conditions.

Roads and access

- Matters raised by Transport NI are being dealt with under separate planning application submitted to Derry & Strabane District Council (Ref: J/2013/0318/F)

Merits of the proposal

- Effective use of wind power will reduce national dependence on imported oil and will help to create employment.
- Proposed development will generate the equivalent energy consumption of approximately 6,149 homes.
- Development Plan took into consideration landscape sensitivity when designating sites “open for consideration” for wind farms.
- Proposal complies with relevant Policies E-P-9 to E-P-21 and the technical standards of the Development Plan relating to the development of wind energy.
- Developer is committed to setting up a community benefit fund as described in the EIS.
- There is no public objection to the proposal from either side of the Border.
- Donegal County Council or any other consultees, north or south, did not raise concerns about natural heritage.

7.0 RESPONSE TO APPEAL

First Party

- 7.1 Donegal County Council stated in response to the first party appeal that it is satisfied to rely on the report and recommendation of the Executive Planner. It is requested that the Board uphold the decision to refuse permission having regard to the proper planning and sustainable development of Co. Donegal and the Border Midlands West Region.

8.0 TRANSBOUNDARY CONSULTATION

- 8.1 The Board entered into Transboundary Consultations with the Department of the Environment (NI) on 25th November 2015. The following comments were received on 26th January 2016:

Department of the Environment (NI) – Strategic Planning Division

- Department continues to have concerns in relation to landscape and visual impacts on N. Ireland – proposal would result in unacceptable adverse impact on landscape character and visual amenity by way of cumulative impacts.
- At the time of writing the Supplementary Planning Guidance ‘*Wind Energy Development in Northern Ireland’s Landscapes*’, it was indicated that there were already issues of cumulative impact and potential for transboundary impacts on the two closest Landscape Character Areas (Lough Braden and Killeter Uplands).
- Proposal will add to the cumulative impacts already existing and will seriously diminish the separation distances between existing groupings, thereby creating a landscape overwhelmed by turbines.
- Nearby windfarm at Altgolan with similar landscape/ visual impacts was refused by the Department on grounds of cumulative visual impact and this decision was upheld by the Planning Appeals Commission. This decision reinforces the concerns.

Derry City & Strabane District Council – Environmental Health Service

- Marshall Day noise report has not considered the potential noise impact of wind turbines with generation capacity of up to 3MW each – noise impact could be higher.
- EHD does not agree that there are no residential amenity impacts – there is a distinction between a proposed development having no impact and one that does not result in significant adverse impacts.
- Appellant should have considered all potential development scenarios including all proposed windfarms and windfarm extensions pending approval that predate the current transboundary application.
- There are a number of inaccuracies in the methodology adopted by Marshall Day relating to sound power levels (change of turbine type), noise management schemes (proposed for Tievenameenta and Gronan Windfarms), operational mode sound power levels, Crighshane hub height, measurement uncertainty and wind shear (use of 10m wind mast not recommended).
- Appellant measured background noise at two locations (H1 and H12) and H35, H38 and H39 are within N. Ireland – uncertainty exists if background noise levels are applicable to N. Ireland receptors.
- Appellant should have used the lowest background levels available for the receptors in question regardless of source.
- DOENI Strategic Planning Division applied lower noise limit for wind farm at Aghyaran due to the level difference between the background noise levels and predicted wind turbine noise levels over certain wind speeds at certain properties.

- Seegronan wind farm extension appeal is due to be heard in March 2016 – this needs to be considered by the Board.
- EHD of Derry City & Strabane District Council cannot be confident that the noise contribution from the Crilly wind farm development is 10 dB below the cumulative noise contribution of all predated existing and pending wind farms in N. Ireland.

Transport NI (response to Derry City & Strabane DC on J/2013/0318/F)

- Proposed realignment of Seegronan Road will impact on road safety through reduction of existing visibility splays at a number of agricultural accesses – existing visibility splays at these accesses should not be reduced.
- Conditions are recommended if Council is minded to set aside Transport NI's concerns and approve the application.

9.0 RESPONSE TO TRANSBOUNDARY CONSULTATION

9.1 The applicant's agent responded to the Transboundary consultation on 25th March 2016 with the following comments:

Noise impacts

- It is clear from the previously submitted Environmental Statement and Noise Review and from the accompanying Annex 1 to the transboundary consultation response that the noise limits set in Guidelines for Planning Authorities on Wind Energy Development (2006) have been met.
- No concerns have been raised about compliance with noise limits at any receptor in the Republic and the predicted noise levels from all properties in the North are less than 30 dB at all wind speeds.
- Nearest receptor not associated with the proposal is over 1.5km from the nearest turbine. Recently approved wind farm at Derrykillew (PL05E.245108) has 29 dwellings within 1.2km. Owner of nearest house has agreed to higher noise limits at their property – this house is no longer occupied or even habitable.
- Noise was not a reason for refusal in the Council's decision and should not be considered a reason for refusing the proposal now. Any residual concerns can be addressed by way of condition.
- Environmental Health Department of Derry City and Strabane District Council is trying to have the site reassessed in line with ETSU-R-97 (NI guidance). Crilly wind farm complies with appropriate guidelines in both jurisdictions.

- EHD has provided no evidential basis to suggest that the Crilly wind farm needs a cumulative assessment in relation to the residential sites in N. Ireland.
- Predicted noise levels from existing wind farms in N. Ireland show a noise level (excluding Crilly wind farm) of being between 12-15 dB higher than the maximum noise level from Crilly operating on its own; therefore no cumulative assessment is required.
- All cumulative wind farms incorporated into the previous report were identified – if any further sites are to be included, they will only increase the difference between the Crilly site and the cumulative level; thus, a cumulative assessment will not be needed.

Landscape and visual impact

- DOENI must have judged to be acceptable with regards to landscape and visual impacts the other approved projects in the area, both individually and cumulatively. Proposed windfarm is by no means the critical tipping point between acceptable and unacceptable cumulative effects.
- Landscape and Visual Assessment in the ES, Annex 4 of the appeal submission and the accompanying Annex 2 conclude that the landscape and visual impacts are considered to be acceptable.
- DOENI rely heavily on the refusal of the Altgolan Wind Farm planning appeal – this decision was challenged to Judicial Review and the Planning Appeals Commission has consented to judgement to quash the Decision (March 2016). No weight should therefore be attached to this decision.
- DOENI raised similar landscape and visual concerns about the recently approved wind farm at Derrykillew – proposed turbines at Crilly are in more non-descript landscape and turbines are almost 10m shorter.
- Crilly windfarm is adjacent to a medium sensitivity Landscape Character Area and Derrykillew windfarm is adjacent a high sensitivity LCA. There are 130 LCA's in N. Ireland and only 10.7% have a sensitivity of medium or low. Receiving environment is not sensitive and is located in an area suitable of accommodating this scale of development.
- Windfarm at Bradlieve (PL05E.242411), although refused for reasons relating to peat, was considered acceptable with regards to landscape and visual impacts.
- Proposal must be considered against the relevant development plan and guidelines in the Republic – site is located in an Area Open for Consideration for wind energy development, is not within an Especially High Scenic Amenity Area and does not impact on any protected views. Receiving environment in N. Ireland is not an Area of Outstanding Natural Beauty (a small part of LCA14 within the study area is in a proposed AONB).

- Potential impact of the proposal with existing and approved projects in N. Ireland is obstructed to the east by the extensive Carrickaholten Forest, and further by a large forest at Meenamullan.
- A number of single wind turbines and wind farms have been permitted in LCA's – given that there is no prohibition on wind turbines in these LCAs, it would be administratively unfair for DOENI to now contend that a wind farm in nearby Co. Donegal is unacceptable. Wind farm was consented in one of two subject LCAs of concern in January 2016.
- Crilly wind farm is compliant with Supplementary Planning Guidance to Planning Policy Statement 18 which seeks to “*create distinct areas of wind energy development, clearly separated by areas of undeveloped landscape*”.
- There have been no objections to the proposal from residents in either jurisdiction.
- Proposed Crilly wind farm has many siting, locational and other advantages compared to permitted/ operational wind farms in West Tyrone.
- The views of the transboundary authority have now been received and consultation with them is now complete. Planning Authority or Board shall have regard to these views where appropriate.
- Donegal County Council would have had to consult with the transboundary authority in the making of their Development Plan. DOENI would therefore have been given the opportunity to comment on the designation of areas “Open for Consideration” for wind energy development.

Haul route and access

- Extensive survey work has been carried under separate planning application for haul route to demonstrate that the proposal would not have any unacceptable impact on the road safety of local users.
- The only remaining issue is the visibility splays from 2 no. agricultural accesses. Applicant has demonstrated that visibility splays at residential accesses are sufficient.
- Decision on haul route is unlikely to be determined before the outcome of the wind farm appeal.
- Haul route and access was not a reason for refusal by the Council and appellant maintains that it should not be a reason for refusal now.
- Applicant would be happy to accept the conditions of Transport NI or alternative conditions the Board considers relevant.

10.0 PLANNING HISTORY

Donegal County Council Reg. Ref: 02/114

- 10.1 New Energy Technologies Ltd. was granted permission on 18th April 2002 for the erection of a wind monitoring system of 30m in height.

Donegal County Council Reg. Ref: 03/806

- 10.2 Provento Ireland Plc. was granted permission on 30th October 2003 for the erection of a 60m high wind monitoring mast.

DOENI/ Derry City & Strabane District Council Ref: J/2013/0335/TBA

- 10.3 This application relates to the access to the site via a route in N. Ireland. The development description is the same as this current application under appeal. The part of the development on the Co. Tyrone side of the border is described as follows:

“The proposed development includes an access off Seegronan Road, Killeter, Castledearg, Co Tyrone and proposed temporary road widening and improvement works on sections of the transport route in Northern Ireland along Seegronan Road and Crillys Hill Road within Meenamullan, Seegronan, Crillys Hill and Killeter Townlands, Killeter, Castledearg, Co Tyrone.”

- 10.4 No decision on this application has been reached at the time of writing.

DOENI/ Derry City & Strabane District Council Ref: Ref: J/2013/0318/F

- 10.5 This application is for a site entrance and temporary works for the haul route for the transport of turbine components on road in N. Ireland for the Crilly windfarm described as follows:

“Works include a site entrance off Seegronan Road; passing bays and proposed temporary road widening and improvement works within the public verge, and temporary works at the junction of Seegronan Road and Crilly's Hill Road; and use of 12 no. existing passing bays from Killeter Village to the junction of Learmore/Castlegore Road and Ganvaghan Road. Planning permission is sought on a temporary basis for a period of 10 years.”

- 10.6 No decision is available on this application at the time of writing.

DOENI Ref: J/2006/0840/F (PAC Ref: 2012/A0070)

- 10.7 On 21st December 2015, the Planning Appeals Commission dismissed an appeal by Altgolan Windfarm Ltd. against DOENI's refusal of full planning permission for a 7 no. turbine windfarm at Altgolan approximately 3km east of the proposed Crilly windfarm on the opposite side of Carrickaholten forest. The proposed development is described as follows:

“Amendment to proposed windfarm application to include amended layout and a reduction from 13 no. wind turbines with tubular steel towers and composite fibre rotor blades to 7 turbines with a maximum base to blade-tip height of 125 m (tower height 80m and blade diameter of 90m). The development will also include wind turbine transformers located internally or underground turbine hardstands strengthening and widening of an existing site entrance strengthening and widening of any existing access roads new on-site access roads drainage electrical control building communications antennae on control building; underground electrical cables linking the turbines with the electrical control building underground communication cables all related site works drainage management measures and ancillary developments including silt traps and side drains to be installed along the access tracks and hardstands.”

- 10.8 The Commissioner concluded that (i) the proposed development’s cumulative impact, in conjunction with existing and approved turbines, would result in a severely adverse impact on visual amenity and landscape character; and (ii) the development would have an unacceptable adverse impact on biodiversity and nature conservation.
- 10.9 A judicial review of this case was taken by the applicant and the PAC agreed in court to concede the case and remit it back to the PAC for determination. The decision was quashed on the basis of the Commission’s failure to consider the further legal submission of August 2015.

11.0 DEVELOPMENT PLAN

County Donegal Development Plan, 2012-2018

- 11.1 The appeal site is within an area that is *“open for consideration”* for wind energy development. These areas were identified having regard to a range of factors, including wind energy potential, existing and proposed grid connections, natural heritage designations, landscape sensitivity, road infrastructure, etc.
- 11.2 The Council’s policies for wind energy are set out in Section 7.2.3 of the Development Plan (Policies E-P-9 to E-P-21).
- 11.3 It is the policy of the Council (E-P-11) 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. Wind energy proposals should accord with Sections 6.3 – 6.9 of the Wind Energy, Development Guidelines, Guidelines for Planning Authorities, 2006 and with Chapter 10, section 10.6 (Wind Energy – Development Guidelines and Technical Standards).”*

- 11.4 Under E-P-16, it is Council policy “...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.”
- 11.5 It is also a policy (E-P-18) “...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.”
- 11.6 The appeal site is within (Draft) Landscape Area 43 – Pettigo Drumlins and comprises agricultural foothills.
- 11.7 The site not within an area of Especially High Scenic Amenity. The closest such area is at Barnesmore approximately 15km to the north-west. The nearest views and prospects are at Lough Derg approximately 9km to the west.

12.0 NATIONAL GUIDELINES

Wind Farm Development: Guidelines for Planning Authorities, 2006

- 12.1 These Guidelines offer advice on the treatment of planning applications for wind energy development.
- 12.2 Chapter 4 sets out information on the required content of planning applications and Environmental Impact Assessments for wind farm developments. It is suggested that an integrated planning application should be submitted which combines grid interconnection with the wind farm development. The planning authority will require, inter alia, information on any cumulative effects due to other projects, including effects on natural heritage and visual effects.
- 12.3 An EIA is required for wind farms exceeding 5 no. turbines and with a greater output than 5MW. It is stated that the planning and design of a wind farm should be guided by the information collected within an EIA, which will include avoidance and reductive measures and the consideration of alternatives.
- 12.4 Chapter 5 addresses the environmental implications of wind farm developments and in particular the impact on designated sites, habitat and species. It is considered that in cases where developments that are likely to have an adverse impact on SACs, SPAs, etc., permission should only be granted where there are no alternatives or where there is an overriding reason in favour. With regards to habitat, it is noted that uplands are particularly vulnerable due to high rain fall and a short growing season. The bird species considered most at risk are raptors, swans, geese, divers,

breeding waders and waterfowl, with migratory birds and local bird movements also important. The impact on other species, particularly those listed for protection, needs also to be assessed.

- 12.5 Underlying ground conditions/ geology is a critical factor when assessing wind farm developments. Information submitted with an application should include an assessment of the geology of the locality; a geo-technical assessment of overburden and bedrock; a landslide and slope stability risk assessment considering the effect of storage of excavated material; location of the site in relation to designated areas; and any potential impacts on groundwater. It is recommended that a statement from a geologist, hydro-geologist or a soil mechanic engineer should accompany applications in upland areas.
- 12.6 The two distinct noise sources from wind turbines are aerodynamic noise and mechanical noise. It is considered that noise is unlikely to be a significant problem where the distance from the nearest turbine to any noise sensitive property is more than 500 metres. A lower fixed limit of 45 dB(A) above background noise level is considered appropriate to provide protection at noise sensitive locations and in low noise environments, a daytime range of 35-40 dB(A) is recommended. It is also stated that any existing turbines should not be considered as part of the prevailing background noise.
- 12.7 Chapter 6 looks at the aesthetic considerations of wind farms and in particular their siting and design in the landscape. The first section of this chapter looks at the siting, spatial extent and scale, cumulative effect, spacing, layout and height of wind turbines and the second part considers how these principles can be applied to different landscapes, as well as offering guidance on associated development.
- 12.8 Recommendations regarding possible conditions to be attached to permissions for wind farms are detailed within Chapter 7 of the Guidelines. Appendices to the document include information on Landscape Sensitivity Analysis and Landscape Impact Assessment, as well as best practice for wind energy development in peatlands.

13.0 ASSESSMENT

13.1 Background

- 13.1.1 A ten year planning permission is sought for the construction and operation of 4 no. wind turbines and all ancillary and associated site works at Crilly townland, Co. Donegal. The turbines will have a blade tip height of 126.5m and a hub height of 80m, and it is estimated that the wind farm will generate up to 12 MW of power per annum.
- 13.1.2 The site is situated on the Border between Co. Donegal and Co. Tyrone. The Border comprises of approximately 2,175m of the 3,510m perimeter of

the landholding within which is site is located. The landholding measures approximately 56 hectares and the site area is 24.5 hectares. Access to the site will be from the northern side of the Border and concurrent planning applications have been lodged with the northern authorities for site access and haul route to the site.

13.1.3 The planning application is accompanied by an Environmental Impact Statement and a Natura Impact Statement. The site is located as close as 750m from the Lough Nageage Special Area of Conservation.

13.1.4 A notification of decision to refuse permission was issued by Donegal County Council, firstly on the grounds that the proposal would give rise to significant transboundary environmental impacts by reason of unacceptable adverse cumulative visual impacts, and secondly, because the EIS and NIS accompanying the planning application have not included a detailed assessment of the potential impacts of the proposed grid connection. The reason for refusal on cumulative visual impact grounds was informed by Donegal County Council's transboundary consultations with the Department of the Environment (NI) – Strategic Planning Division.

13.1.5 A first party appeal has been submitted on behalf of the applicant against the Council's decision. This submission includes a landscape and visual review and an evaluation of the environmental effects of the proposed grid connection. The applicant's consultants also commissioned a review of the of the EIS noise assessment to address issues raised within transboundary consultations by Derry & Strabane District Council.

13.1.6 Having considered the contents of the planning application, grounds of appeal, planning history, transboundary and other consultations, site context and findings from my site inspection, I consider that this appeal should be assessed under the following:

- Development principle;
- Environmental Impact Assessment;
- Appropriate Assessment;
- Siting, design and visual impact;
- Noise impacts;
- Haul route; and
- Conclusion.

13.2 Development Principle

13.2.1 It is a priority at both national and European level to increase the use of renewable energy sources to supply our energy requirements. The Government has set a target of 40% electricity consumption from renewable

resources by 2020¹. The build rate of on-shore wind farms must increase from an average of 180 MW per year to at least 250 MW per year if the 2020 renewable electricity target is to be achieved. The proposed development, which will generate an additional 12 MW of energy per annum, will contribute to these targets.

- 13.2.2 The Wind Farm Development: Guidelines for Planning Authorities, 2006 seek to ensure a consistency of approach throughout the country in the identification of suitable locations and treatment of planning application for wind energy development. Advice is offered to planning authorities on planning for wind energy through the development plan process and in determining planning applications. These Guidelines will also be used to assist with the assessment of the proposed development.
- 13.2.3 The importance of reliable and effective energy systems are recognised in the National Development Plan (2007-2013) and the National Spatial Strategy (2002-2020). The Border Regional Planning Guidelines (2010-2022) also acknowledge the potential of wind in particular for exploiting renewable energy generation.
- 13.2.4 It is an overall aim of the current Donegal County Development Plan to facilitate the development of a diverse energy portfolio by the sustainable harnessing of the potential of wind, solar, hydro, wave, tidal, biomass, bio energy, oil and gas. Specifically in terms of wind energy, the Council will facilitate the development of appropriately located on and offshore wind energy proposals in accordance with the Wind Energy Strategy. Under Policy E-P-11 development of appropriate wind energy proposals will be facilitated in the “Area Open to Consideration” as illustrated on Wind Energy Map No. 9 and not favourably considered outside of these areas.
- 13.2.5 Due consideration should also be given to Development Plan Policy E-P-16 which seeks “...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.” In addition, it is a policy (E-P-20), that the “...potential impacts on natural, built and cultural heritage including impacts on archaeological monuments and watercourses are assessed as part of Windfarm development proposals. Where such impacts are identified, mitigation measures such as buffer zones, separation distances and access arrangements should be employed as appropriate.”
- 13.2.6 In general, I consider that the proposed development located within an area “Open for Consideration” for wind energy development is acceptable in principle and in compliance with national policy regarding the development of sustainable energy resources. The proposal, however, is subject to an assessment of its aesthetic appearance in terms of siting and design and the development guidelines and technical standards of the Development Plan.

¹ The all island fuel mix currently stands at 17.6% for the production of electricity from renewables.

This is addressed in the following sections, together with the overall impact of the proposal on its surroundings.

13.3 Environmental Impact Assessment

- 13.3.1 Section 172(1) of the Planning and Development Act, 2000 (as amended) requires that an EIA must be carried out by the Board in respect of an application for consent for a proposed development of a class specified in Schedule 5 of the Planning and Development Regulations, 2001 which exceeds a quantity, area or other limit specified in that schedule. The proposed development, which will generate 12 MW of power, is in excess of the 5 MW total output for which EIA is required under Part 2 (3)(i) of Schedule 5.
- 13.3.2 Section 172(1G) of the Act sets out a number of items that the Board must consider in carrying out an EIA, including the EIS, any further information submitted by the applicant, submissions or observations made in relation to environmental effects and the views of any other member state submitted under section 174 or Regulations made under that section. The appeal site adjoins the Irish border and Transboundary consultations have taken place with the relevant authorities in N. Ireland. In addition, the applicant has lodged additional information with the appeal submission to address the second reason for refusal attached to Donegal County Council's notification of decision to refuse permission for the proposed development. This includes an evaluation of the environmental effects of the proposed grid connection.
- 13.3.3 The Environmental Impact Assessment must identify, describe and assess in an appropriate manner, in light of each individual case and in accordance with Articles 4 to 11 of the EIA Directive, the direct and indirect effects of a proposed development on human beings, flora and fauna; soil, water, air, climate and the landscape; material assets and the cultural heritage; and the interaction between these factors.

Compliance with Article 94 of the Planning and Development Regulations, 2001 (as amended)

- 13.3.4 The planning application is accompanied by an EIS which includes a non-technical summary, main report and annexes, and figures and visuals. The appeal submission also includes an evaluation of the environmental effects of the proposed grid connection.
- 13.3.5 Having regard to Article 94(a) of the Regulations, I am satisfied that the EIS and grid connection evaluation adequately describes the proposed development to include information on the site, design and size of the site and wind turbines. Avoidance, remedial and reductive of significant adverse impacts are outlined for each factor, as well as the data required to identify and assess the main effects. The applicant has also carried out an

assessment of the main alternatives based on a selective process involving various scoping works, studies and consultations.

- 13.3.6 With respect to Article 94(b) and Paragraph 2 of Schedule 6 of the Regulations, I consider that the relevant information has been provided to describe the main characteristics of the construction and operational phases; production processes and expected residues and emissions. Furthermore, the aspects of the environment likely to be significantly affected by the proposed development are set out, together with a description of the likely significant effects, and description of the forecasting methods and any difficulties encountered.
- 13.3.7 Finally, as required under Article 94(c), the EIS provides a summary in non-technical language of the information provided under Article 94 (a) & (b).
- 13.3.8 Overall, and having regard to Article 111, I consider that the EIS and supplementary information received by the Board in connection with the appeal complies with Article 94 and the EIS and evaluation of grid connection are adequate.

Likely significant effects arising from the proposed development

- 13.3.9 Volume 2 of the EIS sets out an assessment of the impact on environmental aspects associated with the proposed development. Section 3 above identifies and describes the main likely significant effects arising from the proposed development and regard should be had to this section of the report. The likely significant effects are identified as follows:

Human beings – Socio-Economic

- 13.3.10 There is potential for significant effects on the environment arising from the proposed wind farm development on human beings from construction and operational traffic; noise, shadow flicker, ice throw and reflected light; employment and requirement for goods/ services; establishment of a community fund; and tourism.
- 13.3.11 Avoidance and reductive measures during the construction phase include adherence to health and safety guidelines, management of construction traffic, provision of road maintenance and repair work and the use of plant and machinery in compliance with standards and during normal working hours.
- 13.3.12 No further mitigation measures are proposed during the operational phase other than health and safety compliance and maintenance checks.
- 13.3.13 I consider that the impact on residential amenity is low having regard to the distance of the wind farm site to the nearest dwellings. The nearest dwelling at a distance of approximately 300m from the nearest turbine is uninhabited and the owner has an interest in the proposed development. The next nearest dwellings north of the border are at distances of between 1.75km and 2km. This is sufficiently distant to ameliorate any impacts associated

with shadow flicker, ice throw and reflected light. The proposal would also appear to comply with noise limits within both jurisdictions. This is assessed in more detail under Section 13.6 below.

- 13.3.14 The effects of traffic during the construction phase of the project will bring about a slight negative impact on human beings; however, the duration of these effects will be short term.
- 13.3.15 There will be moderate positive effects in terms of employment during the construction phase of the project. Indirectly, the construction phase will increase demand for local goods and services.
- 13.3.16 The visual impact of the proposed development could have an adverse impact on tourism, particularly on nearby walking routes. I would consider this to be a moderate negative effect.

Air and climate

- 13.3.17 Significant effects may arise on human beings from the production of renewable energy; the production of energy without the release of toxic fumes; construction phase traffic emissions; and construction dust and airborne debris.
- 13.3.18 Avoidance and reductive measures during the construction phase include the use of plant and machinery in compliance with standards. No ameliorative measures are considered necessary during operational phase.
- 13.3.19 The production of renewable energy without the release of toxins is seen as a significant positive effect that will help to reduce reliance on fossil fuels.
- 13.3.20 The impact during construction on air and climate would be negligible, local and short term.

Ecology

- 13.3.21 The site boundary is located approximately 750m to the north of the Lough Nageage Special Area of Conservation and 4.5km south of the River Foyle & Tributaries SAC. An Appropriate Assessment Screening and Stage 2 Appropriate Assessment are included below in Section 13.4 of this report.
- 13.3.22 There is potential for impact on flora and fauna from the proposed development through loss of habitat, pollution of watercourses, erosion associated with surface water run-off, disturbance to ground dwelling mammals, and disturbance to aquatic ecology of upland streams.
- 13.3.23 Proposed Turbines 1 & 3 are located in immature coniferous plantations. Turbine 2 is in an area of habitat mosaic comprising modified blanket bog, wet heath and wet grassland and Turbine 4 is within an area of wet grassland dominated by soft rush. Habitats underlying the proposed access track change throughout the site.

- 13.3.24 There are areas of blanket bog to the north and west of the coniferous plantation that are of local to regional nature conservation value. There is a small area of regenerating blanket bog to the north of the site that is of national conservation value. The eroding stream to the south of the site supports Annex II listed white clawed crayfish, which is of national to international value.
- 13.3.25 Predicted impacts from the proposed development will include permanent habitat loss under the footprint of the proposed development. However, the land take for the turbines and access road is small within the context of the overall site area. A further temporary loss of habitat will occur during the construction phase. There may be a moderate potential/ predicted impact associated with the removal of regenerating blanket bog and during the initial construction stages through slippage of materials and compaction of blanket bog when vehicles will have to cross over the site. Drainage ditches and the eroding stream may also be affected from coniferous forestry felling and the temporary construction compound.
- 13.3.26 The fauna impacted upon by the proposed wind farm may include bats, birds, amphibians and reptiles and aquatic fauna.
- 13.3.27 Surveys found bat activity to be concentrated to the south of the site and along the treeline to the west. No roost sites were identified within the subject site and the potential of existing structures within the site to support bats is considered to be low. The habitat surrounding the proposed wind farm for supporting foraging and commuting bats is also considered to be low.
- 13.3.28 With respect to mitigation, a 50m buffer will be achieved and exceeded due to the current separation between the proposed turbines and linear habitats. All structures associated with the proposal will be developed in a manner to ensure that no roosting opportunities are present to bats. Habitat disturbance will be confined to the direct land take of the wind farm and construction phase lighting will not be used after sunset. Re-vegetation and restoration of temporary construction areas will take place upon completion of the project. It is likely therefore that the proposed development will have limited negative effects on the local bat population.
- 13.3.29 One bird species of high nature conservation importance, the Hen Harrier, is potentially affected by the proposal. Snipe, which is of moderate nature conservation value, has the potential to be moderately affected. All other species potentially affected have a low importance.
- 13.3.30 Construction activities would temporarily displace selected wintering and breeding birds and this would be confined to the locations of the turbines, hardstandings and tracks. However, the magnitude of disturbance effects on the Hen Harrier would be low due in part to the foraging range of up to 10 km. Similarly, the effect on Snipe would be low as no development is planned for the marshy areas where this species was recorded. During the operational phase, the effects on Hen Harrier and Snipe are not considered to be significant.

- 13.3.31 Mitigation could occur in the form of surveys to identify breeding birds or nesting sites prior to commencement of development to judge if construction or decommissioning activities are likely to disturb breeding attempts. Appropriate exclusion zones and other mitigation measures would then be agreed.
- 13.3.32 A small area of habitat with the potential to support amphibians and reptiles will be lost; however, there is suitable alternative breeding habitat in the surrounding area and the loss of the habitat will therefore have a low impact.
- 13.3.33 In terms of aquatic fauna, there is potential for pollution of watercourses by suspended solids and building materials released during construction, from potential peat slippage during and after construction and from tree felling. The aquatic fauna occurring in the wider includes a number of Annex II listed species and any negative impacts on water quality will represent a moderate to high magnitude effect.
- 13.3.34 Loss of water quality and loss of habitat threaten the future conservation status of the white clawed crayfish. This could arise from increases in sediment loading, changes in nutrient status and pollution events. Two stretches of good crayfish habitat were identified along the streams to the east and south of the site. Two adult crayfish were recorded in the stream to the south. This stream is not hydrologically downstream of the site and will not be affected by silt laden run-off.
- 13.3.35 Natural watercourses and stream crossings have been avoided where possible in the design of the windfarm and watercourses have been buffered by 50m. Measures are also proposed to limit silt laden run-off or contaminating substances to suitable crayfish habitat. Clean water and dirty water will drain to different channels along site tracks and dirty water will be sent to double siltation chambers and a buffered outfall discharging over ground vegetation. Crayfish habitat enhancement measures will also be carried out as part of the Habitat Management and Environmental Plan.
- 13.3.36 It is predicted in the EIS that with full implementation of mitigation measures, the proposed development will not adversely impact on water quality suitable to crayfish. I would have some concern with the potential for run-off from the location of Turbine 2 towards the stream to the east of the site. I note, however, that the potential point of contact for run-off is downstream of the nearby identified good crayfish habitat. Furthermore, the separation distance between the stream and turbine at this location will be approximately 220m.
- 13.3.37 A suite of mitigation measures are proposed in relation to maintenance of habitat integrity, protection of water quality, and protection of aquatic fauna and mammals. This includes mitigation by design to incorporate buffers from streams, drainage ditches, forestry and peat stability, as well as a 200m set back from the SAC.
- 13.3.38 The residual impacts will be permanent loss of wet heath, modified blanket bog, wet heath/ marshy grassland mosaic and acid flush habitat. These

habitats are of local to regional importance. Mitigation measures are expected to reduce residual impacts on fauna to negligible significance.

Soils, water and geology

- 13.3.39 Potential impacts on soils, geology and water during the construction could arise from peat, subsoil and bedrock excavation; contamination of soil by leakages and spillages and alteration of peat/ soil geochemistry; erosion of exposed subsoils and peat during tree felling, access road and turbine base construction work; peat instability and failure; clear felling of coniferous plantation; earthworks resulting in suspended solids entrainment in surface waters; impacts on downstream designated sites; potential release of hydrocarbons during construction and storage; groundwater & surface water contamination from wastewater disposal; release of cement based products; physical changes to surface water course and drainage regime; and impacts on crayfish and associated habitats.
- 13.3.40 Measures to mitigate the effects on water, soils and geology during the construction phase include best practice with regards to peat extraction and storage and refuelling and fuel storage; usage of extracted peat for landscaping and silt fencing; and usage of brush mats to support vehicles.
- 13.3.41 A Peat Stability Assessment was carried out and it was concluded that the potential for peat instability is low given the shallow depth of peat cover. A stability analysis check of peat slopes showed an acceptable margin of safety and therefore a minimal/ low risk of peat failure.
- 13.3.42 Mitigation measures on the water environment during the construction phase will include best practice methods in relation to water incorporated into forestry management derived from various guidelines, as well as measures to reduce the risk of entrainment of suspended solids and nutrient release in surface watercourses. These include buffer zones; manual felling on poor ground; silt and sediment traps; drainage inspection and maintenance; carrying out of works in periods of low/ no rainfall; surface water quality monitoring; mitigation by avoidance; source and in-line controls; treatment systems; water treatment train; silt fences; and pre-emptive site drainage management.
- 13.3.43 In terms of impacts on downstream designated sites, only sub-catchment S1 drains to the River Derg (SAC) and only one turbine and 160m of access road are proposed for this catchment. No impacts are anticipated due to the minimal work proposed in this catchment. The Lough Nageage SAC is not hydrologically linked to the site and no impacts can occur as a result of the proposed development.
- 13.3.44 Mitigation measures put in place to control potential release of hydrocarbons should result in a low probability of impact. However, release of cement based products will have a moderate probability impact following implementation of mitigation measures. Physical changes to surface water courses and the drainage regime will also have a low probability impact following mitigation measures.

13.3.45 In general, providing that these measures and all other measures contained within the EIS are fully complied with, it is expected that there will be a low probability of significant residual impacts on the water environment during construction phase.

Noise

13.3.46 Predicted noise levels at varying wind speeds at the nearest noise sensitive dwellings within 1.5m have been calculated, factoring in conservatism to include downwind modelling, 50% hard ground and receiver heights of 4m.

13.3.47 A comparison of the predicted turbine noise levels at the two nearest residences shows compliance with day time and night times noise levels recommended in the Wind Energy Guidelines. This is a worst case scenario assuming the wind being downwind when the prevailing wind will be upwind from the nearest houses 70% of the time.

13.3.48 Cumulative noise levels with the Seegronan windfarm in Co. Tyrone (6 no. turbines) are predicted to be less than 2 dBA at all houses within 2km of the proposed wind farm. This is within Guideline levels.

13.3.49 During the construction phase, typical noise levels will be 30 dB LAeq with maximum levels of 47 dB LAeq at 600m from the operating point. Mitigation measures will be incorporated on the operation of construction traffic and construction works will be short term and occurring during day time.

13.3.50 It is predicted that the low frequency noise and vibration from the proposed turbines will have a negligible impact on all residences in the locality and no mitigation measures at therefore proposed during the operational phase.

Archaeology

13.3.51 There are no recorded sites within the boundary of the site. However, the site is considered to be an archaeologically sensitive upland location with a long history of human occupation. A total of 31 no. archaeological sites have been identified within 5km of the site.

13.3.52 There is potential for previously undiscovered, sub surface archaeological remains at the turbine locations that would be adversely impacted upon.

13.3.53 The visual assessment concludes that there is inter-visibility between 2 no. monuments of national/ regional importance. However, the effects of the proposed turbines on the setting of these monuments would be minor.

Haul route

13.3.54 The proposed haul route from Killybegs for turbine delivery largely follows the same road network to Killeter village, Co. Tyrone that was used for neighbouring wind farms. Delivery vehicles will then pass through Killeter and onto Crilly's Hill Road and Seegronan Road.

- 13.3.55 The largest component to be delivered will be the blades at 45m in length. The maximum number of loads to be delivered would be 1,147, which includes all general building materials and removal of equipment and materials after construction.
- 13.3.56 Crilly's Hill junction will require widening to accommodate abnormal loads and Seegronan Road will be widened to 4m and 12 no. temporary passing bays will be installed.
- 13.3.57 As significant road widening and strengthening works and junction upgrades and passing bays are already in place, the effects of haul route works will be minimal and limited to minor disruption during transport. There will be positive effects for local road users through improved road infrastructure.

Landscape and visual

- 13.3.58 Six Zones of Theoretical Visibility maps have been produced for the proposed wind farm. These maps have a radius of 20km from the site and assume the worst case scenario with no land-cover. The cumulative impact of all existing, permitted and proposed windfarms within 10km of the site is also illustrated.
- 13.3.59 The ZTV model shows that the proposed turbines will be visible from most directions within the 3-4km distance range. The proposed wind farm will be screened from the majority of lands to the east and west outside the 5km range and will be visible intermittently from roads in the wider surrounding area. At a greater distance there will be increased potential for the turbines to be screened by the intervening landscape. Figure 12.9 taken from the north-west appears to show that the additional windfarm does not make a significant difference to cumulative windfarm visibility.
- 13.3.60 A total of 12 locations were chosen around the site for preparation of photomontages. An additional 2 no. locations were included with the appeal submission. These images would appear to give a good representation of the turbines within their wider landscape and in combination with existing, permitted and proposed wind farms.
- 13.3.61 The visual impact of the proposed development during construction phase will be short term and will give rise to a slight negative impact. This can be mitigated by the use of a one main compound rather than several.
- 13.3.62 During the operational phase, there will be long term impacts from significant to slight depending on distance from the windfarm. It is likely that within the 3km radius, the windfarm will have significant visual effects. However, the surrounding landscape is broad and expansive and it does have the capability of absorbing the windfarm. There will also be cumulative effects with other windfarms; however, this may also be seen positively, as there is an established windfarm usage of the surrounding landscape. The proposed windfarm could be seen as a small incremental addition when viewed with existing/ permitted/ proposed turbines over the wider area.

13.3.63 The visual impact of the proposed access track will have slight visual effects locally. Visual impacts of proposed on-site cabling will only occur during construction works.

Health & Safety

13.3.64 The potential effects on health and safety arising from the proposed development are likely to occur during the construction phase of the project. Appropriate precautions will be observed and no significant adverse impacts to public health and safety are anticipated.

13.3.65 Other potential impacts include falling ice, structural integrity, lightning strike, aviation visibility, reflected light, driver distraction, noise emissions, electromagnetic emissions and shadow flicker effects. The probability of these impacts occurring are low.

Grid connection

13.3.66 An ecological assessment of the proposed grid connection from the proposed windfarm to the NIE Networks substation at Magherakeel, Co. Tyrone was carried out and submitted with the appeal. The grid connection from the site boundary to the substation will be exempt/ permitted development. Approximately 60m of the proposed grid connection will be within the boundaries of the windfarm and this will be entirely within the foundations of the road. Therefore, no additional impact on any natural habitat is anticipated.

13.3.67 The remainder of the grid connection will continue for a distance of 9.1km to the substation and it will be installed in the foundations of the road for all of this distance. There will be no loss or disturbance of natural habitats or fauna along the roads. However, a small number of watercourses will be crossed that may be used by fish or other aquatic fauna. It is intended that the cable will be laid in the foundation of the road surface above the culverts and therefore no direct impacts on these culverts or watercourses are anticipated.

13.3.68 Mitigation measures include compliance with all relevant guidelines, completion of work during dry conditions, placement of excavated material directly into trucks and use of silt fences along edges of the road. Mitigation measures will prevent pollution of local watercourses and ensure that the grid connection will not adversely affect any European sites.

Summary of interactions

13.3.69 Human beings/ socio economic context:

- Noise emissions
- Health & Safety
- Air & climate

- Landscape character and visual amenity

13.3.70 Air & Climate:

- Human beings
- Health & safety

13.3.71 Ecology:

- Foraging & nesting bats
- Local & migratory bird life
- Geology & peat stability

13.3.72 Bats:

- Ecological impacts

13.3.73 Birds:

- Ecology

13.3.74 White-clawed crayfish:

- Local hydrology

13.3.75 Soils, geology & water:

- White-clawed crayfish
- Health & safety

13.3.76 Noise:

- Health & safety
- Human beings

13.3.77 Archaeology:

- Landscape & visual
- Socio economic

13.3.78 Communications, electromagnetic production and air traffic:

- Health & safety

13.3.79 Landscape & visual:

- Human beings

- Archaeology

13.3.80 Roads & access:

- Ecology
- Geotechnical
- Health & safety

13.3.81 Health & safety:

- Human beings
- Air & climate
- Noise
- Communications

13.4 Appropriate Assessment

13.4.1 The EU Habitats Directive (92/43/EEC) requires competent authorities to review planning applications and consents that have the potential to impact on European designated sites, i.e. Special Protection Areas (SPA's) and Special Areas of Conservation (SAC's). To assist this process, the applicant has prepared a Natura Impact Assessment for the proposed windfarm development, which includes a Stage 1: Screening Assessment and a Stage 2 Appropriate Assessment.

Stage 1: Screening

13.4.2 The first stage of the Appropriate Assessment process is the screening exercise where it should be decided if the effects of a development on a European site are likely and whether or not the effects are significant in light of the Conservation Objectives for the site. It should also be determined if there are cumulative effects with other projects. The precautionary principle should apply if there are significant effects that cannot be excluded, or where the likelihood is uncertain.

13.4.3 The first step of this stage is to identify all European sites which could potentially be affected using the Source-Pathway-Receptor model.

13.4.4 There are three SAC's within 15km of the appeal site within the Republic of Ireland, the closest of which is the Lough Nageage SAC (Site code: 002135) located approximately 750m to the south of the appeal site boundary. The River Finn SAC (Site Code: 002301) is approximately 6.55km to the west and the Dunragh Loughs/Pettigo Plateau SAC (Site Code: 001125) is as close as 13km to the west of the site.

- 13.4.5 There are 2 SPA's in the Republic of Ireland within 15km of the appeal site; Lough Derg (Donegal) SPA (Site Code: 004057), which is approximately 8.6km to the west of the site, and Pettigo Plateau Nature Reserve SPA (Site code: 004099)
- 13.4.6 Within N. Ireland, there are three SAC's; the River Foyle & Tributaries SAC (4.5km north), Moneygal Bog SAC (12.8km north-east) and Fairy Water Bogs SAC (12.4km east).
- 13.4.7 Having regard to the nature and scale of the proposed development, impact pathways would be restricted to hydrological pathways and mobile species pathways. Using the source-pathway-receptor risk assessment principle, the European sites that could potentially be affected by the proposed development, and which would occur within the sphere of influence of the project site, are the Lough Nageage SAC and the River Foyle & Tributaries SAC.
- 13.4.8 The second step is to identify the conservation objectives for each of these SAC's. It is the conservation objective of the River Foyle & Tributaries SAC (UK0030320) *"to maintain (or restore where appropriate) the*
- *Atlantic Salmon Salmo salar*
 - *Water courses of plain to montane levels with the Ranunculus fluitans and Callitriche-Batrachion vegetation*
 - *Otter Lutra lutra*
- to favourable condition."*
- 13.4.9 For the Lough Nageage SAC (002135), the conservation objective is *"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: White-clawed Crayfish (Austropotamobius pallipes)."*
- 13.4.10 Step 3 of the screening process is to identify the potential (a) likely and (b) significant effects (direct or indirect) of the project alone on the European site **solely** within the context of the site's conservation objectives in light of best scientific knowledge in the field.
- 13.4.11 All qualifying species within the River Foyle & Tributaries SAC are reliant upon the aquatic environment. A small section to the south-west of the site drains to the Tievemore Burn, which is hydrologically linked to the SAC.
- 13.4.12 Within the Lough Nageage SAC, Crayfish are a mobile species with potential to colonise stretches of watercourse upstream and downstream of known locations. Disturbance to the River Termon downstream of both the SAC and appeal site could negatively affect crayfish dispersing from/ migrating to the SAC. The appeal site and SAC share the same catchment but there is no inflow of water from the project site to the hydrology system designated within the SAC. The Termon River is within the River Erne catchment and populations of Crayfish are located downstream of the appeal site. It was

also observed that there is suitable habitat for crayfish at the section of stream near the site entrance.

- 13.4.13 There is potential for likely significant effects on the SAC's within the sphere of influence of the appeal site from the release of pollutants such as suspended solids and contaminating substances during construction works; release of nutrients during forestry felling; and release of wastewater or chemical substances associated with temporary sanitation during construction.
- 13.4.14 The fourth step of the Screening stage is to identify the potential (a) likely and (b) significant effects (direct or indirect) of the project in combination with other plans or projects on the European site **solely** within the context of the site's conservation objectives in light of best scientific knowledge in the field.
- 13.4.15 There are a number of permitted and proposed windfarms in the vicinity of the site, mostly on the northern side of the border. There may be the potential for similar significant effects particularly on the River Foyle & Tributaries SAC. The catchments of both SAC's are also at risk from agriculture and forestry land uses.
- 13.4.16 The fifth step of the Screening stage is evaluate the potential effects identified above using the source-pathway-receptor model.
- 13.4.17 The proposed development will involve the felling of 4.16 hectares of coniferous forestry, together with the excavation and construction of 4 no. turbine bases and hardstands each with area of 1,378 sq.m. Electrical cables will be installed and a new 4.5m wide access track will be constructed over a distance of 1,447m. The grid connection will continue a distance of 9.1km along public roads and crossing a number of streams.
- 13.4.18 There is potential for emissions from forestry clear felling and significant pollution to the Termon River. This could have negative effects on crayfish occurring in the Termon River and for the populations supported by the SAC upstream.
- 13.4.19 Obstruction of culvert passages for aquatic fauna and change in water quality could also result from the grid connection. However, the laying of cable will take place near the road surface at water crossings and culverts will not be disturbed.
- 13.4.20 Peat failure and release of sediments, nutrients and wastewater, together with changes in watercourse flow rates would also have negative effects on SAC's. There are also potential in-combination effects in terms of interaction with other wind farms and with harvesting of coniferous plantations.
- 13.4.21 Overall, the proposed development could lead to disturbance of Annex II listed species such as crayfish, otters, salmon and lamprey supported by the River Termon and River Derg. There is potential for water quality reduction, which is likely to affect the conservation status of the qualifying interests for which the European Sites are designated.

13.4.22 Finally, it can be determined that likely significant effects, either individually or in combination with other plans or projects, on both the Lough Nageage SAC and the River Foyle & Tributaries SAC cannot be reasonably ruled out in this case on the basis of objective scientific information.

Stage 2: Appropriate Assessment

13.4.23 The Stage 2 Appropriate Assessment considers whether the proposal 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 a consideration of any mitigation measures necessary to avoid, reduce or offset any negative effects.

13.4.24 I consider that an Appropriate Assessment of the likely significant effects of the proposal on the Lough Nageage SAC and River Foyle & Tributaries SAC is required, and that all other European Sites within 15km of the subject site can be screened out having regard to south-pathway-receptor assessment principle. I am satisfied that there is sufficient information available to the Board to carry out the Appropriate Assessment in this case.

13.4.25 The following is a summary of the mitigation measures contained within the Natura Impact Assessment submitted on behalf of the applicant:

- Mitigation for slope failure, peat slide and bog burst:
 - Method statement and construction reviewed and supervised by geotechnical engineer.
 - Drainage of grounds in advance of access track construction.
 - Catch ditches and/ or fences to intercept potential slides.
 - Support of excavations to resist lateral slippage.
 - Immediate removal of peat from sloping sites.
 - Any imported aggregates should be of similar geochemistry.
 - Avoidance of wet periods for significant excavations.
 - Slopes of all excavations should be battered back to 45 degrees.
 - Backfilling of excavations as soon as possible.
 - Prevention of water ponding in excavations.
 - Avoidance of cut into deep peat.
 - Transfer to crane loading onto competent strata.
 - Regular check for tension cracks.
 - Completion of works on less sensitive areas first.

- Induction training and allowance of sufficient time for works.
- Mitigation measures to prevent the release of polluting substances, including wastewater to watercourses:
 - Development of detailed surface water management plan in advance of construction.
 - Daily/ weekly examination of watercourses under footprint of construction.
 - Avoidance of disturbance to natural drainage.
 - No turbine construction within 50m of watercourses.
 - Diversion of uncontaminated surface run-off from construction areas.
 - Management of drainage waters through a series of treatment stages with other pollution control measures that may include swales, check dams and detention ponds and other pollution control measures such as silt fences and mats.
 - Run-off from excavations will be pumped to the head of the treatment train.
 - Areas stripped of vegetation will be kept to a minimum.
 - Roadside drains should be shallow with moderate gradients.
 - Oil and fuel to be stored in containment areas with emergency response measures.
 - Refuelling carried out in containment areas at least 100m from watercourses.
 - Cement should be mixed in containment areas.
 - All necessary consents to be obtained.
 - Construction personnel to be trained in pollution incident control response.
 - A wheel wash is proposed at the site entrance.
 - Drainage network and treatment train will continue during the operational phase of the development.
- Mitigation measures for cable laying:
 - Work taking place in dry conditions.
 - Excavated material placed directly into dumper.

- Erection of silt fences along edge of the road within 50m of all watercourses.
- Maintenance/ refuelling of vehicles off site.
- Control of cement based and road surfacing materials.
- Provision of temporary toilet facilities.

13.4.26 The potential effects of the project on the conservation objectives of the sites should now be examined and evaluated taking account of mitigation. This evaluation should use the source-pathway-receptor model and be based on best scientific knowledge in the field. It should include direct and indirect effects of the project, either individually or in combination with other plans or projects. It should also be considered whether the proposed mitigation measures are clearly described, and would be reasonable, practical and enforceable, and that the applicant has the ability to implement such measures. Mitigation measures also need to be subject to screening/ AA in their own right.

13.4.27 I would be satisfied that with strict adherence to all mitigation measures outlined in the EIS and NIA, and compliance with all surface water management proposals, including additional information in this regard submitted to the Planning Authority, that the proposed development will not give rise to significant adverse effects on the nearby SACs. I am confident that the applicant can successfully implement all mitigation measures under appropriate supervision. I also consider that the mitigation measures themselves will not cause significant effects on European Sites. The Department of Arts, Heritage and the Gaeltacht has reviewed the NIS and is of the view that if all mitigation measures are implemented in full, there will not be any significant adverse effects on an European Site or to the wider environment.

13.4.28 I consider it reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of European site No's. 002135 and UK0030320, or any other European site, in view of the site's Conservation Objectives.

13.5 Siting, Design and Visual Impact

13.5.1 It is considered under Donegal County Council's first reason for refusal that taken in conjunction with existing and permitted windfarm developments in the wider area, the proposed wind farm would result in an unacceptable adverse impact on the landscape character and visual amenities of the area due to cumulative impacts. The proposed development is therefore considered to have significant adverse transboundary environmental impacts.

- 13.5.2 The Council's decision was informed by transboundary consultations with the DOENI who have concerns regarding the potential visual impact of the proposed development. The Board also entered into transboundary consultations and DOENI expressed its continued concern in relation to landscape and visual impacts on the North. Reference is made in their submission to "Supplementary Planning Guidance 'Wind Energy Development in Northern Ireland's Landscapes'", which indicates that there were already issues of cumulative impact and potential for transboundary impacts on the two closest Landscape Character Areas (Lough Braden and Killeter Uplands).
- 13.5.3 It is considered that the proposal will add to existing cumulative impacts and will seriously diminish the separation distance between existing groupings, thereby creating a landscape overwhelmed by wind turbines. DOENI also refers to a nearby wind farm at Algolan that was refused permission on cumulative visual impact grounds by the Planning Appeals Commission.
- 13.5.4 The applicant has prepared a number of photomontages, wire frame diagrams and zone of theoretical visibility mapping to assist with the visual assessment of the wind farm. Locations of existing, permitted and proposed windfarms within 10km of the appeal site have also been mapped. The applicant is of the opinion that the proposed windfarm is by no means the critical tipping point between acceptable and unacceptable cumulative effects.
- 13.5.5 The appeal site is located within a strip of Co. Donegal that protrudes into Co. Tyrone, resulting in approximately 80% of land within 5km of the appeal site being within N. Ireland. All permitted, proposed and existing windfarms within 5km of the site are located north of the Border, particularly in the area to the north and north-west of the appeal site. There is also a cluster of constructed and proposed windfarms to the north of Lough Bradden Forest due east of the appeal site. There are no windfarms in the immediate area to the south of the site in Counties Donegal and Fermanagh. A strip of land heading north-west from Carrickaholten Forest separates the two existing clusters of windfarms. In total, the map of existing/ permitted/ proposed windfarms submitted with the planning application shows approximately 53 no. turbines within 5km of the appeal site. This does not include the 7 no. turbines recently refused by the PAC at Altgolan to the east of the site and Carrickaholten Forest.
- 13.5.6 The proposed development will be an incremental addition to an existing windfarm cluster adjoining the strip of land free of windfarm development. This will have the effect of widening out the existing cluster. However, it would appear from the ZTV maps and from my observations within the vicinity of the site that the proposed turbines will have the greatest cumulative visual impact when viewed from the north-west. This is best illustrated within Photomontages 9 & 9A. From these images the proposed turbines, for the most part, will be viewed behind existing turbines and in my opinion they will be rendered the proposed structures less perceptible. Visual stacking is more of an issue in more visually sensitive landscapes and in this case the proposed turbines will be located in the more distant background.

- 13.5.7 The turbines will also be clearly visible on the approach road to the site from Killeter Village. I note that the village itself sits at a low elevation relative to adjoining lands to the south and any views of the proposed turbines will be limited by the rising topography. In addition, the turbines will be visible in the context of those permitted nearby at Seegronan wind farm.
- 13.5.8 With respect to the visual impact of the turbines within Co. Donegal, I note that the site is located within an area that is “*open for consideration*” for wind energy development. Furthermore, the area immediately to the south and south-west of appeal site is not favoured for wind energy development and this limits the potential for expanding the proposed wind farm. The closest Development Plan designated Area of Especially High Scenic Amenity is located approximately 15km to the north-west and the nearest views and prospects are at Lough Derg approximately 9km to the west. Thus, the proposal will not give rise to any significant visual impacts, solely or cumulatively within Co. Donegal.
- 13.5.9 I refer to the Wind Energy Guidelines, Chapter 6: Aesthetic Considerations in Siting and Design, which considers the siting, spatial extent and scale, cumulative effect, spacing, layout and height of turbines. As noted in the Guidelines, while many issues in relation to wind energy development can be assessed in quantitative terms, aesthetic considerations are more subjective and qualitative. When siting wind energy development, it is advised that on the one hand visual confusion and spatial dominance should be avoided where landscapes are already cluttered, whilst on the other, advantage should be taken of a moderate amount of visual absorption that might be provided by existing structures.
- 13.5.10 I would be of the opinion that in terms of topographic profile the prevailing view would be of turbines partially screened behind crests where screening visually stunts towers. There is also the potential for the proposed windfarm to strike a composite relationship to create visual harmony with the nearby Carrickaholten Forest. In addition, the proposal should be considered as being within the same visual unit and the nearby Seegronan windfarm.
- 13.5.11 The turbines themselves will appear as a tight cluster rather than a linear layout spread over a wider area. In my opinion, this is a preferable approach when an existing cluster is essentially being expanded. The turbines will then be better viewed as part of an existing cluster.
- 13.5.12 In general, I would accept that the appeal site is located at the edge of an area that is beginning to reach saturation point in terms of wind energy provision from a visual viewpoint. However, it should be noted that the proposal only comprises 4 no. additional turbines in a relatively remote area and in a landscape that cannot be considered as overly sensitive. Furthermore, the proposal is less likely to set a precedent for incremental development having regard to its location surrounded by the border and areas not favoured for wind energy development.
- 13.5.13 Finally, I would highlight again that there are no visually sensitive landscapes in proximity to the site across the Border. The nearest Area of Outstanding

Natural Beauty is approximately 23km distant and the nearby Landscape Character Areas have a medium sensitivity. If the Government is to achieve its targets for renewable energy development, it is essential that sites such as this with a good wind resource in a less scenic landscape, should be developed in a sensitive manner. Having regard to all of the above, I consider that there are insufficient reasons for refusing permission for 4 no. turbines on cumulative visual grounds.

13.6 Noise Impacts

- 13.6.1 The transboundary consultation also raised issues with respect to the cumulative noise impacts associated with the proposed development and other committed and proposed wind farm developments in the wider area. Derry City and Strabane District Council (DCSDC) cannot recommend that planning approval is granted for the proposed development based on the Noise Review carried out by the applicant's consultants.
- 13.6.2 It is highlighted in the submission from DCSDC that the applicant must take into account any other nearby wind energy developments that may contribute to noise levels at relevant noise sensitive receptors. It can then be established if there is any acoustic headroom at noise sensitive locations and the contribution that the Crilly proposal will make. It is pointed out that the applicant's Noise Review concludes that the noise contribution from the proposed wind farm is 10 dBA below the cumulative noise contribution. DCSDC is not confident that this is the case.
- 13.6.3 A number of inaccuracies are detected by DCSDC in the methodology adopted by the applicant's consultants in calculating noise predictions and the cumulative impact with other developments. They relate to sound power levels; noise management schemes; operational mode sound power levels; hub height (Crighshane); measurement uncertainty; and wind shear.
- 13.6.4 DCSDC is uncertain that the background noise levels at the 2 no. noise sensitive receptor locations chosen by the applicant are applicable to N. Ireland receptors. It is also noted that DOENI applied a noise limit at the recently approved Tievenameeta wind farm due to the level of difference between background noise levels and predicted levels over certain wind speeds at certain properties. Finally, it is stated that the applicant has taken account of predated approved and pending applications including the Seegronan wind farm extension, which is awaiting appeal.
- 13.6.5 It is important to note that according to the Wind Energy Guidelines, noise is unlikely to be a significant problem where the distance from the nearest turbine to any noise sensitive property is more than 500m. The closest inhabited dwelling in Co. Donegal is at a distance of 1.5km to the south of the site and the nearest dwelling in Co. Tyrone is at a distance of c. 1.75km to the north-west along Seegronan Road. There are also three dwellings to the north-west at distances of between 1.9km and 2.4km to the nearest turbine.

- 13.6.6 The applicant's noise consultants responded to DCSDC's concerns by confirming that the proposed development complies with the noise limitations contained under the Wind Energy Development Guidelines and ETSU-R-97, which applies to N. Ireland.
- 13.6.7 The predicted noise levels and the closest property in N. Ireland is stated to be 30dB and this is 5dB lower than the lowest limiting criteria within ETSU-R-97. Furthermore, the predicted noise levels from existing wind farms show a noise level of between 12-15 dB higher than the maximum noise level from the Crilly windfarm operating on its own. It is therefore considered that no cumulative assessment is required. It is also noted that any further sites will only increase the difference between the Crilly site and the cumulative level. Any other changes in terms of wind turbine design is considered to have a negligible impact on predicted noise levels.
- 13.6.8 Having regard to the above, I would be satisfied that the proposed development will not contribute to cumulative noise levels to an extent that noise limits will be exceeded at the nearest noise sensitive locations. There are significant separation distances between properties and turbines and the surrounding area is sparsely populated. It is also noteworthy that windfarms in closer proximity to existing nearby dwellings in Co. Tyrone have already been approved.

13.7 Haul Route

- 13.7.1 The transboundary response included correspondence from Transport NI raising issues with respect to sight lines from domestic and agricultural accesses along Seegronan Road.
- 13.7.2 Drawings submitted to Transport NI depicting fence lines set back to accommodate 2.4m "X" distance visibility splays at 2 no. residential accesses were considered acceptable. It is noted, however, that the proposed realignment/ widening of Seegronan Road will impact on road safety through reduction of visibility at a number of agricultural accesses. Transport NI sets out a number of conditions if the Council is minded to set aside its concerns.
- 13.7.3 These works fall under a separate, albeit related, planning application to be determined by DCSDC. Otherwise, the haul route to Killeter Village, Co. Tyrone will comprise of road infrastructure from Killybegs that has been recently utilised by nearby wind farm developments.
- 13.7.4 Notwithstanding the decision of DCSDC on the concurrent haul route improvement works planning application, I would otherwise consider that adequate information has been submitted to demonstrate that the existing public roads to the site can be used for construction traffic.

13.8 Conclusion

- 13.8.1 The proposed development for 4 no. wind turbines generating 12 MW of electricity per annum in an area “Open for Consideration” for wind energy development is acceptable in principle and in compliance with Government targets to increase the generation of electricity from renewable resources.
- 13.8.2 I would be satisfied that the applicant has now submitted the necessary information relating to the proposed grid connection to supplement the EIS and AA. In my opinion, it has been adequately demonstrated that the proposed development, following implementation of mitigation measures, will not have significant adverse effects on the environment. In addition, the Appropriate Assessment concludes that the proposed windfarm will not adversely affect nearby European sites.
- 13.8.3 Finally, I consider the proposed windfarm viewed together with existing and committed windfarms in the wider area will not give rise to adverse cumulative transboundary visual impacts. The proposal is for 4 no. turbines which I consider to be a small scale incremental addition, in an area with limited potential for further expansion.

RECOMMENDATION

I have read the submission on file, visited the site and paid due regard to proposed mitigation measures in the EIS and Stage 2 Appropriate Assessment, together with the provisions of the Donegal County Development Plan, 2012-2018 and the Wind Farm Development: Guidelines for Planning Authorities, 2006. I conclude that the development of this site for a wind energy development of four turbines as proposed is acceptable in principle and generally in terms of its individual impacts. I recommend that permission be granted for the reasons and subject to the conditions set out below:

REASONS AND CONSIDERATIONS

Having regard to national policy relating to the development of sustainable energy resources; transboundary considerations and other consultations; the general suitability of the site for a wind powered electricity generating facility; the nature of the landscape in the area; the provisions of the current Donegal County Development Plan; and the proposed mitigation measures outlined in the Stage 2 Appropriate Assessment, EIS and supplementary information, it is considered that, subject to compliance with the conditions set out below, the proposed development would not seriously injure the visual amenities or the landscape character of the area, would be acceptable in terms of traffic safety and convenience, would not be likely to have a significant detrimental effect on ecology or protected species and would, therefore, be in accordance with the proper planning and sustainable development of the area.

CONDITIONS

1. The development shall be carried and completed in accordance with the plans and particulars lodged with the application, as amended by further plans and particulars received by the planning authority on the 25th day of June 2014 and further plans and particulars received by An Bord Pleanála on the 7th day of October, 2015, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.

2. All of the environmental, construction and ecological mitigation measures set out in the Environmental Impact Statement accompanying the application to the planning authority and in the Evaluation of the Environmental Effects of the Proposed Underground Cable received by An Bord Pleanála on the 7th day of October, 2015 and other particulars submitted with the application to the planning authority and to An Bord Pleanála shall be implemented by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this order.

Reason: In the interest of clarity and the protection of the environment during the construction and operation phases of the development.

3. Monitoring of the construction phase shall be carried out by a suitably qualified professional to ensure implementation of all mitigation measures contained in the submitted Environmental Impact Statement, additional information and Stage 2 Appropriate Assessment. The precise nature of the monitoring shall be agreed with the planning authority in writing. Within three months of the completion of construction, a report containing the results of monitoring shall be submitted to the planning authority and NPWS, and a copy shall be placed on the public file.

Reason: In the interest of protecting the ecology of the area.

4. The period during which the development hereby permitted may be carried out shall be 10 years from the date of this order.

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

5. This permission is for a period of 25 years from the date of commissioning of the wind farm. The wind turbines and related ancillary structures and temporary roadway shall then be removed and the site appropriately reinstated, prior to the end of this period, unless planning permission shall have been granted for their retention for a further specified period. Details of the reinstatement plan shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: To enable the impact of the development to be reassessed, having regard to the changes in technology and design during this period.

6. Post construction usage of the wind farm site by birds and bats shall be monitored for a period of five years which shall be carried out by a suitably qualified and competent ecologist. Surveys shall also identify breeding birds or nesting sites prior to commencement of development to judge if construction or decommissioning activities are likely to disturb breeding attempts. Full details of the methodology of monitoring and data collection and reporting arrangements shall be submitted to, and agreed in writing with, the planning authority prior to the commencement of development.

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

7. Prior to the commencement of development, the developer shall submit to, and agree in writing with, the planning authority management structures for administering a Community Benefit Fund.

Reason: To safeguard the amenities of the area.

8. A traffic/roads management plan for the construction phase of the development shall be agreed with the planning authority prior to the development commencing on site. Details shall include proposals for the reinstatement of the public road network and associated property upon completion of the development and in the event of damage occurring during the construction phase. All such damage shall be made good to the satisfaction of the planning authority.

Reason: To ensure a proper standard of development and to safeguard the amenities of the area.

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

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

(ii) 43 dB(A) $L_{90,10min}$

when measured externally at dwellings or other sensitive receptors.

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

Reason: In the interest of residential amenity.

10. The construction of the development shall be managed in accordance with a Construction Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including:
- (a) location of the site and materials compound(s) including area(s) identified for the storage of construction refuse;
 - (b) location of areas for construction site offices and staff facilities;
 - (c) details of site security fencing and hoardings;
 - (d) details of on-site car parking facilities for site workers during the course of construction;
 - (e) details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site;
 - (f) measures to obviate queuing of construction traffic on the adjoining road network;
 - (g) measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network;
 - (h) alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public road or footpath during the course of site development works;
 - (i) provision of construction hours, including deliveries of materials to the site;

- (j) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;
- (k) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater; and
- (l) off-site disposal of construction/demolition waste.

A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the planning authority.

Reason: In the interest of amenities and safety.

11. The wind turbines including masts and blades, and the anemometer mast, shall be finished externally in a light grey colour.

Reason: In the interest of visual amenity.

12. (a) Cables within the site shall be laid underground.
- (b) The wind turbines shall be geared to ensure that the blades rotate in the same direction.
- (c) Transformers associated with each individual turbine and mast shall be located either within the turbine mast structure or at ground level beside the mast.

Reason: In the interest of visual amenity and for clarification purposes.

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

Reason: In the interest of residential amenity.

14. Details of aeronautical requirements shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Subsequently, the developer shall inform the planning authority of the coordinates of the as constructed positions of the turbines and the highest point of the turbines to the top of the blade spin.

Reason: In the interest of air traffic safety.

15. On full or partial decommissioning of the wind farm or if the wind farm ceases operation for a period of more than one year, the masts and the turbines concerned, shall be removed and all decommissioned structures shall be removed within three months of decommissioning.

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

16. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall –
 - (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,
 - (b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and
 - (c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.

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

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

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

Reason: To ensure satisfactory reinstatement of the site.

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

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

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

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

Donal Donnelly
Inspector

28th April 2016