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An Bord Pleanala 64 Marlborough Street Dublin 1

28/12/2015

Re: Planning appeal ref: PL 04.245824

Dear Sir/Madam,



We wish to make some observations in support of the appeal lodged by Michael O'Donovan, against the grant of planning permission for Barna Wind Energy Ltd to construct a six turbine wind farm and associated works at Lackareagh, Garranereagh Lissarda and Barnadivane.

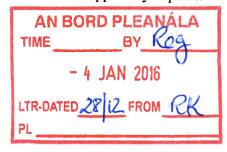
Visual Impact

We share the concerns outlined in the appeal on the visual impact this development would have on the rural landscape. The impact of the existing four turbine wind farm at Garranareagh alone is considerable. The addition of six 131m high turbines and a sub-station that will cover the area of a football pitch at Barnadivane and all the associated pylons and overhead cables represent a large scale industrial development which would be a major blight on this landscape and is highly inappropriate in rural West Cork. This is a skyline development which will have considerable visual impact over great distances. The turbines will visible from several scenic routes and will be adjacent to an area of 'High Landscape Value' from which they will be very visible. They will also have very significant impact on all of the nearby Coppeen Waymarked Walking Trails. We would also like to point out that the R585 known locally as the 'Bantry Line' which runs directly past the proposed windfarm is an important route for tourists coming into West Cork, especially for those headed to Bantry, Glengarriff and the Beara Peninsula as well as those staying in the local area.

Cumulative Impact

It is not only the impact of this one development which concerns us but the cumulative impact of the many wind farms, existing, proposed and still to be proposed, on the precious and beautiful landscape of West Cork. This is very likely to have a negative impact on the amenity and recreational value of the area and seriously undermine the tourism industry. There are currently 3 operational and 7 proposed wind farms within 25km of Barnadivane, a total of 63 turbines. This can easily be seen from the enclosed map.

The large substation which is also proposed for development at Barnadivane (PL 04.244439) is clearly intended to serve many more turbines than the six proposed for this development. Indeed the same developers have now stated their intent to connect the proposed 12 turbine windfarm at Shehy More (PL 04.243486) to the substation via a 24km grid connection route. Since this appeal was submitted the developers have also lodged an application with Cork County Council for Carrigarierk Wind Farm (planning ref. 15/730), a windfarm of five 140m turbines which will also connect to the substation at Barnadivane using the same grid connection route as Shehy More. The cumulative impact of these three wind farms and the substation will be considerable. In fact it is becoming clear that these supposedly separate



developments all form part of one large scale industrial project. Although the applications have been submitted by four apparently separate companies, Barna Wind Energy Ltd, Arran Windfarm Ltd, Shehy More Windfarm Ltd and Keel Energy Ltd, they all have the same directors and the same address. By submitting separate applications for three windfarms and the substation the developers are clearly trying to disguise the overall cumulative impact of a large scale project.

The cumulative impact of a high concentration of windfarms on the local environment must also be considered. Presumably when planning permission is granted for a windfarm it is on the assumption that mitigation measures described by the developer to protect the environment will work. How will the board assess the reliability of all mitigation measures, for all turbines in the area, to work at 100% efficiency throughout the life of the turbines, to protect the catchments of the Bandon River and the River Lee from adverse impacts from all or any of the turbines? If the mitigation measures at one wind farm were to fail, the impact would be bad enough, if the mitigation measures from several or all of the wind farms were to fail, the results would be catastrophic.

When looking at this application we would ask the board to consider not only the impact of the proposed windfarm at Barnadivane but also the combined and cumulative impact of all the proposed and existing wind farm developments in this area. Is it appropriate to industrialise rural West Cork in this way, causing irreparable damage to the landscape and ecology of the area?

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Unlawful Split Application

The application for the Barnavadine wind farm by Barna Wind Energy (BWE) Ltd cannot be considered as separate to the application for the new 110kV substation at Barnavadine by Arran Windfarm Ltd. upon which its purported purpose is entirely dependent. (As has been previously stated these apparently separate companies share both an identical address and identical directors.) This fact is made quite clear by Arran Windfarm Ltd in regard to the application for the substation (Cork CC planning ref. 14/557) in their response of 2nd November 2015 to an ABP request for clarification on a number of matters where they state that ..

"If these changes are not made, connection of either the permitted wind farm...or the proposed wind farm (planning reference 14/06760) to the national grid will not be possible with the result that the wind farm (permitted or proposed) cannot be developed.."

The above statement is unequivocal.

In his judgement in the O'Grianna and others v. An Bord Pleanala[2014] IEHC 632 case, Mr Justice Michael Peart stated that the connection to the national grid was an integral part of the overall development and that further, the wind farm on its own serves no function if it cannot be connected to the national grid. In that way, the connection to the national grid is fundamental to the entire project, and therefore the cumulative effect of both phases must be assessed by the accompanying EIS in order to comply with the Directive. (our emphasis). The criteria in assessing whether an application constitutes an unlawful split project is therefore quite clear; can the project in question serve a function independently on its own, or does it require connection to another project to fulfil its purpose? Clearly the Barnadivane wind farm

is entirely dependent upon the substation to fulfil its purpose and therefore there cannot be any conclusion other than that the two separate applications for the wind farm and the substation constitute a split project as defined in case law by the High Court. Clearly granting permission for the Barnadivane wind farm under these circumstances would thus constitute an unlawful act on the part of the planning authority.

Impact on Birds

We are concerned that the bird survey, carried out for this development, did not fully take into account its proximity to the Gearagh and the cumulative effects it would have in the greater area.

The Gearagh, an SAC and SPA, and the Upper Lee Valley in general is Cork's principle inland area for migratory birds, especially water fowl. The governments own 'Wind Energy Development Guidelines' state 'it is considered that the two groups of birds most susceptible to collision with windfarms are swans, geese and ducks and soaring birds like raptors' (5.45). These are just the birds that use the Gearagh and greater area in large numbers. The Lee Valley is also an important migration route for them.

The EU Court of Justice has repeatedly found Ireland to have 'breached both the Birds and Habitats Directives' (E.Barnett p. 76 'Journal of Energy and Natural Resources Law') specifically for failing to adequately protect SPAs and SACs and for not allowing for cumulative effects upon them. It is this cumulative effect which is being ignored by this development. With 6 new turbines it is more than doubling the number in a small area. Taken together with at least 4 other windfarms, planned by the same parent company, for the Upper Lee Valley, then the cumulative effects on important bird populations must be considered in greater detail.

We also note that the applicants were asked to contact the Golden Eagle Trust in connection with records of White Tailed Sea Eagles in the area. The applicants claim to have received no reply. Surely this is not an adequate response for such an important species, newly introduced into West Cork and now breeding close-by in Bantry Bay? A similar tactic was used for the Shehy More EIS (13/551) and it eventually transpired there were records available of WTSEs using the area on a regular basis.

Hydrology

Given the sites hydrological connection to an SAC, the hydrological assessment of this site in the EIS unquestionably assumes a critical importance. The Water Frameworks Directive requirements demand that there be no reduction in water quality whatsoever. That is to say that a minimal reduction in water quality is both unacceptable and unlawful. Section 7.8 of the EIS 'Conclusions on Hydrology & Water Quality' states that:

"The surface water hydrology impacts of the proposed Barnadivane wind farm development, if not mitigated, could affect both the surface water run-off and the existing water quality of the receiving waters in the tributaries of the River Cummer.."

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Clearly, for the planning authority to assess the adequacy of the mitigation measures proposed and whether the hydrology of the site has the potential to deposit water containing any sediment into the nearby water courses the most basic figure to consider is the amount of water which may be received by the site at any one time, that is to say the maximum daily rainfall figure. This is this baseline data required for the design of any subsequent mitigation measures and the planning authorities considered assessment of such. Incredibly, such figure is nowhere apparent, that is to say that the maximum daily rainfall figure for the site is entirely absent.

Figure 7.4 of the EIS does allow for a 1 in 100 year rainfall event, but only for 30 minutes. Clearly, given the increasingly erratic nature of our climate, underscored by the extremes being experienced locally during this current winter, restricting such considerations to a 30 minutes time period is at best absurd and may be regarded as the height of irresponsibility and negligence. For example, stilling ponds are proposed as a method of preventing sediment escaping, without knowing the maximum amount of water potentially entering such, how is it possible to assess their ability to achieve this objective? Clearly it is not possible and thus relies more on wishful thinking than empirical data. The potential for the proposed mitigation measures to be overwhelmed by an extreme rainfall event is considerable.

The failure of the applicants to include such critical data means that the hydrology and mitigation measures proposed must be considered as being unfit for purpose and that Cork CC and ABP are not in possession of the necessary data to complete an Appropriate Assessment as required by law.

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Noise and Proximity to Local Dwellings

Residents living in the vicinity of the proposed wind farm an extremely concerned about the effect of noise from the wind farm on their health and their quality of life. According to the noise assessment in the applicants EIS people living close to the proposed wind farm will be exposed to levels of noise which are only just below the allowable thresholds outlined in the 2006 DoEHG guidelines. We share the concerns outlined in the appeal as to the accuracy of the noise assessment in the EIS especially regarding background noise levels at the site.

Similar noise assessments carried out for the EISs for the proposed windfarms at Shehy More (PL 04.243486) and Derragh (PL 04.245082) were reviewed by Mr. Dick Bowdler, Acoustic Consultant, and found to be flawed and not fit purpose. Mr. Bowdler is recognised as one of the leading international experts in his field and has acted as an advisor to the British Government among others on wind generated turbine noise. We are extremely concerned therefore that the noise assessment carried out for this windfarm is also likely to be unreliable. This could mean that many residents will actually be exposed to noise levels well above the guidelines. Residents living close to the existing four turbines at Garranereagh have reported intolerable levels of noise which have caused distress to their families and also to their livestock. We would like to request therefore that the Board produce their own independent and objective written evaluation of the noise impact on houses under 2km from the turbines.

The board will be aware of the number of international studies which have identified turbine generated noise as a significant threat to the health of young children in particular due to sleep disturbance which has serious implications for their development and long term well

being. Epidemiological studies have identified a range of serious of health consequences associated with this phenomenon. As has been shown by the observations submitted to Cork County Council, this is an issue that is of serious concern to the local community.

We would like to draw the board's attention to section 10.3 'Impact on Public Health' of the inspector's report for the Straboy Windfarm in co Donegal which was refused permission by an Bord Pleanala in January 2013 (PL 05B.240166). In his report Senior Planning Inspector Kevin Moore points out the inadequacy of the wind energy guidelines on this issue and suggests there is a need for greater guidance to allow planning authorities to make adequately informed decisions on such a critical issue.

The board will of course be aware that the wind energy guidelines are currently under review and we would argue that it would be inappropriate to sanction the development of a windfarm in such close proximity to people's homes until new guidelines have been published, especially considering the height of wind turbines has more than doubled since the current guidelines were published. On the 10th December 2015, local TD for Cork North West, Michael Creed, called on the minister for environment to publish the new guidelines as matter of urgency in response to local concern about wind farm development, stating that 'In terms of noise, flicker and distance from residential properties, the guidelines are significantly out of date.'

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Safety

We also have concerns regarding the safety of the safety of residents and land users in close proximity to the proposed turbines. Section 5.7 of the 2006 Wind Energy Development Planning Guidelines states that "There are no specific safety considerations in relation to the operation of wind turbines. Fencing or other restrictions are not necessary for safety considerations. People or animals can safely walk up to the base of the turbines".

However section 2 of the Vestas V90 'Safety Regulations for Operators and Technicians' V90-3MW/V100-2.75MW states:

- 1. Do not stay within a radius of 400m (1300ft) from the turbine unless it is necessary.
- 2. If you have to inspect an operating turbine from the ground, do not stay under the rotor plane but observe the rotor from the front.
- 3. Make sure that children do not stay by or play nearby the turbine.
- 4. If necessary, fence the foundation.

This would seem to indicate that it is in fact not safe for people or animals to be within 400m of the base of a turbine. While we accept that the Vesta V90 is not the turbine model which will be used at Barnadivane we assume that safety considerations are similar for all models. This has important health and safety implications for farmers, livestock and recreational land users close to the turbines.

On Thursday 19th June 2014 a wind turbine on the Cappaboy windfarm that is located near Kealkil, West Cork, suffered a catastrophic fire of sufficient intensity to destroy the nacelle housing and dislodge two of the three rotor blades which were thrown 200m and 50m away

setting fire to forestry and gorse (www.southernstar.ie/News/Fire-at-Cappaboy-windfarm-27062014.htm). It would seem that turbine fires such as this are not uncommon. On the 1st July 2013 a wind turbine caught fire in Co. Londonderry at the Glenconway Wind Farm due to an 'electrical fault.' (http://www.u.tv/News/Crews-deal-with-wind-turbine-on-fire/61f0f055-be1a-4b96-8eec-69ba25864253)

If a turbine were to catch fire at the Barnadivane development it would be a serious hazard for nearby dwellings. The Gamesa G850 turbines at the Cappaboy windfarm are 50m high. A blade from one of the 130m high turbines proposed for Barnadivane could potentially be thrown a lot further than 200m. At Cappaboy there were maintenance staff on site who were able to alert the fire brigade however if a turbine were to catch fire during the night it could be some time before it is noticed.

Last week on Thursday 24th December 2015 a Vestas V112 3MW turbine collapsed at Stena Renewable's 96MW Lemnhult wind farm in Sweden.

http://renews.biz/101010/vestas-v112-collapses-in-sweden/

It would seem that wind farm developers and the wind energy development guidelines are extremely blasé about the risks associated with wind turbines. What would the legal implications be for a planning authority that has sanctioned a windfarm in close proximity to dwellings and adjacent to land that is used for agricultural or recreational purposes if there were to be an accident?

Environmental Impact Assessment

There are so many clear omissions within the developers EIS that it is important that the An Bord Pleanala should be able to explain how it will fulfil its obligation under the Planning Act, 2000 and under Article 3 of the EIA Directive, requiring it to conduct an assessment of the development on people, flora, fauna, the landscape and all the other 10 parameters listed in Article 3. The Board cannot rely on the information supplied by the applicants which is arguably neither reliable nor objective.

We request An Bord Pleanala to take into account our observations along with the issues raised in the appeal and the concerns expressed in the 258 submissions submitted to Cork County Council when considering this application. This industrial development would have a detrimental impact on the landscape and the ecology of the local area and the quality of life of the people who live near to it. The cumulative impact of windfarms in the wider area will have an irreversible impact on the landscape, environment and amenity value of West Cork.

Yours Sincerely			AN BORD PLEANÁLA TIMEBY
Tony Miller Tooreen Dunmanway Co Cork	Sarah Hodkinson Moneylea Dunmanway Co Cork	Daphne Babbing Moneylea Dunmanway Co Cork	on - 4 JAN 2018 LTR-DATED FROM PL

