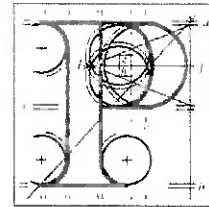


**Our Case Number:** ABP-316178-23



**An  
Bord  
Pleanála**

John G. Moyles Senior & Family  
Formoyle  
Bellacorick  
Ballina  
Co. Mayo

**Date:** 15 November 2023

**Re:** Proposed development of Oweninny Windfarm Phase 3 consisting of 18 no. wind turbines.  
Within the townlands of Laghtanvack, Croaghaun (also known as Croaghaun West), Moneynieran,  
Corvoderry, Shanvolahan, Dooleg More, Shranakilly, Bellacorrick and Shanvodinnaun, Co. Mayo.

Dear Sir / Madam,

An Bord Pleanála has received your submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter.

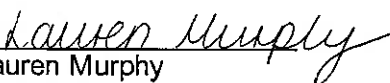
The Board will revert to you in due course in respect of this matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of the local authority and at the offices of An Bord Pleanála when they have been processed by the Board.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: [www.pleanala.ie](http://www.pleanala.ie).

If you have any queries in the meantime, please contact the undersigned officer of the Board or email [sids@pleanala.ie](mailto:sids@pleanala.ie) quoting the above mentioned An Bord Pleanála reference number in any correspondence with the Board.

Yours faithfully,



Lauren Murphy  
Executive Officer  
Direct Line: 01-8737275

PA09

<b>Tel</b>	<b>Tel</b>	(01) 858 8100
<b>Glaó Áitiúil</b>	<b>LoCall</b>	1800 275 175
<b>Facs</b>	<b>Fax</b>	(01) 872 2684
<b>Láithreán Gréasáin</b>	<b>Website</b>	<a href="http://www.pleanala.ie">www.pleanala.ie</a>
<b>Ríomhphost</b>	<b>Email</b>	<a href="mailto:bord@pleanala.ie">bord@pleanala.ie</a>

64 Sráid Maoilbhríde	64 Marlborough Street
Baile Átha Cliath 1	Dublin 1
D01 V902	D01 V902

John G. Moyles Senior & Family  
Formoyle  
Bellacorick  
Ballina  
Co. Mayo

11<sup>th</sup> November 2023

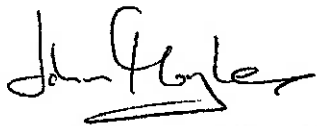
The Secretary  
An Bord Pleanála  
64 Marlborough Street  
Dublin 1

Re: Proposed development of Oweninny Windfarm Phase 3 consisting of 18 no. wind turbines. Within the townlands of Laghtanvack, Croaghaun (also known as Croaghaun West), Moneynieran, Corvoderry, Shanvolahan, Dooleeg More, Shranakilly, Bellacorick and Shanvodinnaun, Co. Mayo.

Dear Sir / Madam,

We refer to your letter of 23<sup>rd</sup> October 2023 referring to the above mentioned case which included the applicants response to our earlier objections / submissions. The following pages include our submission in relation to this response.

Kind Regards,



---

John G. Moyles Senior & Family

## **Noise & Vibration**

Our property at Formoyle is a noise sensitive location as it is downwind of the windfarm and there are multiple turbines planned for construction within close proximity to our dwelling. It should also be noted that we continue to work farming these lands bordering the windfarm site & Formoyle hill on a daily basis. We believe many of the studies referenced in the applicants original application and recent submission are outdated.

In relation to our noise and vibration concerns, the applicant makes no reference to the fact the amount of amplitude modulation (AM) present during the daytime versus night-time varies substantially. Recent research (Nguyen et al., 2021) has shown AM occurs two to five times more often during the night time. Those in dwellings closest to the turbines are most affected. Our dwelling is one of the closest to the planned turbines.

In another 2021 study (Dumbrille et al., 2021), the authors concluded that there is a high probability that emissions from industrial wind turbines, including infrasound and low frequency noise, result in serious harm to health in susceptible individuals living and/or working in their proximity. These effects can be attributed to IWT-related events such as recurring sleep disturbance, anxiety and stress, and likely others.

It is important to review the many studies and reports published on wind turbine effects in the past decade which make alarming reading for rural residents forced to live in the environs of industrial wind installations. People living within 1.5km of wind turbines are exposed to levels of noise, vibration, shadow flicker, and other factors that had not been previously encountered in their rural living environment. Although the applicant has attempted to alleviate the concerns outlined in our observation, it is clear from the amount of incident reports / complaints that are received by government's environmental departments from rural residents living beside industrial wind farms that these turbines do indeed cause significant disturbance. We have included a number of the above mentioned articles and reports in our reference list.

More stringent regulation of this site is needed to recognise, monitor, analyse, and document effects on the health of local residents and animals. Of concern is the lack of determination of the safe exposure cumulative dose of noise, including low frequency noise and infrasound, for adults, the elderly, and particularly for fetuses and young children.

## **References:**

Dumbrille A, McMurtry RY, Krogh CM. Wind turbines and adverse health effects: Applying Bradford Hill's criteria for causation. *Environ Dis* [serial online] 2021 [cited 2021 Oct 25];6:65- 87. DOI: 10.4103/ed.ed\_16\_21, Available from: <http://www.environmentmed.org/text.asp?2021/6/3/65/329039>

Guidance for Evaluating Human Health Impacts in Environmental Assessment: NOISE  
<https://www.ceaa.gc.ca/050/documents/p80054/119378E.pdf>

Krogh, C.M., McMurtry, R.Y., Johnson, W.B., Dumbrille, A., Alves-Pereira, M., Punch, J.L., Hughes, D., Rogers, L., Rand, R.W., James, R., Ambrose, S.E. and Gillis, L. (2021) Grounded Theory as an Analytical Tool to Explore Housing Decisions Related to Living in the Vicinity of Industrial Wind Turbines. *Open Access Library Journal*, 8, 1-22. doi: 10.4236/oalib.1107233. [https://scirp.org/journal/paperinformation.aspx?paperid=108027https://www.scirp.org/pdf/oalibj\\_2021032516361728.pdf](https://scirp.org/journal/paperinformation.aspx?paperid=108027https://www.scirp.org/pdf/oalibj_2021032516361728.pdf)

Krogh, C.M., Wilson, E.J. and Harrington, M.E. (2019). Wind Turbine Incident/Complaint Reports in Ontario, Canada: A Review - Why Are They Important?. *Open Access Library Journal*, 6, e5200. doi: <http://dx.doi.org/10.4236/oalib.1105200>

Nguyen, P. D., Hansen, K. L., Catcheside, P., Hansen, C. H., & Zajamsek, B. (2021). Long-term quantification and characterisation of wind farm noise amplitude modulation. *Measurement*, 182, 109678. <https://doi.org/10.1016/j.measurement.2021.109678>.

Wilson, J., Krogh, C. and Peel, P.C. 2020. Déjà vu and Wind Turbines: A Review of Lived Experiences after Appeals of Ontario Industrial-Scale Wind Power Facilities. *Open Access Library Journal*, 7:e6276. <https://doi.org/10.4236/oalib.1106276>

Wind Concerns Ontario survey. (April 4, 2019). Thousands exposed to wind turbine noise in Ontario. <http://www.windconcernsontario.ca/thousands-exposed-to-wind-turbine-noise-inontario-wind-concerns-ontario-survey/>

### **Landscape & Visual**

No physical aid has been put in place on the turbine sites to show the impact that these will have on the landscape. We continue to request that this be done – at least for the two turbines nearest to our property. It is impossible to assess the impact from the photomontages shown as we need to assess the impact from our property rather than from another viewpoint 1km further away.

What is very clear from the photomontage offered from the nearest viewpoint (VP9) is that these turbines will indeed be spatially dominant and overbearing within views from our farm and property. This is in complete contrast to applicants response.

### **Biodiversity & Appropriate Assessment Screening and Natura Impact Statement**

We remain concerned re: biodiversity as per our original observation. We contend that the applicants response to our concerns is more hopeful than based in fact regarding the impact on endangered species in the area. They admit that there is potential for long term ‘slight’ negative effects to habitats at a local scale. Their biodiversity enhancement plan is offered as an unproven compromise however the applicant admits that there is potential for effects to

the local bird populations including breeding waders and golden plover (currently red listed as a conservation concern and of high conservation value).

We also note the impact on Cows (Reduced fertility), Badgers (High cortisol levels, an indicator of stress), Horses (Leg deformities) and Mink (1600 miscarriages and birth defects) as referenced in appendix one of the study by Dumbrille et al. (2021). Cows and horses are farmed at Formoyle. Badger and Mink populations there have also been well documented.

#### References:

Dumbrille A, McMurtry RY, Krogh CM. Wind turbines and adverse health effects: Applying Bradford Hill's criteria for causation. Environ Dis [serial online] 2021 [cited 2021 Oct 25];6:65- 87. DOI: 10.4103/ed.ed\_16\_21, Available from: <http://www.environmentmed.org/text.asp?2021/6/3/65/329039>

#### **Population and Human Health**

The property is of huge importance to our wider family as it is the homestead in which many generations of our family have lived. As the current custodians we are determined to do our best to conserve the characteristics of the homestead for ourselves and our many relatives around the world who visit it regularly.

#### Devaluation of property

We reject the 2014 UK study which the applicant has referenced when stating 'it is not anticipated that the proposed development will have any significant impact on local property values'.

In direct contrast -The London School of Economics (LSE) undertook a major study on the subject in 2014 and reported that year that those within 1.2 miles of a large wind farm would have around 13% knocked off the value of their homes. Our property is well within 1.2 miles of the nearest turbine.

Again I would ask the board to view the photomontage provided from their nearest viewpoint to our property (VP9). The impact which the planned turbines would have on our property are obvious. We have had a local property valuer out to determine the current value versus the potential value if the applicant is successful. Due to the uniqueness of our site and property, it has been determined that our farm and property will be devalued substantially by a six figure sum due to the close proximity and impact of these turbines. This valuation can be made available to ABP on request, we also welcome any other independent valuations that the board or applicant may request.

Our concerns are compounded by the lack of centralised vigilance monitoring for those who have constant, long-term exposure to industrial wind farms while living in their homes or working on lands bordering the site. We have referenced studies which provide compelling evidence that there is a pressing need for risk assessment before deployment of these Industrial Wind Turbines into our rural community setting. More effective and precautionary setback distances should be considered. A margin of safety sufficient to prevent pathogenic low frequency noise from being detected by the human vestibular system is paramount before proceeding with this development due to political or economic policies.