To: An Coimisiún Pleanála
Re: Observations on the Proposed Dough Mountain (Lissinagroagh) Wind Farm Development
Applicant: FuturEnergy Ireland
Case Reference: PAX12.324290

A Chara,

Having reviewed the planning application documents for the proposed Dough Mountain (Lissinagroagh) Wind Farm, I wish to object to this development. I write not only as a local resident with a personal stake in this landscape, but as a civil engineer with 20 years' experience managing heavy civil engineering projects including wind farm developments, road infrastructure, and works carried out in and around ecologically sensitive ground, including upland blanket bog. That experience is the lens through which I have read this application, and it has left me with serious and specific concerns about ground conditions, habitat destruction, long-term visual impact, and the fundamental unsuitability of this site for a development of this scale.

Location, Scale, and Visual Impact

The scale of this proposal is, in my professional experience, well beyond what the site can reasonably absorb. Fourteen turbines of 180–185 metres to blade tip, a 100 m meteorological mast, three borrow pits, 7.95 km of new track and a further 8.35 km of upgraded track, is a footprint I would associate with a major greenfield industrial development, not an upland site already recognised for its open skyline and scenic quality. Having set out and supervised access roads on comparable projects (Blacklaw & Kilgallioch wind farms, Scotland), I know that the quoted "49 hectares" of direct land-take never reflects the true zone of disturbance. Cut-and-fill batters, passing bays, drainage corridors, SUDS pits and turning heads for abnormal loads routinely extend the working footprint by a further 25–30% beyond the nominal boundary, and on sloping upland ground that figure is usually at the higher end. On a mountain of this profile, that additional disturbed margin is not a minor technicality — it is where erosion, run-off and slope movement actually begin.

Turbines of this height do not integrate into a landscape; they redefine it permanently. From a construction standpoint, a 185 m structure requires a crane pad and hardstanding in the order of 40 x 80 m, permanent and highly visible even after reinstatement, because the sub-base placed to carry a 500-tonne crawler crane cannot simply be lifted out again without re-disturbing the ground a second time. The visual impact, in other words, is not confined to the turbines themselves — it is enshrined into the permanent hardstanding, the substation compound, the 16+ km of road, and the seven controlled access points described in the application. Having walked sites years after decommissioning was promised, I would caution the Commission that "reinstatement" of upland peat and rock-cut track is aspirational rather than assured; tracked and hardcored ground on peat rarely returns to its pre-development state within a human generation, if ever. This is a permanent industrialisation of an Area of High Visual Amenity, not a temporary intervention.

I would also point to the change in the proposed site boundary itself as something worth the Commission's scrutiny. Earlier promotional material from the applicant showed a simple, broad circular study area; the current boundary has evolved into a more irregular, castellated perimeter. In my experience reviewing site boundary revisions on other projects, that kind of tightening is

sometimes done for entirely legitimate engineering reasons, but it can also have the effect of excluding awkward ground from formal assessment while the turbines and access infrastructure themselves remain sited close to its edge. Either way, the visual and physical influence of a 185 m structure extends for kilometres beyond any drawn boundary line, and the assessment of landscape character should be judged on that basis, not on the footprint of the application site alone.

Karst and Hydrogeology

This is the section that concerns me most as an engineer, because it is where the application's own numbers contradict its conclusions. The site walkover identified 76 karst features, yet the Karst Assessment concludes the risk is "negligible" on the basis that surface infrastructure avoids mapped features within a 30 m buffer. In 20 years of siting foundations and access tracks near karst and fissured ground, I have never once been able to rely on a surface buffer alone to characterise what a karst system is doing below ground — karst behaviour is defined by connectivity, not by proximity. A dye-tracer study is the only way to establish that connectivity with any confidence, and the application appears to rely on a single unattributed, undated qualitative reference rather than a proper tracer programme covering the northwest of the site, where turbines T1–T7 sit closest to the mapped high-risk hazard area south of T3.

I have worked on sites where exactly this combination — acidic blanket bog over dissolving limestone — produced unexpected voids during excavation that were not visible from any surface survey. Piling, grouting and geogrid reinforcement "where encountered" is standard language for ground that has not been adequately characterised; in practice it means the design is being finalised during construction, which is precisely when time and cost pressure make it hardest to respond properly to a karst void or a sudden loss of drilling fluid. Given that this mountain drains, by the applicant's own admission, into Lough Melvin, Lough Gill and ultimately Lower Lough Erne — all protected under EU law — an assessment of "negligible" karst risk based on incomplete site investigation is not one I would sign off as adequate in a professional capacity, and I do not believe the Commission should accept it either.

Stability of the Wind Farm Site

The Peat Stability Risk Assessment sets its own bar at an Over Design Factor of 1.0, and by that measure alone, nine of the twenty-one assessed locations fall within 50% of failure, with T2, T4 and Borrow Pit 1 sitting at only a 10% margin above the threshold. In my experience specifying temporary works on peat and soft ground, an ODF that close to unity is not a comfortable working margin — it is the kind of number that gets flagged for redesign before tender, not carried forward into a planning application as acceptable. Shear vane readings on saturated peat are notoriously prone to over-reading due to vane-induced compression, which is precisely why a 40–50% correction factor is conventionally applied; I would want to see that correction explicitly and conservatively built into every one of these calculations, not simply assumed.

What troubles me more is the admitted discrepancy between chapters: one part of the application states there is no recorded history of landslides on site, while the accompanying maps and the GSI database show five peat slides and two scree slides within the site boundary and its immediate surrounds, some within a few hundred metres of T1–T3. In my professional judgement, when a report and its own supporting data disagree on the basic hazard classification of the ground beneath

a structure, that is not a detail to be resolved later — it is a reason to halt and re-survey before consent is even considered, particularly where turbines are proposed directly above documented high landslide susceptibility ground.

Impact on the Blanket Bog and Related Risks

Blanket bog of this depth behaves nothing like the mineral soils and rock that most infrastructure is founded on, and that difference is not adequately reflected in the application's treatment of excavation and drainage. Turbine bases quoted at roughly 28 m diameter are, in practice, always larger once battered slopes for stable peat faces are accounted for — peat simply cannot be cut vertically and left standing. Every one of these excavations, and every metre of the 16+ km of new and upgraded track, will intercept and redirect the shallow groundwater table that keeps this bog saturated and stable. Once that water is drawn off into cut-off drains, the peat begins to dry, shrink and crack, and that process does not stop at the edge of the working area; it propagates outward for tens of metres, by some estimates up to 100 m, well beyond the disturbed footprint the application accounts for.

Having managed drainage design on sites with far shallower peat than is present here, I would flag the proposed suspension-of-works trigger levels (10 mm/hr, or 25 mm in 24 hours) as a reactive measure, not a preventative one — by the time those thresholds are hit, water is already moving through open drainage channels cut into destabilised ground. The Derrybrien failure occurred in dry weather, in already-drained peat, which is a pointed reminder that a rainfall trigger alone does not capture the actual failure mechanism at play on a site like this.

Mitigations

What strikes me most as an engineer reading through the mitigation package is how much of it is deferred rather than designed. Detailed temporary works — berms, sheet piling, battering, the actual engineering that would make each of these turbine platforms safe — are explicitly pushed to the construction stage, after consent. In my experience, that sequencing is backwards. A "low" or "negligible" risk rating that depends entirely on a design not yet produced is not a risk rating at all; it is a placeholder. I have sat in enough post-tender design reviews to know that when temporary works are left to be resolved on site under programme pressure, it is corners on ground investigation and monitoring that get cut first, not the concrete pour dates.

The sheer volume of proposed mitigation — drainage networks, silt ponds, biosecurity protocols, landslip monitoring posts, herbicide and invasive species management, ongoing inspection regimes that extend beyond decommissioning — is itself a signal worth taking seriously. A site that requires this much permanent, active management to remain safe and stable is, by definition, a site that cannot support this scale of development on its own merits.

Impact on Biodiversity and Environment

The scale of construction traffic alone — by the application's own figures, in the order of tens of thousands of vehicle movements for concrete, peat removal, stone and turbine components over a construction period stretching to two years — represents a sustained, high-intensity disturbance to a site that supports breeding hen harrier and other sensitive species. Displacement of 140 hectares of

foraging habitat, to be offset by newly designated compensation land elsewhere, assumes that wildlife will simply relocate to order; in my experience of working near protected habitats, compensation land takes years to establish equivalent ecological function, and there is no guarantee a low-density, slow-breeding species like the hen harrier will use it at all in that window.

The turbines themselves represent a substantial increase in collision risk over what is already present locally — blade-swept areas roughly four times those of the existing Faughary turbines, rotating at speeds in excess of 300 km/h at the tip, sited on a mountain regularly affected by low cloud. Combined with the noise and shadow disturbance discussed below, this is a landscape-scale change to habitat use, not a localised one, and I do not believe the application's ecological assessment has addressed the cumulative effect of construction disturbance, permanent infrastructure, and operational collision risk acting together over the same two-year window and beyond.

I would add that, in my own experience supervising groundworks near sensitive habitat, the ecological risk window is very rarely confined to the footprint of the works themselves. New access tracks and improved roads make it easier for opportunistic predators such as badgers, foxes, rats and mice to move deeper into upland terrain that was previously difficult to reach, putting further pressure on ground-nesting species already under strain from habitat loss. Security lighting at compounds and access points, which this scale of development inevitably requires, also works against any future ambition to protect the area's current dark-sky character, itself a quiet amenity value that is easy to overlook until it is gone. None of these secondary, indirect effects are trivial on a site already identified as ecologically sensitive, and I do not think they have been given the weight they deserve in the application.

This application should be assessed by reference to the Habitats Directive, the Leitrim County Development Plan, the Birds Directive, the EIA Directive, national planning law, proper planning and sustainable development, and the precautionary principle.

Noise, Shadow Flicker and Quality of Life

Noise assessments based on decibel thresholds against a background level are a standard regulatory tool, but they do not capture what it is actually like to live beside a structure of this scale operating continuously for years. I have stood at the base of comparable turbines during commissioning and felt, rather than heard, the low-frequency vibration transmitted through the ground and into nearby structures — a sensation entirely missed by a simple sound-pressure survey. Local topography matters here too: a mountain profile like Dough Mountain's can behave like a bowl, reflecting and reinforcing noise back down onto the townlands below rather than dissipating it, in exactly the way surrounding valley walls do on other sites I have worked nearby.

Shadow flicker mitigation as described only addresses light entering through windows via predictable solar shutdown programming — it does not account for the wider visual pulsation across the landscape itself, which will be a year-round feature given the turbine height relative to the mountain profile. Taken together with 24-month construction noise, ongoing heavy vehicle movements, and the cumulative load of an existing wind farm already operating nearby, the residents closest to this site face a sustained and compounding impact on quality of life that I do not believe has been properly modelled as a combined effect anywhere in this application.

A proper assessment, in my view, would need to model actual sound propagation through the site's specific topography and building stock rather than rely on generic decibel thresholds set against a background noise survey. I have seen firsthand how a borrow pit working 550 m from a dwelling, combined with access works closer again, and a sustained increase in heavy goods traffic including out-of-hours movements, compounds in a way that no single-source noise assessment captures. Residents do not experience these sources separately; they experience the combined, continuous load of all of them together, day after day, for the length of a two-year construction programme and then for decades of operation beyond it. That cumulative reality deserves a cumulative assessment, and I do not see one in this application.

Similar Development disasters

On 28 June 2020, a peat landslide on Shass Mountain near Drumkeeran, Co. Leitrim — during construction and clear-felling works for the neighbouring Garvagh Glebe wind farm on Coillte forestry land — sent peat and debris into the Owengar River, with Inland Fisheries Ireland recording pollution as far as 9 km downstream into Lough Allen and a fish kill running to thousands of brown trout; the affected stretch of river is expected to take years to recover. As I was working for the local authority roads and bridge department at that time, Leitrim County Council were tasked with recovering and rebuilding Shass 'Dawn of Hope' bridge and dealing with the environmental fallout from this landslide. A monumental task given the volume of peat and debris and in my opinion will never be fully restored and rectified.

Figure 3 & 4 Shass Mountain Peat Slide & Dawn of Hope Bridge

Months later, in November 2020, a similar slippage occurred at the Meenbog wind farm site in Barnesmore Gap, Co. Donegal, again on forestry ground, sending hundreds of thousands of tonnes of peat downhill and prompting a formal pollution investigation. Both events echo the much larger Derrybrien bog slide of October 2003 in Co. Galway, where wind farm construction on Coillte-owned forestry land triggered a slide of some 450,000 m^3 of peat into the Owendalulleegh River, killing fish over many kilometres and leading to an EU Court of Justice finding against Ireland for failing to properly assess the project's environmental impact.

Taken together, these three incidents demonstrate a recurring pattern — peatland disturbance during wind farm construction on sensitive upland ground producing exactly the kind of uncontrolled, long-lasting watercourse damage that this application's mitigation measures claim to prevent — and they should weigh heavily against granting consent for turbines and borrow pits sited, by the application's own risk register, on comparably unstable ground.

Conclusion

Having spent two decades on the delivery side of exactly this kind of infrastructure, I can say plainly: the margins of safety in this application are thinner than I would accept moving forward on a site with far less ecological and hydrogeological sensitivity than Dough Mountain. The combination of unresolved karst connectivity, peat stability margins close to failure at several turbine and borrow pit locations, deferred rather than completed temporary works design, and a scale of construction disturbance that will affect breeding hen harrier and other protected species over a sustained period, leads me to conclude that this site is not suitable for a development of this scale. For these reasons, I respectfully request that An Coimisiún Pleanála refuse permission for the proposed Dough Mountain (Lissinagroagh) Wind Farm.

Le meas,

Pete Farrell Beng PG Dip MSc

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