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Objection to Strategic Infrastructure Development (SID)

- **Case Reference:** VA16.324429
- **Proposed Development:** 110kV Electrical Substation and Associated Infrastructure
- **Location:** Townlands of Knockroe, Cunlaghfadda, Harefield, Cloonbaul, and Knockaunakill, Co. Mayo

Dear Planning commissioners

1. Inadequacy of the EIAR regarding Protected Avifauna (Ecology & Biodiversity)

The Environmental Impact Assessment Report (EIAR) fails to accurately reflect current baseline ecological data. While the EIAR claims no records of the Eurasian Curlew (*Numenius arquata*) on the site since 2022, local residents have actively observed and recorded the species within the immediate boundaries of the proposed site on at least two separate occasions during the summer of 2026.

The Curlew is a critically endangered, Red-listed species of national conservation priority in Ireland. The presence of these birds indicates the site continues to serve as an active habitat or foraging ground. Proceeding with construction based on outdated 2022 data introduces a high risk of irreversible ecological damage, rendering the current EIAR inadequate under the EU Birds Directive.

2. Unaddressed Hydrogeological Risks & Severe Flooding (Karst Landscape Integrity)

The EIAR completely ignores critical local hydrological dynamics. The proposed development site sits directly upstream of the Knockaunakill townland. A natural surface stream flows eastward directly from the development site into an active swallow hole located on my land. [1]

This region is a highly sensitive, vulnerable karst landscape with a dense network of underground aquifers. The area has suffered major, documented flooding events since 2024, which have cut off access to my farmlands and my home at Knockaunakill (see attached photographic evidence of blocked access November 2024).



Constructing a heavy industrial substation will require stripping natural peatlands and replacing them with non-permeable concrete surfaces. This will exponentially increase surface water runoff, accelerate flow rates into the swallow hole system, and severely exacerbate downstream flooding risks. Furthermore, the abundance of underlying aquifers presents an unacceptable risk of groundwater pollution from industrial construction, fuels, and chemical runoff.

3. Irremediable Impact on Archaeological and Cultural Heritage

The proposed site is situated just 750 metres northwest of a recorded Neolithic wedge tomb. This monument does not exist in isolation; it is a critical anchor point in a deeply integrated, highly sensitive historic and archaeological landscape.

Introducing a large-scale, 110kV industrial electrical installation into this specific viewshed constitutes an incompatible zoning intrusion. The physical footprint, heavy industrialization, and associated civil works will permanently fracture the spatial and

historic context of this ancient landscape, resulting in an irrecoverable loss of cultural heritage.

4. Archaeological Heritage and the Requirement for Preservation in Situ

The proposed development site forms an integral part of a complex, multi-era integrated archaeological landscape. The proximity to the nearby wedge tomb strongly indicates that the subject site possesses high archaeological prospectivity, likely containing subsurface, unrecorded features spanning multiple historical eras.

Under national heritage policies and the Framework and Principles for the Protection of the Archaeological Heritage, there is a clear presumption in favour of **preservation in situ** of significant archaeological landscapes. This landscape should be preserved in its entirety to protect its spatial, historical, and cultural context.

Permitting heavy industrialization and intensive ground works on this potentially prospective site risks the permanent, physical destruction of undiscovered heritage. Ground disturbance would cause an irrecoverable loss to the archaeological record. The site must be preserved *in situ*, and the development should be refused on these grounds.

My neighbour Joe Brett recalls possible fields systems immediately adjacent to the enclosure prior to land reclamation in the 1980`s

Further field systems are recorded in Knockaunakill.

See below pictures of the site at Cloonbaul where the proposed 110kw Substation site is located





Further evidence shows this site is of great importance from the The-Mayo-Abbey-Archaeological-Survey. Refer to pages 371-377 this report was conducted in 1996, <https://www.mayo.ie/getmedia/27fff356-ce8e-4492-8651-c6791750f81f/The-Mayo-Abbey-Archaeological-Survey.pdf>

5. This area is steeped in so much history a very short distance from the site of the proposed 110kw substation but within the area of the proposed 7 turbine windfarm, Harefield has a site of serious Archaeological importance, see link and refer to pages 381 to 384, <https://www.mayo.ie/getmedia/27fff356-ce8e-4492-8651-c6791750f81f/The-Mayo-Abbey-Archaeological-Survey.pdf> the area of the proposed windfarm 7 turbines and substation hold some of the most important parts of our history dating back to potential bronze age times this needs to be investigated and all left in situ, I think this site for the proposed windfarm and substation is not been fully explored and needs to be carefully considered do we want to destroy all this history for the need for more green energy, yes we need more green energy but this needs to be in a

place where its suitable to erect this type of construction, but not in a site that has so much biodiversity, ecology and historical importance for this I am asking the board to reject this proposal.

6. Direct Threat to Certified Organic Agricultural Enterprise (Socio-Economic & Environmental Impact)

As a local landowner, I operate a certified organic farm in immediate proximity to and directly downstream from the proposed development site. Unlike conventional farming, organic enterprises operate under strict statutory frameworks and rigorous certification standards. These standards depend entirely on the purity of the local ecosystem, soils, and water networks.

- **Groundwater and Soil Pollution Risk:** Because the proposed site sits upstream on a highly vulnerable karst landscape with a high density of aquifers, any industrial runoff, chemical spills, or construction pollution will flow directly onto my lands. This risks chemical contamination of my organic soil and livestock drinking water, which would result in the immediate and permanent stripping of my organic certification.
- **Loss of Viable Land Due to Flooding:** The increased non-permeable surface area of the 110kV substation will increase surface water runoff into the shared swallow hole system. The subsequent flooding has already cost us access to parts of our farm since 2024. Forcing further water onto our lands will drown organic pastures, destroy soil biology, and permanently reduce the viable grazing and crop-growing acreage of my holding.
- **Socio-Economic Disruption:** The industrialization of this rural environment directly contradicts local and national policies aimed at supporting sustainable, low-carbon, and organic agriculture. The planning board must protect existing, highly regulated sustainable food producers from the catastrophic pollution and flooding risks posed by incompatible industrial developments.

Chronic Stress and Stray Voltage Impacts on Organic Livestock

Organic livestock management mandates the highest standards of animal welfare, entirely free from artificial environmental stressors.

- **Stray Voltage and Earth Currents:** Substation grounding grids can introduce low-level stray voltage into the surrounding karst limestone and water networks.
- **Animal Welfare and Production Drop:** Livestock are highly sensitive to micro-shocks and the constant, low-frequency acoustic hum of large-scale

transformers. Proximity to high-voltage infrastructure is documented to cause chronic stress in cattle and sheep. This stress manifests as disrupted grazing patterns, elevated somatic cell counts, suppressed immune systems, and reduced reproductive success.

- **Impact:** Because organic farming prohibits the routine use of prophylactic antibiotics, an environment that chronically stresses livestock and lowers immunity will make organic herd management impossible.

Destruction of Soil Biology via Karst-Driven Chemical Herbicide Runoff

Organic farming is legally defined by the total absence of synthetic chemicals and a reliance on a living soil microbiome (earthworms, mycorrhizal fungi, and beneficial bacteria) to fix nutrients.

- **Mandatory Industrial Weed Control:** For fire safety and operational security, substation operators strictly maintain bare-ground gravel perimeters. This is universally achieved through the heavy application of aggressive, persistent chemical herbicides.
- **Karst Transport Mechanism:** Because the proposed site is directly upstream on a highly vulnerable karst landscape, these synthetic herbicides will wash off the non-permeable site, enter the stream, and flow directly into the swallow hole on my land.
- **Impact:** The introduction of these toxic chemicals will sterilize my soil biology, pollute my livestock drinking supply, and result in the **immediate, mandatory revocation of my organic certification** due to synthetic chemical contamination.

You must object to the "project splitting" or "piecemeal development" of this rural area. The true environmental footprint cannot be isolated to just the substation. The board must assess the **cumulative impact** of a 110kV substation, a massive battery storage system, and 160-metre wind turbines on a single community. This multi-facility cluster completely alters the rural character of Mayo Abbey.

The townlands of Cloonbaul, Knockroe, and Knockaunakill are primarily zoned for **agricultural use**. The Mayo County Development Plan dictates that the protection of sustainable agriculture, rural landscape views, and pristine environmental baselines must be prioritized. A large-scale heavy industrial substation violates the strategic aims of the county plan to protect non-industrialized rural communities and scenic vista.

Under the EIA Directive, developers must demonstrate that they have thoroughly examined alternative, less sensitive locations for industrial energy grids. The applicant has failed to justify why this specific location—which sits directly over vulnerable karst aquifers, in an active Curlew habitat, and near a protected Neolithic site—is preferred over less sensitive, non-karst, or brownfield locations. This represents a failure in proper site selection.

I respectfully ask the commission to reject this this application for the substation.

Yours sincerely

Paul Derrig