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We are concerned regarding the assessment and treatment of shadow flicker impacts associated with the proposed turbines, which are stated to have a maximum tip height of approximately 220 metres.

The Department of Environment, Heritage and Local Government's Wind Energy Development Guidelines (2006) recognise shadow flicker as a potential material impact on residential amenity and indicate that effects become very low beyond approximately 10 rotor diameters from a turbine. The Guidelines also reference limits of 30 hours per year and 30 minutes per day at sensitive receptors such as dwellings.

For modern turbines of the scale proposed, with rotor diameters commonly in the region of approximately 150metres, a distance of 10 rotor diameters could extend between approximately 1.5 km and 1.8 km, with a conservative study area approaching 2 km from individual turbines. Depending on final turbine specification (which is not specified in Chapter 4) , topography, orientation, seasonal sun angles and local screening, the area potentially affected may be significant. Was data from the wind measurement mast used in calculations

We are concerned that receptors within an approximate 2 km assessment area appear not to have been fully assessed or modelled for potential shadow flicker effects. If this is the case, then residents, homes, farms and other sensitive receptors that may experience intermittent shadow effects could potentially have been omitted from consideration.

Furthermore, draft revisions to Irish wind energy guidance moved towards an even stricter approach, proposing a zero shadow flicker requirement, recognising the importance of protecting residential amenity and reducing impacts on communities.

Given the scale of the proposed development, we respectfully request:

- \* Full disclosure of the rotor diameter proposed for each turbine;
- \* Mapping and assessment of all dwellings and sensitive receptors within at least 2 km of every turbine;
- \* A cumulative assessment where overlapping flicker effects may arise from multiple turbines;
- \* Clear mitigation measures, including operational curtailment or turbine shutdown protocols where impacts may occur;
- \* Independent verification of the shadow flicker modelling assumptions and methodology.

The scale of these turbines substantially exceeds that envisaged under the original 2006 guidance. Therefore, reliance on older assumptions without robust site-specific analysis may not adequately protect residential amenity or community wellbeing.

We are also concerned about the local Cultural heritage and archaeology namely Lemanaghan and st Mellas Cell. It is a Recorded Monument on the Sites and Monuments Record (RMP Ref: [IE—code if known]) and protected under the National Monuments Acts. If it is a Protected Structure or within an Architectural Conservation Area, note that too.

The proposal would alter the monument's setting and viewshed. The turbines (up to [height] m tip) would be visible on or near the skyline from the monument and along approach routes, introducing prominent vertical elements incongruent with the historic landscape character.

- The Archaeological/Cultural Heritage chapter of the EIAR/Heritage Impact Assessment does not include:
  - Winter leaf-off photomontages from the monument and key approach paths.
  - A viewshed analysis specifically centred on the monument (1–2 km radius) and cumulative impact with existing turbines.
  - An assessment under recognized methodology (e.g., setting-based assessment with magnitude/significance matrix).
- Mitigation relies on archaeological monitoring during construction only; it does not address the ongoing effects on setting, intervisibility, or the legibility of the monument in the landscape.

#### Potential physical and indirect impacts

- Construction risks: vibration from turbine foundation piling/excavation and heavy haul traffic within [x] m may affect subsurface archaeology; no vibration thresholds, exclusion zones, or method statements are secured.

- Access tracks, borrow pits, and grid connection trenching could intersect areas of archaeological potential identified on historic maps/soil maps; test trenching strategy is not specified.

Kind regards

Catherine Egan