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Observation on a Strategic Infrastructure Development Application

Submission on the Proposed Garrane Green Energy Project (323635)

An Coimisiún Pleanála - Case reference: PAX91.323635

**Located in the townlands of Garrane, Ballynagoul, Creggane and Charleville, Co. Limerick.
(www.garranegreenenergyplanning.ie)**

Limerick City and County Council

This submission point to problems with the proposed Garrane Green Energy Project as we maintain that that it poses significant risks to protected habitats and species, particularly the nationally important Charleville Lagoons, associated aquatic fauna, and legally protected bats and birds. The project fails to meet the strict requirements of the Habitats and Birds Directives and relies on incomplete data, deferred mitigation, and inadequate assessment to reach its conclusions.

Charleville Lagoons and Wildfowl

Charleville Lagoons are nationally important for wildfowl such as Whooper Swan (*Cygnus cygnus*), Teal (*Anas crecca*), and Shoveler (*Anas clypeata*). These species are also listed as Special Conservation Interests in nearby SPAs, including Kilcolman Bog SPA and the River Shannon and River Fergus Estuaries SPA. Despite this, the Natura Impact Statement (NIS) barely acknowledges the lagoons, even though they are immediately adjacent to the proposed development and therefore within the project's potential zone of influence. This omission undermines the validity of the assessment and fails to acknowledge the ecological and legal significance of the site.

Data Gaps

Long-term Irish Wetland Bird Survey (I-WeBS) data confirm that the Charleville Lagoons have consistently supported nationally important waterbird populations. However, publicly available data appear to stop at 2022, coinciding with the start of developer-led surveys. The absence of recent, publicly accessible data raises serious concerns regarding transparency and compliance with the Aarhus Convention (UNECE, 1998). Without these data, reasonable scientific doubt remains as to the true extent of potential impacts on waterbirds and wetland ecology, especially given that they only conducted 22.5 hours of survey at Charleville Lagoons. All surveys were confined to a single winter period (20 March 2023 – 8 March 2024), i.e. only one winter. See Table 48 on p.102 of Appendix 8.1 - the Ornithology Baseline Report.

The EIAR does not even mention the data from 2022. It incorrectly claims that 2018/19 was the last year of I-WeBS data, and that the only other data is from 2011-14. See p.21 of Appendix 8.1 - the Ornithology Baseline Report, where they claim that "Charleville Lagoons is located at land adjacent to the Site and was most recently assessed in 2018/19 with further data between 2011 – 2014".

This is simply wrong. The I-WeBS data includes 2022/23 and goes back way beyond 2011. In fact, it goes as far back at least as far as the mid-1990s.

Furthermore, the EIAR claims that only 25 species are recorded in the I-WeBS data (p.21, Ornithology Baseline Report). In fact, there are counts for 44 species in the I-WeBS data

Ireland's Climate and Biodiversity Obligations

While the development of renewable energy is essential to address the climate crisis, Ireland's obligations under the Habitats and Birds Directives, the EU Biodiversity Strategy for 2030, and the UN Convention on Biological Diversity are equally binding. These frameworks require that renewable energy expansion must not come at the expense of biodiversity. Projects must apply the precautionary principle and ensure no deterioration in the conservation status of protected species or habitats.

Wind Turbine Impacts on Birds

Extensive research demonstrates that wind farms cause displacement, collision risk, and habitat loss for birds. Studies such as Tolvanen et al. (2023) and Marques et al. (2021) show that land-based turbines displace birds up to 500 metres or more, with waterfowl and raptors being particularly affected. Drewitt and Langston (2006) and Masden et al. (2009) describe barrier effects, where turbines and associated infrastructure impede flight routes and increase energetic costs. The encirclement of Charleville Lagoons by turbines to the north, the N20 to the west, and transmission lines to the east will amplify disturbance and could render the lagoons functionally unusable.

River Maigue and Aquatic Species

The River Maigue supports Atlantic salmon (*Salmo salar*), river and brook lampreys (*Lampetra fluviatilis*, *L. planeri*), white-clawed crayfish (*Austropotamobius pallipes*), European eel (*Anguilla anguilla*), and otter (*Lutra lutra*)—all Qualifying Interests of the Lower Shannon SAC. The Maigue feeds directly into the SAC and plays an essential role in maintaining its conservation objectives. Consequently, any deterioration in upstream water quality or hydrology would directly compromise the integrity of the SAC. Impacts on these populations upstream would therefore undermine the integrity of the SAC itself, contrary to Article 6(3) of the Habitats Directive. The Natura Impact Statement (NIS) states that for the Lower River Shannon SAC (site code: 002165) that "It is concluded that there is ecological and hydrological connectivity between the proposed Project and the SAC. (Table 6.3 Page 20)

Water Quality and Drainage Impacts

The construction of turbine bases, access roads, and cable trenches will alter natural drainage and increase surface runoff. Excavation of soils will mobilise suspended solids and nutrients, especially phosphorus and nitrogen, leading to eutrophication and sedimentation in receiving waters. The River Maigue catchment already shows signs of ecological decline, with nearly half of monitored sites rated as poor. Any further nutrient or sediment load would exacerbate this deterioration, contravening both the Water Framework Directive and the Habitats Directive. Five of the turbines, two new bridges and over 1.2km of access roads are to be built in a Flood Zone A, the highest category of flood risk nationally which is designated for high probability of flooding under the OPW's Planning System and Flood Risk Management Guidelines (DoEHLG 2009).

Birds Directive Article 5 Obligations

Article 5 of the Birds Directive (2009/147/EC) prohibits the killing or capture of wild birds, destruction of nests or eggs, and disturbance that significantly affects populations. The CJEU has confirmed that these protections apply across the entire territory, not only within designated sites. Construction and operation of the proposed wind farm would risk breaching these provisions through nest destruction, disturbance, and displacement of Whooper Swan, Teal, and Shoveler. Such impacts cannot be lawfully authorised under Article 5(d).

Bats and Foraging Habitat

All bat species in Ireland are Annex IV species under the Habitats Directive and therefore subject to strict protection under Articles 12 and 13. The proposed development lies within a landscape of hedgerows, treelines, and watercourses that are vital commuting and foraging corridors. The summary of the EIAR's bat report (Appendix 6.1) states that the following species were recorded, "Common Pipistrelle, Soprano Pipistrelle, Nathusius Pipistrelle, Leisler's bat, Natterer's bat, Daubenton's bat, Lesser Horseshoe bat and Brown long-eared bat. Unidentified Myotis species were also recorded; several of which were likely whiskered bats."

There was only one recording of a Lesser Horseshoe bat (in October 2022) but the presence of this one record is extraordinary. It is strange that follow-up survey was not carried out to determine whether Lesser Horseshoe bat regularly uses this area as a corridor late in the year (to travel between summer and winter roosts). Lesser Horseshoe bats are an EU Habitats Directive Annex II listed species and are particularly affected by hedgerow removal, which will occur as part of the development. Turbines cause direct mortality through collision and barotrauma, and lighting or habitat fragmentation increases disturbance.

The Bat Survey Report fails to mention the Charleville Lagoons, despite their proximity to the site and importance as insect-rich feeding grounds. Freshwater habitats are important for bat species, as a source of drinking water and a food source of emerging insects. Wetlands are key habitats for Daubenton's, pipistrelle, and Leisler's bats. Mas et al. (2021) state that 'key bat habitats, such as

wetlands and waterbodies, should be avoided' when locating wind farms. This directly contradicts the siting of turbines adjacent to Charleville Lagoons. The presence of these water bodies strongly indicates that this is not a suitable site for wind turbines. They have also not done any bat survey in the south-eastern part of the development area, where a large sub-station is to be built

Precautionary Principle and Conclusion

Under Article 6(3) of the Habitats Directive, consent can only be granted where no reasonable scientific doubt remains that a project will not adversely affect protected sites or species. Given the incomplete baseline data, omission of key habitats, and reliance on deferred or unenforceable mitigation, the Garrane Wind Farm does not meet this test. Permission should therefore be refused.

FIE respectfully requests that An Coimisiún Pleanála refuse permission for this development in accordance with Article 6(3) of the Habitats Directive and the precautionary principle.



Caroline Lewis

References and Supporting Literature

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