

Proposed Gathabawn Windfarm

Environmental Impact Assessment Report

Chapter 4: Alternatives Considered

September 2026

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CHAPTER 4 ALTERNATIVES CONSIDERED

EIAR 4.1 The EIA Directive

This chapter describes the reasonable alternatives studied by the developer, which are relevant to the proposed Ballynalacken Windfarm Project and its specific characteristics and the main reasons for selecting the chosen options, including a comparison of the environmental effects across the options.

Alternatives were considered with regard to environmental, construction, operational and commercial constraints.

EIAR 4.1.1 Guidance

The consideration of Alternatives was informed by Article 5(1)(d) and Annex IV (2) of the EIA Directive 2011/92/EU (as amended by 2014/52/EU). During this process the EIA practitioners had regard to;

- *Guidance on the preparation of the Environmental Impact Assessment Report* (EU 2017): Section 1.5;
- *Guidelines on the information to be contained in Environmental Impact Assessment Reports* (EPA 2022): Section 3.4.

The EPA *Guidelines on the information to be contained in Environmental Impact Assessment Reports* states that the EIA Directive requires an EIAR to contain:

‘A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.’

‘The objective is for the developer to present a representative range of the practicable alternatives considered. The alternatives should be described with ‘an indication of the main reasons for selecting the chosen option’. It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account in deciding on the selected option. A detailed assessment (or ‘mini-EIA’) of each alternative is not required.’

EIAR 4.2 Alternatives Considered

EIAR 4.2.1 Alternatives Considered for Designated Sites

EIAR 4.2.1.1 Access Road T2 – T3

Original Considered: The access road between T2 and T3 at Ballylehaun and it was proposed to cap with limestone.

Alternative Considered: To minimise dust soiling impacts on the SAC, the access road has been moved away from the SAC boundary to a minimum of 5m, and it is now proposed to pave this access road with tarmac to remove the source of dust – i.e. aggregate fines.

Comparison of Environmental Effects: This road is adjacent to the Cullahill Mountain SAC boundary, the alternative as considered the preferred option when effects on the Designated Site was considered.

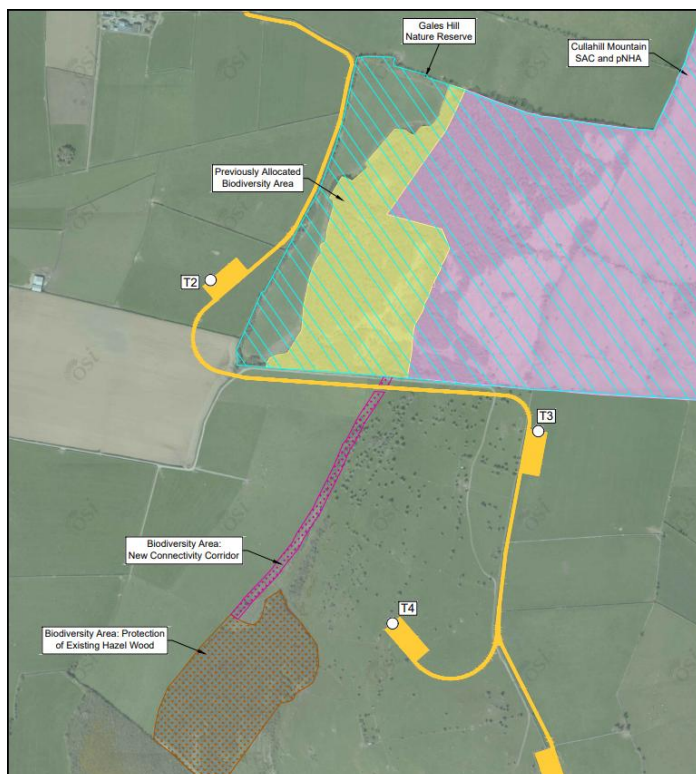
EIAR 4.2.1.2 Turbine Locations In Ballylehaun

Original Considered: Two turbines were oversailing the boundary of Cullahill Mountain SAC, with one of these turbines and its associated hardstand located adjacent to the southern boundary of the SAC.

Alternative Considered: One of these turbines was dropped to avoid oversailing the SAC as it could not be moved, while the other turbine, the proposed turbine T3, was moved 70m away from the boundary of the SAC.

Comparison of Environmental Effects: The alternative considered is the preferred option when effects on Designated Sites are compared.

EIAR 4.2.1.3 Biodiversity Enhancement Area



Original Considered: An area of hazel wood north of the access road between T2 and T3 was allocated as a Biodiversity Enhancement Area to be protected and managed for the lifetime of the Gathabawn Windfarm.

Alternative Considered: The area allocated for biodiversity enhancement was purchased by the National Parks and Wildlife Service and now forms part of the Gales Hill Nature Reserve..

Comparison of Environmental Effects: The alternative considered – i.e. to secure the protection of a hazel wood further south was the preferred option when effects on Biodiversity are compared.

EIAR 4.2.2 Cultural Heritage

EIAR 4.2.2.1 Ringfort (KK008-031---)

Original Considered: The site road to access the Ballylehaun Area was routed through a ringfort listed on the Record of Monuments and Places (RMP) (KK008-031---). (this ringfort was not easily discernible at surface level).

Alternative Considered: Following a geophysical survey of the infrastructure areas in 2023, this access road was dropped to avoid impacting this RMP site. Access to the Ballylehaun Area via the local road L58141 was selected as the preferred option.

Comparison of Environmental Effects: The alternative considered is the preferred option when effects on Cultural Heritage are compared.



EIAR 4.2.2.2 Medieval Field Boundaries

Original Considered: Blade set down areas were proposed for each turbine location

Alternative Considered: Turbine blades for T3 and T5 at the Ballylehaun Area will be delivered just-in-time, to avoid the need for blade set down areas beside these hardstands. This minimises the extent of drystone wall removal and medieval field boundary removal that would otherwise be required for the construction of temporary infrastructure.

Comparison of Environmental Effects: The alternative considered is the preferred option when effects on Cultural Heritage are compared. In addition, the layout of access roads and hardstands at the Ballylehaun Area have been microsituated to minimise felling of veteran hawthorn trees which record the remnant of historical field boundaries.

EIAR 4.2.2.3 Ringfort RMP (KK009-006----)

Original Considered: All turbines have the same hub height of 102m, with a tip height of 170m

Alternative Considered: The hub height for these two turbines has been reduced to 82m, thus reducing the uppermost tip height to 150m. This change allowed turbine T6 and T7 to be moved further to the east to minimise visual and setting impacts on a ringfort listed on the RMP (KK009-006----), whilst still achieve a four times tip height from neighbouring houses.

Comparison of Environmental Effects: The alternative considered is the preferred option when effects on Cultural Heritage are compared.

EIAR 4.2.2.4 Ringfort (KK009-023----)

Original Considered: The site road between T8 and T9 at the Ballyring Area was routed through the Zone of Notification for an enclosure listed on the RMP (KK009-023----)

Alternative Considered: This site road has been moved away from the Zone of Notification for this enclosure to minimise any potential impacts on the asset.

Comparison of Environmental Effects: The alternative considered is the preferred option when effects on Cultural Heritage are compared.



EIAR 4.2.3 Material Assets**EIAR 4.2.3.1 Grid Route through Lisdowney village**

Original Considered: The Candidate Gathabawn Grid Connection was routed along the public road through Lisdowney village.

Alternative Considered: The Ballyring-Parksgrove Underground Cabling element of the Candidate Gathabawn Grid Connection is now routed primarily across private lands to the south and avoids the public road through Lisdowney village to minimise disruption to road users and avoid construction works outside Scoil Bhríde National School.

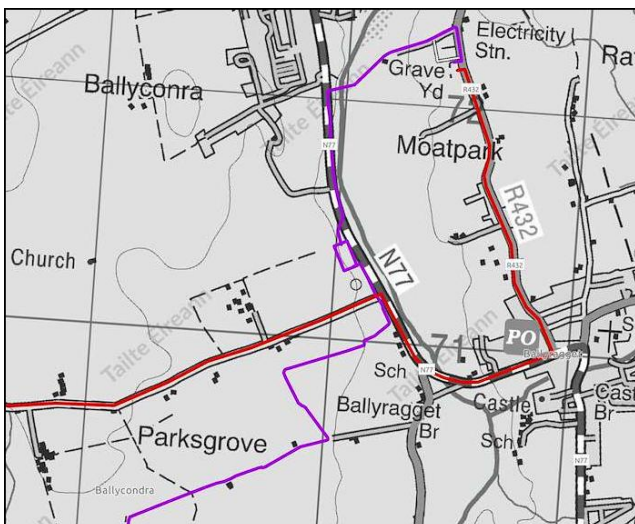
Comparison of Environmental Effects: The alternative considered is the preferred option when effects on Material Assets and Local Communities are compared.

**EIAR 4.2.3.2 Grid Route through Ballyragget town**

Original Considered: An option for the Candidate Gathabawn Grid Connection was routed along the public road through Ballyragget town, turning left in the town onto the R432 towards Moatpark.

Alternative Considered: There are already services within this bridge. In addition, this route would have resulted in disruption of traffic in Ballyragget town. The Parksgrove-Moatpark Underground Cabling element of the Candidate Gathabawn Grid Connection is now routed to cross the River Nore by Horizontal Directional Drilling under the riverbed. There is precedent for this method of crossing the river. (e.g. recent Briskalagh Windfarm consent).

Comparison of Environmental Effects: The alternative considered is the preferred option when effects on Material Assets are compared.

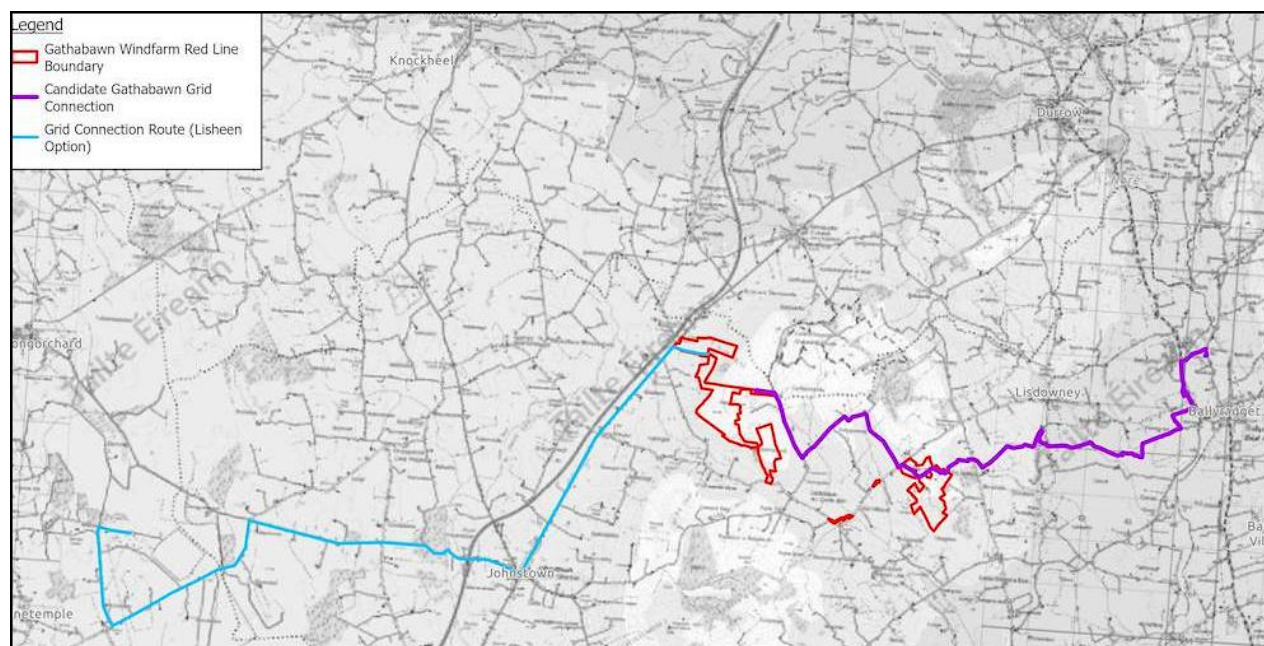


EIAR 4.2.3.3 Alternative Connection Point - Lisheen

Original Considered: The option to connect the Candidate Gathabawn Grid Connection to the national grid by connecting into the existing Lisheen 110kV substation was explored.

Alternative Considered: Due to insufficient capacity to connect to the Lisheen Substation, it is instead considered that the Candidate Gathabawn Grid Connection will connect to the national grid at the existing EirGrid Substation in Moatpark.

Comparison of Environmental Effects: The alternative considered is the preferred option when effects on Material Assets are compared.

**EIAR 4.2.3.4 Alternative Designs – Grid Connection**

Original Considered: The possibility of sharing the part of the grid connection route, in particular where it crosses the River Nore and the N77 at Ballyragget, with Farranrory Windfarm was examined as an alternative grid connection method. However, for commercial reasons this was not considered viable.

Alternative Considered: An alternative grid connection method was selected which would involve the construction of a new substation in Parksgrove. This substation will be built to Eirgrid specifications and as such will be future proofed to accommodate a second generator connection, without any further need for construction works in proximity to the River Nore. Furthermore, the cables installed for the Parksgrove-Moatpark UGC will have a 100MW capacity, exceeding what is needed for the Gathabawn Windfarm (54WM).

Comparison of Environmental Effects: This alternative considered is the preferred option when effects on Designated Sites are compared.

EIAR 4.2.3.5 Alternative Turbine Delivery Route

Original Considered: A turbine delivery route to the Ballyring Area from the motorway network at Portlaoise via Durrow, Co. Laois was considered.

Alternative Considered: Works to facilitate the delivery of turbine components through Durrow would require the removal of 4 no. trees and the temporary removal of a historic water pump, and disruption within the town. An option of going through Freshford town was also considered, but similarly would require extensive facilitating works.

It is now proposed to deliver the turbine components to the Ballyring Area by first delivering the turbines to the Temporary Blade Storage Area at the Ballylehaun Area, and transporting them to the Ballyring Area via the local road network L1803, L1804, temporary access road, and the L1806 and L18062, thereby going straight through Durrow on the R639 and avoiding the requirement for aforementioned turbine facilitating works in the village.

Comparison of Environmental Effects: The alternative considered is the preferred option when effects on Material Assets and Local Communities are compared.

