MKO Planning and Environmental Consultants

Planning Report

Laurclavagh Renewable Energy Development, Co. Galway

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1. EXECUTIVE SUMMARY

The Proposed Laurclavagh Renewable Energy Development consists of 8 no. wind turbines which will generate an estimated 56MW, based on a turbine capacity of 7MW. The 8 no. wind turbines will have an overall tip height of 185m. For grid connectivity, the Proposed Wind Farm will be connected to the national grid via 110kV underground cabling from a proposed on-site 110kV substation to the existing 110kV Cloon substation at Cloonascragh, County Galway. The Proposed Grid Connection is not included in this application and will be subject to a separate application to An Bord Pleanála under Section 182A of the Act.

This Planning Report has been prepared in support of a planning application for the Proposed Wind Farm under section 37E of the Act, and the application is accompanied by an EIAR and NIS for the Proposed Project (ie. the Proposed Wind Farm and the Proposed Grid Connection). The introductory sections of this report, provide an overview of the Proposed Wind Farm site, the Proposed Wind Farm design, the applicant, and a summary of the pre-planning process. The project design process is outlined, demonstrating the rationale for the site's selection and its suitability for wind energy development. The iterative design process details each of the design stages from the initial design to the final design iteration. Each design iteration responded to the specific constraints on the site, as they were identified by site surveys and detailed analysis.

The Proposed Wind Farm is strongly supported by EU and national policy and legislation. At an EU level the Proposed Wind Farm is supported by the EU Renewable Energy Directive and REPowerEU. At a national level, the Proposed Wind Farm is supported by the National Planning Framework, Climate Action Plan 2024, the National Energy Security Framework, among other national climate and energy policy. The legally binding greenhouse gas emission reduction target and the obligations of public bodies under the Climate Act should also be considered in the assessment of this application. A full appraisal of all the relevant policy and legislation is provided in section 6 of this report.

Despite favourable site-specific characteristics for the development of wind energy, the Proposed Wind Farm site has been zoned 'Generally to be Discouraged' in the LARES adopted as part of the Galway County Development Plan in 2022. However, a robust analysis of the wind energy constraints in County Galway indicates that the Proposed Wind Farm site has the potential to accommodate wind energy development. The Proposed Wind Farm is thoroughly assessed against, and found to be in compliance with, the policies and objectives of the Galway County Development Plan 2022-2028.

The development of sites viable for wind energy development is essential to meet European, national, and local climate and renewable energy targets. Ireland needs to scale up onshore wind energy development at an unprecedented rate to achieve our 9GW target and 80% RES-E target set out in the CAP 24. The reality of achieving these targets is the installation of over 600MWs of wind energy per year until 2030. If permitted, the Proposed Wind Farm will be installed and operational before the end of the decade, adding approximately 56MWs of renewable, clean energy to our national wind energy capacity. This will not only contribute to the decarbonisation of the electricity sector but will play a role in the decarbonisation of other sectors and the transition to a low carbon, climate resilient economy.

A wind energy capacity assessment for County Galway was carried out as part of this report to establish the viable area in the county for wind energy development. The results of the wind energy capacity assessment are compared to the estimations of the installed MW wind energy capacity by 2030 set out in the LARES. The wind energy capacity assessment demonstrates that there is an over estimation of viable land in favourable policy areas. If County Galway is to reach an installed capacity of 1,350MW as set out in the LARES, areas outside of the 'Acceptable in Principle' and 'Open to Consideration' will need to be considered and developed for wind energy, subject to proper planning and sustainable development. The results from the wind energy capacity assessment are summarised in the Table 1 below.

Table 1: Wind Energy Capacity Assessment Summary

	Viable Area with favourable zoning for new wind energy developments (Acceptable in Principle, Open to Consideration)	Potential yield from developed area	Total MW capacity 2030
LARES Estimation*	121.64 km^2	851MW**	1,350MW
Wind Energy Capacity Assessment	48.35 km^2	483.5MW***	933.5MW

*LARES estimation: 15% of AIP land used, 7.5% of OTC land used.
** Based on 7MW per 1 km^2 as used in the LARES
***Based on 10MW per 1 km^2 as of MKO experience

To conclude, it is submitted that, based on the evidence provided in this report, the Proposed Wind Farm site is suitable for wind energy development and the Proposed Wind Farm is in accordance with the proper planning and sustainable development of the area and County Galway as a whole. Furthermore, despite the site's favourable characteristics, it is found that the wind energy zoning designation of 'Generally to be Discouraged' is unsubstantiated, based on Galway County Council's 'opportunity' and 'sensitivity' analysis mapping, set out in the LARES. Finally, it is clear from the wind energy capacity assessment prepared by MKO, that every site, regardless of wind energy zoning, needs to be considered on its merits to deliver the substantial amount of wind energy required under the LARES, CAP 24 and the Climate Act.

An Bord Pleanála will be aware of certain legal obligations, under the Climate Act, in respect of the processing of certain planning applications relating to renewable energy developments. In particular, the mandatory obligation on the Board to exercise its decision-making functions "*in a manner consistent with*" National Climate Policies and Objectives. Further, the mandatory obligation on the Board to exercise its decision-making functions *"in a manner consistent with"* the National Climate Policies and Objectives under the Climate Act also takes precedence over the lessor obligation to merely *"have regard to"*, inter alia, the *"policies and objectives for the time being of planning authorities"* under Section 143(1) of the Planning Act. These *"policies and objectives"* are set out by planning authorities in their development plans. In effect, this means that the Climate Act requires the National Climate Policies and Objectives set out therein to take precedence over the policies and objectives of planning authorities set out in county development plans.

2. INTRODUCTION

This Planning Report has been prepared by MKO in support of a planning application relating to the proposed Laurclavagh Renewable Energy Development. This Planning Report accompanies a Strategic Infrastructure Development ("SID") application being made directly to An Bord Pleanála (ABP) under the provisions of Section 37E of the Planning and Development Act 2000, as amended ("the Act"). Following pre-planning consultations, ABP determined this project to be SID in correspondence dated 16th of November 2023.

2.1 Report Structure and Contents

This planning report is structured as follows:

- **Introduction**
- **Project Background** – The Project Background section includes an introduction to the applicant, the site context, the planning history and pre-planning consultation.
- **Proposed Wind Farm** – The Proposed Wind Farm section provides a description of the main elements of the Proposed Wind Farm subject to this Section 37E planning application.
- **Project Design Process** - The Project Design Process details the progression of the Proposed Wind Farm design from site selection through to the final design.
- **Planning Policy Appraisal** – The Planning Policy Appraisal section includes a review and evaluation of the Proposed Wind Farm against European, national, regional, and local policy.
- **Wind Energy Capacity Assessment** – The Wind Energy Capacity Assessment provides an analysis of the wind energy development potential in County Galway.

2.2 Summary of the Proposed Project

The Proposed Wind Farm consists of 8 no. wind turbines with a tip height of 185m, a hub height of 103.5m, and a rotor diameter of 163m. The proposed wind turbines will have an estimated generating capacity of 7 megawatts (MW). The total MW yield of the Proposed Wind Farm is estimated to be 56MW, and as such is considered to be a Strategic Infrastructure Development as set out in the Seventh Schedule of the Act, being *'an installation for the harnessing of wind power for energy production (a wind farm) with more than 25 turbines or having a total output greater than 50 megawatts'*. An Bord Pleanála (ABP) determined that the Proposed Wind Farm constituted a SID project on the 16th November 2023 (Case Ref: 315469).

For grid connectivity, the Proposed Wind Farm will be connected to the national grid via 110kV underground cabling from a proposed on-site 110kV substation to the existing 110kV Cloon substation at Cloonaschragh, Co. Galway. The Proposed Grid Connection is not included in this S37E application and will be subject to a separate application to An Bord Pleanála under Section 182A of the Act (Pre-Planning Consultation Case Ref. 317625). The Proposed Wind Farm and the Proposed Grid Connection form the Proposed Project. A detailed description of the Proposed Project is provided in Chapter 4 of the EIAR.

The terminology of project elements used within this report is outlined below:

'Proposed Project': Where the 'Proposed Project' is referred to this relates to the Proposed Wind Farm and the Proposed Grid Connection infrastructure and encompasses an area of approximately 944 hectares. The Proposed Project is described in detail in Chapter 4 of the EIAR.

'Proposed Wind Farm': Where the 'Proposed Wind Farm' is referred to, this refers to turbines and associated foundations and hard-standing areas, meteorological mast, access roads, temporary construction compound, underground cabling, spoil management, site drainage and all ancillary works and apparatus, subject of this planning application under Section 37B of the Planning and Development Act, 2000, as amended.

'Proposed Grid Connection': Where the 'Proposed Grid Connection' is referred to, this refers to the temporary construction compound, 110kV onsite substation, and associated underground 110kV cabling connecting to the existing Cloon 110kV substation, subject to a future planning application under Section 182A of the Planning and Development Act, 2000, as amended.

2.3 Summary of Findings

This planning report analyses the planning policy against which the Proposed Wind Farm will be assessed. The main findings of the report are outlined as follows:

- The Proposed Wind Farm is strongly supported by climate and energy policy and law at a European, national and regional level.
- The Proposed Wind Farm is supported by, and is in compliance with, the policy and objectives of the Galway County Development Plan 2022 – 2028 ("CDP").
- The Proposed Wind Farm has been designed in accordance with the Wind Energy Development Guidelines for Planning Authorities (2006) and the Development Management Standards for Renewable Energy Proposals, as set out by the CDP.
- The rationale behind the designation of the Proposed Wind Farm site as 'Generally to be Discouraged' for wind energy development is fundamentally flawed. The Proposed Wind Farm site performs well against the scoring matrix and opportunity/ sensitivity maps that informs the wind energy designations in Galway County Council's Local Authority Wind Energy Strategy ("LARES").
- The LARES fails to designate a sufficient quantum of land as "Acceptable in Principle" or "Open to Consideration" to achieve the targets specified in the plan, and consequently, County Galway's share of the 9GW of onshore wind required under the Climate Action Plan 2024.

3. PROJECT BACKGROUND

3.1 The Applicant

The applicant, Laurclavagh Limited, is an associated company of Enerco Energy Ltd., which is an Irish-owned, Cork-based company with extensive experience in the design, construction and operation of wind energy developments throughout Ireland. Enerco Energy Ltd. Currently have wind energy developments in operation or in construction in Counties Cork, Kerry, Limerick, Clare, Galway, Mayo and Donegal.

By Q1 2024, Enerco Energy Ltd. and its associated companies had over 875 MW of wind generating capacity in commercial operation or under construction, with a further 400MW of projects at various stages in its portfolio to assist in meeting Ireland's renewable energy targets.

3.2 Site Location and Context

The Proposed Wind Farm site is located approximately 9 kilometres (km) southwest of Tuam, and 10km north of Claregalway, Co. Galway. The site comprises lands at Laurclavagh, Cahermorris, Bunnahevelly More, Kilcurriv Eighter, Pollacossaun Eighter, Cluidrevagh, Kilcurrivard, Ballynacreg North and Pollacossaun Oughter, Co. Galway. The N83 National Road runs in a north-south direction directly to the east of the Proposed Wind Farm site. Existing site access is via the L61461 Local Road, which runs off the N83 in a westerly direction. Land use currently comprises a mix of pastural agricultural land and smaller areas of scrub and exposed rock. The surrounding land use is primarily pastural agricultural lands, as well as one-off rural housing.

3.3 Planning History

A planning search was carried out through the national planning application database[1] and An Bord Pleanála's online planning portal in February 2024 for relevant planning applications within the Proposed Wind Farm site boundary. The relevant planning applications are outlined in chapter 2 of the EIAR.

2 no. planning applications have been identified within the proposed Wind Farm site relating to a single storey dwelling and a wastewater treatment system associated with a dwelling.

A planning search was also carried out for planning applications relating to wind energy development within 25km of the proposed wind turbine locations. The search found a total of 17 no. planning applications relating to wind energy development were identified with 3 further projects at pre-planning consultation stage.

[1] *https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=9cf2a09799d74d8e9316a3d3a4d3a8de*

4. THE PROPOSED WIND FARM

4.1 Overview

The Proposed Wind Farm comprises the construction of 8 No. wind turbines and all associated works. The applicant is seeking a 10-year planning permission and a 30-year operational life. The full description of the Proposed Wind Farm, as per the public planning notices, is as follows:

"The proposed development will consist of the provision of the following:

i. 8 no. wind turbines with an overall turbine tip height of 185 metres; a rotor blade diameter of 163 metres; and hub height of 103.5 metres, and associated foundations, hard-standing and assembly areas;
ii. A thirty-year operational life of the wind farm from the date of full commissioning of the wind farm and subsequent decommissioning;
iii. Underground electrical cabling (33kV) and communications cabling;
iv. A temporary construction compound;
v. A temporary security cabin;
vi. A meteorological mast with a height of 30 metres and associated foundation and hard-standing area;
vii. A new gated site entrance on the L61461;
viii. Junction accommodation works and a new temporary access road off the N83 to the L61461, to facilitate turbine delivery and construction access to the site;
ix. Upgrade of existing site tracks/ roads and provision of new site access roads, junctions and hardstand areas.
x. Upgrade of the existing L61461;
xi. Spoil Management;
xii. Site Drainage;
xiii. Tree and hedgerow removal;
xiv. Biodiversity Enhancement measures (including the planting of natural woodland, hedgerows and species rich grassland for new habitat);
xv. Operational stage site signage; and
xvi. All ancillary works and apparatus.

A ten-year planning permission is sought."

4.2 Pre-Application Engagement

4.2.1 EIAR Scoping

A scoping report, providing details of the Proposed Project, was prepared by MKO and circulated in May 2023. MKO requested the comments of the relevant Non-Governmental Organisations and authorities with interest in the specific aspects of the environment with the potential to be affected by the proposal. Telecommunication providers were scoped at an earlier stage (February 2022) as part of the constraints mapping process. The responses received aid in identifying potential effects on the environment and provide initial feedback in the early stages of the design iteration process. Full details of the scoping responses received and how any issues raised are addressed in the EIAR is provided in Section 2.6 of Chapter 2 of the EIAR.

4.2.2 Pre-application Consultation with Galway County Council

Representatives of the Applicant met with representatives from Galway County Council on the 26th October 2023 via Microsoft Teams. Those in attendance were:

- Colm Ryan – MKO
- Ronan Dunne – MKO
- Orla Murphy- MKO
- William O'Connor – Enerco Energy Ltd
- Niall Galvin – Enerco Energy Ltd
- Liam Hanrahan – Galway County Council
- Patrick O'Sullivan – Galway County Council
- Lawrence Nea – Galway County Council

The team gave an overview of the Proposed Project in a power point presentation. Matters discussed included:

- The prospective applicant
- Site location and context
- Local policy and wind energy zoning
- Site Constraints
- Photomontages
- Environmental Impact Assessment Report (EIAR) structure and work carried out to date
- Public consultation
- Project timeline

Following this presentation, there was further discussion held between the project team and the representatives of Galway County Council. Matters discussed included:

- Wind Energy zoning policy and site suitability
- Public consultation meetings
- Residential impacts and mitigation
- Landscape impacts and mitigation
- Karst landscape sensitivities
- Grid connection and engagement with Galway County Council roads engineer and TII

4.2.3 Pre-application Consultation with An Bord Pleanála

First Meeting

Representatives of the prospective Applicant met with representatives from An Bord Pleanála on the 30th of January 2023. Those in attendance were:

- John Willoughby - MKO
- Orla Murphy- MKO
- Niamh McHugh – MKO
- William O'Connor – Enerco Energy Ltd
- Niall Galvin, Enerco Energy Ltd
- Ciara Kellett – ABP
- Sarah Lynch – ABP
- Niamh Thornton - ABP

The team gave an overview of the Proposed Wind Farm in a power point presentation. Matters discussed included:

- The prospective applicant
- Site location and context
- Site zoning
- Constraints
- Project scoping
- EIAR structure

Following this presentation, there was further discussion held between the project team and the representatives of ABP. Matters discussed included:

- Borrow pits
- Zoning justification
- Birds
- Grid connection application
- Karst landscape sensitivities

Second Meeting

Members of the team and the prospective Applicant met with representatives from An Bord Pleanála for the second and final time on the 22nd of September 2023. Those in attendance were:

- Ronan Dunne – MKO
- Alan Clancy – MKO
- Niamh McHugh - MKO
- Orla Murphy- MKO
- Niall Galvin – Enerco Energy Ltd
- William O'Connor – Enerco Energy Ltd
- Paul Caprani – ABP
- Sarah Lynch – ABP
- Evan McGuigan – ABP

Due to a miscommunication between the Board and the project team, a second meeting was held in error. The applicant submitted a meeting request under section 182E of the Act for the Proposed Grid Connection to determine whether or not the Proposed Grid Connection fell under the definition of SID as set out in Section 182A of the Act. However, due to an administrative error the meeting was assigned to the pre-application consultation case reference for the section 37 application (the Proposed Wind

Farm). It became apparent at the start of the meeting that the purpose of the meeting was to establish the SID status or otherwise of Proposed Grid Connection and not a second meeting to discuss the Proposed Wind Farm. It was then agreed between the project team and the Board that there had been a misunderstanding in relation to the purpose of the meeting and any discussion regarding the Proposed Wind Farm would not commence.

Pre-Application SID Determination Letter

A letter received from An Bord Pleanála dated the 16th November 2023 stated that under Section 37B (4)(A) that it is the opinion the Board that the Proposed Wind Farm falls within the scope of the paragraphs 37A(2)(a) and (b) of the Act. This confirmed that the Proposed Wind Farm constitutes SID and therefore the planning application should be made directly to An Bord Pleanála.

4.2.4 Community Consultation

The applicant has undertaken extensive consultation with the local community. The project was first introduced to the local community in November 2022, with the delivery of a letter outlining the Applicant's intention to explore the identified area for a wind energy development. The letter was accompanied with a brochure detailing information about the applicant including contact detail and general information on wind energy. Since the initial consultation in November 2022, the appointed Community Liaison Officer for the project has continued to be available to keep the public informed about the Proposed Project.

Please Refer to Section 2.9.1 of Chapter 2 and Appendix 2-1 of the EIAR for more details in relation to Community Consultation.

5. PROJECT DESIGN PROCESS

The design of the Proposed Wind Farm has been an informed and collaborative process from the outset, involving the project designers, engineers, environmental, ecological, ornithological, hydrological, geotechnical, and traffic consultants and archaeological specialists. The design process has also taken into account recommendations and comments of the relevant statutory and non-statutory organisations, the local community and the local authority where relevant.

The aim of the process being to reduce the potential for environmental effects while designing a commercially viable project capable of being constructed.

Throughout the design process, the layout of the Proposed Wind Farm has been revised and refined to take account of the findings of all desk-based assessments, site surveys/ investigations and baseline assessments which have brought the design from its first initial layout to the current proposed layout.

5.1 Strategic Site Selection

Given the significant investment required to progress any wind energy project, it is critical that the most suitable site for the Proposed Wind Farm is chosen. The selection of a site for the development of a wind farm necessitates an evaluation of a site's characteristics, based on multiple criteria, including:

- **Planning Policy:** Site location relative to Galway CDP Wind Energy Classification of areas considered that have capacity for wind farm development from a planning policy perspective (this site was zoned 'Open to Consideration' at the time of site selection);
- **Environmental Sensitivities**: Located outside areas designated for protection of ecological species and habitats;
- **Grid Connection**: Access to the national electricity grid possible within a viable distance;
- **Sensitive Receptors**: Capable of complying with required setbacks from sensitive receptors;
- **Site Scale:** Sufficient area of unconstrained land that could potentially accommodate a wind farm development and turbine spacing requirements.

5.2 Detailed Constraints Mapping

The design and layout of the Proposed Wind Farm follows the recommendations and guidelines set out in the '*Wind Energy Development Guidelines'* (Department of the Environment, Heritage and Local Government, 2006) ("the Guidelines") and the *'Best Practice Guidelines for the Irish Wind Energy Industry)* (Irish Wind Energy Association, 2012).

The constraints mapping process involves the placing of buffers around different types of constraints to clearly identify the areas within which no development works will take place. The size of the buffer zone for each constraint has been assigned using guidance presented in the Guidelines. Should the '*Draft Revised Wind Energy Guidelines'* (Department of Housing, Planning and Local Government, 2019) ("the Draft Guidelines") be adopted in advance of a planning decision being made on this application, the Proposed Wind Farm will be capable of achieving the requirements of the draft Guidelines as currently proposed.

The constraints map for the Proposed Wind Farm, as shown in Figure 1, was produced following a desk study of all site constraints. Figure 1 encompasses the following constraints and associated buffers:

- Sensitive Receptors: a minimum 740-metre setback from all Sensitive receptors, achieving the Guidelines recommended setback of 500m and 4 x tip height separation distance from third party properties in line with the Draft Guidelines;
- Telecommunication Links: operator specific buffer;

- Archaeological Sites or Monuments, 30-metre buffer, plus 'Zone of Notification' as required by the National Monuments Service (ROI);
- Sensitive ecological receptors: 50m buffer.

Facilitators at the site build on the existing advantages and include the following:

- Available lands for development;
- Good wind resource;
- Proximity to national grid node;
- Existing access points and general accessibility of all areas of the site due to existing road infrastructure; and
- Limited extent of constraints.

The inclusion of the constraints on a map of the study area allows for a viable area to be identified. An initial turbine layout is then developed to take account of all the constraints mentioned above and their associated buffer zones and the separation distance required between the turbines. Following the mapping of all known constraints, detailed site investigations were carried out by the project team.

The turbine layout for the Proposed Wind Farm has also been informed by the results of noise, landscape and visual and the separation distance to be maintained between turbines. Thus, the baseline environmental assessment of the site and wind farm design was an iterative process, where findings at each stage of the assessment were used to further refine the design, always with the intention of minimising the potential for environmental impacts.

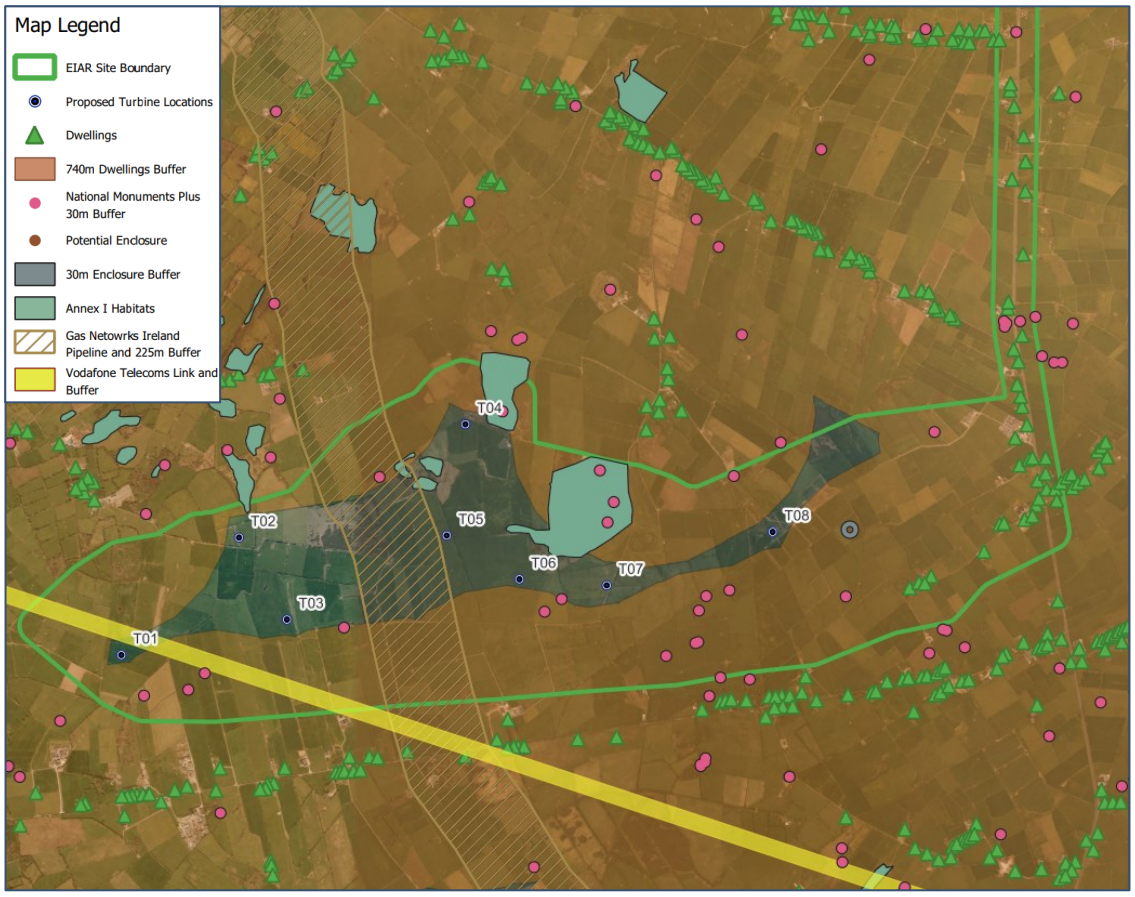


Figure 1: Constraints and Facilitators map

5.3 Turbine Layout Design Process

The Proposed Wind Farm has undergone a comprehensive design process, commencing with the identification of constraints through desk-based analysis and initial site surveys. Initially, an 11-turbine design was formulated based on the constraints identified at that time. As subsequent site surveys and further analyses were conducted, adjustments were made to the design to avoid new constraints identified following these surveys. The Proposed Wind Farm underwent several design iterations before culminating in the final design, as shown in Figure 2 below. This final design is regarded as optimal as identified constraints are avoided while also maximising the site's development potential. Further details of the design process and a selection of design iterations can be found in Chapter 3 of the EIAR.

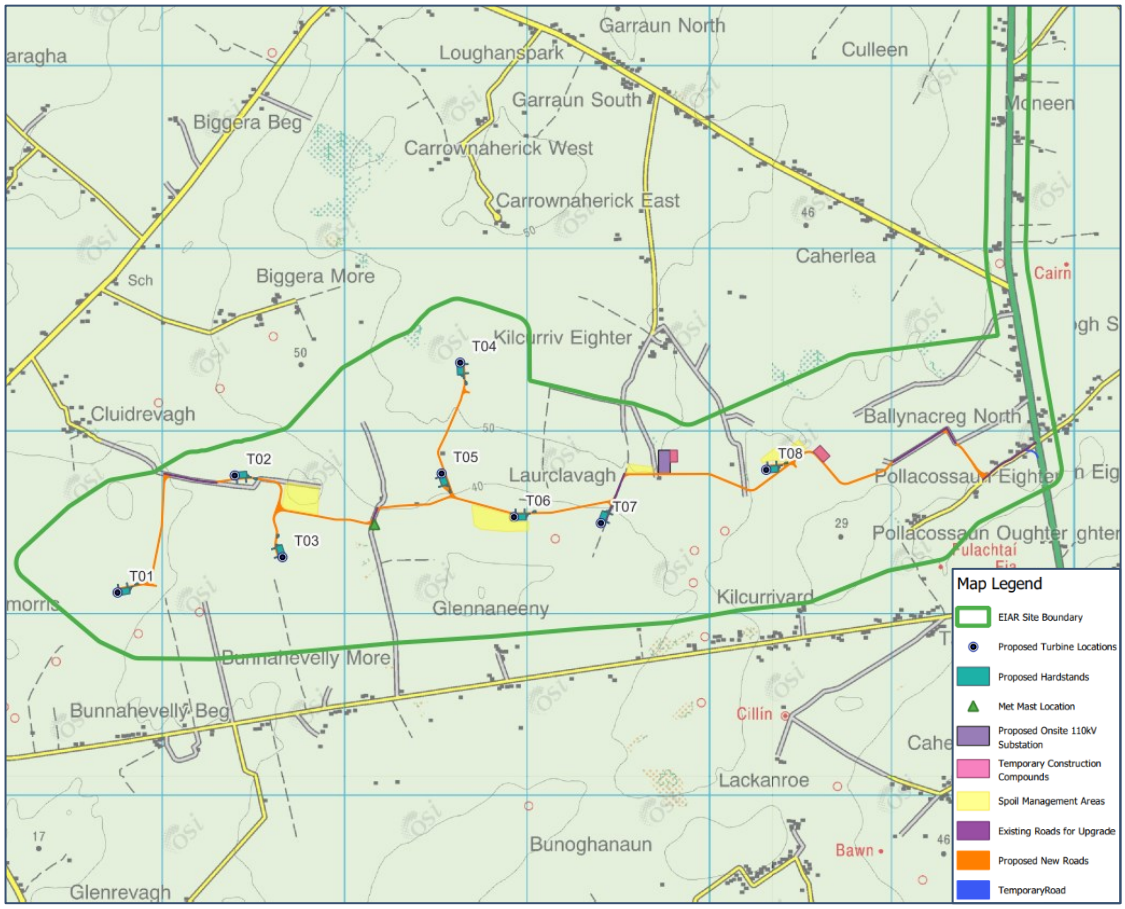


Figure 2: Final Design

6. PLANNING POLICY APPRAISAL

This section of the planning report provides an overview of the relevant planning policies that applies to the Proposed Wind Farm and sets out an appraisal of the Proposed Wind Farm against the relevant planning policy context.

As is detailed in the following sections, the policy context that applies to the Proposed Wind Farm is characterised by a number of crises that have taken centre stage recently and have been the main drivers behind a large portion of the policy development that have taken place in the last number of years.

Figure 3: A Series of Crises

Climate and renewable energy policy at a European and national level is changing at an unprecedented pace to deal with the challenges arising from the climate and energy crisis. At a national level two new Climate Action Plans have been published since the adoption of the Galway County Development Plan 2022-2028. The Climate Action Plan 2023 (CAP 23) increased the 2030 onshore wind energy from 8GW, set out in the CAP 21, to 9GW. This target has been incorporated unchanged into the Climate Action Plan 2024. At the European level, the latest revision of the Renewable Energy Directive (EU/2023/2413) entered into force on the 20 November 2023. The revised directive sets an overall renewable energy target of at least 42.5% at EU level by 2030 but aims for the achievement of 45%.

The Proposed Wind Farm is considered to be supported by, and consistent with all levels of policy from international to the local level. Both the RePowerEU and European Green Deal have overarching targets of achieving energy security, emissions reductions and the transition to a low carbon economy. The Proposed Wind Farm will aid in this regard as it has the potential to produce a significant amount of indigenous renewable energy. It is also in line with objectives of a reduction of carbon emissions at the local level which will have a positive impact on the EU's and the State's overall emission reduction targets. A European, national and regional policy compliance table is provided below

Table 2: EU, National & Regional Objective and Compliance Summary Table

Policy / Legislative Document	Targets / Objectives	Compliance
REPowerEU	• Accelerate the roll-out of renewables. • Increase the 2030 target for renewables from 40%-45%. • Tackle slow and complex permitting for major renewable projects	Considering the urgency required under the REPowerEU, it is imperative that the suitable sites, such as the site of the Proposed Wind Farm, are developed as soon as possible.
Renewable Energy Directive	42.5% renewable energy by 2030, aiming for 45%.	The Proposed Wind Farm will increase Ireland's renewable energy share, contributing towards Ireland's climate and energy obligations under EU law.
Climate Action and Low Carbon Development Act 2015(Amended)	A 51% reduction in emissions by 2030. Net-zero emissions by 2050. Under Section 15, public bodies are required to, in so far as practical, perform its functions in a manner consistent with the Climate Action Plan 2024, the National Energy & Climate Plan 2021 – 2030 and other national climate mitigation and adaptation plans.	The Proposed Wind Farm will contribute towards the legally binding emissions reductions targets for 2030 and 2050.
Climate Action Plan 2024	9GW of onshore wind by 2030, 6GW by 2025.	The Proposed Wind Farm will contribute directly towards the CAP24 goals of 9GW of wind energy by 2030. Onshore wind is identified as being critical in the decarbonisation of the electricity and as such the Proposed Wind Farm should be considered in that regard.
Project Ireland 2040: The National Planning Framework	National Strategic Outcome 8: Transition to a low carbon and climate resilient economy.	The Proposed Wind Farm is in line with the objectives of the NPF which seeks to transition to a low carbon and climate resilient economy. If permitted, the Proposed Wind Farm will contribute to the achievement of National Policy Objectives 21, 54, and 55.
National Development Plan 2021 - 2030	National Strategic Outcomes 8: Transition to a Climate-Neutral and Climate Resilient Society	The NDP is clear in its priority to reach a low-carbon, climate resilient society over the lifetime of the plan. The Proposed Wind Farm, if permitted, will provide clean, renewable electricity to the national grid, furthering development objectives of the NDP.
National Energy Security Framework	• Ensuring security of energy supply in the near-term; • Reducing our dependency on imported fossil fuels in the context of the phasing out of Russian energy imports across the EU.	The Proposed Wind Farm will reduce the need for imported fossil fuels for electricity, improving national energy security.

The National Energy & Climate Plan 2021 – 2030	• Decarbonisation - Renewable energy • Energy security	The Proposed Wind Farm will contribute to achieving key decarbonisation and energy security objectives by adding a new renewable electricity generator to the national grid.
Energy Security in Ireland to 2030 – Energy Security Package	• Reduced and Responsive Demand. • Renewables-Led System. • More Resilient Systems. • Robust Risk Governance.	The Proposed Wind Farm supports the objectives to ensure the State's energy security. This Proposed Wind Farm serves as a domestic renewable energy generator capable of providing clean electricity to the national electricity grid.
Wind Energy Guidelines	• Acceptable noise thresholds and monitoring frameworks • Visual amenity setback and spacing • Control of shadow flicker • Compliance with Community consultation and dividend requirements • Consideration of the siting, route and design of the proposed grid connection as part of the whole project.	The Proposed Wind Farm complies with the requirements set out by the Guidelines, including noise, set back, shadow flicker, and community consultation guidelines. It is anticipated that the Proposed Wind Farm will be capable of adhering to the Draft Guidelines when finalised.
Regional Economic and Spatial Strategy	**RPO 4.17**: To position the region to avail of the emerging global market in renewable energy by stimulating the development and deployment of the most advantageous renewable energy systems. **RPO 4.18**: Support the development of secure, reliable and safe supplies of renewable energy, to maximise their value, maintain the inward investment, support indigenous industry and create jobs.	The Proposed Wind Farm is in compliance with the Regional Economic and Spatial Strategy which supports the development of renewable energy in the region.

6.1 International Policy Context

REPowerEU

Published in response to Russia's invasion of Ukraine, REPowerEU aims to accelerate the energy transition and increase Europe's energy independence. The European Commission proposed the RePowerEU plan to make Europe independent from Russian fossil fuels including oil and gas, due to the high and volatile energy prices, and security of supply concerns following Russia's unprecedented military attack on Ukraine.

A key pillar of REPowerEU includes reducing faster the use of fossil fuels by boosting energy efficiency, **increasing renewables** and addressing infrastructure bottlenecks.

"There is a double urgency to reduce Europe's energy dependence: the climate crisis, compounded by Russia's aggression and EU's dependence on fossil fuels, which Russia uses as an economic and political weapon.

The green transformation of Europe's energy system will strengthen economic growth, reinforce its industrial leadership, and put Europe on a path towards climate neutrality by 2050.

The European Commission calls on leaders, Member States, regional and local authorities, and indeed every citizen and business, to reduce Europe's energy dependence from Russia through the implementation of [the] REPowerEU plan"

The key aims and objectives of REPowerEU can be summarised as follows:

- Accelerate the roll-out of renewables.
- Increase the 2030 target for renewables from 40%-45%.
- Tackle slow and complex permitting for major renewable projects.

REPowerEU places renewable energy in the '**overriding public interest**' acknowledging the urgency required to accelerate the roll out of renewables.

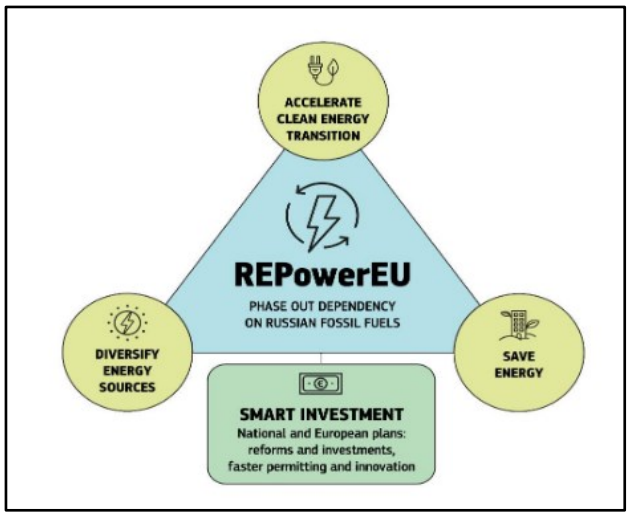


Figure 4: Key aspects of the REPowerEU Plan

In December 2022 a text of the proposal for a Council Regulation laying down a framework to accelerate the deployment of renewable energy was agreed by the European Council and published by the

European Council[2]. The Regulation (Council Regulation (EU) 2022/2577) specifically seeks to accelerate the deployment of renewable energy sources, by means of targeted measures which are capable of accelerating the pace of deployment of renewables in the European Union in the short term. The regulation focuses therefore on measures which are implementable rapidly at the Member State level, namely the streamlining of the permit-granting processes applicable to renewable energy projects.

In that regard, the Regulation introduces the presumption that, as per Section 7 of the regulation –

"One of the temporary measures consists of the introduction of a rebuttable presumption ***that renewable energy projects are of overriding public interest*** *and serving public health and safety for the purposes of the relevant Union environmental legislation, except where there is clear evidence that those projects have major adverse effects on the environment which cannot be mitigated or compensated for."*

It is clear from the urgency conveyed by the REPowerEU plan and the provisions set out in the Regulation that the accelerated deployment of renewable energy is crucial mitigate the impact of the energy crisis, eliminate the European Union's dependency on imported Russian gas and provide energy security to Member States.

The Proposed Wind Farm is directly supported through the REPowerEU framework. In this regard, the Proposed Wind Farm should be considered in the overriding public interest.

Renewable Energy Directive

The renewable energy directive is the legal framework for the development of renewable energy across all sectors of the EU economy, supporting clean energy cooperation across EU countries. Since the introduction of the Renewable Energy Directive (RED) in 2009, the RED has undergone several revisions, all pushing the renewable energy targets upwards, to combat increasing emissions. Since its adoption in 2009, the share of renewable energy sources in energy consumption has increased from 12.5% in 2010 to 23% in 2022[3]. Of the 27 EU member states the lowest proportions of renewables were recorded in Ireland (13.1%). Crucially, the Renewable Energy Directive sets the overall target for renewable energy in the EU.

RED I - 2009

Renewable Energy Directive 2009 (RED I - the original RED) (2009/28/EC), adopted in 2009, set binding targets for EU member states to achieve a 20% share of renewable energy in final energy consumption by 2020. It established a framework for national renewable energy action plans, sustainability criteria for biofuels and bioliquids, and a system of guarantees of origin for renewable energy.

RED II - 2018

RED II, the first major amendment to the RED, (2018/2001/EU) entered into force in December 2018, as part of the Clean Energy for all Europeans package. In RED II, the overall EU target for Renewable Energy Sources consumption by 2030 was raised to 32%.

RED III – 2023

In November 2023, a revision of the Renewable Energy Directive[4] (RED III), came into force. RED III increases the EU wide renewable energy target from 32% set under the previous revision of the directive to at least 42.5%, with an ambition to reach 45% by 2030. The increase was proposed under the publication

[2] *General Secretariat of the Council of the European Union, Outcome of Proceedings: Proposal for a COUNCIL REGULATION laying down a framework to accelerate the deployment of renewable energy (File no. 022/0367(NLE)) (22.12.2022)*
[3] *https://ec.europa.eu/eurostat/en/web/products-eurostat-news/w/ddn-20231222-2*
[4] *Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast)*

of REPowerEU plan in May 2022. The Directive also introduces specific targets for Member States in the industry, transport, and building (district heating and cooling) sectors.

Under RED III, EU member states must identify areas for the acceleration of renewables where projects will undergo a simplified and fast-track procedure. The deployment of renewables will also be of "overriding public interest" in order to limit the number of legal challenges on new renewable energy installations. These measures came in response to REPowerEU which found that permitting is the biggest bottleneck for deploying wind at scale, with approximately 80 GW of wind power capacity stuck in permitting procedures across Europe.

There is an 18-month period to transpose most of the directive's provisions into national law, with a shorter deadline of July 2024 for some provisions related to permitting for renewables.

6.2 National Policy Context

The Climate and Low Carbon Development Act 2015 (as amended)

The Climate Action and Low Carbon Development 2015 (as amended) ("the Climate Act") establishes a legislative precedent to reduce Ireland's carbon emissions. The Climate Act legally binds Ireland to achieve net-zero emissions no later than 2050, and to a 51% reduction in emissions by the end of this decade.

The Climate Act also incorporates the following key provisions:

- Embeds the process of setting binding and ambitious emissions-reductions targets in law;
- Provides for a national climate objective, which commits to pursue and achieve no later than 2050, the transition to a climate resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy;
- Provides that the first two five-year carbon budgets proposed by the Climate Change Advisory Council should equate to a total reduction of 51% over the period to 2030, relative to a baseline of 2018;
- The role of the Climate Change Advisory Council has been strengthened;
- The government must adopt carbon budgets that are consistent with the Paris agreement and other international obligations;
- Actions for each sector will be detailed in the Climate Action Plan which must be updated annually; and
- Local Authorities must prepare individual Climate Action Plans which will include both mitigation and adaptation measures and will be updated every five years.

When exercising its decision-making powers under the Planning Act, the Board is obliged to perform its decision-making function (in so far as practicable) in a manner consistent with:

- the most recent approved climate action plan,
- the most recent approved national long term climate action strategy,
- the most recent approved national adaptation framework and approved sectoral adaptation plans,
- the furtherance of the national climate objective, and
- the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.

Specifically, Section 15(1) of the Climate Act provides that:

> *"A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—*

a) *the most recent approved climate action plan,*
b) *the most recent approved national long term climate action strategy,*
c) *the most recent approved national adaptation framework and approved sectoral adaptation plans,*
d) *the furtherance of the national climate objective, and*
e) *the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State." (the "National Climate Policies and Objectives")*

The above requirement is a mandatory obligation. The National Climate Policies and Objectives all support the development, and by implication the consenting, subject to proper planning, of wind farm developments.

Climate Action Plan 2023

The Climate Action Plan 2023 (CAP23) launched in December 2022, sets out an updated roadmap to delivery on Ireland's climate ambition. It aligns with the legally binding economy-wide carbon budgets and sectoral ceilings that were agreed by Government in July 2022 following the introduction of the Climate Action and Low Carbon Development (Amendment) Act 2021. The Climate Act commits Ireland to a legally binding target of net-zero greenhouse gas emissions no later than 2050, and a reduction of 51% by 2030.

The CAP23 further emphasised the continued role of onshore wind in addressing the decarbonisation of the electricity sector. Under the CAP23 **onshore wind targets are again increased with a target of 6GW by 2025 and 9GW by 2030 is set out.** An increase in the deployment of renewable energy generation, transformational policies, measures and actions are all called for in the CAP23. Achieving further emissions reductions between now and 2030 requires a "*major step up*" across three key measures as follows:

- Accelerate and increase the deployment of renewable energy to replace fossil fuels;
- Deliver a flexible system to support renewables and demand;
- Manage electricity demand.

As set out in this section the renewable energy targets for the State have increased steadily with each new CAP, with the target of 70% renewable electricity by 2030 set out in CAP19 increasing to 80% in CAP21 and the target of 8GW of onshore wind by 2030 set out in CAP 19/21 increasing to 9GW in CAP23. These increased targets were not in place when the Galway County Development Plan 2022-2028 (CDP) was adopted. The increase of 1GW to the national target for onshore wind energy should be considered when assessing the Proposed Wind Farm against the CDP.

The Proposed Wind Farm will contribute directly towards the CAP23 goals of 9GW of wind energy and 80% renewable electricity by 2030. Onshore wind is identified as being critical in the decarbonisation of the electricity sector and as such the Proposed Wind Farm should be considered in that regard.

Climate Action Plan 2024

The Climate Action Plan 2024 (CAP 24) builds on CAP 23 by refining and updating the status of the actions required to deliver the decarbonisation required under the carbon budgets and sectoral emissions ceilings. The renewable electricity generation targets are unchanged from the CAP 23 (9GW of onshore wind & 80% renewable electricity share).

CAP 24 includes the latest trends in the electricity sector:

- In 2022, renewable generation accounted for 38.6% of electricity, an increase from 35% in 2021.
- Electricity accounted for 14.4% of Ireland's greenhouse gas (GHG) emissions in 2022.

- To meet the first carbon budget the electricity sector requires a decarbonisation rate of 17.3% per annum in the period 2023-2025. For context, the decarbonisation rate between 2018 and 2022 was 1.4% per annum.

CAP 24 includes an annex of actions to achieve the renewable energy targets. The actions aim to accelerate the delivery of renewable electricity. The actions focus on revising and updating policy documents to establish a policy framework capable of delivering the quantum of renewable electricity required. The most relevant actions and their associated timelines are set out below:

- EL/24/1: Accelerating Renewable Electricity Taskforce to publish programme of work – Q2 2024
- EL/24/3: Revision to the National Planning Framework to include regional capacities for the allocation of national targets at a regional level in order to inform local development plan policy - Q2 2024
- EL/24/4: Publish Regional Renewable Electricity Strategies – Q4 2024
- EL/24/5: Publish Revised Wind Energy Development Guidelines for onshore wind - Q4 2024
- EL/24/6: Publish revised methodology for Local Authority Renewable Energy Strategies – Q2 2024

CAP 24 acknowledges the urgency and importance of the decarbonising the electricity sector. The plan states:

"Given that the programme of large-scale offshore wind deployment is expected to be realised towards end decade, deployment rates for onshore renewables will need to increase to match demand growth to ensure we keep electricity emissions within range of the carbon budgets. This requires a major upscaling and accelerating in current deployment of renewables, particularly onshore wind."

The scale of the challenge is apparent when quantified:

"As an example, the historical average deployment of onshore wind installed capacity connected between 2008 and 2020 inclusive was ~280 MW per annum from 19 projects (with an annual maximum of 612 MW). To achieve the necessary emissions abatement, an approximately eight-times increase of renewable energy deployment to ***2.3 GW annually*** *would be needed between* ***2024 and 2030****."*

CAP 24 identifies the alignment of local and national policy as a critical to accelerate renewable energy rollout.

"greater alignment between local plans and renewable energy targets at national and regional level to support investment in and delivery of onshore wind and solar renewable energy is also critical".

The National Planning Framework

The National Planning Framework (NPF), published in February of 2018, forms the top tier of the national planning policy structure which establishes the policy context for the Regional Spatial and Economic Strategies (RSES) and local level development plans.

A key focus throughout the NPF is the fostering of a transition toward a low carbon, climate-resilient society. In this regard, one of the stated key elements of the NPF is an Ireland which has a secure and sustainable renewable energy supply and facilitates the ability to diversify and adapt to new energy technologies.

The NPF acknowledges that greenhouse gas emissions from the energy sector must be reduced by at least 80% by 2050 when compared to 1990 levels while ensuring a secure supply of energy exists.

The following National Policy Objectives (NPO) are applicable to the Proposed Wind Farm.

- **NPO 21:** Enhance the competitiveness of rural areas by supporting innovation in rural economic development and enterprise through the diversification of the rural economy into new sectors and services, including ICT-based industries and those addressing climate change and sustainability.

- **NPO 54:** Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions.

- **NPO 55:** Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050.

Relevant to the Proposed Wind Farm, National Strategic Outcome 8 is as follows:

National Strategic Outcome 8: *Transition to a low carbon and climate resilient economy*

One of the key themes of the NPF is the realisation of an Ireland which has a secure and sustainable renewable energy supply and the ability to diversify and adapt to new energy technologies. The NPF acknowledges that: "*In meeting the challenge of transitioning to a low carbon economy, the location of future national renewable energy generation will, for the most part, need to be accommodated on large tracts of land that are located in a rural setting, while also continuing to protect the integrity of the environment".*

It is clear that the provision of new renewable energy developments is in line with the aims and objectives of the NPF which seeks to transition to a low carbon and climate resilient economy. If permitted, the Proposed Wind Farm will contribute to the achievement of NPO 21, 54, and 55, by stimulating economic development and by providing clean, renewable energy allowing for a reduced carbon footprint.

National Development Plan 2021-2030

Prepared by the Department of Public Expenditure and Reform, the National Development Plan 2021 – 2030 (NDP) was published on 4th October 2021 and sets out the major public investment projects identified by Government which are to play a significant role in addressing the opportunities and challenges faced by Ireland over the coming years such as housing, health, population growth, and most relevant to the subject development, climate change. It is stated that the NDP 2021 – 2030 will be the 'largest and greenest ever delivered in Ireland', and in this regard, the NDP highlights that extensive consultation was undertaken to ensure that the plan adequately supports the implementation of climate action measures. Reflecting on the recent publication of the IPCC's 6th Assessment Report, the NDP notes that the Irish Government is fully committed to 'playing its part' to ensure that the worst climate change damage can be avoided, e.g. significant reductions in CO2 and other greenhouse gas emissions as assisted by the achievement of both European and National renewable energy targets. Specifically, the NDP states that,

"The next 10 years are critical if we are to address the climate crisis and ensure a safe and bright future for the planet, and all of us on it."

"The investment priorities included in this chapter [Ch. 13] must be delivered to meet the targets set out in the current and future Climate Action Plans, and to achieve our climate objectives. The investment priorities represent a decisive shift towards the achievement of a decarbonised society, demonstrating the Government's unequivocal commitment to securing a carbon neutral future."

Notwithstanding this, the NDP acknowledges that it is not its role to set out a specific blueprint for the achievement of Ireland's climate targets; but as noted above, facilitate capital investment allocations for the climate and environmental strategic priorities.

One of the NDP's strategic climate priorities in the need for low-carbon, resilient electricity systems; specifically, the plan commits to increasing the share of renewable electricity up to 80% by 2030. This is characterised by the NDP as an '*unprecedented commitment to the decarbonisation of electricity supplies*', which is certainly an ambitious and an explicit driver for the deployment of new renewable generators such as the Proposed Wind Farm. The focus of investment in renewable energy infrastructure is to contribute to a long-term, sustainable and competitive energy future for Ireland.

The NDP is clear in its priority to reach a low-carbon, climate resilient society over the lifetime of the plan. The Proposed Wind Farm will provide clean, renewable electricity to the national grid, furthering development objectives of the NDP.

The National Energy & Climate Plan 2021 – 2030

Published by the Department of Communications, Climate Action and Environment in 2021, the National Energy & Climate Plan (NECP) was produced in accordance with EU Regulation 2018/1999 on the Governance of the Energy Union and Climate Action. The NECP identifies 5 'dimensions' which form the basis of the policies and measures outlined in the plan. These dimensions have associated key objectives to be achieved over the NECPs lifetime. Most relevant to the Proposed Wind Farm are the dimensions relating to decarbonisation and energy security, the key objectives are outlined below.

- Ireland has established an objective of achieving a 34% share of renewable energy in energy consumption by 2030 *(since raised to 50%).*
- Increase electricity generated from renewable sources to 70% *(since raised to 80%).*
- Onshore wind capacity of up to 8.2 GW *(since raised to 9GW).*
- Ireland is committed to maintaining the security of our energy system in the most cost-effective manner.

The Proposed Wind Farm will progress the key objectives of the NECP, particularly the dimensions relating to decarbonisation and energy security, by adding a new renewable electricity generator to the national grid.

National Energy Security Framework

The National Energy Security Framework (NESF), published by Department of the Environment, Climate and Communications in April 2022, highlights clearly the impacts the Russian invasion of Ukraine and the resulting war has had on Europe's energy system. The resulting decision by the European Union to phase out the import of Russian gas, oil and coal (REPowerEU) has brought to the fore the importance of security of supply and how energy policy is designed for long-term resilience. The NESF sets out the responses identified to ensure the security of our energy supply in the near term. It also takes account of the need to decarbonise society and economy, to reduce Ireland's emissions by 51% over the decade to 2030 and reach net zero emissions by 2050.

Ireland's response per the Framework is set out over three themes:

Theme 1 – managing the impact on consumers and businesses;
Theme 2 – ensuring security of energy supply in the near-term;
Theme 3 – reducing our dependency on imported fossil fuels in the context of the phasing out of Russian energy imports across the EU.

In relation to theme 3, the Framework highlights that replacing fossil fuels with renewables, including wind energy, will be a focus area of work. The Framework calls for "*Supportive policies across Government and State agencies*" which "*can reduce barriers and fast track permitting for renewable energy generation projects. Similarly, renewable energy developers need to match this through taking a leadership role in delivering high quality applications to relevant consenting authorities, meeting project milestones on time and minimising delays.*" There are a number of 'Responses' set out in the Framework aimed at reducing reliance on imported fossil fuels and increasing indigenous renewable energy

generation, including Response 25 which seeks the alignment of all elements of the planning system to support accelerated renewable energy development.

There is now a *"double urgency to reduce Europe's energy dependence: the climate crisis, compounded by Russia's aggression and EU's dependence on fossil fuels".* Considering the urgency to increase indigenous renewable energy generation to safeguard our energy supply, it is imperative that the suitable sites, such as the site of the Proposed Wind Farm, are developed as soon as possible to achieve the ambitions of the NESF.

Energy Security in Ireland to 2030 – Energy Security Package

Published in November 2023, the energy security package titled 'Energy Security in Ireland to 2030' builds on the policies set out in the NESF. The energy security package is based on the recognition of the following fact:

"Ireland's future energy will be secure by moving from an oil-, peat-, coal- and gas-based energy system to an electricity-led system maximising our renewable energy potential, flexibility and being integrated into Europe's energy systems."

The energy security package includes a range of measures to implement this approach by the prioritisation of the following:

1. Reduced and Responsive Demand.
2. Renewables-Led System.
3. More Resilient Systems.
4. Robust Risk Governance.

Independent research undertaken as part of the package, the McCarthy Report, provides an analysis of developments in the electricity sector in Ireland. The McCarthy Report makes the following observation in relation to the consenting process:

"The problem of delays encountered by major infrastructure projects, including in the electricity system, due to planning and environmental consent issues was evident. They had been commented upon by the International Energy Agency in its 2019 review of Ireland which named planning delays as the principal challenge to delivery of policy for the sector."

A key finding from the technical analysis conducted as part of the energy security package is the interdependence of energy security on two essential pillars: 'harnessing our indigenous renewable energy resources at speed and at scale and the rapid electrification of energy demand'. As such, the energy security package provides additional measures to supplement the existing measures introduced under previously published government policy documents. Those additional measures most relevant to the Proposed Wind Farm are as follows:

"Action 10: To implement Planning and Consenting System Reforms and provide greater certainty to the sector."

The energy security package aims to ensure that the planning system is fully aligned and resourced to fully support accelerated renewable energy development. It also aims to ensure renewable energy projects are prioritised in line with the recast Renewable Energy Directive and RePowerEU.

The Proposed Wind Farm is set to significantly support the government's objectives in ensuring the State's energy security and serves as a domestic renewable energy generator capable of providing clean electricity to the national electricity grid, contributing to a renewables-led system.

Wind Energy Guidelines

The Guidelines were issued by the then Department of Environment, Heritage and Local Government in June 2006. The aim of these guidelines was to assist the proper planning of wind power projects in appropriate locations around Ireland. The Guidelines highlight general considerations in the assessment of all planning applications for wind energy.

The Proposed Wind Farm adheres to the Guidelines in its design and preparation. In this regard this EIAR considers all relevant potential environmental impacts that could arise (Chapter 5 of the Guidelines), and the design of the Proposed Wind Farm has followed the design principles established in Chapter 6 of the Guidelines.

The Department of Housing, Planning and Local Government published the Draft Guidelines in December 2019 and they remain in draft at the time of writing.

The Draft Guidelines note that potential impacts of wind energy development proposals on the landscape, including the natural and built environment, must be considered along with the legitimate concerns of local communities. With this in mind, the Draft Guidelines primarily focus on addressing a number of key aspects including, but not limited to:

- Acceptable noise thresholds and monitoring frameworks;
- Visual amenity setback and spacing;
- Control of shadow flicker;
- Compliance with Community consultation and dividend requirements, as included within the obligatory Community Report; and
- Consideration of the siting, route and design of the proposed grid connection as part of the whole project.

The design of the Proposed Wind Farm has been designed in accordance with the Guidelines and has also been developed with the provisions of the Draft Guidelines in mind (for example in relation to 4 times turbine tip height set back distance from Sensitive receptors).

The submission period for the Draft Guidelines closed in February 2020. Under the consultation it was evident that a number of submissions made appeared to have observations surrounding similar points, these include but are not limited to themes such as noise, visual amenity set back and shadow flicker. With regards to noise, a number of the received submissions noted that the provisions put forward in the Draft Guidelines were unworkable, as such it was considered that should the noise measures be implemented there is the potential for an on-going impact on the development of onshore wind energy in the future. In relation to set back distances there was strong criticism with regards to this distance being measured to the curtilage of a property due to this measurement being ambiguous and difficult to implement. Furthermore, questions were raised surrounding the strict measures which have been put in place surrounding shadow flicker, the Draft Guidelines put forward the provision that 'there will be no shadow flicker at any existing nearby dwelling or other relevant existing affected sensitive property'. While the overall provision is possible a number of clarifications were sought to ensure that this provision could be implemented in a reasonable manner.

At the time of writing, the Draft Guidelines have not yet been adopted, and the relevant guidelines for the purposes of section 28 of the Act as amended, remain those issued in 2006. Notwithstanding this, however, due to the timelines associated with the planning process for renewable energy projects and the commitment within the Climate Action Plan 2024 to publish the Draft Guidelines by Q4 2024, it is possible that the new guidelines are adopted during the consideration period for the Proposed Wind Farm.

Towards this end it is anticipated that the Proposed Wind Farm will be capable of adhering to the relevant standards through the implantation of wind turbine control measures, albeit without sight of the final, adopted guidelines the processes by which the Proposed Wind Farm will comply with the same cannot

be confirmed at this stage. It is noted that the Proposed Wind Farm layout achieves the required setback distance from Sensitive receptors (four times the proposed tip height) set out in the Draft Guidelines for visual amenity purposes, and noise and shadow flicker levels are controllable by management of the turbine operation as required.

6.3 Regional Policy Context

The Northern and Western Regional Assembly (NWRA) has a recognised leadership role in setting out regional policies and coordinating initiatives which support the delivery and implementation of the National Planning Framework. The primary vehicle for this is the preparation and implementation of the Regional Spatial and Economic Strategy.

The North and Western region is characterised by the RSES as having '*a unique natural endowment of ample carbon-neutral, energy supplies*' such as wind. Specifically, the Western Region is stated as being *'particularly rich'* in renewable energy resources dispersed across the region. The RSES acknowledges that the region has a pivotal role in delivering a successful transition to Ireland's proposed low carbon economy with huge potential for growth in renewables. As such, there is '*still significant potential*' for all new renewable energy outputs to the grid. In order to facilitate the growth of renewables within the region, the RSES notes that the NWRA aims to encourage stakeholders, i.e. industry, commercial etc., to be the first to facilitate new opportunities and concentrate on possibilities to further advance renewable energy generation and use.

These strategic aims are captured in Policy Objectives 4.16, 4.17 and 4.18:

- ***RPO 4.16****: The NWRA shall co-ordinate the identification of potential renewable energy sites of scale in collaboration with Local Authorities and other stakeholders within 3 years of the adoption of the RSES. The identification of such sites (which may extend to include energy storage solutions) will be based on numerous site selection criteria including environmental matters, and potential grid connections.*

- ***RPO 4.17****: To position the region to avail of the emerging global market in renewable energy by stimulating the development and deployment of the most advantageous renewable energy systems, including:*
    - *Stimulating the development and deployment of the most advantageous renewable energy systems;*
    - *Raising awareness and public understanding of renewable energy and encourage market opportunities for the renewable energy industry to promote the development and growth of renewable energy businesses; and*
    - *Encourage the development of the transmission and distribution grids to facilitate the development of renewable energy projects and the effective utilisation of the energy generated from renewable sources having regard to the future potential of the region over the lifetime of the Strategy and beyond.*

- ***RPO 4.18****: Support the development of secure, reliable and safe supplies of renewable energy, to maximise their value, maintain the inward investment, support indigenous industry and create jobs.*

The Regional Policy Objectives above reflect the strong support for renewable energy throughout the RSES. The Proposed Wind Farm will generate renewable electricity contributing to the achievement of these objectives. The Proposed Wind Farm is therefore in alignment with and strongly supported by the policies of the RSES.

6.4 Local Policy Context

The Galway County Development Plan 2022 – 2028 was adopted by the Elected Members of Galway County Council at the conclusion of the Special Meeting on the 9th of May 2022 and came into effect on the 20th of June 2022. The CDP provides the framework within which the decision on the planning application is made.

The policies and objectives set out within the CDP are supportive of the development of renewable energy within the county. Climate change is emphasised as one of the greatest global challenges with Galway County Council acknowledging that continual action is needed for Galway to become a low carbon and climate resilient county.

The CDP recognises that an efficient and secure energy supply is essential to the future growth and sustainable development of County Galway:

"To reduce the carbon footprint by integrating climate action into the planning system in support of national targets, support indigenous renewable sources in order to reduce dependence on fossil fuels and improve security of supply and the move to a competitive low carbon economy."

The CDP also includes policies and objectives relating to Natural Heritage, Biodiversity, Green/Blue Infrastructure, Landscape, Archaeology, Hydrology, Flooding, Noise, and Soils and Geology. A statement of consistency is provided in the Table 3 below with each of the CDP policies /objectives that are relevant to the Proposed Wind Farm. In conclusion, it is considered that the Proposed Wind Farm is in compliance with all the relevant policies set out in the CDP and is therefore in accordance with the proper planning and sustainable development of the area.

Table 3: Local Policy Objectives and Compliance Summary

Topic	Policy / Objective	Compliance
Climate Change	**CC 1 Climate Change** Support and facilitate the implementation of European, National and Regional objectives for climate adaptation and mitigation taking into account other provisions of the Plan (including those relating to land use planning, energy, sustainable mobility, flood risk management and drainage) and having regard to the Climate mitigation and adaptation measures.	The Proposed Wind Farm will provide renewable energy to the national electricity grid, contributing to towards renewable energy targets at a European, National and Regional level, thereby facilitating climate mitigation through reducing carbon emissions.
	CC 2 Transition to a low carbon, climate-resilient society It is a policy objective of the Planning Authority to support the transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050, by way of reducing greenhouse gases, increasing renewable energy, and improving energy efficiency.	Decarbonising our economy is reliant on the production of clean, renewable energy and the electrification of other carbon intensive sectors. The Proposed Wind Farm will increase the level of clean renewable energy on the national electricity grid.
	CC 3 County Galway Climate Adaptation Strategy 2019-2024 To implement the County Galway Climate Adaptation Strategy 2019-2024 as appropriate.	The County Galway Climate Adaptation Strategy identifies the impacts of climate change on County Galway. The Proposed Wind Farm will aid decarbonisation measures in the County and is therefore in line with the aims of the Adaptation Strategy.
	CC 6 Local Authority Renewable Energy Strategy (LARES) To support the implementation of the Renewable Energy Strategy contained in Appendix 1 of the Galway County Development Plan to facilitate the transition to a low carbon county.	It is submitted that the Proposed Wind Farm is suitably sited with regards to the Galway Renewable Energy Strategy. Please refer to Section 6.4.4 for an assessment of the Proposed Wind Farm against the provisions of the Renewable Energy Strategy.
Renewable Energy	**RE 1 Renewable Energy Generation and ancillary facilities** To facilitate and support appropriate levels of renewable energy generation and ancillary facilities in the county to meet national, regional and county renewable energy targets, to facilitate a reduction in CO2 emissions and the promotion of a low carbon economy.	The Proposed Wind Farm has the potential to generate circa 56MW of renewable energy which will be transferred to the National Grid. This will aid in achieving the climate change and renewable energy objectives at a National and International level and the transition to a low carbon economy.
	RE 2 Local Authority Renewable Energy Strategy The policy objectives and Development Management Standards set out in the Local	The Proposed Wind Farm site is located in an area designated as 'Generally to be Discouraged' on the wind

	Authority Renewable Energy Strategy for County Galway shall be deemed the policy objectives and development management standards for the purpose of the Galway County Development Plan 2022-2028.	energy zoning map. Therefore, the Proposed Wind Farm should be assessed in accordance with LARES policy objective 17; to assess wind farms in these areas in accordance with proper planning and sustainable development. It is submitted that the Proposed Wind Farm is in accordance with the proper planning and sustainable development of the area. A full analysis of the Local Authority Renewable Energy Strategy is included in Section 6.4.4 of this report.
	RE 3 Wind Energy Developments Promote and facilitate wind farm developments in suitable locations, having regard to areas of the County designated for this purpose in the Local Authority Renewable Energy Strategy. The Planning Authority will assess any planning application proposals for wind energy production in accordance with the Local Authority Renewable Energy Strategy, the DoEHLG Guidelines for Planning Authorities on Wind Energy Development, 2006 (or any updated/superseded documents), having due regard to the Habitats Directive and to the detailed policy objectives and Development Standards set out in the Local Authority Renewable Energy Strategy.	The Proposed Wind Farm adheres to the Guidelines in its design and has been designed to be capable of adhering with the Draft Guidelines. The EIAR accompanying this application considers all relevant potential environmental impacts that could arise (Chapter 5 of the Guidelines), and the design of the Proposed Wind Farm has followed the design principles established in Chapter 6 of the Guidelines. It is expected that, were the Draft Guidelines to come into effect, the Proposed Wind Farm will be able to achieve any revised noise and shadow flicker standards. However, without the final, adopted guidelines, the exact compliance procedures cannot be confirmed at this stage. It is important to highlight that the Proposed Wind Farm maintains a four times tip height setback between turbines and Sensitive receptors and a thorough community consultation effort has been conducted. It is submitted that the Proposed Wind Farm is suitably sited with regards to the Galway Renewable Energy Strategy. Please refer to Section 6.4.4 for an assessment

		of the Proposed Wind Farm against the provisions of the Renewable Energy Strategy.
	RE 5 Renewable Energy Strategy Support and facilitate the sustainable development and the use of appropriate renewable energy resources and associated infrastructure within the County having due regard to the Habitats Directive and to the detailed policy objectives and Development Standards set out in the Local Authority Renewable Energy Strategy as follows: Renewable Energy Transmission, Renewable Energy Generation, 'Strategic Areas' for renewable energy development, Onshore Wind Energy , Solar Energy, Bioenergy/Anaerobic Digestion, Micro-renewables, Marine Renewables, Hydro Energy, Geothermal Energy, Alternative Technologies, Energy Efficiency & Conservation, Sustainable Transport, Auto production, Battery Storage, Repowering/Renewing Wind Energy Developments, Community Ownership.	It is submitted that the Proposed Wind Farm is suitably sited and is consistent with the policies, objectives and development management criteria set out in the LARES. Please refer to Section 6.4.4 for an assessment of the Proposed Wind Farm against the provisions of the Renewable Energy Strategy and to the NIS which provides a full assessment of the Proposed Wind Farm in accordance with the Habitats Directive.
	RE 7 Renewable Energy Generation - Transition to a Low Carbon Economy To facilitate and support appropriate levels of renewable energy generation in County Galway, considering the need to transition to a low carbon economy and to reduce dependency on fossil fuels.	The Proposed Wind Farm will increase the level of renewable energy generated, reducing the county's dependence on fossil fuels.
Natural Heritage, Biodiversity and	**NHB 1 Natural Heritage and Biodiversity of Designated Sites, Habitats and Species** Protect and where possible enhance the natural heritage sites designated under EU Legislation and National Legislation (Habitats Directive, Birds Directive, European Communities (Birds and Natural Habitats) Regulations 2011 and Wildlife Acts) and extend to any additions or alterations to sites that may occur during the lifetime of this plan. Protect and, where possible, enhance the plant and animal species and their habitats that have been identified under European legislation (Habitats and Birds Directive) and protected under national Legislation (European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011), Wildlife Acts 1976-2010 and the Flora Protection Order (SI 94 of 1999). Support the protection, conservation and enhancement of natural heritage and biodiversity, including the protection of the integrity of European sites, that form part of the Natura 2000 network, the protection of Natural Heritage Areas, proposed Natural Heritage Areas, Ramsar Sites, Nature Reserves, Wild Fowl Sanctuaries (and other designated sites including	The Proposed Wind Farm application considers the impact on protected sites, habitats and species. The EIAR concludes that there will be no significant negative impacts on the protected species and habitats of designated sites.

Green/Blue Infrastructure	any future designations) and the promotion of the development of a green/ ecological network.	
	NHB 2 European Sites and Appropriate Assessment To implement Article 6 of the Habitats Directive and to ensure that Appropriate Assessment is carried out in relation to works, plans and projects likely to impact on European sites (SACs and SPAs), whether directly or indirectly or in combination with any other plan(s) or project(s). All assessments must be in compliance with the European Communities (Birds and Natural Habitats) Regulations 2011. All such projects and plans will also be required to comply with statutory Environmental Impact Assessment requirements where relevant.	The Proposed Wind Farm application includes an Appropriate Assessment prepared in line with the Birds and Natural Habitats Regulations 2011.
	NHB 3 Protection of European Sites No plans, programmes, or projects etc. giving rise to significant cumulative, direct, indirect or secondary impacts on European sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans, programmes, etc. or projects.	The impact of the Proposed Wind Farm on designated sites is considered in full in the EIAR and the Natura Impact Statement (NIS). Chapter 6 of the EIAR and NIS conclude that the Proposed Project will not give rise to any significant negative impacts on designated sites.
	NHB 4 Ecological Appraisal of Biodiversity Ensure, where appropriate, the protection and conservation of areas, sites, species and ecological/networks of biodiversity value outside designated sites. Where appropriate require an ecological appraisal, for development not directly connected with or necessary to the management of European Sites, or a proposed European Site and which are likely to have significant effects on that site either individually or cumulatively.	As detailed in Chapter 6 of the EIAR, the Proposed Wind Farm has been designed to avoid or mitigate impacts on biodiversity. As detailed in the Bat Report in Appendix 6-2 of the EIAR, there is unlikely to be any significant effect in relation to collision risk to bats from the Proposed Wind Farm. As detailed in Chapter 7 of the EIAR, the Collision Risk Assessment (CRA) indicates that the impact of the Proposed Wind Farm on birds corresponds to a **Low – Very Low** effect significance.
	NHB 5 Ecological Connectivity and Corridors Support the protection and enhancement of biodiversity and ecological connectivity in non-	The Proposed Wind Farm site, including semi-natural grasslands, woodlands and Annex I habitats, will not be

	designated sites, including woodlands, trees, hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, stonewalls, geological and geo-morphological systems, other landscape features and associated wildlife areas where these form part of the ecological network and/or may be considered as ecological corridors in the context of Article 10 of the Habitats Directive.	impacted by the Proposed Wind Farm. The Biodiversity Management and Enhancement Plan, Appendix 6-4 of the EIAR, provides for replanting of hedgerow habitat and will result in a net gain. A range of mitigation measures are in place to ensure there are no impacts on groundwater or surface water as a result of the Proposed Wind Farm. There will therefore be no impact on rivers, streams, natural springs or wetlands including turloughs, as a result of the Proposed Wind Farm.
	NHB 6 Implementation of Plans and Strategies Support the implementation of any relevant recommendations contained in the National Heritage Plan 2030, the National Biodiversity Plan, the All Ireland Pollinator Plan and the National Peatlands Strategy and any such plans and strategies during the lifetime of this plan.	The Biodiversity Management and Enhancement Plan, including the replanting of native hedgerows, and the establishment and management of semi-natural grasslands, supports the objectives of the All Ireland Pollinator Plan and National Biodiversity Plan.
	NHB 7 Mitigation Measures Require mitigating measures in certain cases where it is evident that biodiversity is likely to be affected. These measures may, in association with other specified requirements, include establishment of wildlife areas/corridors/parks, hedgerow, tree planting, wildflower meadows/marshes and other areas. With regard to residential development, in certain cases, these measures may be carried out in conjunction with the provision of open space and/or play areas.	As described in Chapter 6 of the EIAR, a range of mitigation measures have been prescribed to prevent impacts to biodiversity via the identified pathways. In addition, habitat enhancement measures for biodiversity are included as part of the Proposed Wind Farm.
	NHB 9 Protection of Bats and Bats Habitats Seek to protect bats and their roosts, their feeding areas, flight paths and commuting routes. Ensure that development proposals in areas which are potentially important for bats, including areas of woodland, linear features such as hedgerows, stonewalls, watercourses and associated riparian vegetation which may provide migratory/foraging uses shall be subject to suitable assessment for potential impacts on bats. This will include an assessment of the cumulative loss of habitat or the impact on bat populations and activity in the area and may include a specific bat survey. Assessments shall be carried out by a suitably qualified professional and where development is likely to result in significant adverse effects on bat populations or activity in the area, development will be prohibited or require mitigation and/or compensatory measures, as appropriate. The impact of lighting	As described in Chapter 6 of the EIAR, detailed bat surveys have been carried out at the Proposed Wind Farm site in line with the most up to date bat survey guidance. The potential for impacts on bats as a result of the Proposed Wind Farm has been assessed in Chapter 6 of the EIAR and a range of mitigation measures are in place to protect bats and their habitats.

	on bats and their roosts and the lighting up of objects of cultural heritage must be adequately assessed in relation to new developments and the upgrading of existing lighting systems.	
	GBI 1 New Developments Require all proposals for large scale development to contribute to the protection, management and enhancement of the existing green/blue infrastructure of the County and the delivery of new green/blue infrastructure, where appropriate by including a green/ blue infrastructure plan as an integral part of any planning application. This plan should identify environmental and ecological assets, constraints and opportunities and shall include proposals which protect, manage, and enhance the development of green infrastructure resources in a sustainable manner.	The Biodiversity Management and Enhancement Plan, including the replanting of native hedgerows, and the establishment and management of semi-natural grasslands, supporting the development of green infrastructure in the county.
Landscape	**LCM 1 Preservation of Landscape Character** Preserve and enhance the character of the landscape where, and to the extent that, in the opinion of the Planning Authority, the proper planning and sustainable development of the area requires it, including the preservation and enhancement, where possible of views and prospects and the amenities of places and features of natural beauty or interest.	The Proposed Wind Farm site is located in a settled agricultural landscape comprising fields of grazing pasture delineated by stone walls and mature hedgerows. The landscape value of the Proposed Wind Farm site is deemed to be of 'Low' value and the sensitivity of this landscape to wind farm development is deemed to be 'Low'. Visual appraisals have determined that the visibility of the turbines will be very limited beyond 5km from the site. The Landscape and Visual Impact Assessment, found in Chapter 14 of the EIAR, concludes that the Proposed Wind Farm is deemed to be acceptable from a landscape and visual perspective. Photomontages accompany the Landscape and Visual Assessment and are included in Volume 2 of the EIAR.
	LCM 2 Landscape Sensitivity Classification The Planning Authority shall have regard to the landscape sensitivity classification of sites in the consideration of any significant development proposals and, where necessary, require a Landscape/Visual Impact Assessment to accompany such proposals. This shall be balanced against the need to develop key strategic infrastructure to meet the strategic aims of the plan.	The Proposed Wind Farm site is located in LCU 6a – Black River Basin Unit, within the Central Galway Complex. The proposed turbines are located within an area classified as Low sensitivity, which is defined as *"Unlikely to be adversely affected by change"* in the GCDP (2022-2028). No protected views or scenic routes are located within 5km of the proposed turbines. The

		LVIA finds, as concluded in Chapter 14 of the EIAR, that the Proposed Wind Farm is deemed to be acceptable from a landscape and visual perspective.
	LCM 3 Landscape Sensitivity Ratings Consideration of landscape sensitivity ratings shall be an important factor in determining development uses in areas of the County. In areas of high landscape sensitivity, the design and the choice of location of proposed development in the landscape will also be critical considerations.	The Proposed Wind Farm site has the lowest landscape sensitivity rating. The proposed turbines are located within an area classified as Low sensitivity, which is defined as *"Unlikely to be adversely affected by change"* in the GCDP (2022-2028). The LVIA finds, as concluded in chapter 14 of the EIAR, that the Proposed Wind Farm is deemed to be acceptable from a landscape and visual perspective.
	PVSR 1 – Protected Views and Scenic Routes Preserve the protected views and scenic routes as detailed in Maps 8.3 and 8.4 from development that in the view of the Planning Authority would negatively impact on said protected views and scenic routes. This shall be balanced against the need to develop key infrastructure to meet the strategic aims of the plan.	There are 2 Galway designated protected views within 20km of the proposed turbines site that are orientated in the opposite direction to the Proposed Wind Farm site. There are 3 Galway designated scenic routes within 20km of the proposed turbines. The nearest scenic route is over 15km from the Proposed Wind Farm site. No significant Landscape or Visual effects will occur as a result of the proposed turbines on these designated protected views or scenic routes.
Archaeology & Cultural Heritage	**ARC 4 Protection of Archaeological Sites** Protect archaeological sites and monuments their settings and visual amenity and archaeological objects and underwater archaeological sites that are listed in the Record of Monuments and Places, in the ownership/guardianship of the State, or that are subject of Preservation Orders or have been registered in the Register of Historic Monuments, or that are newly discovered and seek to protect important archaeological landscapes.	The Proposed Wind Farm has been designed to avoid any archaeological sites and monuments. From all national monuments identified on the site a buffer of at least 30m from the Proposed Wind Farm infrastructure will be maintained. Chapter 13 of the EIAR concludes that no significant direct or indirect impacts on Cultural Heritage and Archaeology.
	ARC 5 Development Management All planning applications for new development, redevelopment, any ground works, refurbishment, and restoration, etc. within areas of archaeological potential or within close	The Proposed Wind Farm has been designed with consideration for the recorded monuments of the area.

	proximity to Recorded Monuments or within the historic towns of County Galway will take account of the archaeological heritage of the area and the need for archaeological mitigation.	Mitigation measures are outlined in Chapter 13 of the EIAR to ensure that no impacts arise.
	ARC 12 Archaeology and Infrastructure Schemes Have regard to archaeological concerns when considering proposed service schemes (including electricity, sewerage, telecommunications, water supply) and proposed roadwork's (both realignments and new roads) located in close proximity to Recorded Monuments and Places and their known archaeological monuments.	The Proposed Wind Farm has been designed with consideration for the recorded monuments of the area. Mitigation measures are outlined in Chapter 13 of the EIAR.
	CUH 1 Cultural heritage Protect and promote the cultural heritage assets and the intangible cultural heritage assets of County Galway as important social and economic assets.	As detailed in the assessment in Chapter 13 of the EIAR, there will be no significant effects associated with direct effects during the construction phase. There will be no significant direct or indirect impacts on Cultural Heritage and Archaeology.
Flooding	**FL 2 Flood Risk Management and Assessment** Comply with the requirements of the DoEHLG/OPW The Planning System and Flood Risk Management Guidelines for Planning Authorities and its accompanying Technical Appendices Document 2009 (including any updated/superseding documents). This will include the following: (a) Avoid, reduce and/or mitigate, as appropriate in accordance with the Guidelines; (b) Development proposals in areas where there is an identified or potential risk of flooding or that could give rise to a risk of flooding elsewhere will be required to carry out a Site Specific Flood Risk Assessment, and justification test where appropriate, in accordance with the provisions of The Planning System and Flood Risk Management Guidelines 2009 (or any superseding document); Any flood risk assessment should include an assessment of the potential impacts of climate change, such as an increase in the extent or probability of flooding, and any associated measures necessary to address these impacts; (c) Development that would be subject to an inappropriate risk of flooding or that would cause or exacerbate such a risk at other locations shall not normally be permitted; (d) Galway County Council shall work with other bodies and organisations, as appropriate, to help protect critical infrastructure, including water and wastewater, within the County, from risk of flooding.	The Proposed Wind Farm site is not susceptible to flooding. As detailed in the assessment in Chapter 9 of the EIAR, no significant effects on surface water or groundwater quality will occur.

Rural Development	**RD 1 Rural Enterprise Potential** To facilitate the development of the rural economy through supporting a sustainable and economically efficient agriculture and food industry, together with forestry, fishing and aquaculture, energy and extractive industries, the bio-economy and diversification into alternative on-farm and off-farm activities, while at the same time noting the importance of maintaining and protecting the natural landscape and built heritage which are vital to rural tourism. Development of Cafes, Art Galleries, Hot Desk Facilities etc. which are important to the rural economy.	The economic benefits of wind farms include increased economic activity, employment generation, local rates and financial contributions to Local Authorities, taxes and capital investment. The Proposed Wind Farm will contribute to rural enterprise with approximately 100 jobs in the rural economy estimated to be created during the construction, operation, and maintenance phases of the Proposed Project. The Proposed Wind Farm will also operate a community benefit fund.
Hydrology	**WS 6 Water Framework Directive** Support the preparation of Drinking Water Safety Plans and Source Protection Plans to protect sources of public water supply, in accordance with the requirements of the Water Framework Directive	A Water Framework Directive Assessment is included in Appendix 9-4 of the EIAR.
	WS 7 Water Quality Require that new development proposals would ensure that there would not be an unacceptable impact on water quality and quantity including surface water, ground water, designated source protection areas, river corridors and associated wetlands.	As detailed in the assessment in Chapter 9 of the EIAR, no significant effects on surface water or groundwater quality will occur as a result of the Proposed Project.
	WR 1 Water Resources Protect the water resources in the plan area, including rivers, streams, lakes, wetlands, springs, turloughs, surface water and groundwater quality, as well as surface waters, aquatic and wetland habitats and freshwater and water dependant species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the River Basin District Management Plan 2018 – 2021 and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same) and also have regard to the Freshwater Pearl Mussel Sub-Basin Management Plans.	Chapter 9, Appendix 9-4 of the EIAR includes a Water Framework Directive assessment which determines if any specific components or activities associated with the Proposed Wind Farm will compromise WFD objectives or cause a deterioration in the status of any surface water or groundwater body and/or jeopardise the attainment of good surface water or groundwater status.
Waste Management	**WM 2 Requirements for Waste Management** Support and promote the circular economy principles, prioritising prevention, reuse, recycling and recovery, and to sustainably manage residual waste. New developments will	A preliminary Waste Management Plan is included in the CEMP. The minimisation of construction waste and the reuse of certain types of construction wastes will cut

	be expected to take account of the provisions of the Waste Management Plan for the Region and observe those elements of it that relate to waste prevention and minimisation, waste recycling facilities, and the capacity for source segregation.	down on the cost and requirement of raw materials therefore further minimising waste levels.
	WM 5 Construction and Environmental Management Plans Construction Environment Management Plans shall be prepared in advance of the construction of relevant projects and implemented throughout. Such plans shall incorporate relevant mitigation measures which have been integrated into the Plan and any lower tier Environmental Impact Statement or Appropriate Assessment. CEMPs typically provide details of intended construction practice for the proposed development, including: (a) location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse; (b) location of areas for construction site offices and staff facilities; (c) details of site security fencing and hoardings; (d) details of on-site car parking facilities for site workers during the course of construction; (e) details of the timing and routing of construction traffic to and from the construction site and associated directional signage; (f) measures to obviate queuing of construction traffic on the adjoining road network; (g) measures to prevent the spillage or deposit of clay, rubble or other debris; (h) alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public right of way during the course of site development works; (i) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels; (j) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained (such bunds shall be roofed to exclude rainwater); (k) disposal of construction/demolition waste and details of how it is proposed to manage excavated soil, including compliance with 2006 Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects, Department of the Environment, Heritage and Local Government; (l) a water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains;	A CEMP has been prepared and is included in this planning application at Appendix 4-5 of the EIAR. The CEMP includes measures to protect the environment during the construction of the Proposed Project. The CEMP will be implemented during the construction process and will be audited by an Environmental Clerk of Works.
	NP3 Noise Impact Assessments To require an assessment of impact of the development on noise levels, having regard to the provisions of the Environmental Protection Agency Acts 1992 and 2003 and the EPA Noise Regulations 1994 when assessing planning application.	Based on the assessment detailed in Chapter 11 of the EIAR and the mitigation measures proposed, there will be no significant effects on Sensitive receptors due to an increase in noise levels from the Proposed Wind Farm during the construction and operational phase.

	NP 4 Noise Pollution and Regulation Restrict development proposals causing noise pollution in excess of best practice standards and regulate and control activities likely to give rise to excessive noise, other than those activities which are regulated by the EPA.	The Proposed Wind Farm will operate in accordance with the appropriate noise levels set out in the Guidelines. Stricter guidance can be adhered to by turbine controls.
	NP 5 Noise Mitigation Measures Require activities likely to give rise to excessive noise to install noise mitigation measures and monitors. The provision of a noise audit may be required where appropriate.	Operational noise monitoring will take place to ensure compliance with any noise conditions. Should noise limit exceedances be confirmed, it is proposed to mitigate for this through curtailment of turbine(s) in the relevant wind speed and directions.
Soil & Geology	**SQ 1 Soil Impact Assessments** Ensure good soil quality throughout the county by requiring developments of a certain nature (as specified in the relevant environmental legislation) to carry out assessments of the impact of the development on soil quality.	As detailed in the assessment in Chapter 8 of the EIAR, no significant effects on land, landuse, peat, soil and bedrock will occur.
	SQ 2 Soil Protection Measures To ensure that adequate soil protection measures are undertaken where appropriate.	Mitigation measures to ensure soil protection are included in Chapter 8 of the EIAR.
	G 1 Geological and Geo-Morphological Systems Protect and conserve geological and geo-morphological systems, county geological heritage sites and features from inappropriate development that would detract from their heritage value and interpretation and ensure that any plan or project affecting karst formations, eskers or other important geological and geo-morphological systems are adequately assessed with regard to their potential geophysical, hydrological or ecological impacts on the environment.	Surveys carried out on the Proposed Wind Farm site comprised of an initial geophysical survey and subsequent site investigations, which included trial pits, boreholes, infiltration tests and indirect CBR tests. In total over 230m of site investigation drilling has been completed across the Proposed Wind Farm site, with no evidence of karst conduits or voids encountered. Isolated and discrete weathered layers of Limestone were encountered in some boreholes, but this is typical of all Limestone bedrock in Ireland. As concluded in Chapter 8 of the EIAR, no significant effects on the land, soils and geology of the Site will occur during construction, operation, or decommissioning phases.

6.4.2 Development Management Standards

Chapter 15 of the CDP sets out the development management standards that apply to a wide range of developments and which are required to be considered as part of the planning application process. Section 15.13.3 relates to 'Renewable Energy Proposals' with development management standard 69 directly applicable to the Proposed Wind Farm, which states as follows:

When assessing a wind energy planning application, the Council will consider the proposal with regard to:

- *The Wind Energy Development Guidelines for Planning Authorities, DoEHLG, (2006) and any amendments to the Guidelines which may be made;*
- *The Local Authority Renewable Energy Strategy.*

In addition to the above, Development Management Standard 69 outlines the local considerations taken into account by the Council in relation to a wind energy planning application and these are reproduced below for clarity. The list of development management standards is not exhaustive and other factors may be considered by the Councill on a case-by-case basis. The Proposed Wind Farm is assessed against each of the development management standards in Table 4 below.

Table 4: Wind Energy Development Management Standards

Local considerations taken into account by the Council	Compliance
Impact on the visual amenities	The proposed turbines are sited over 740m (4 x tip height) from the nearest dwelling in a landscape without any nationally and locally protected scenic qualities. A substantial magnitude of change to the Proposed Wind Farm site and the immediate surroundings is acknowledged, however the LVIA concludes that the impact is deemed to be acceptable from a landscape and visual perspective. There will be no impact on protected views or scenic routes.
Impact on the residential amenities of the area	The Proposed Wind Farm has been designed to avoid or mitigate against potential impacts on residential amenity. A 4 x tip height set back, set out in the Draft Guidelines for visual amenity purposes is achieved from all Sensitive receptors. The criteria set out in the Guidelines in relation to Noise and Shadow flicker are achieved and will also be adhered to. The Proposed Wind Farm will also be capable of achieving the criteria set out in the Draft Guidelines. Traffic related impacts will be short term during the construction phase.
Scale and layout of the project, any cumulative effects due to other projects and the extent to which the impacts are visible across the local landscape	The cumulative impact of the Proposed Project and other projects in the area is considered in each chapter of the EIAR. The full list of the projects considered is included in Appendix 2-3 of the EIAR. The LVIA finds, as concluded in Chapter 14 of the EIAR, that the Proposed Wind Farm is deemed to be acceptable from a landscape and visual

	perspective. The photomontages, prepared by MKO and included in Volume 2 of the EIAR, illustrates the impact of the project on existing views with other existing, permitted and proposed wind turbines included.
Visual impact of the proposal with respect to protected views, scenic routes and sensitive landscapes (Class 2, 3 and 4)	The Proposed Wind Farm site is located in the Central Galway Complex and has the lowest landscape sensitivity rating of 1. Protected views within 20km of the Proposed Wind Farm site are orientated in the opposite direction to the Proposed Wind Farm site. The nearest scenic route is over 15km from the Proposed Wind Farm site. It is considered that the Proposed Wind Farms impact on the landscape is appropriate given that the development of wind energy is a strategic aim of the CDP. As concluded in the LVIA in Chapter 14 of the EIAR, no significant Landscape or Visual effects will occur as a result of the proposed turbines on designated protected views or scenic routes.
Impact on nature conservation, ecology, soil, hydrology, groundwater, archaeology, built heritage and public rights of way	The EIAR concludes that the Proposed Wind Farm will not have any significant impacts on ecology, soil, hydrology, groundwater, archaeology and the built environment. No public rights of way are interfered with as part of the Proposed Wind Farm.
Impact on ground conditions and geology	Surveys carried out on the Proposed Wind Farm site comprised of an initial geophysical survey and subsequent site investigations, which included trial pits, boreholes infiltration tests and indirect CBR tests. In total over 230m of site investigation drilling has been completed across the Proposed Wind Farm Site, with no evidence of karst conduits or voids encountered. Isolated and discrete weathered layers of Limestone were encountered in some boreholes, but this is typical of all Limestone bedrock in Ireland. All excavation of soil, subsoil and bedrock required for site levelling and for the installation of wind farm infrastructure will be carried using best practice methods. Measures to prevent soil and subsoil erosion during excavation, reinstatement and permanent storage in spoil storage areas will be undertaken to prevent water quality effects. As concluded in Chapter 8 of the EIAR, no significant effects on the land, soils and geology of the Site will occur during construction, operation, or decommissioning phases.
Consideration of falling distance plus an additional flashover distance from wind turbines to overhead transmission lines	The nearest overhead transmission line is 1.2km east of turbine 8. This is above the 3.5 x rotor

	diameter setback distance (570.5m) as of EirGrid's Policy on Clearance to Overhead Lines.[5]
Impact of development on the road network in the area	As detailed in Chapter 14 (Material Assets – Traffic and Transport), there will be temporary negative imperceptible to slight impact on traffic volumes during the construction phase of the Proposed Wind Farm. A detailed Traffic Management Plan incorporating all the mitigation measures will be agreed with the roads authority prior to construction works commencing on site.
Impact on human health in relation to noise disturbance (including consistency with the Word Health Organisations 2018 Environmental Noise Guidelines for the European Region), shadow flicker and air quality	Based on the assessment detailed in Chapter 5 of the EIAR and the mitigation measures proposed, there will be no significant effects related to human health, including shadow flicker, noise or air quality from the Proposed Wind Farm.
Proposals for the decommissioning of the project following cessation of use or expiry of the permitted duration of use.	A Decommissioning Plan is proposed as Appendix 4-7 of the EIAR. The decommissioning phase of the Proposed Wind Farm is also considered in each chapter of the EIAR.

6.4.3 Landscape Character Assessment

Galway County Council have prepared a Landscape Character Assessment that is contained in *Appendix 4* of the GCDP. This Landscape Character Assessment categorises Galway County into different Landscape Character Types (LCTs). The proposed turbines are located within the Central Galway Complex Landscape LCT. The principle characteristics of this Landscape are described as follows; '*Level plain of productive grassland contain many settlements and dwellings'.*

Within the LCTs, County Galway is further divided into Landscape Character Units (LCU's). The Proposed Wind Farm is located in the 6a – Black River Basin Unit, which is described as an *"Undulating long-occupied working landscape with high levels of settlement. Large regular fields and numerous parkland remnants. Low enclosure except for localised areas of mature parkland trees".*

The Landscape Character Assessment also identifies protected views and scenic routes *"of great natural beauty located across the county".* There are three designated scenic routes within the 20km the Landscape and Visual Impact Assessment (LVIA) study area of the Proposed Wind Farm. There are also two designated protected views within 20km. These are listed in Table 5 below.

The Landscape Character Assessment designates each part of the County a sensitivity rating based on landscape sensitivity factors such as coastlines, ridgelines, and areas that lack significant visual screening. The proposed turbines are located within an area classified as Low sensitivity, which is defined as *"Unlikely to be adversely affected by change"* in the GCDP 2022-2028.

The substantial magnitude of change at the site of the Proposed Wind Farm and the immediate surroundings is acknowledged in chapter 14 of the EIAR, the LVIA. However, the area is not recognised

[5] *https://www.eirgridgroup.com/site-files/library/EirGrid/Wind-Turbine-Clearance-Policy.pdf*

as a landscape of any regional or national value or importance. The Proposed Wind Farm site is located within an Area of Low Sensitivity. The Proposed Wind Farm site itself and its immediate setting do not comprise any unique landscape receptors of county, regional or national interest. It is also noted that no significant cumulative landscape and visual impacts are likely to occur with any existing, permitted or proposed wind farm developments. It is therefore concluded in the LVIA that the Proposed Wind Farm is deemed to be acceptable from a landscape and visual perspective. Photomontages of the Proposed Wind Farm are provided in Volume 2 of the EIAR.

Table 5: Protected Scenic Routes & Views

Name	Description (GCDP)
Protected View No. 31: Kilbeg Pier **Significance:** County	*This view is from Kilbeg Peir and parking area. The focus of this view is Lough Corrib. The adjacent reedy shore and distant wooded shores that form the background are important features of the view." (Appendix 4, GCDP)* The protected view is directed south-west across Lough Corrib, facing away from the Proposed Wind Farm. The protected view is located approximately 11 km to the west of the Proposed Wind Farm site.
Protected View No. 33: Friary of Ross **Significance:** County	*This view is from the road leading to the Friary ruins. The focus of this view is the Ross Friary ruins through the trees as the road approaches the site. The turlough in the background is an important feature (when present)." (Appendix 4, GCDP)* The protected view is directed north at the Ross Friary ruins, facing away from the Proposed Wind Farm. The protected view is located approximately 10.6 km to northwest of the Proposed Wind Farm site.
Galway Bay Scenic Route	The section of the scenic route within 20km of the Proposed Wind Farm is described as follows: "*The second section is from Oranmore to the outskirts of Kinvarra, this short route passes through a countryside of small fields and scattered housing. Much of the route passes through areas of tall road-side hedges and scrub hazel that confine views. Occasionally elevated portions of roads offer expansive, long-distance views towards the northern Burren as well as Galway Bay."* There will be no effect on this scenic route due to the lack of visibility of the proposed turbines from this scenic route due to the distance and intervening screening. The scenic route is located approximately 18km away from the Proposed Wind Farm site.
Galway Clifden Scenic Route	*"the landscape is open and largely devoid of visible development. It offers expansive views of uplands, bogs and lakes. The landscapes are very large and expansive – drawing the eye to distant horizons and to the ever-changing sky. The turbulent Atlantic frontal weather systems cause the lighting to frequently change. Seasons bring about large-scale changes of colour – both of vegetation and grasses.* *Key Features: Mountains, Lakes, Bogs."* Views of the proposed turbines will be limited from this scenic route due to distance and screening. No significant impacts are deemed to arise as a result of the Proposed Wind Farm. The scenic route is located approximately 17 km away from the Proposed Wind Farm site.

Lough Corrib Scenic Route	*"This route runs from Maigh Cuilinn and Oughterard through Maam Cross before looping back at Cong. Near Galway City's outskirts it encounters a mixture of landscapes that include treelined roads at parkland edges with occasional very expansive elevated panoramas across Lower Lough Corrib. Between Maigh Cuilinn and Oughterard the route passes through increasingly enclosed and inhabited landscapes. Lakeshore access points offer opportunities to experience very distinctive landscapes – usually from wooded locations with occasional panoramic views across many islands. The woodland character of this area provides strikingly different experiences across each season. After Oughterard the land changes abruptly to unenclosed, large -scale areas with distant views of open countryside and largescale elements such as uplands, bogs and lakes;* *Key Features: Lakes, Mountains, large tracts of unoccupied and unenclosed land."* Views of the proposed turbines will be limited from this scenic route due to distance and screening. No significant impacts are deemed to arise as a result of the Proposed Wind Farm. The scenic route is located approximately 17 km away from the Proposed Wind Farm site.

6.4.4 Renewable Energy Strategy

County Galway Wind Energy Strategy 2015-2021

The initial site selection process for the Proposed Wind Farm began in 2020. At the time of site selection, the County Galway Wind Energy Strategy 2015 – 2021 (WES) was in force and thus the Proposed Wind Farm site was selected with consideration for the WES policies. This included the Strategic Wind Farm Areas which designated the county's area into 'Strategic Areas', 'Acceptable in Principle', 'Open for Consideration', and 'Not Normally Permissible'. The Proposed Wind Farm site was located in an area designated as 'Open to Consideration'. The 'Open to Consideration' zoning informed the selection process and early design stages of the Proposed Wind Farm site.

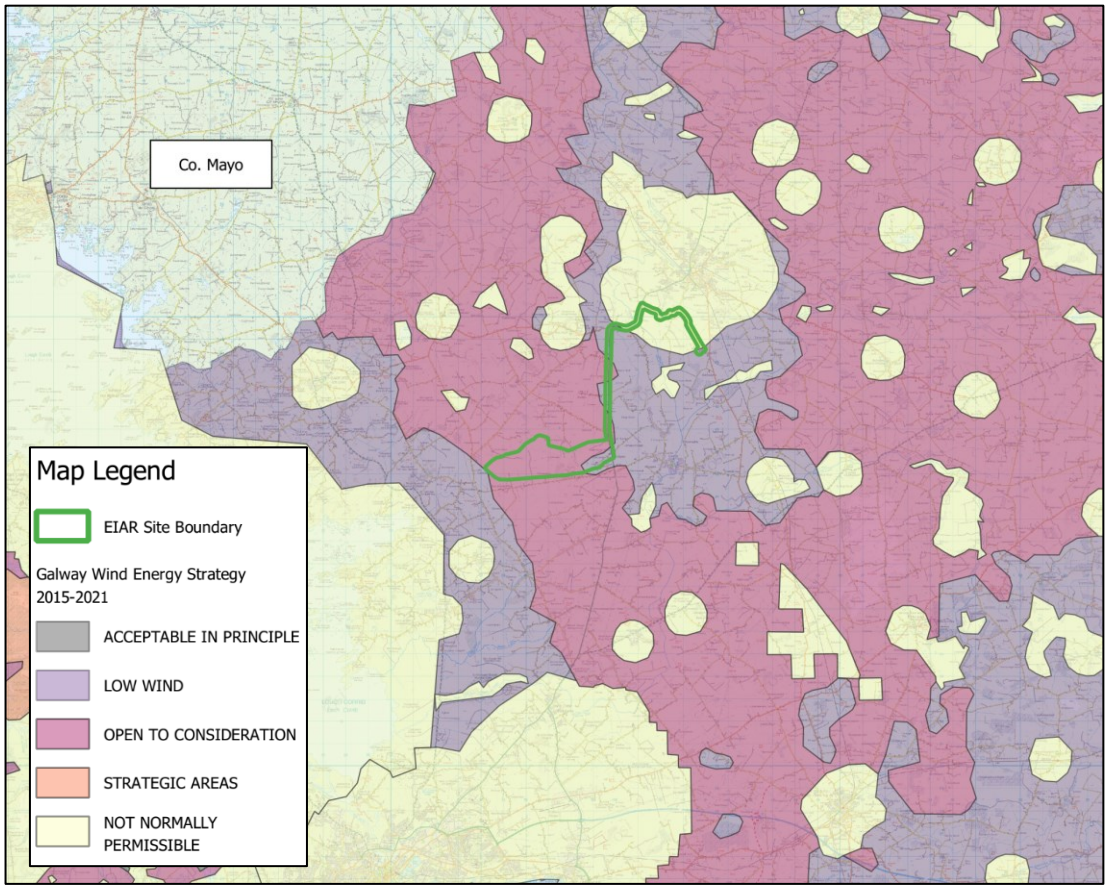


Figure 5: County Galway Wind Energy Zoning 2015 - 2021

When the current CDP was adopted, the Proposed Wind Farm site was reviewed given the alteration of the zoning designation to 'Generally to be Discouraged'. Whilst the modification of zoning designation status was acknowledged, the decision was made to advance with the Proposed Wind Farm through the planning process. This decision was based on detailed site surveys and a comprehensive constraints analysis concluding in the site retaining its suitability for wind energy development. The site surveys constraint assessments found that the site was not in close proximity to the any ecologically designated sites and had a limited amount of annex 1 habitat that could be carefully avoided. The site was also found to have a suitable quantum of land for a wind energy development when buffers from dwellings, national monuments, telecoms links and other constraints were considered.

County Galway's Local Authority Renewable Energy Strategy 2022 - 2028

County Galway's Local Authority Renewable Energy Strategy (LARES) is included as Appendix 1 of the Galway County Development Plan 2022 – 2028. The LARES for Galway sets out guidance designed to allow County Galway to both contribute to meeting the national legally binding targets while also capitalising on those opportunities associated with the generation and harnessing of renewable energy in a sustainable manner. The vision as outlined in the LARES is as follows:

> *"To facilitate and encourage renewable energy generation and a low carbon energy transition across County Galway, in the interests of future generations, through the application of energy efficient technology and the harnessing of indigenous renewable energy resources, whilst respecting the need to conserve areas of environmental, cultural and economic value."*

The aim of the LARES is to build upon the current policy to provide a county-wide tool for identifying areas suitable for renewable energy development. This tool is to be utilised to guide future assessments of renewable energy proposals in the county. The LARES includes policy objectives that support the development of renewable energy and wind energy in County Galway. These policies are included in Table 6 below.

Table 6: LARES Policy Objectives

Policy Objective	
LARES Policy Objective 3 - Renewable Energy Generation	'To facilitate and support appropriate levels of renewable energy generation in County Galway, in light of the need to transition to a low carbon economy and to reduce dependency on fossil fuels.'
LARES Policy Objective 4 - Prioritisation of 'Strategic Areas' for renewable energy development	The areas that are identified as 'Strategic Areas' for renewable energy development will be prioritised for renewable energy uses over other uses, in accordance with the proper planning and sustainable development of the area.
LARES Policy Objective 13 Wind Energy Generation	To increase renewable energy generation levels from wind energy developments in County Galway, given the recognised wind energy potential of the County.
LARES Policy Objective 14 National Wind Energy Guidelines	All onshore wind energy developments shall comply with the National Wind Energy Development Guidelines or any subsequent version thereof
LARES Policy Objective 15 Acceptable in Principle	Wind energy development proposals in the areas that are 'Acceptable in Principle' for renewable energy development will be considered in accordance with the LARES and the proper planning and sustainable development of the area.
LARES Policy Objective 16 Open to Consideration	Wind energy development proposals in areas that are identified as 'Open to Consideration' for wind energy development will be considered in accordance with the LARES and the proper planning and sustainable development of the area
LARES Policy Objective 17 Generally to be Discouraged	Wind energy development proposals in areas that are identified as 'Generally to be Discouraged' for wind energy development will be considered in accordance with the LARES and the proper planning and sustainable development of the area.
LARES Policy Objective 18 Not Normally Permissible	Wind energy development proposals in areas that are identified as 'Not Normally Permissible' for wind energy development will be considered in accordance with the LARES and the proper planning and sustainable development of the area.

Of particular relevance to the Proposed Wind Farm application are policy objective 3, 13 and 17.

Wind Energy Zoning

The LARES includes a wind energy zoning map which classifies the area of the County into wind energy designations. The wind energy designations are as follows:

- Strategic Area
- Acceptable in Principle
- Open to Consideration
- Generally to be Discouraged
- Not normally permissible

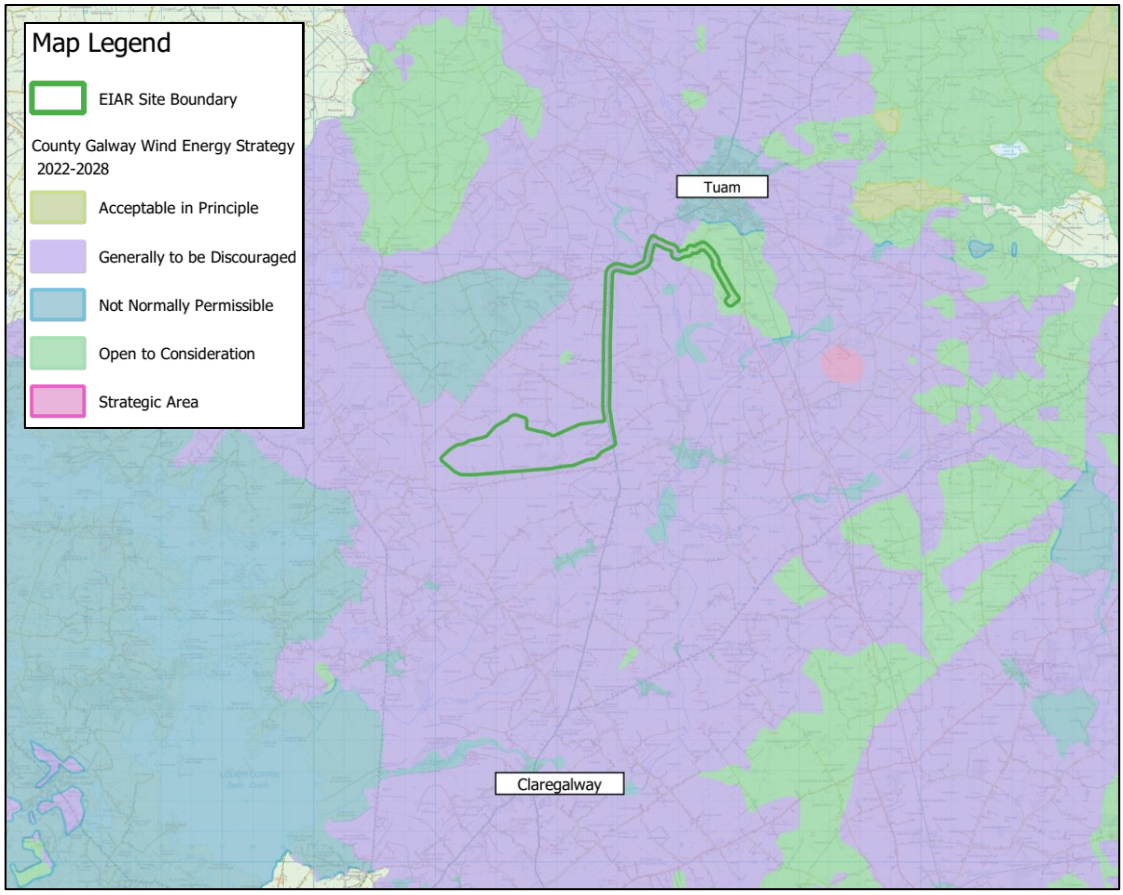


Figure 6: County Galway Wind Energy Zoning 2022 - 2028

The Proposed Wind Farm site is located in an area designated as 'Generally to be Discouraged', the meaning of which is as follows:

'Areas where Wind Energy development is unlikely to be favourably considered on account of potential to adversely effect protected landscape, water, ecological resources and residential amenity.'

The associated LARES Policy Objective associated with the 'Generally to be Discouraged' wind energy zoning designation is as follows:

***LARES Policy Objective 17 Generally to be Discouraged**: 'Wind energy development proposals in areas that are identified as 'Generally to be Discouraged' for wind energy development will be considered in accordance with the LARES and the proper planning and sustainable development of the area.'*

The area in which the Proposed Wind Farm is located is designated as 'Generally to be Discouraged' due to the area falling into the '*lowest scoring bracket from the combination of wind opportunity and sensitivity weighting scores'.* To understand the rationale behind the wind energy zoning, an analysis was carried out, assessing the Proposed Wind Farm site against each of the opportunity and sensitivity factors detailed in the LARES. Each opportunity and sensitivity factor are assigned a factor priority of low, medium or high. The factors and their associated priority, as outlined in the LARES, is provided below.

Factor as Opportunity or Sensitivity				
	Wind	**Solar**	**Hydro**	**Bio**
Energy Network	Opportunity	Opportunity	Opportunity	Opportunity
Road Network	Opportunity	Opportunity	Opportunity	Opportunity
Population Density	Sensitivity	Sensitivity	Sensitivity	Sensitivity
Settlements	Sensitivity	Sensitivity	Sensitivity	Sensitivity
Land Use	Opportunity	Opportunity	Neutral	Opportunity
Slope	Sensitivity	Opportunity	Opportunity	Sensitivity
Elevation	Opportunity	Opportunity	Opportunity	Neutral
Protected Areas	Sensitivity	Sensitivity	Sensitivity	Sensitivity
Flooding	Sensitivity	Sensitivity	Opportunity	Sensitivity
Landslide	Sensitivity	Sensitivity	Sensitivity	Sensitivity
Wind Speed	Opportunity	Opportunity	Neutral	Neutral
Aspect	Opportunity	Opportunity	Neutral	Neutral
Solar Radiation	Neutral	Opportunity	Neutral	Neutral
Crop potential	Neutral	Opportunity	Neutral	Opportunity

Figure 7: Extract of Table 6 of the Galway County Council LARES (Factors categorised as opportunities or sensitivities for each type of Renewable Energy)

Factor Priority				
	Wind	**Solar**	**Hydro**	**Bio**
Energy Network	High	High	High	Low
Road Network	High	Medium	Low	Low
Population Density	High	Medium	Low	Low
Settlements	High	High	High	Medium
Land Use	Medium	High	Low	High
Slope	Medium	High	Low	Low
Elevation	High	Medium	Low	Low
Protected Areas	High	High	High	High
Flooding	Medium	High	High	Low
Landslide	High	Medium	Low	Low
Wind Speed	High			
Aspect		Medium		
Solar Radiation		High		
Crop potential				High

Figure 8: Extract of Table 5 of the Galway County Council LARES (General priority of factors used to determine suitability of an area for different types of Renewable Energy)

Using the sensitivity and opportunity maps included in *'Appendix E - Informative Maps'* of the LARES, the contributing factors leading to the *'Generally to be Discouraged'* zoning on the Proposed Wind Farm site are considered. Table 7 below provides a summary of the assessment of the factors against the Proposed Wind Farm site.

Table 7: Assessment of factors against the Proposed Wind Farm site

Opportunities	Assessment of Subject Site	Sensitivities	Assessment of Subject Site
Energy Network (High priority)	Proximity to the Cloon 110kV Substation	**Pop. Density (High priority)**	>20 and <= 50 persons per sq. km (Second lowest population category)
Road Network (High priority)	Proximity to the National Road Network (N83)	**Settlements (High priority)**	Not situated in the excluded settlement areas
Land use (Medium priority)	Pastures	**Slope (Medium priority)**	Lowest rating (less than 10 degrees)
Elevation (High priority)	24 - 54 mAOD	**Protected Areas (High priority)**	Not located within the excluded landscape, geological, natura 2000 or natural heritage area sites
Wind Speed (High priority)	>7 and <=8 (m/s)	**Flooding (Medium priority)**	Does not overlap with fluvial & Coastal flood areas
		Landslide (High priority)	Low (inferred)

Based on the wind energy opportunities and sensitivities outlined in the LARES, the identified site for the Proposed Wind Farm demonstrates a favourable prospect for wind energy development. Positioned in close proximity to both the energy grid and road network, the current land use as agricultural pasture minimises the need for extensive tree felling or vegetation removal. Additionally, the site features suitable wind speeds for suitable energy generation. The Proposed Wind Farm site exhibits few sensitivities that would impede wind energy development; it is not susceptible to landslides or flooding and does not fall within a protected area. Moreover, the population density within the vicinity ranges between 20 and 50 persons per square kilometre, placing it in the second lowest category on the population density map.

With these factors considered, it is not immediately clear why the Proposed Wind Farm site was considered to be placed in the '*lowest scoring bracket from the combination of wind opportunity and sensitivity weighting scores'*. From analysis based on the LARES sieve mapping, the Proposed Wind Farm site scores relatively highly across all factors. The wind energy zoning in the area of the County in which the Proposed Wind Farm is located broadly aligns with the population density map, see Figure 11 below which compares the population density of County Galway to the *'Generally to be Discouraged'* zoning. It is therefore considered likely that population played a key role in the designation of the Proposed Wind Farm site as '*Generally to be Discouraged*'. It is noted however that an area to the southeast of the site has similar characteristics, including the same population density, yet is designated as *'Open to Consideration'*.

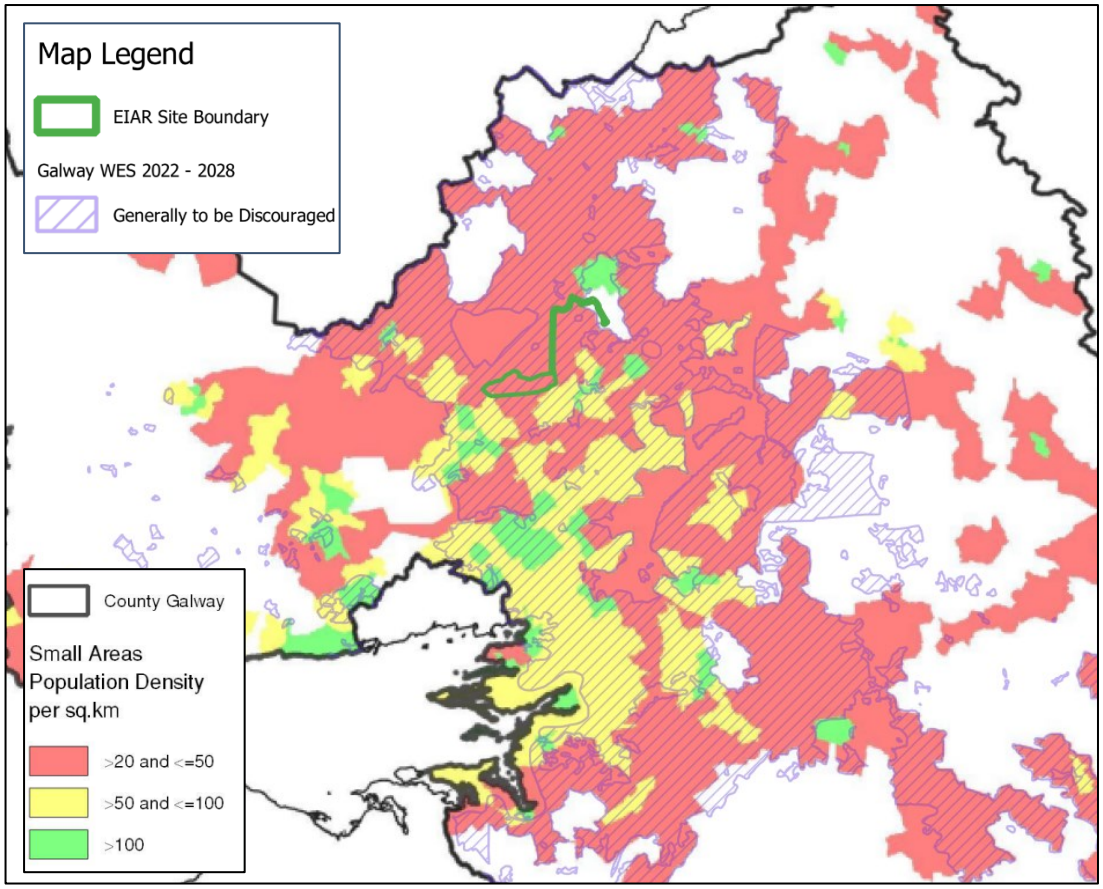


Figure 9: Residential density map (Appendix E of LARES) with LARES wind energy zoning overlaid.

Considering that residential density appears to be an underlying factor in the zoning of the Proposed Wind Farm site, it should be noted that the Proposed Wind Farm has been designed to reduce potential impacts on residential amenity. The Proposed Wind Farm achieves a 4 x tip height set back from all dwellings to protect residential visual amenity, as recommended in the Draft Guidelines. Shadow Flicker analysis demonstrates that of the 257 no. properties modelled, when the regional sunshine average (i.e. the mean amount of sunshine hours throughout the year) of 26.46% and is taken into account, the total annual guideline limit of 30 hours is predicted as to being potentially exceeded at 8 No. of the properties. Mitigation measures, outlined in Chapter 5 of the EIAR, will ensure that no significant effect will arise in relation to shadow flicker and to ensure daily/ annual limits will not be exceeded. Noise analysis results conclude that no significant effects will occur on Sensitive receptors during the operational phase of the Proposed Wind Farm.

In conclusion, Galway County Council's application of the scoring matrix is questionable, and it is the view of MKO following detailed interrogation of the matrix and site suitability that the current designation of this site is flawed. The reasoning and evidence behind this view is supported by the science and summarised in Table 7 above.

County Galway's Wind Energy Target

County Galway's LARES, set outs the existing and projected quantum of renewable energy in the County over the course of the CDP. The overall projection for renewable energy is 1566MW. The majority of this, is predicted to come from wind energy, with an estimated total energy yield of 965MW by 2030. The remainder consists of solar energy, with an estimated yield of 216MW. These estimates derive from the existing and permitted capacity and the estimated capacity of areas favourably zoned for wind energy, as outlined in the previous section.

Upon review of County Galway's renewable energy potential, it appears that an error was made while calculating the commissioned and existing capacity of wind farms within County Galway. The total commissioned capacity of wind farms within the County as of December 2020 is stated in section 3.1 of the LARES as being 322.65 MW, with a further 124 MW of permitted un-commissioned capacity. As such, the total permitted MW capacity, as of December 2020, was 446.65. However, elsewhere in the LARES (commissioned and permitted wind farms table, pg. 30) the total capacity (operational and permitted) is stated to be 570MW. This leads to a discrepancy between the 2030 wind energy target estimations, in table 1, it is stated to be 1,373MW and in table 11 it is stated to be 1,350MW. For the purpose of this report, the estimated amount of installed wind energy is assumed to be 1,350MW.

Rather than specifying a megawatt target of renewable energy to be attained by 2030, LARES Policy Objective 3 aims to attain *'appropriate levels'* of renewable energy generation within the county. In similar fashion, the LARES Policy Objective 13 aims to *'increase renewable energy generation levels from wind energy developments'* in the county. The LARES uses terms such as 'potential yield' and 'estimated capacity' in order to describe the potential generating MW capacity of the County by 2030.

Despite the absence of explicit renewable energy targets outlined in the LARES policy objectives, it can be inferred that the deemed *'appropriate level'* of renewable energy aligns with the potential renewable energy yield specified in the LARES. With regard to the objectives of the REPowerEU, RED III, CAP 24 and other climate and energy policy, and in advance of the publication of the regional renewable electricity strategies, it is submitted that the 'appropriate level' of renewable energy in this instance is the full potential of County Galway. Furthermore, the 1.5 GW potential energy yield is considered to be a '*conservative approach'* that the Council are *'confident of achieving'*. The LARES affirms that County Galway will possess *'the capacity to realistically and sustainably deliver over 1.5 GW of renewable energy (mostly wind)'* by 2030. The ability of the County to reach these levels of renewable energy generation, based on the LARES policies, is discussed in further detail in the Wind Energy Capacity Assessment in Section 6 below. It is concluded from the Wind Energy Capacity Assessment that the Council will not be able to reach the 1.5 GW renewable energy yield when wind energy zoning and development constraints are considered.

7. WIND ENERGY CAPACITY ASSESSMENT

A constraints analysis was carried out for the subject site at an early stage in the design process to identify a 'viable area' for wind energy development (refer to Section 5). This project level constraints analysis was then applied to the entire County in order to accurately determine the County's potential to meet the wind energy targets stated in the CDP and LARES.

7.1 Constraint Buffers Rationale

The rationale for selecting and applying the various constraints and setback distances as part of this wind energy capacity assessment is based on statutory guidelines, best practice industry standards and expert judgement. The rationale for each constraint buffer is summarised in Table 9 below.

It should be noted that the buffer with the largest impact, being the 4 times tip height set-back from dwellings, is a requirement of Special Planning Policy Requirement 2, as set out in the Draft Guidelines, which states as follows:

> *"With the exception of applications where reduced setback requirements have been agreed with relevant owner(s) as outlined at 6.18.2 below, planning authorities and An Bord Pleanála (where relevant), shall, in undertaking their development planning and development management functions,* ***ensure that a setback distance for visual amenity purposes of 4 times the tip height of the relevant wind turbine shall apply between each wind turbine and the nearest point of the curtilage of any residential property in the vicinity of the proposed development****, subject to a mandatory minimum setback of 500 metres from that residential property. Some discretion applies to planning authorities when agreeing separation distances for small scale wind energy developments generating energy primarily for onsite usage.*
>
> *The planning authority or An Bord Pleanála (where relevant), shall not apply a setback distance that exceeds these requirements for visual amenity purposes."* (**Emphasis added**)

The 700m setback distance applied in this instance, is based on a wind turbine tip height of 175m (175m x 4 = 700m), which is less than the 185m tip height range being applied for as part of the subject planning application. A 175m tip height was selected as it represents the lower end of the turbine tip height seen across commercial wind energy proposals since the beginning 2022 (see Table 8 below). A rotor diameter of 150m was also selected, based on a typical rotor diameter of a wind turbine of 175m.

While it is acknowledged that a smaller turbine would result in reduced setback requirement, it should be noted that wind turbine technology has been advancing rapidly in recent years with a trend towards larger, more efficient models. As a result, many smaller models that have been constructed in the past are no longer widely available and would not make the most efficient use of the wind resource of the county.

This is evident following a review of other proposed wind farm projects that have entered the planning process across the country since the start of 2022 (see Table 8 below). This review found a sample of 30 no. wind farm projects, the search did not include single or domestic turbines. The average wind farm turbine tip height of the wind farm projects found in the search was 177m. This is indicative of the type of turbines that are currently on the market and widely available. Therefore, a 700m setback based on the 4 x tip height of a turbine of 175m, slightly below the average turbine tip height of Table 9 below, is considered reasonable for the purposes of this assessment.

Table 8: Proposed Wind Farm Projects since 2022

Project Name	County	Reference	Application date	No. Turbines	Tip Height (m)
Ballinagree	Cork	312606 (SID)	28/01/2022	20	179-185
Glenard	Donegal	316025 (SID)	04/02/2022	15	173
Seven Hills	Roscommon	313750 (SID)	07/06/2022	20	180
Gortyrahilly	Cork	314602 (SID)	09/09/2022	14	179-185
Bilboa WF	Carlow	22/340, ABP 318295	07/10/2022	5	136.5
Maas	Donegal	2251393, ABP 315071	09/11/2022	3	145-150
White Hill	Carlow	315365 (SID)	19/12/2022	7	180
Tullaghmore	Galway	23/60051, ABP 316309	26/01/2023	6	185
Knockshanvo	Clare	ABP 315797	15/02/2023	9	185
Sheskin South	Mayo	315933 (SID)	01/03/2023	21	200
Cloghercor	Donegal	316025 (SID)	10/03/2023	19	185-200
Umma More	Westmeath	316051 (SID)	10/03/2023	9	185
Knocknamork	Cork	23/4455	14/03/2023	7	175
Oweninny 3	Mayo	316178 (SID)	31/03/2023	18	200
Ballivor	Westmeath	316212 (SID)	05/04/2023	26	200
Pinewoods	Laois	22/507, ABP 316309	18/04/2023	11	136.5
Fahy Beg	Clare	23/148, ABP 317227	30/05/2023	8	169 -176.5
Dyrick Hill	Waterford	316051 (SID)	06/06/2023	12	185
Inchamore	Cork	23/5145	06/06/2023	5	177-185
Ballykett	Clare	23/60219	20/06/2023	6	150
Firlough	Mayo	317560 (SID)	06/07/2023	13	177-185
Coolglass	Laois	317809 (SID)	14/08/2023	13	180
Carrig Renewables	Tipperary	23/60763, ABP 318689	22/09/2023	7	179.5 - 185
Coumnagappul	Waterford	318446 (SID)	13/11/2023	10	185
Glenora	Mayo	318701 (SID)	14/12/2023	22	180
Borrisbeg	Tipperary	318704 (SID)	14/12/2023	9	185
Knockranny	Galway	23225, ABP 318723	15/12/2023	11	150
Oatfields	Clare	318782 (SID)	22/12/2023	11	176.5 - 180
Cush	Offaly	318816 (SID)	08/01/2024	8	200
Ballycar	Clare	318943 (SID)	26/01/2024	12	158
				Average Turbine Tip Height: 177m*	

** For wind farm projects proposing a range of turbine tip height, the median was selected.*

Designated sites (such as SACs, SPAs, NHAs) plus a 100m buffer was excluded from the capacity assessment due to the ecological sensitivity of such sites and the restrictions on development that could negatively impact such sites.

A setback of 3.5x Rotor Diameter (525m) from overhead lines was also applied, as set out in EirGrid's Policy on Wind Turbine Clearance to Overhead Lines.[6]

A setback of 192.5m from motorways, primary, regional and secondary roads, and from railway lines was applied in line with the Draft Guidelines, which states as follows:

> *"Although wind turbines erected in accordance with standard engineering practice are stable structures, best practice indicates that it is advisable to achieve a safety set back from National and Regional roads and railways of a distance equal to the height of the turbine to the tip of the blade plus 10%."*

[6] *https://www.eirgridgroup.com/site-files/library/EirGrid/Wind-Turbine-Clearance-Policy.pdf*

A setback of 82.5m (blade length plus 10%) from local roads was also applied in line with best practice. A setback of 1km from airfields and 50m from watercourses/water bodies was applied in line with best practice.

Sites with existing and permitted turbines were also excluded due to these sites being unavailable for development. As of Section 5.13 of the Guidelines, turbine windtake is equal to 7 x rotor diameter in prevailing wind direction and 3 x rotor diameter in crosswind direction.

A summary table of the constraints applied in the wind energy assessment is provided below:

Table 9: Constraints & Rationale

Constraint	Buffer	Constraint Rationale
Housing	700m	Approximately 4 x tip height in accordance with the setback requirements set out in the Draft Guidelines for the protection of residential amenity, based on a tip height of 175m
Designated Sites	100m	Best practice industry standard based on ecological sensitivity
Overhead Lines	3.5x Rotor Diameter (525m)	EirGrid's Policy on Wind Turbine Clearance to Overhead Lines
Watercourses/ Waterbodies	50	Best practice industry standard
Roads	192.50m (Motorways, national & regional) 82.5m (Local)	Draft Guidelines require a turbine tip height plus 10% setback from motorways and national and regional roads
Railways	192.5m	Draft Guidelines require a turbine tip height plus 10% setback from railways
Airfields	1km	Best practice industry standard
Existing Wind Farms	The Guidelines Section 5.13 - Windtake (7 x RD in prevailing wind direction & 3 x RD in crosswind direction)	Sites no longer available
Areas less than 500m^2		Areas less than 500m^2 are generally not commercially viable.

Full scaled versions of the constraint mapping analysis shown below are provided in the appendix to this report.

7.2 Step 1: County Galway

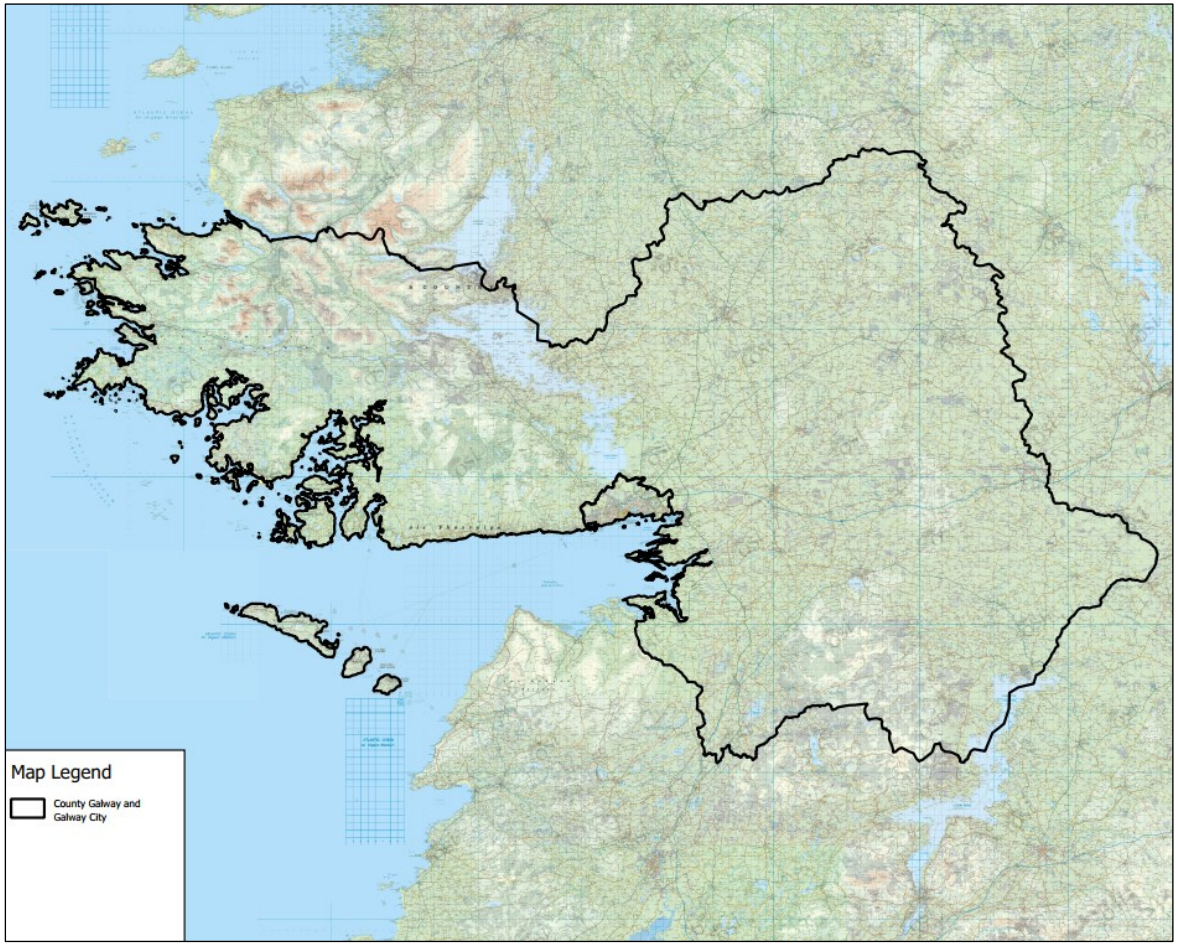


Figure 10: County Galway

County Galway (Galway City excluded)
Population: 193,323
Area: 6,091 km^2

Using the area, (6,091km^2) of the county as 100% of the area available for wind energy development, the capacity assessment eliminates in a step wise sequence areas which are subject to constraints set out in table 9 and thus make that area not available for potential wind energy development.

7.3 Step 2: Wind Energy Policy Areas

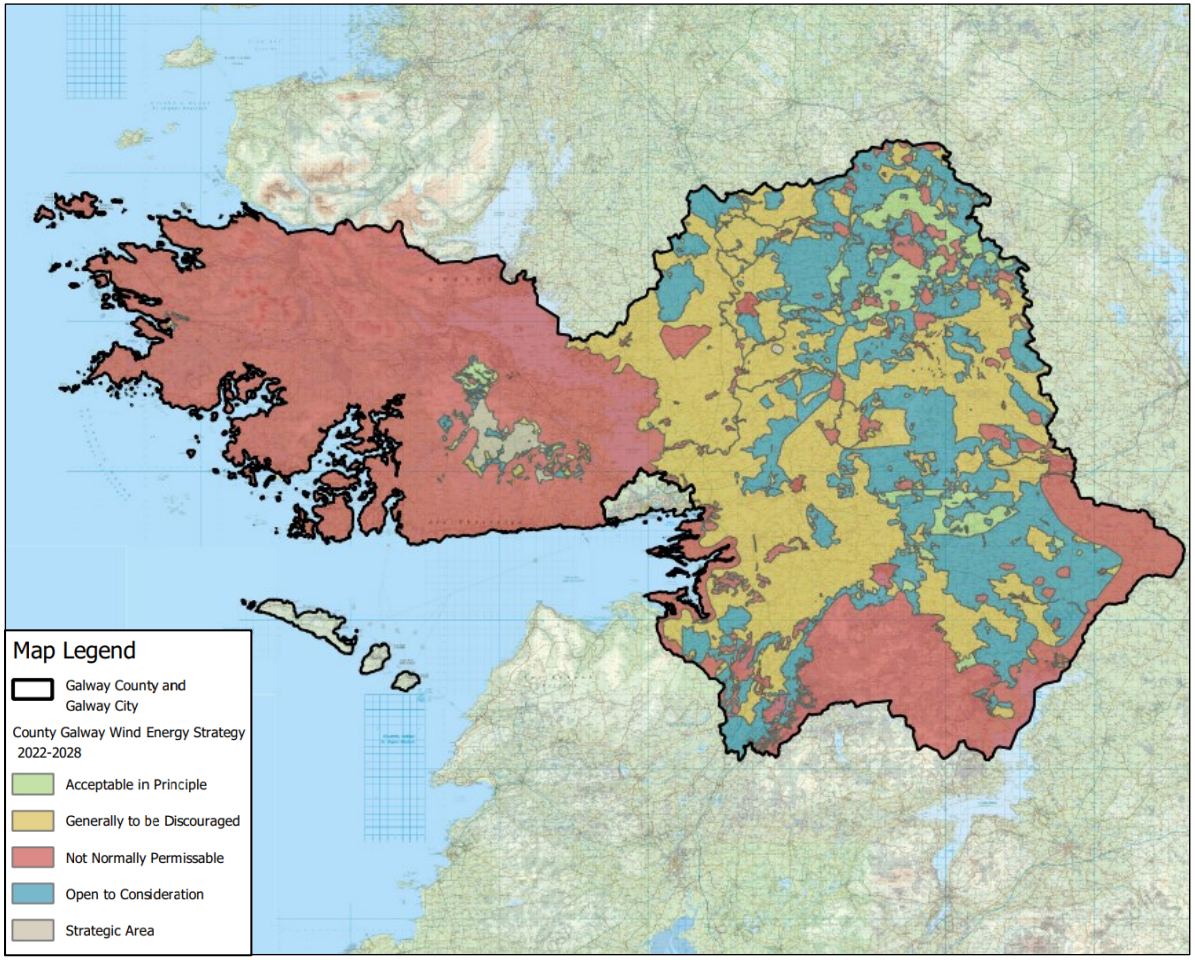


Figure 11: LARES wind energy zoning map

Zoning	Area	% of County
Strategic Areas	45.74 km^2	0.75%
Acceptable in Principle	196.05 km^2	3.22%
Open to Consideration	1221.45 km^2	20.05%
Generally to be Discouraged	1677.44 km^2	27.54%
Not Normally Permissible	2950.60 km^2	48.44%

The classifications as defined in the LARES are applied to the county. Favourable policy areas, i.e. those areas that are zoned for new wind energy development (Acceptable in Principle, Open to Consideration) account for **23.35%** of the county. Unfavourable policy areas, i.e. those areas where new wind energy development is not envisaged (Strategic Areas, Generally to be Discouraged & Not Normally Permissible) account for **76.65%** of the county. Strategic Areas, as identified in the LARES, are areas with existing wind energy developments. There are no new wind energy developments envisaged for these areas. As such, Strategic areas are included in the unfavourable policy areas for the purpose of this analysis.

7.4 Step 3: Housing Constraint

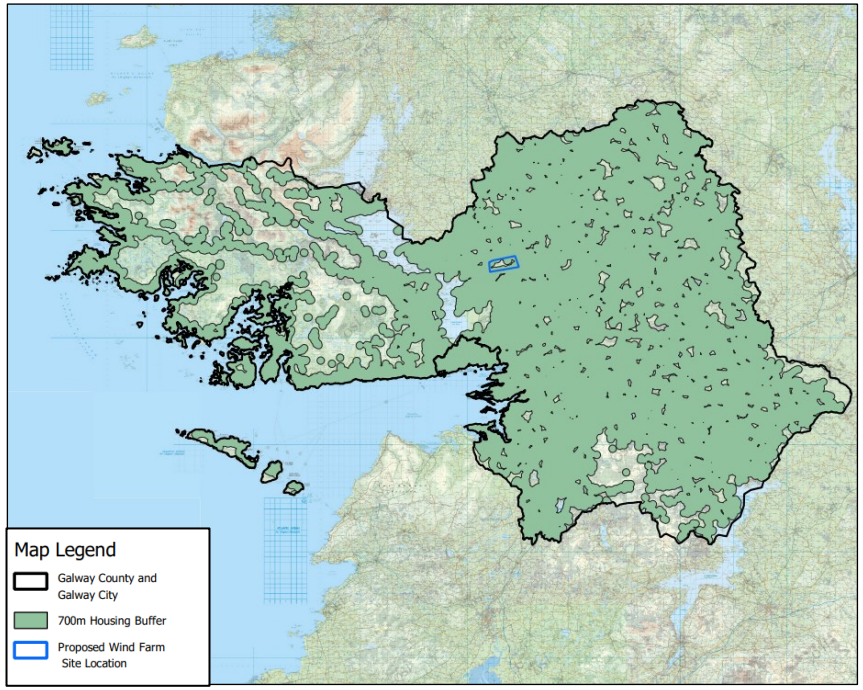


Figure 12: 700m buffer from residential dwellings

Residential Dwellings

- 700m based on a 4 x 175m tip height.

Zoning	Area remaining following housing constraint	% of County
Favourable	81.05 km^2	1.33%
Unfavourable	1,273.15 km^2	20.90%

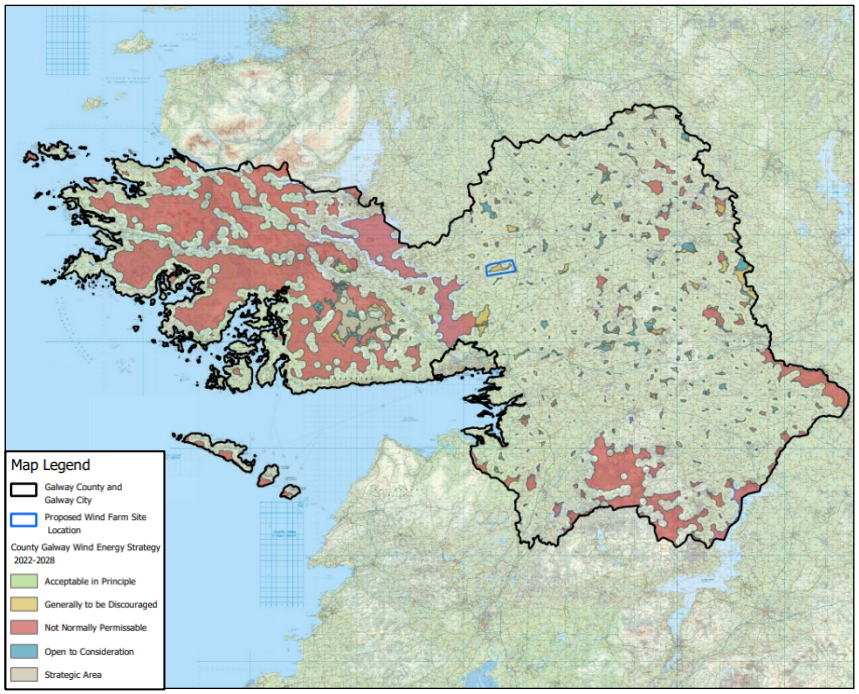


Figure 13: Remaining viable area after housing buffer is applied

7.5 Step 4: Transport Corridors and Grid Constraints

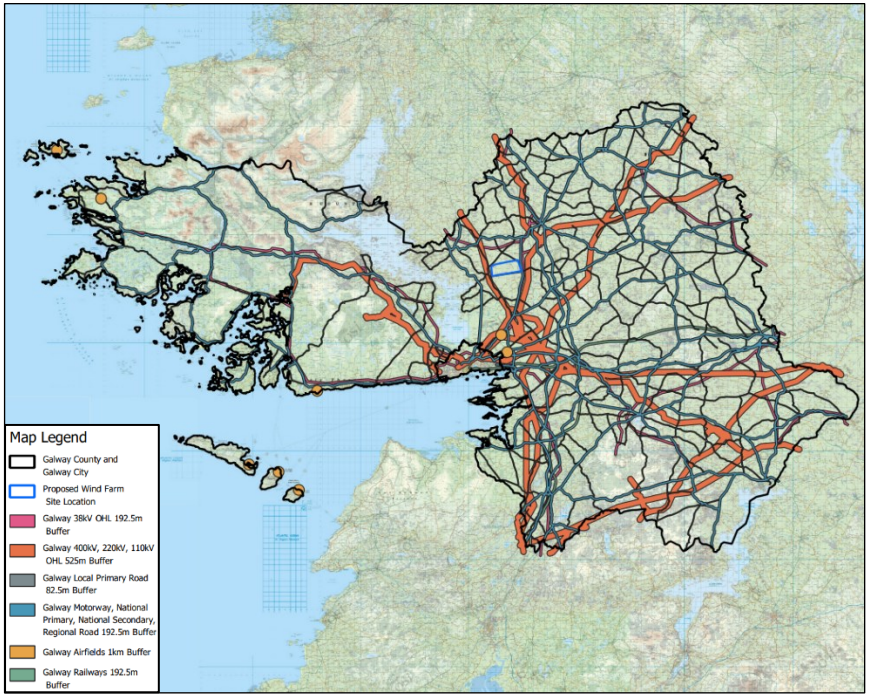


Figure 14: Buffer from transport and grid constraints

Zoning	Area remaining following Transport Corridors and Grid Constraints constraint	% of County
Favourable	72.35 km^2	1.19%
Unfavourable	1,217.63 km^2	19.99%

Transport corridors and grid constraints buffer

- Roads – 192.5m (Motorways, National & Regional) & 82.5m (Local).
- Railroads – 192.5m
- Overhead lines – 38kV (192.5), 110kV – 400kV(525m)
- Airfields – 1km

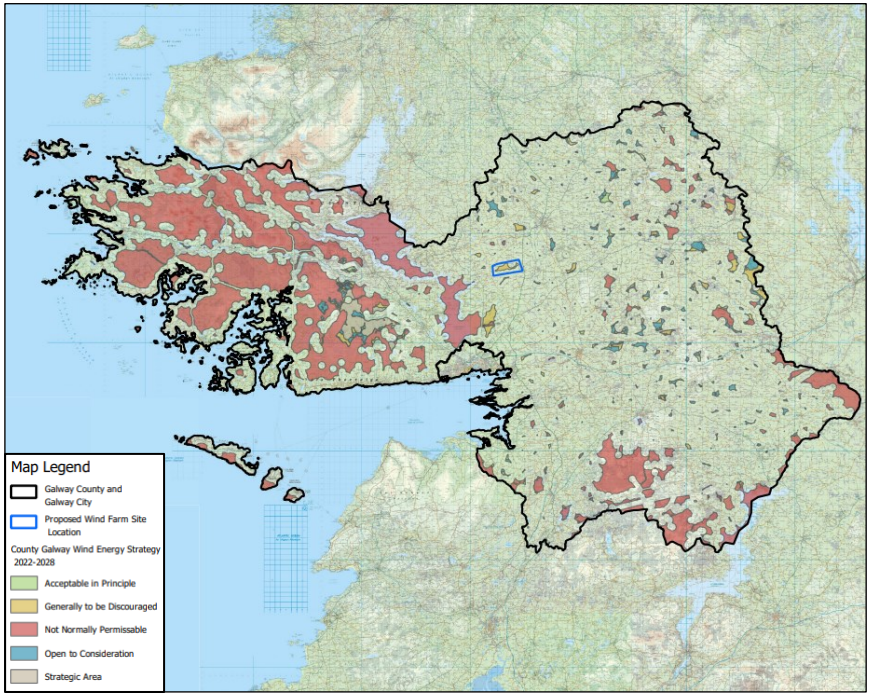


Figure 15: Remaining viable area after transport and grid corridor buffer is applied

7.6 Step 5: Watercourses and Waterbodies

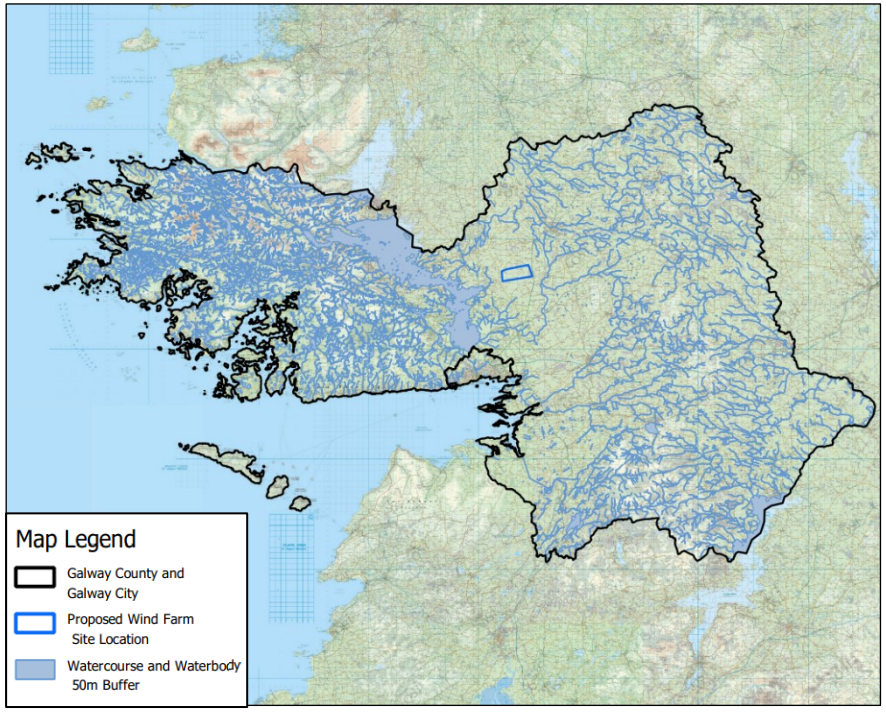


Figure 16: Buffer from watercourses and waterbodies

Zoning	Area remaining following waterbodies constraint	% of County
Favourable	63.46 km^2	1.04%
Unfavourable	870.29 km^2	14.29%

Watercourses and Waterbodies buffer

- 50m from any watercourse of waterbody as best practice industry standard.

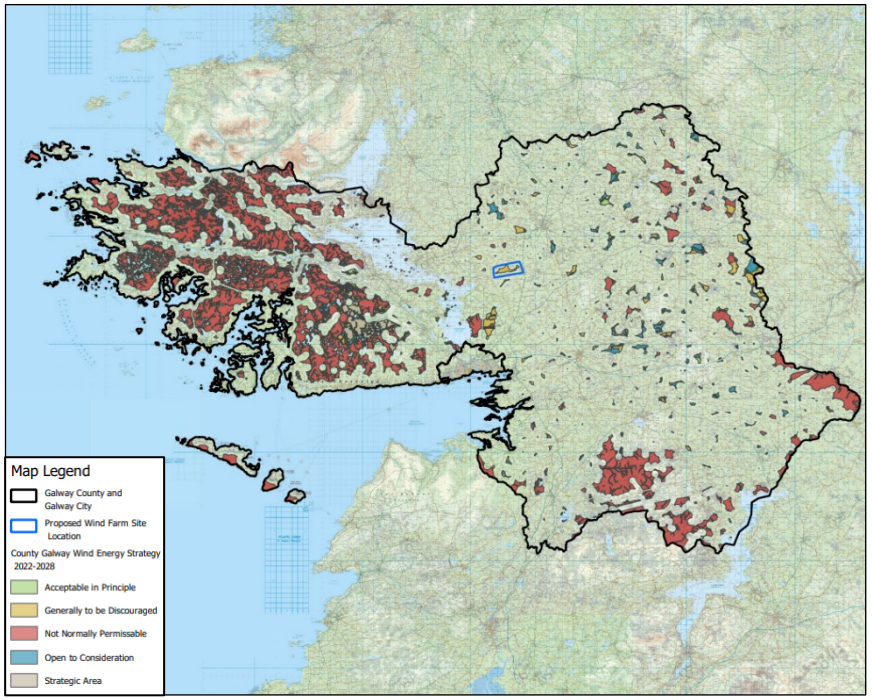


Figure 17: Remaining viable area after water constraints are applied

7.7 Step 6: Designated Sites

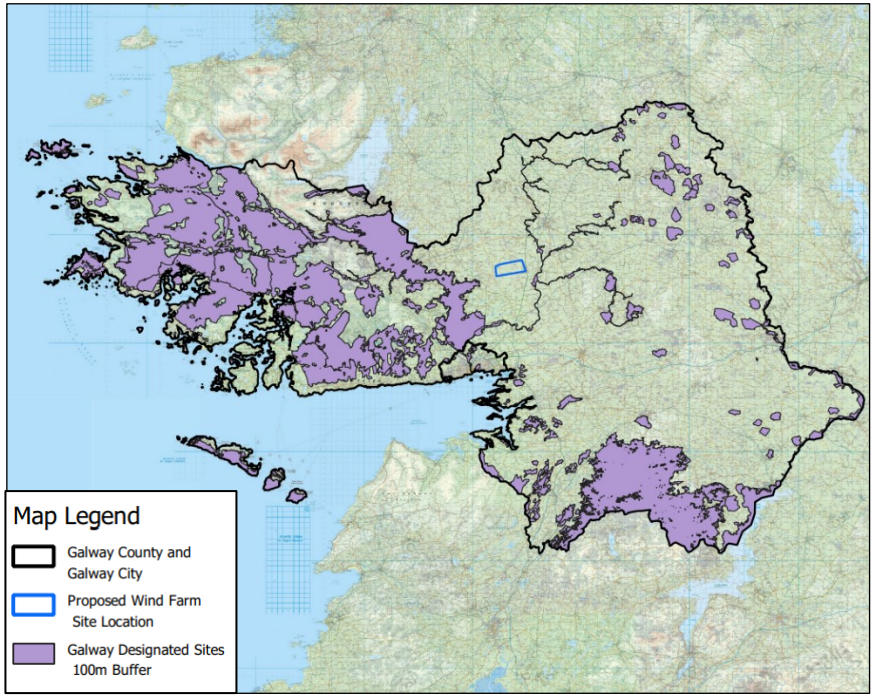


Figure 18: Buffer from designated sites

Zoning	Area remaining following designated sites constraint	% of County
Favourable	63.45 km^2	1.04%
Unfavourable	264.98 km^2	4.35%

Designated Sites

- Designated Sites (SACs, SPAs, NHAs) plus a 100m buffer.

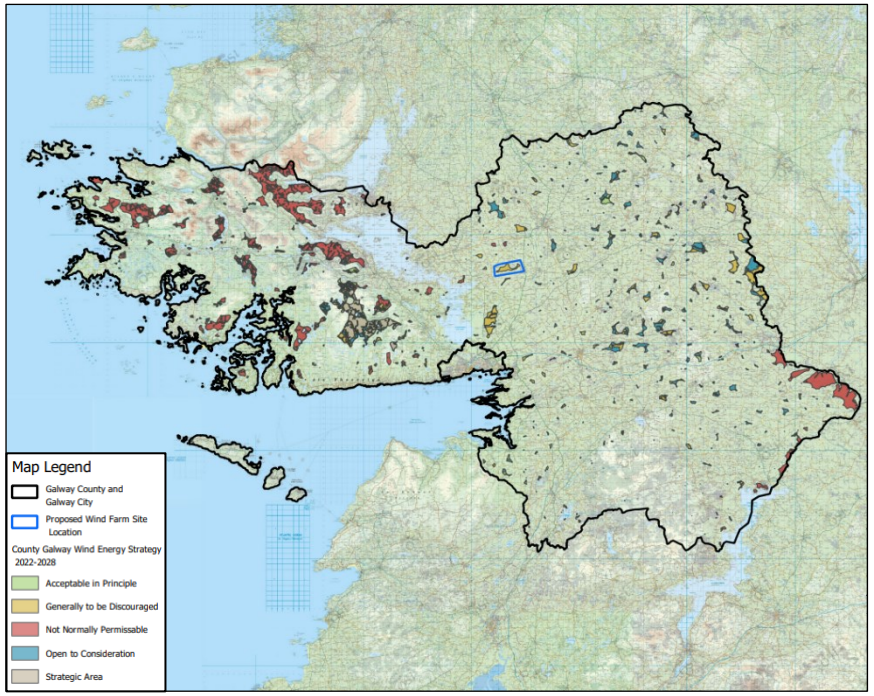


Figure 19: Remaining viable area after designated sites buffer is applied

7.8 Step 7: Existing and Permitted Wind Farms

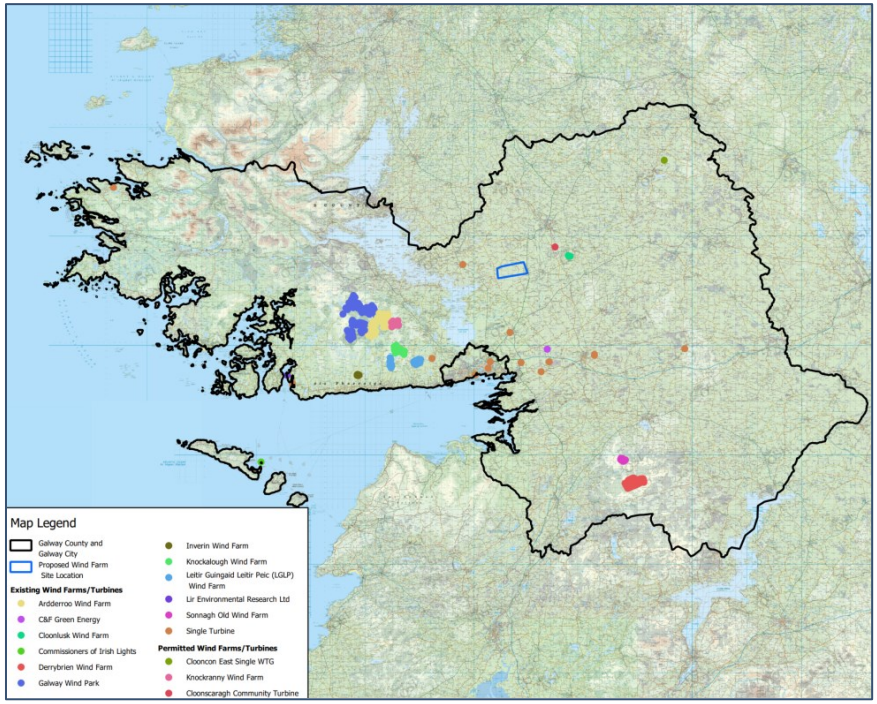


Figure 20: Existing wind turbines in County Galway

Zoning	Area remaining following existing/ permitted wind farms constraint	% of County
Favourable	61.03 km^2	1%
Unfavourable	233.42 km^2	3.83%

Existing Wind Farms

- The Guidelines Section 5.13 - Windtake (7 x RD in prevailing wind direction & 3 x RD in crosswind direction)

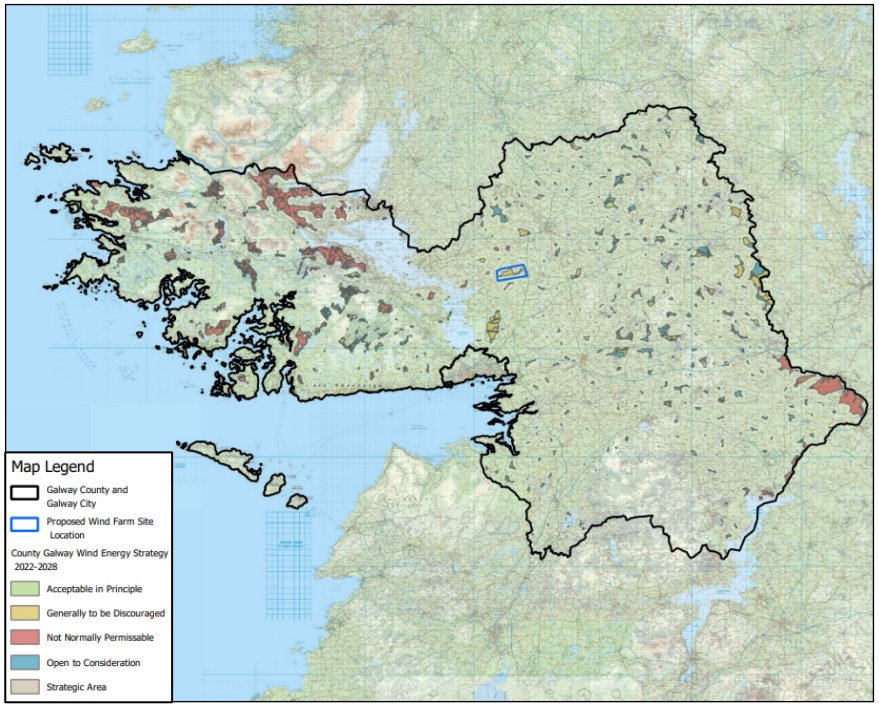


Figure 21: Remaining viable area after existing wind farms are removed

7.9 Step 8: Excluding Sites <500 sq. m

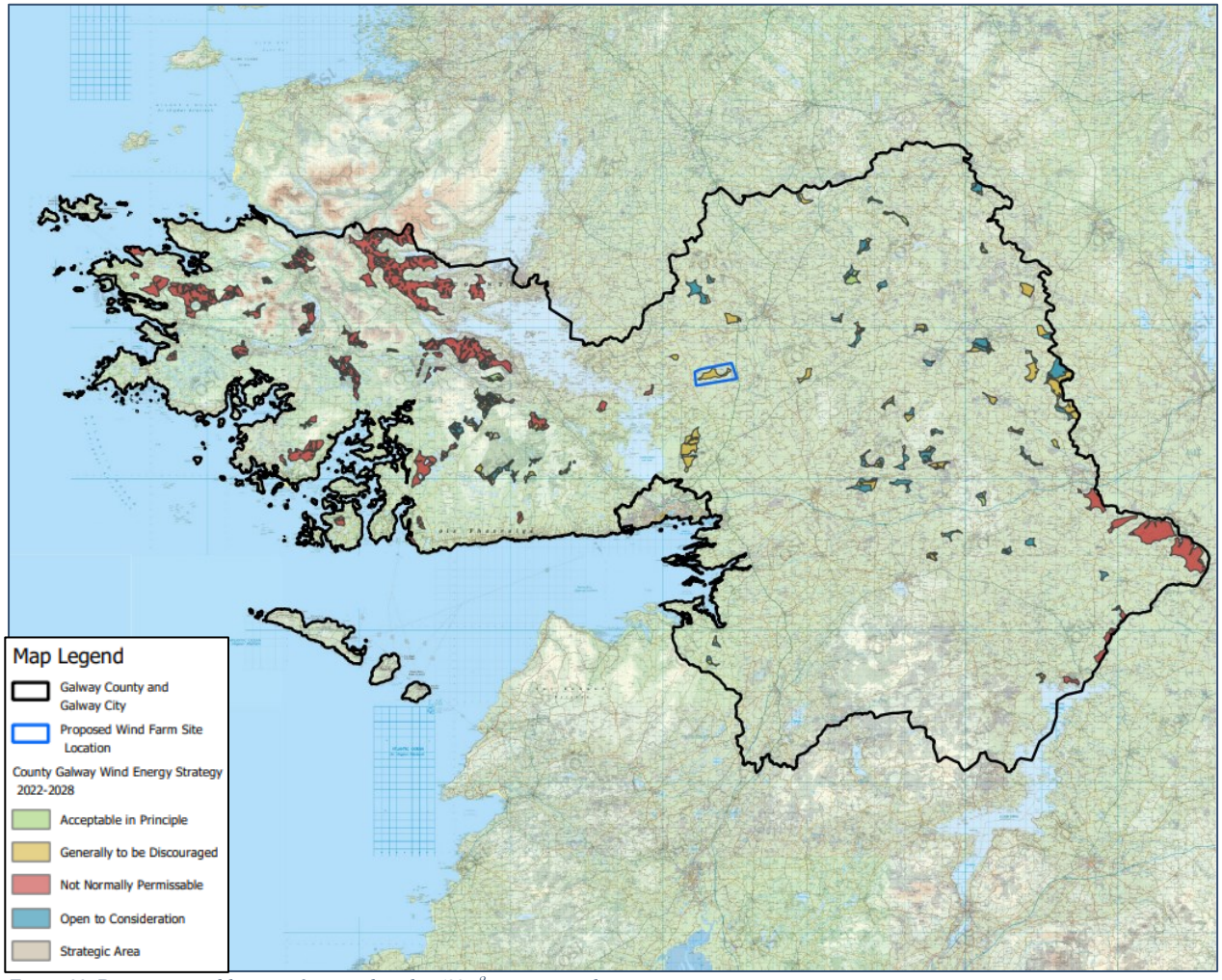


Figure 22: Remaining viable area after sites less the 500m² are removed

Zoning	Area remaining following >1 sq. km constraint	% of County
Strategic Area	1.53 km²	0.03%
Acceptable in Principle	6.99 km²	0.11%
Open to Consideration	41.36 km²	0.68%
Generally to be Discouraged	43.15 km²	0.71%
Not Normally Permissable	161.47 km²	2.65%

The minimum area required to develop a commercially viable wind farm is, in general, in excess of 500 square meters. In the final step of the capacity analysis, all areas that remain following all constraints being excluded are measured. Of these areas, sites less than square kilometre are excluded. This step removes the remaining small pockets of land which in reality are highly unlikely to be developed for commercial wind energy.

7.10 Actual Viable Area

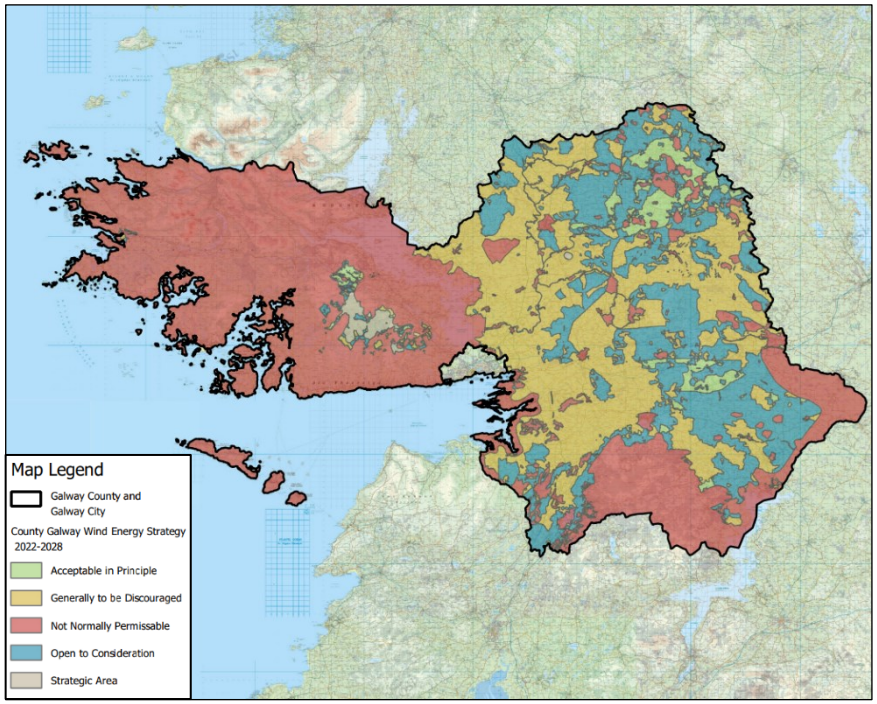


Figure 23: LARES Wind Energy Zoning Map

Zoning	Total Area	% of County
Favourable	1,417.50 km^2	23%
Unfavourable	4,663.79 km^2	77%

Vs.

Zoning	Area remaining with constraints considered	% of County
Favourable	48.35 km^2	0.79%
Unfavourable	206.15 km^2	3.38%

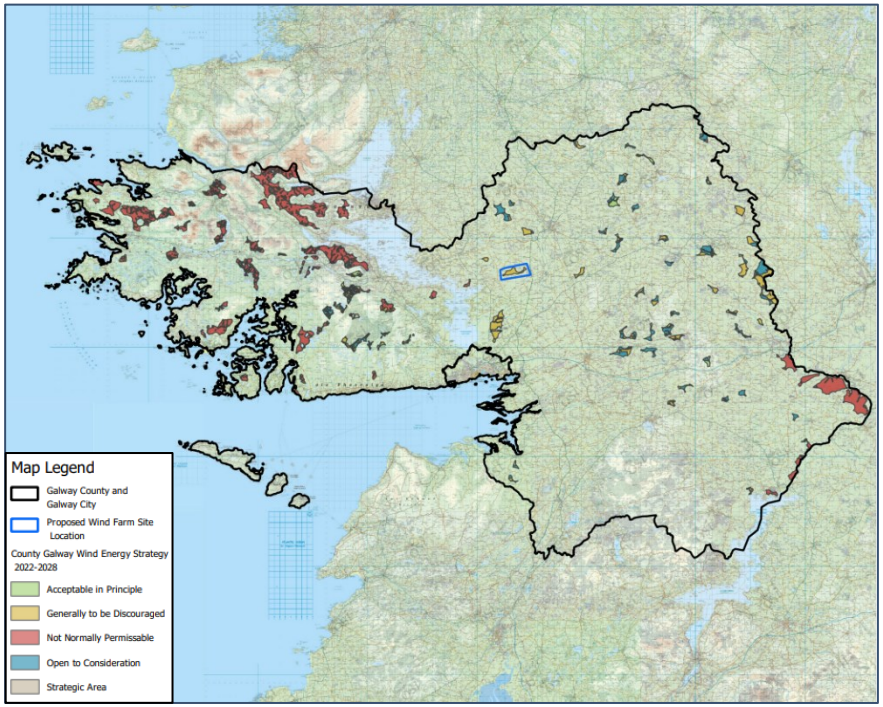


Figure 24: Actual remaining viable area

7.11 Area Remaining for New Wind Energy Development

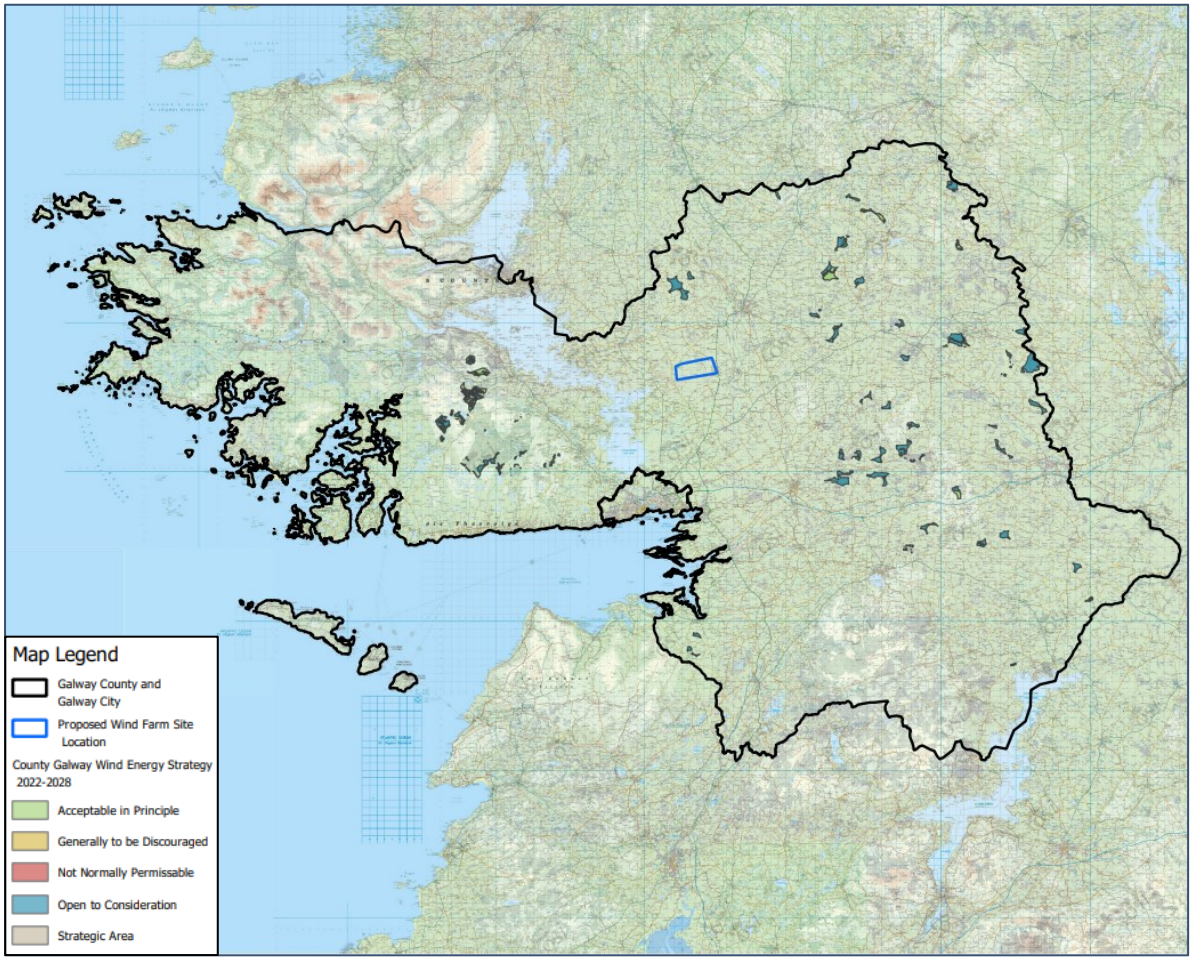


Figure 25:Remaining viable area with favourable wind energy zoning policy

Zoning	Area remaining with constraints considered	% of County
Acceptable in Principle	6.99 km^2	0.11%
Open to Consideration	41.36 km^2	0.68%
Total:	48.35 km^2	0.79%

As can be seen in the maps above, the areas zoned 'Acceptable in Principle' and 'Open to Consideration' are vastly reduced once project level constraints are applied. Once these buffers and constraints are applied, we find that only 0.79% (48.35km^2) of the county is actually available within these areas designated for new wind energy development projects.

7.12 Capacity Assessment & Wind Energy Targets

From the wind energy capacity analysis carried out above, it is found that only 0.79% (48.35km^2) of County Galway;

- has a favourable wind energy zoning in the LARES (Acceptable in Principle or Open to Consideration), and,
- has potential for wind energy development when project level constraints are applied.

The LARES assumes that 15% of the land zoned 'Acceptable in Principle' (AIP) and 7.5% of the land zoned 'Open to Consideration' (OTC) is used for wind energy by 2030. This assumption equates to 29.62km^2 of AIP land and 92.02km^2 of OTC land. This assumption significantly overestimates the actual quantum of land viable for wind energy development in the more favourable policy areas. This assumption in the LARES is compared to the findings of the wind energy capacity in the table below.

Table 10: LARES land used for wind energy assumption compared to MKO wind energy capacity assessment findings.

Zoning	LARES assumption	MKO Wind Energy Capacity Assessment	% decrease
Acceptable in Principle	29.62 km^2	6.99 km^2	-76.4%
Open to Consideration	92.02 km^2	41.36 km^2	-55.1%

The overestimation of the quantum of viable land within these favourably zoned areas inflates the estimated potential yield from AIP and OTC areas. The LARES applies a conservative generating capacity of 7MW per km^2 of viable area. This equates to an estimation of 851MW that could be installed in County Galway by 2030.

Table 11: Capacity of the AIP and OTC areas as set out in the LARES.

Zoning	LARES assumption	7MW per km^2
Acceptable in Principle	29.62 km^2	207MW
Open to Consideration	92.02 km^2	644MW
		Total: 851MW

From MKO's vast experience in the renewable energy sector, operational wind farms typically accommodate installed generating capacities of approximately 10MW per km^2 of viable area. This is slightly higher than the 7MW per km^2 applied in the LARES. It is however acknowledged within the LARES that the 7MW per km^2 assumption is a conservative approach. The table below uses the same methodology as the LARES but considers the findings of the wind energy capacity assessment and a generating capacity of 10MW per km^2. It is acknowledged that in some circumstances a higher MW output per km^2 may be achieved, however the 10MW km^2 used for the purposes of this wind energy capacity assessment is considered reasonable.

Table 12: Capacity of AIP and OTC areas as of MKO wind energy capacity analysis.

Zoning	MKO Wind Energy Capacity Assessment	10MW per km^2
Acceptable in Principle	6.99 km^2	69.9MW
Open to Consideration	41.36 km^2	413.6MW
		Total: 483.5MW

This capacity assessment assumes that all viable favourably zoned sites identified in the analysis are developed for wind energy. There are several other factors which can only be identified (and therefore cannot be included in the wind energy capacity analysis above) on a site-by-site basis. This includes constraints such as land availability, grid connection capacity, site specific environmental constraints, legal issues etc. In reality, the probability of all the viable AIP and OTC sites being developed for wind energy is very low. The graphic provided in Figure 26 below is intended to illustrate the concept of project attrition, where for example, four fifths (80%) of potential sites successfully pass through each stage in the wind farm development cycle.

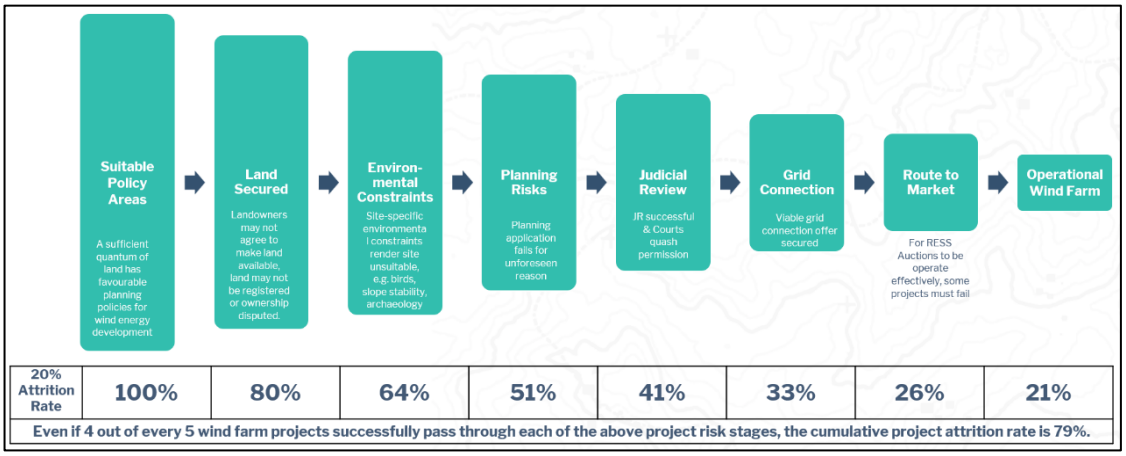


Figure 26: Wind Farm Project Attrition

It is acknowledged that new wind energy generating capacity may be installed on existing wind farm sites through repowering or extensions. The LARES estimates that 114MW will be added to the county's installed wind energy capacity through repowering. However, the LARES also acknowledges that, in a worst-case scenario, the county will lose up to 185MW of installed wind energy capacity by 2030 due to conflicts with more recent SAC designations. For the purposes of this analysis, a more optimistic approach is taken, assuming that the gain in MW resulting from the repowering of existing sites will offset any loss incurred due to the refusal of operational life extension applications due to various ecological and environmental designations and constraints. Currently, County Galway has a total built and permitted capacity of approximately 450MW. Approximately 60MW, is currently in the planning system awaiting decision.

By subtracting the current wind energy MW capacity (built & permitted) in County Galway from the estimated total capacity according to LARES (1,350MW) by 2030, there is a remaining 900MW of wind energy that still needs to be consented and constructed by 2030. As demonstrated in table 12 above, the remaining viable area with favourable policy (48.35km^2) can potentially deliver approximately 483.5MW of installed capacity, far below the LARES's estimated yield of 851MW of new wind energy by 2030. If all 483.5MW were delivered by 2030, County Galway would have an installed capacity of approx. 930MW. This would leave the county approx. 420MWs short of the estimated 1,350MW total capacity by 2030.

It is clear from the analysis that in order for County Galway to reach its wind energy capacity potential and effectively contribute to the 9GW committed to under the Climate Action Plan, viable areas outside of the AIP and OTC areas must be considered. From the wind energy capacity analysis, there is c.43.15 km^2 of viable area zoned as 'Generally to be Discouraged' (GTBD). When all viable sites zoned GTBD are considered, these areas can deliver a further c.430MW of installed capacity. With the inclusion of viable areas zoned GTBD, along with the capacities of AIP and OTC zoned areas, County Galway can potentially increase its installed capacity by c.915MW by 2030, subject to proper planning and sustainable development. Taking into account the current permitted capacity of 450MW, the total potential capacity for County Galway by 2030 reaches 1,365MW. The inclusion of viable areas in GTBD land reaches the envisaged total capacity of 1,350MW by 2030 as set out in the LARES. This demonstrates a clear merit and need for wind energy development in viable GTBD areas.

Table 13: Capacity of GTBD viable areas

Zoning	MKO Wind Energy Capacity Assessment	10MW per km^2
Generally to be Discouraged	43.15 km^2	431.5MW
		Potential new capacity (AIP + OTC + GTBD): 915MW
		Current capacity (built & permitted) + Potential new capacity: 450MW + 915MW = 1,365MW

The wind energy capacity analysis demonstrates that it is only possible for County Galway to reach its potential wind energy capacity under the current zoning set out in the LARES if viable area outside of AIP and OTC areas are considered. Given the urgency of national climate and energy targets, it is imperative that all viable sites within the county are considered for wind energy development. As such, every site brought forward for wind energy development needs to be assessed on the individual merit and suitability of the site for wind energy, regardless of its wind energy classification.

8. CONCLUSION

The provision of wind energy developments such as the Proposed Wind Farm is strongly supported by International, National and Regional policies aimed at achieving the transition to a low carbon and climate resilient economy, increasing renewable energy generation, and enhancing energy security. Specifically, the Proposed Wind Farm will contribute to achieving the State's target of generating 9GW of electricity from onshore wind and reducing GHG emissions by 80% by 2030 as set out in the CAP24. Under the Climate and Low Carbon Development (Amendment) Act 2021, public bodies, including An Bord Pleanála, must carry out its functions, in so far as practical, in accordance with the latest Climate Action Plan.

It is demonstrated through the assessment of the Proposed Wind Farm against the LARES, that it remains a suitable site for wind energy development. The Proposed Wind Farm site scores well when examined across the opportunity and sensitivity factors set out in the LARES. From a review of the sieve analysis mapping, it appears that the Proposed Wind Farm site is zoned 'Generally to be Discouraged' due to population density. This has been considered in the planning application and comprehensively assessed in the EIAR. The Proposed Wind Farm is designed to limit the impact on residential amenity, with mitigation proposed where impacts are predicted to arise.

It should be noted that the LARES does not specifically restrict applications for wind turbines within the Generally to be Discouraged areas, but rather, they are assessed on their merits on the principles of proper planning and sustainable development. The policy associated with the zoning in the LARES states; *Wind energy development proposals in areas that are identified as 'Generally to be Discouraged' for wind energy development will be considered in accordance with the LARES and the proper planning and sustainable development of the area.* As such, and having regard to the policy appraisal in section 6 of this Report, it is considered that the Proposed Wind Farm is consistent with the policies and objectives of the LARES and the CDP, the principal development is acceptable and therefore it should be assessed on its merits by the An Bord Pleanála.

For clarity, it is considered that the Proposed Wind Farm does not materially contravene the provisions of the CDP or the LARES, however, if the Board were to take a different view, it is noted that the Proposed Wind Farm is strongly supported by National, Regional and Local Planning Policy and Statutory Guidelines. In this regard, it is noted that Section 37(G)(6) of Planning Act allows the Board to: "*decide to grant a permission for development, or any part of a development, under this section even if the proposed development, or part thereof, contravenes materially the development plan relating to any area in which it is proposed to situate the development.*" Therefore, if the Board determined that the Proposed Wind Farm materially contravenes the CDP, the Board has the power to grant planning permission. We respectfully submit that the Proposed Wind Farm is in accordance with proper planning and sustainable development and should be granted planning permission.

The Wind Energy Capacity Assessment undertaken as part of this report demonstrates that there is an insufficient quantum of favourably zoned land to reach the estimated wind energy yield in County Galway by 2030. The estimated MW shortfall is over 400MWs shy of the 1,350MW estimated total capacity set out in the LARES. Where it can be demonstrated that viable sites outside of the favourable policy areas are suitable for wind energy following detailed assessment, these areas should be considered for wind energy to meet national climate and energy targets.

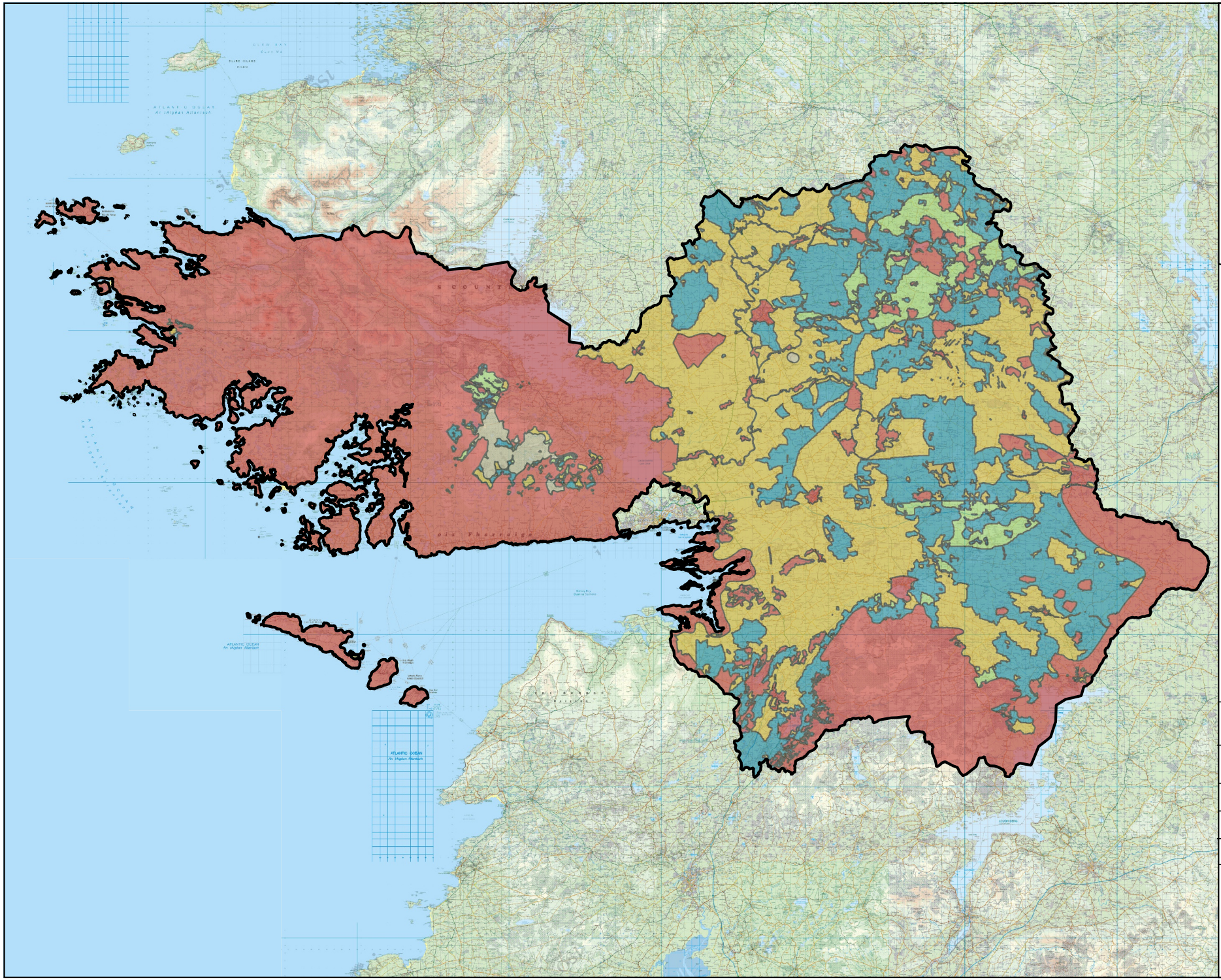
The Climate Action Plan 2024 estimates that an 8-times increase in renewable energy deployment to 2.3GW annually is required between 2024 and 2030 to reach climate and energy targets. To achieve this, greater alignment between local plans and national and regional renewable energy targets is urgently required. Given the scale of the challenge, it is clear that every viable site brought forward for wind energy development must be considered on its individual merit and suitability, regardless of the current zoning status.

To combat the effects of climate change, Ireland must decarbonise its economy by 2050. There is no "silver bullet" to do so. It will take hundreds, if not thousands, of individual renewable energy projects to decarbonise the Irish economy. The scale of the challenge we face to decarbonise the Irish economy is enormous, but the climate change implications of not doing so are even greater. There is no other way to decarbonise a modern society except through renewable energy projects such as the Proposed Wind Farm.

Having regard to the key points set out in this Report, it is respectfully requested that the Board consider the relevant planning context that applies, and grants permission for the Proposed Wind Farm which is the subject of this application.

APPENDIX 1

WIND ENERGY CAPACITY ASSESSMENT MAPS



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Drawing Title
LARES wind energy zoning map

Project Title
Laurclavagh Renewable Energy Development

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210627	Figure 13
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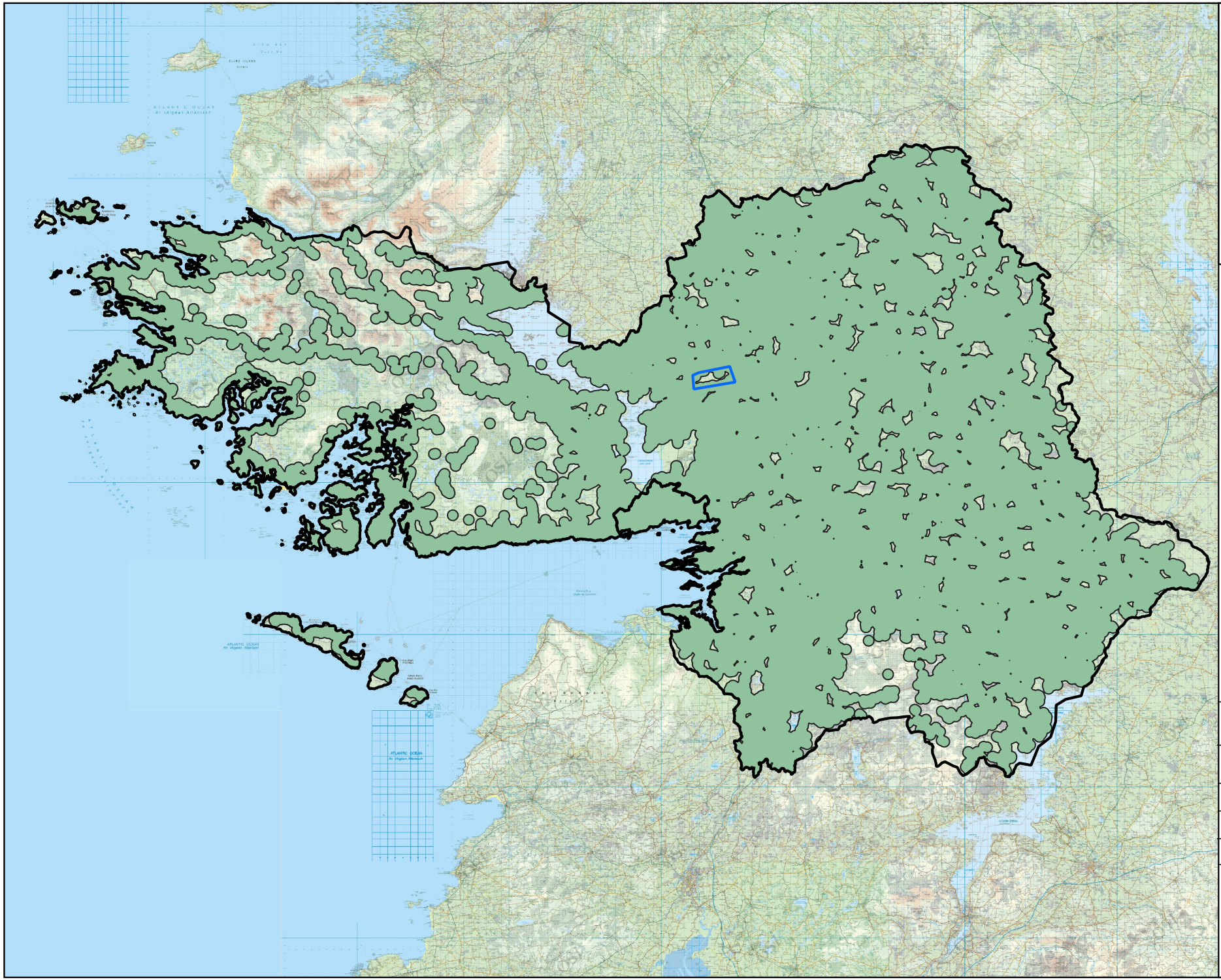

Map Legend

- Galway County and Galway City
- 700m Housing Buffer
- Proposed Wind Farm Site Location

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Drawing Title
700m Buffer from Residential Dwellings

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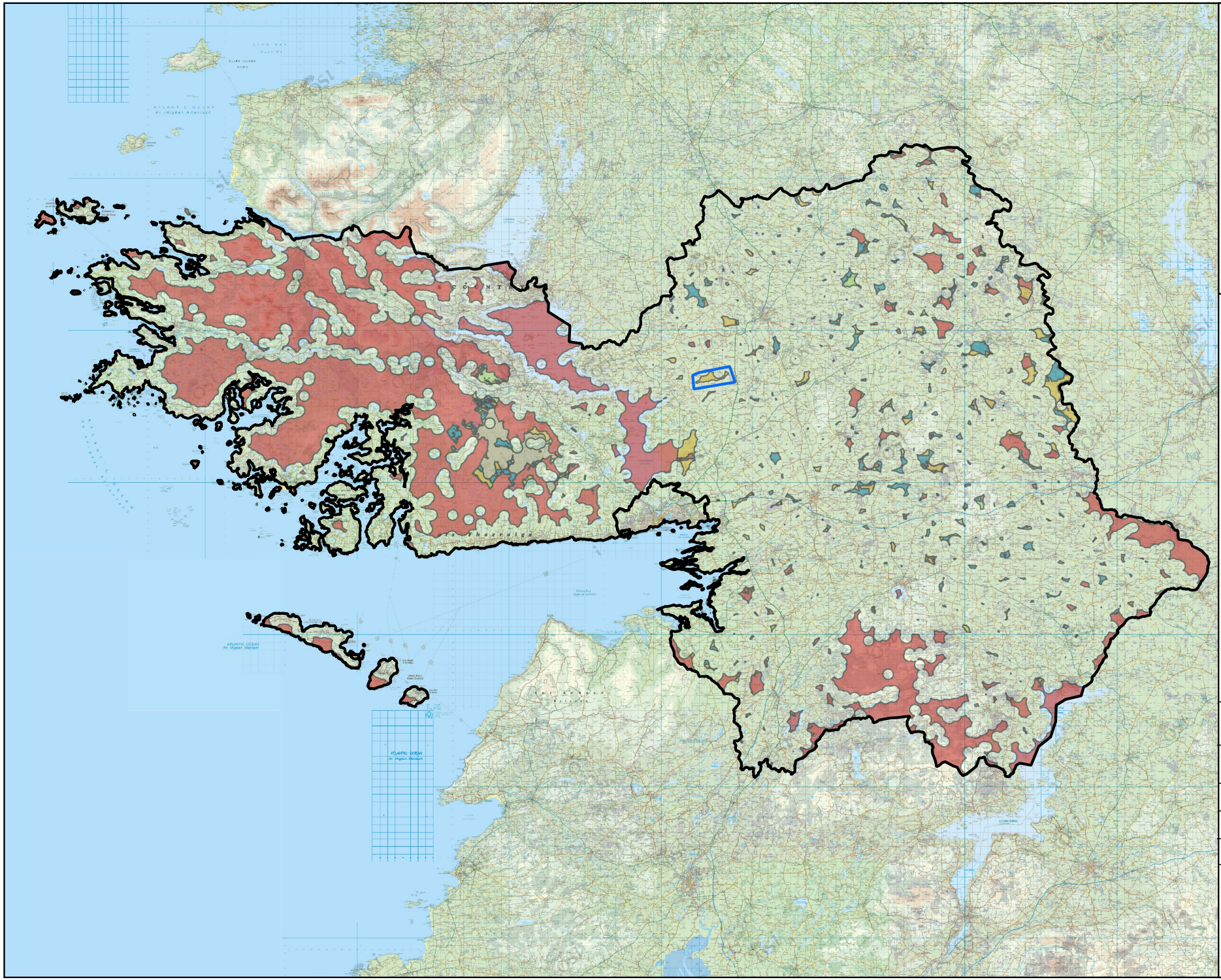

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Remaining Viable Area after Housing Buffer Applied

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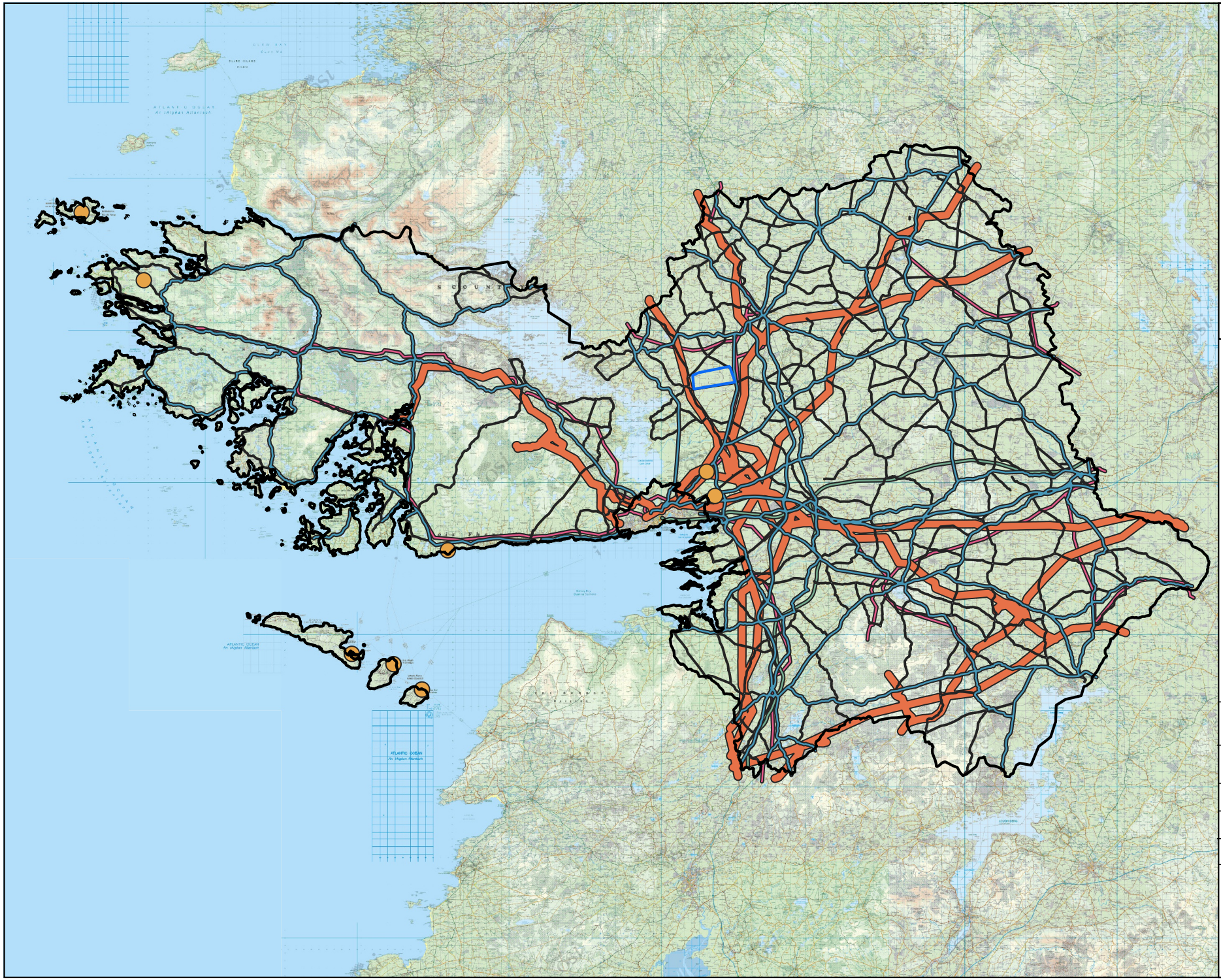
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Galway County and Galway City
Proposed Wind Farm Site Location
Galway 38kV OHL 192.5m Buffer
Galway 400kV, 220kV, 110kV OHL 525m Buffer
Galway Local Primary Road 82.5m Buffer
Galway Motorway, National Primary, National Secondary, Regional Road 192.5m Buffer
Galway Airfields 1km Buffer
Galway Railways 192.5m Buffer
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Transport and Grid Constraints Buffers
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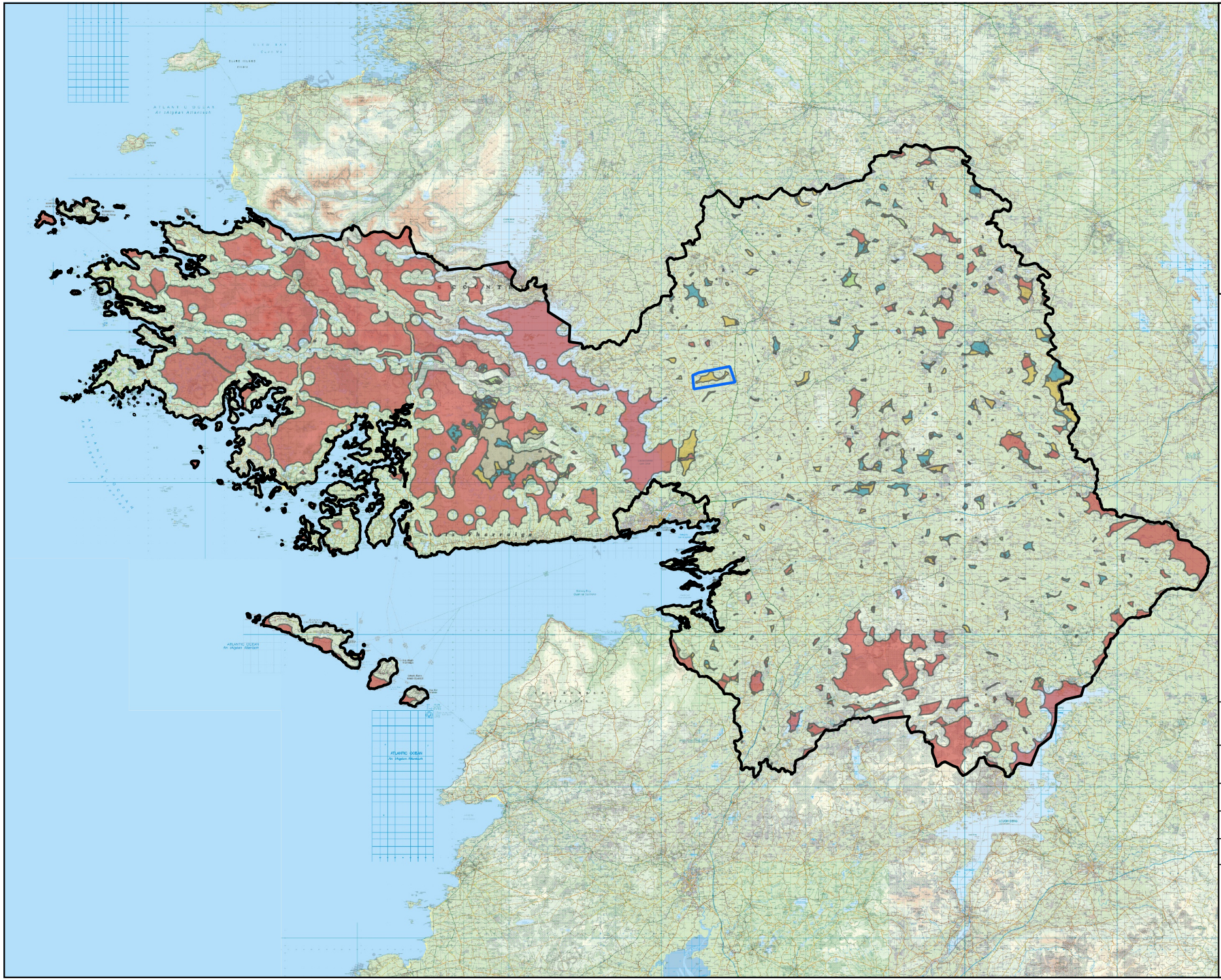
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Galway County and Galway City
Proposed Wind Farm Site Location
County Galway Wind Energy Strategy 2022-2028
Acceptable in Principle
Generally to be Discouraged
Not Normally Permissable
Open to Consideration
Strategic Area
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Remaining Viable Area after Grid and Transport Buffer Applied
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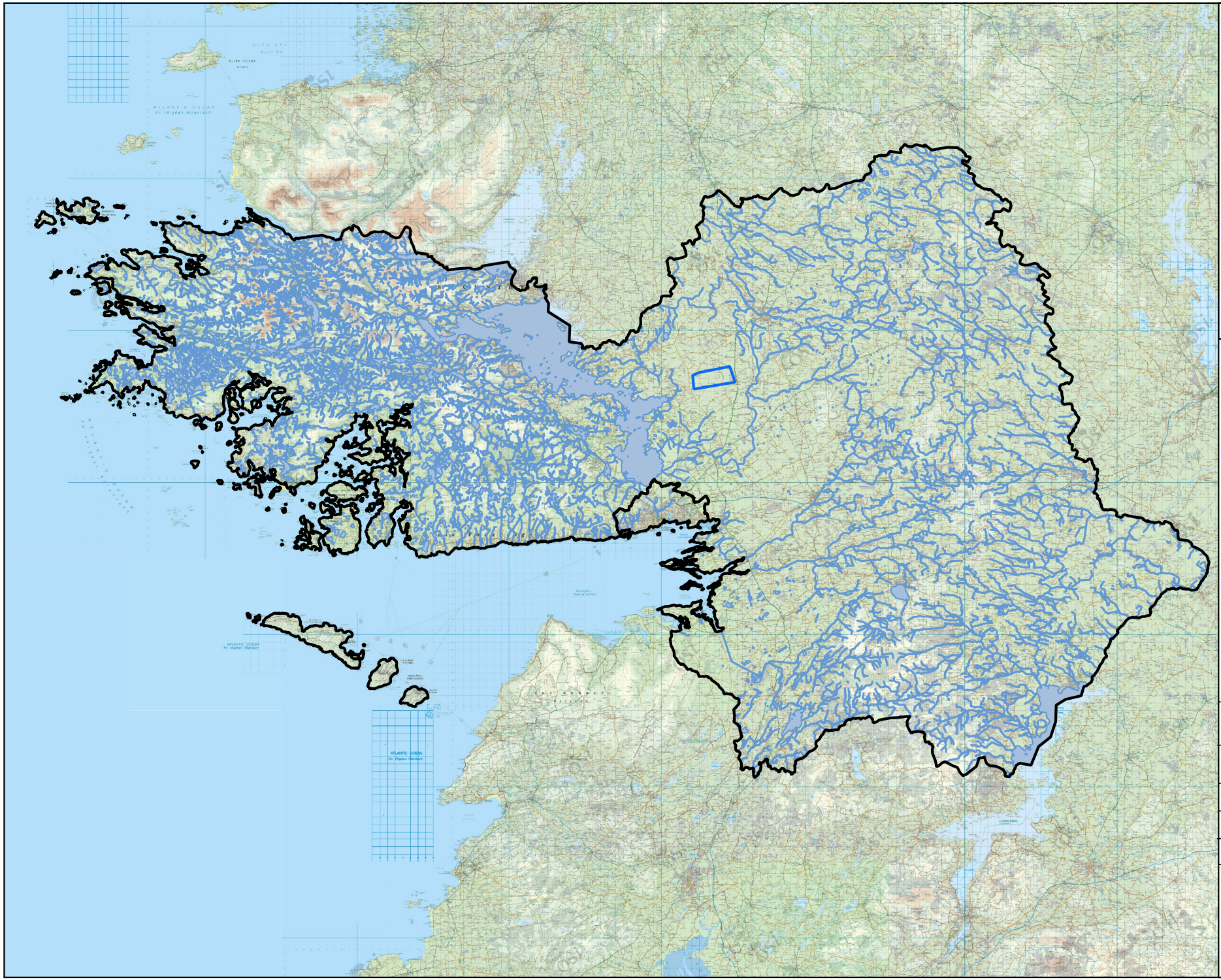

Map Legend

- Galway County and Galway City
- Proposed Wind Farm Site Location
- Watercourse and Waterbody 50m Buffer

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Watercourse and Waterbody 50m Buffer

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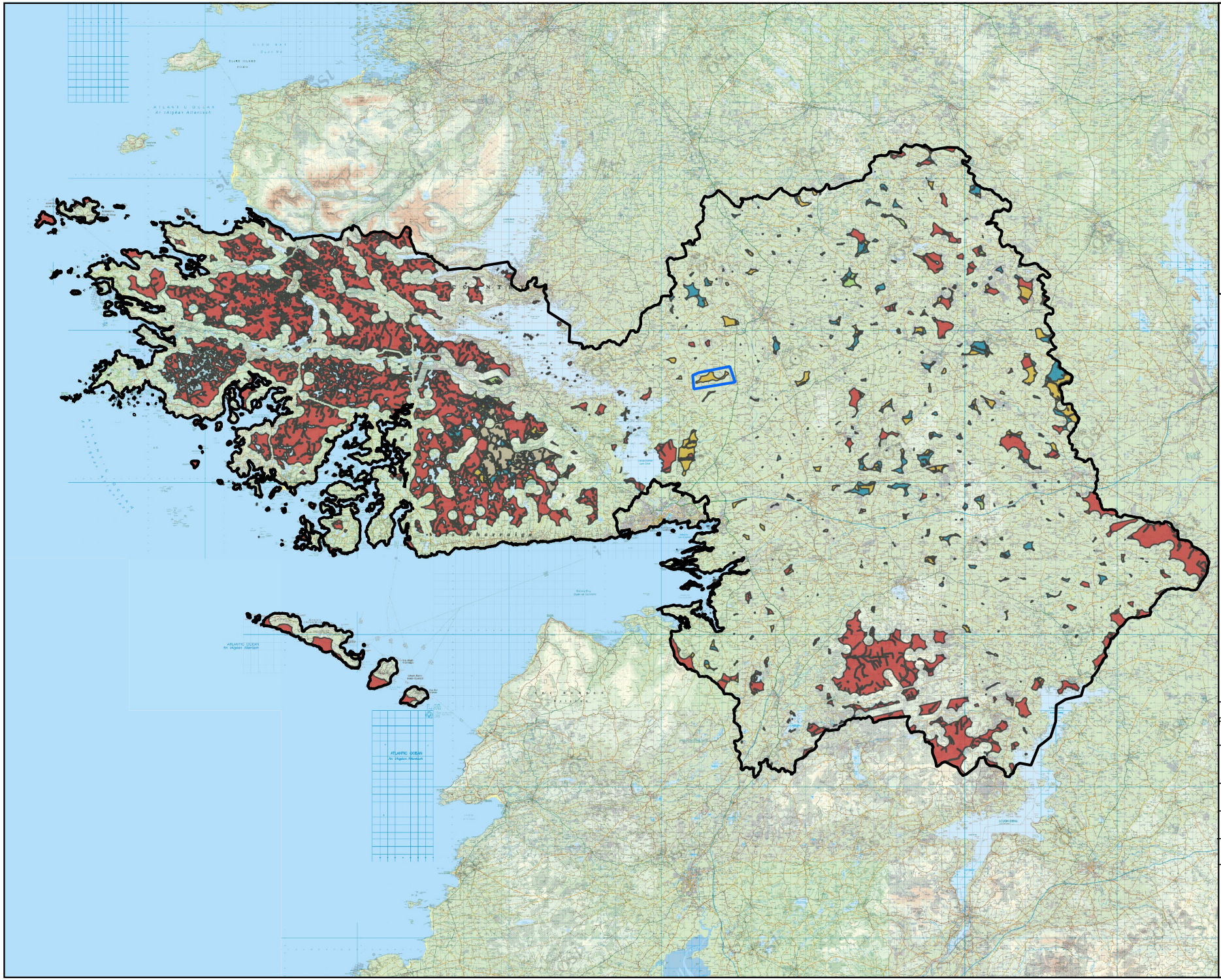

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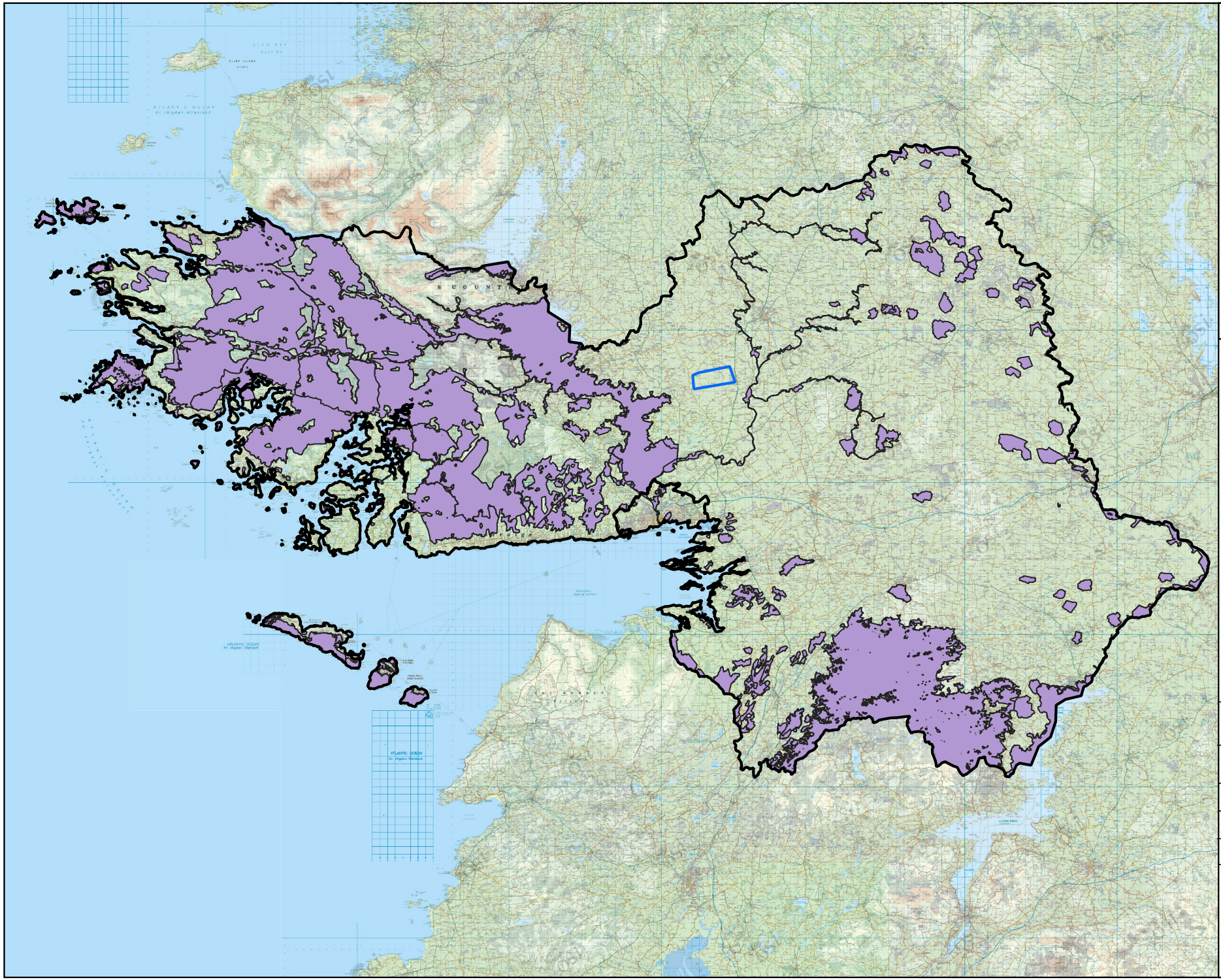

Map Legend

- Galway County and Galway City
- Proposed Wind Farm Site Location
- Galway Designated Sites 100m Buffer

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Drawing Title: Designated Sites 100m Buffer

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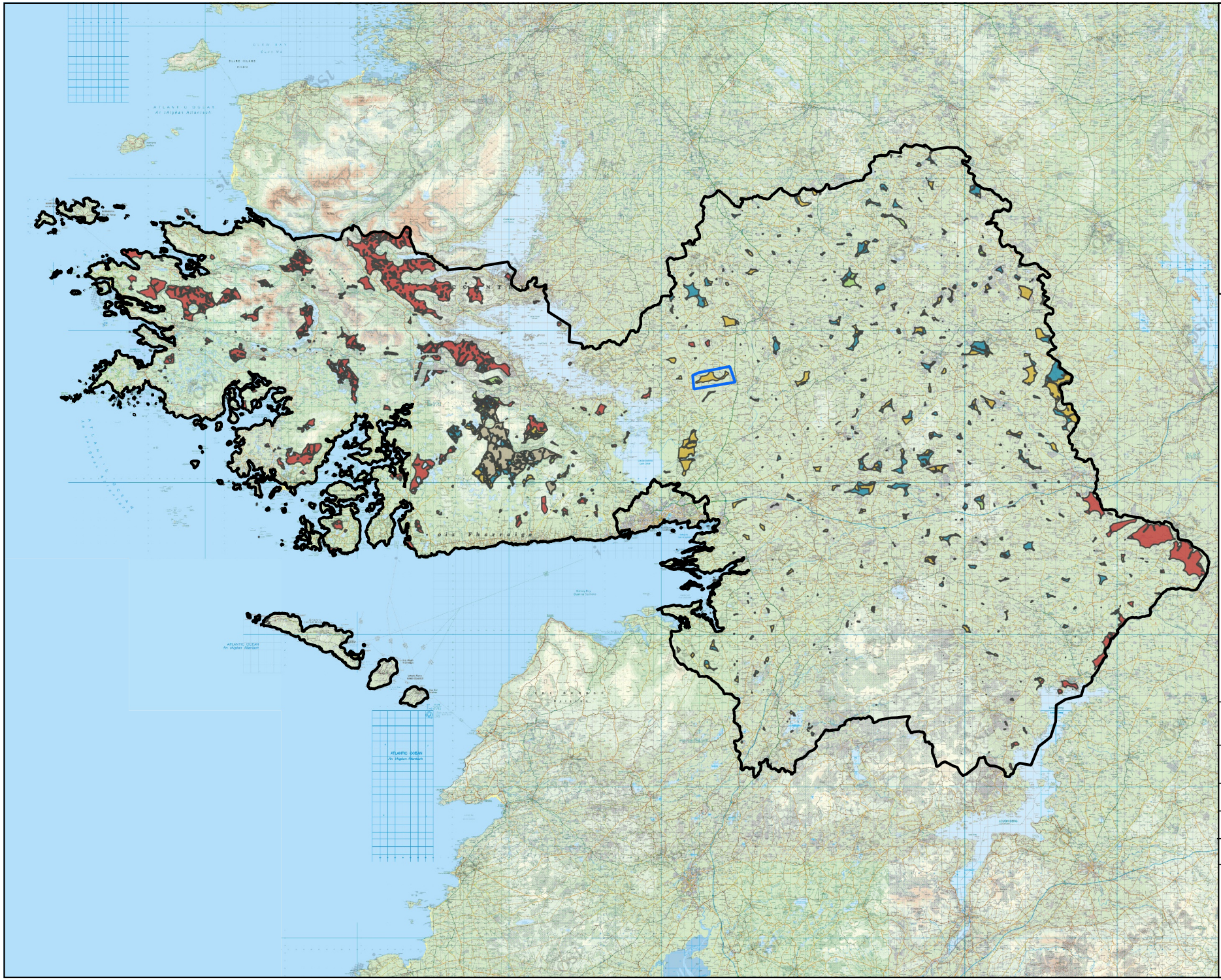

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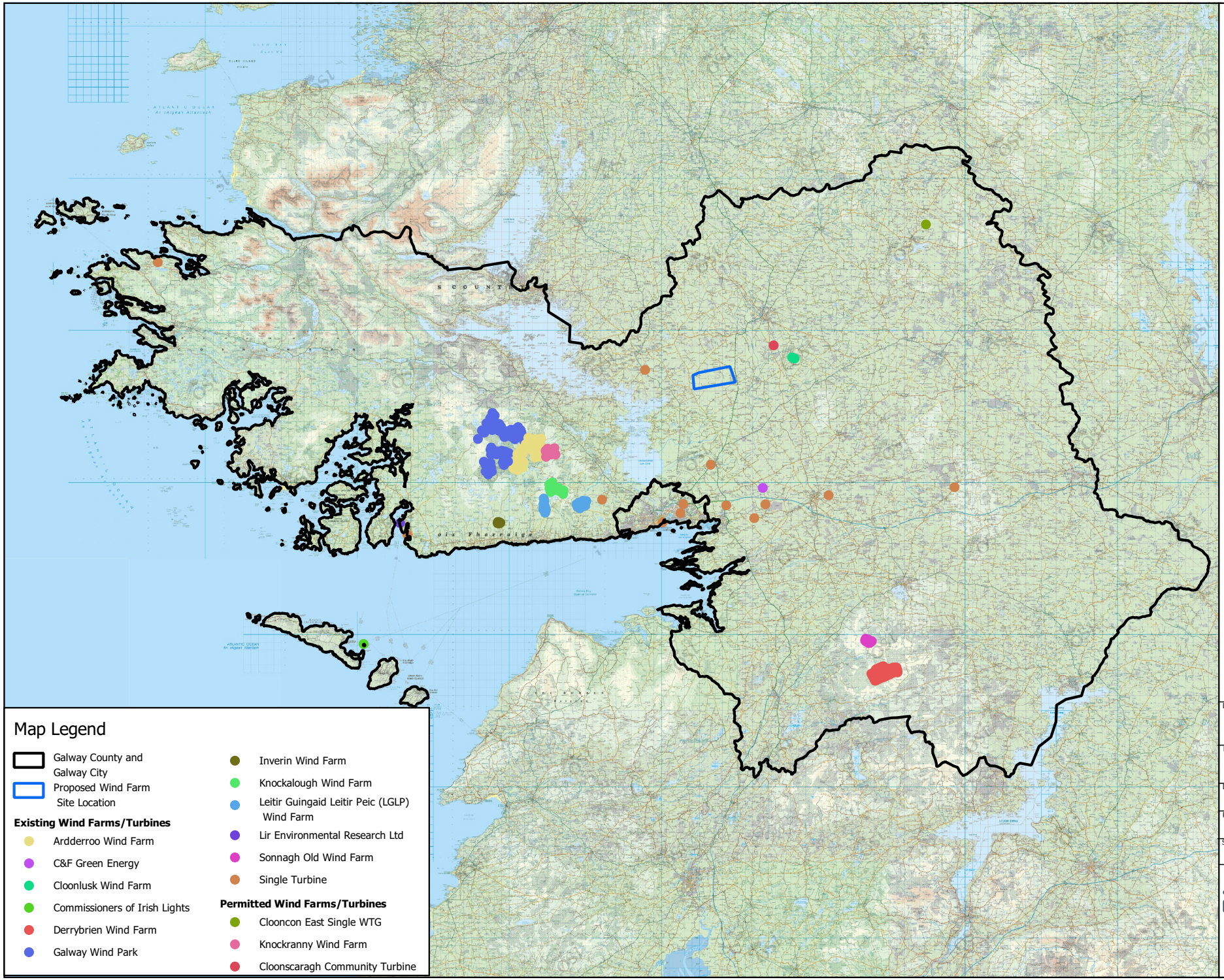

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Drawing Title
Existing and Permitted Wind Farms/Turbines

Project Title
Laurclavagh Renewable Energy Development

Drawn By	Checked By
KB	OM
Project No.	Drawing No.
210627	Figure 20
Scale	Date
1:650,000	2024-03-13

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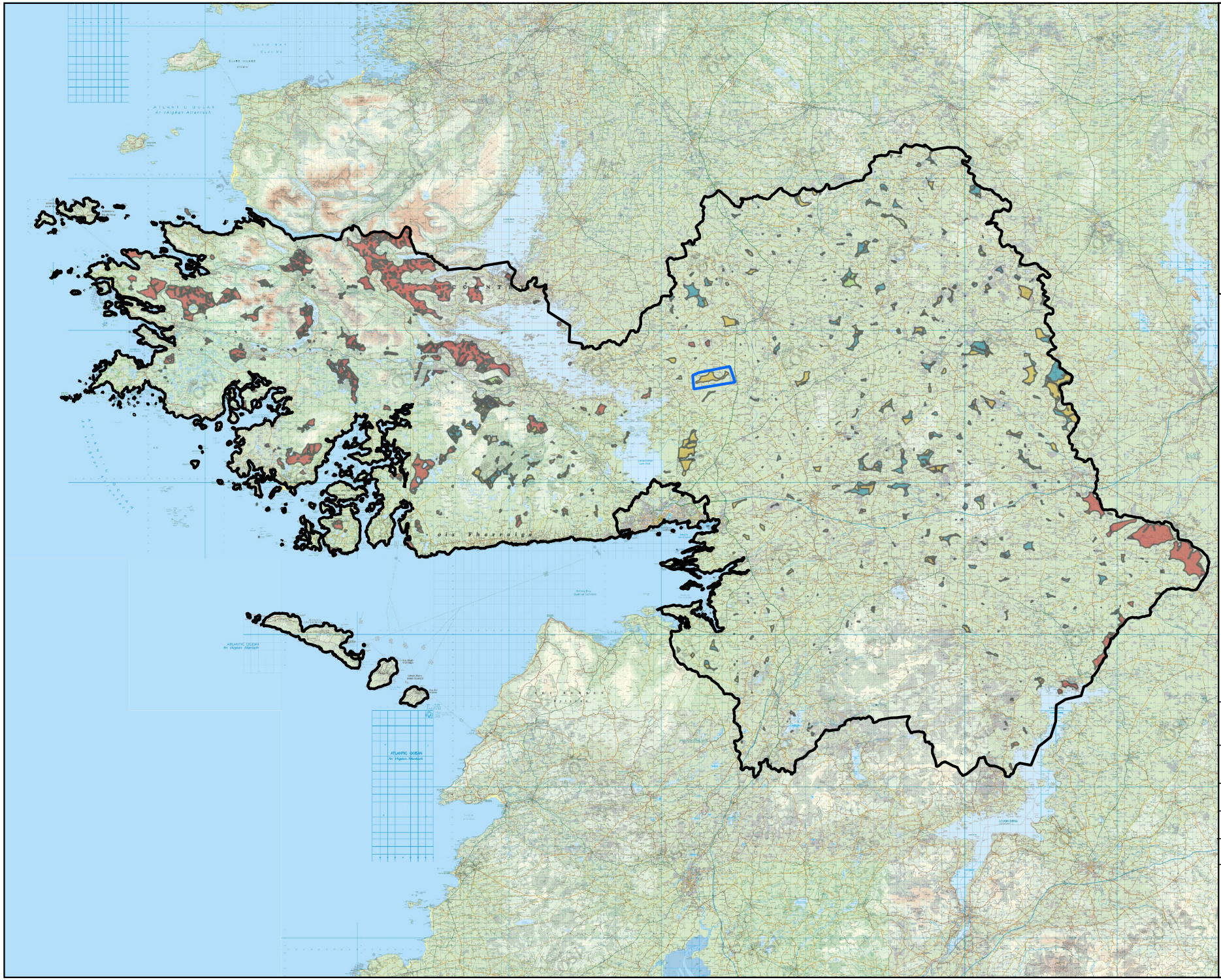
Map Legend
Galway County and Galway City
Proposed Wind Farm Site Location
County Galway Wind Energy Strategy 2022-2028
Acceptable in Principle
Generally to be Discouraged
Not Normally Permissable
Open to Consideration
Strategic Area
N
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Drawing Title
Remaining Viable Area after Other Turbines Buffer Applied
Project Title
Laurclavagh Renewable Energy Development
Drawn By
KB
Checked By
OM
Project No.
210627
Drawing No.
Figure 21
Scale
1:650,000
Date
2024-02-22
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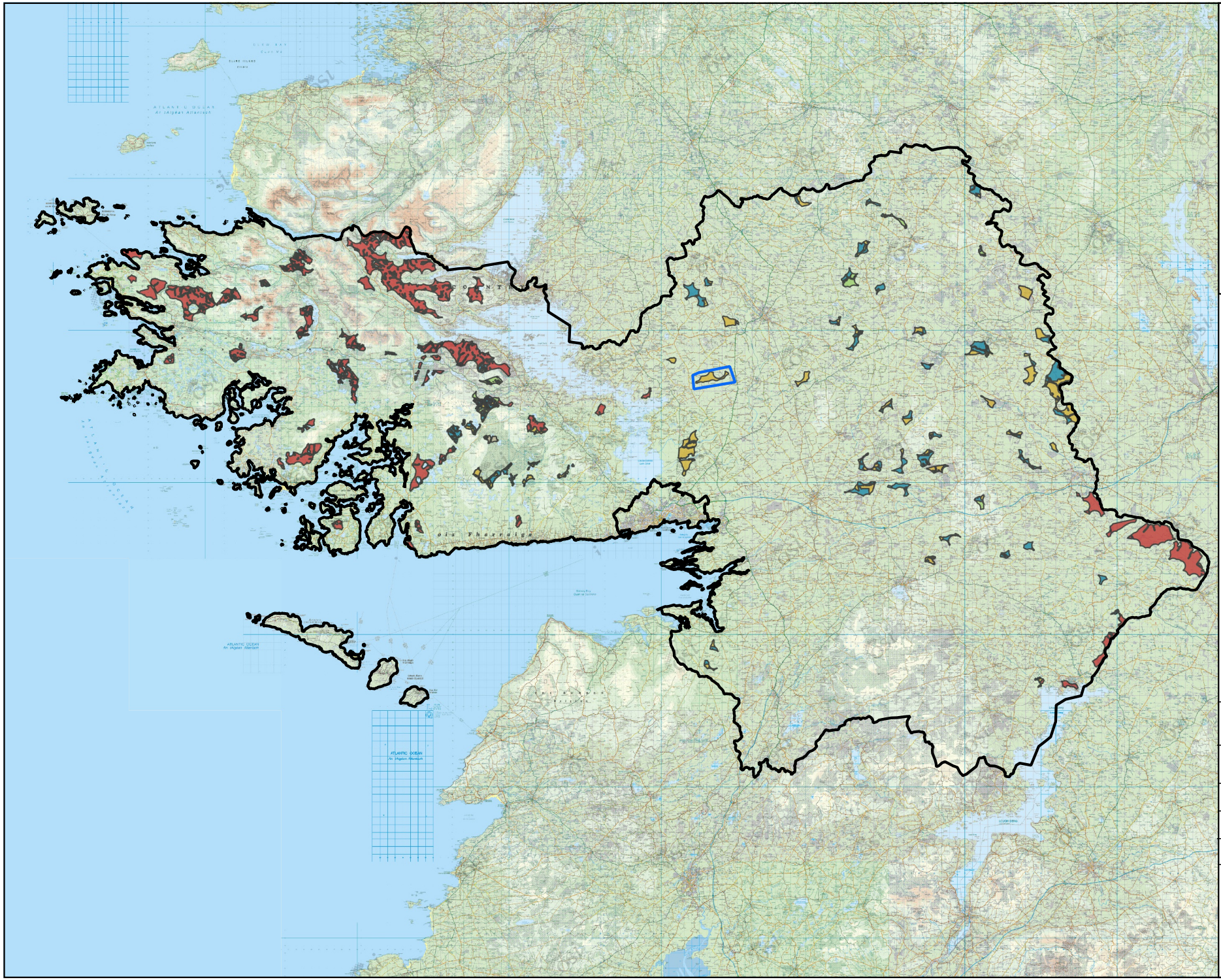

Map Legend

- Galway County and Galway City
- Proposed Wind Farm Site Location

Countty Galway Wind Energy Strategy 2022-2028

- Acceptable in Principle
- Generally to be Discouraged
- Not Normally Permissable
- Open to Consideration
- Strategic Area

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Drawing Title

Remaining Viable Area over 500m2

Project Title

Laurclavagh Renewable Energy Development

Drawn By	Checked By
KB	OM
Project No.	Drawing No.
210627	Figure 25
Scale	Date
1:650,000	2024-03-12

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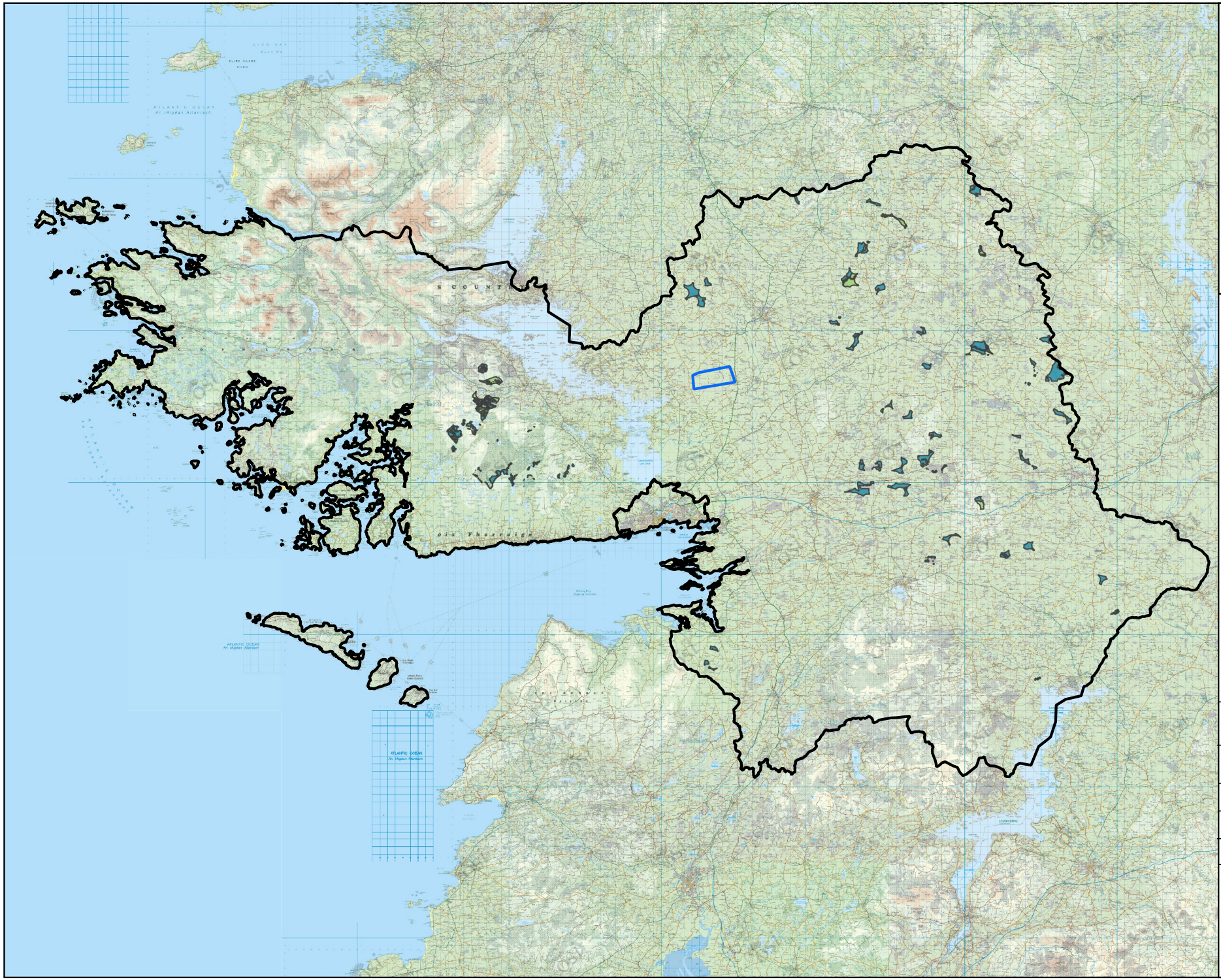

Map Legend

- Galway County and Galway City
- Proposed Wind Farm Site Location

Countty Galway Wind Energy Strategy 2022-2028

- Acceptable in Principle
- Open to Consideration

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Drawing Title
Remaining Actual Viable Area over 500m2

Project Title
Laurclavagh Renewable Energy Development

Drawn By	Checked By
KB	OM
Project No.	Drawing No.
210627	Figure 25
Scale	Date
1:650,000	2024-03-12

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