



Environmental Impact Assessment Report (EIAR)

Anaerobic Digestion Facility

CLIENT

Mr. Seoirse McGrath & Nephin Renewable Gas Moneylane Ltd.



Nephin Renewable Gas

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Introduction 1

1.1 Introduction

PECENED. 03/04/2025 Mr. Seoirse McGrath and Nephin Renewable Gas - Moneylane Limited (the Applicant) are pleased to submit this EIAR in support of a planning application for the construction and operation of an Anaerobic Digestion Facility at a site in the townland of Moneylane, Arklow, Co. Wicklow.

Occupying an area of circa 4.02 hectares, the Proposed Development will accept and treat 90,000 tonnes per annum of locally sourced agricultural manures, slurries, food processing residues and crop-based feedstocks to produce grid quality biomethane (renewable natural gas) suitable for direct injection into GNI's distribution network. The renewable natural gas (RNG) produced at the facility will be used as a direct replacement for conventional natural gas and in doing so contribute towards the Government's aspiration to develop 5.7TWh of indigenous biomethane production. In addition to RNG, the facility will produce a rich nutrient biobased fertiliser which can be used as a direct replacement for fossil fuel derived fertiliser. The facility will also be specified to allow the recovery of biogenic carbon dioxide (CO_2) .

The development will consist of the following:

- Construction of 3 no. digesters (c. 15.5m in height), 2 no. digestate storage structures (c. 15.5m and 12m in height), a liquid feed tank (c. 4.3m in height) and 4 no. pump houses (each c. 2.6m in height), located in the northern section of the site.
- 4 no. pasteurisation tanks (each c. 6m in height), a post pasteurisation cooling tank (c. 4m in height) and a pre fertiliser manufacturing tank (c. 4m in height), located to the southeast of the digesters, in the centre of the site.
- A part single-storey and part two-storey reception hall (with a gross floor area (GFA) of c. 2,113 sg.m and an overall height of c. 16.5m) to accommodate a laboratory, panel room, tool store, workshop, and storage areas, with a liquid feed intake adjacent to the reception hall. located to the centre of the site.
- A single-storey solid digestate storage and a nutrient recovery building (with a GFA of c. 880 sq.m and an overall height of c. 12.4m) located to the east of the reception hall, in the central portion of the site.
- Odour abatement plant (with an overall height of c. 6m) and equipment and a digestate offtake area will be provided to the east of the solid digestate storage and nutrient recovery building.
- Construction of an ESB substation (c. 3.4m in height), a fuel storage tank (c. 1.6m in height), a CNG compression unit (c. 4.1m in height), 2 no. CO₂ tanks (c. 10.7m in height), a CO_2 loading pump (c. 2.6m in height), CO_2 auxiliaries (c. 2.6m in height), CO_2 liqueufactor (with an overall height of c. 8.2m), a CO_2 compressor (with an overall height of c. 5.9m) and a CO_2 pre-treatment skid (c. 3.5m in height), located in the eastern portion of the site.
- Construction of an emergency biogas flare (c. 11.3m in height), a biogas treatment skid (with an overall height of c. 4.1m), a biogas compression system (with a maximum height of c. 5.8m in height), a biogas upgrading module (with a maximum height of c. 4.6m), a combined heat and power unit and panel room (with a height of c. 5.8m and a flue height

of c. 10m) and a H2S washing tower (with an overall height of c. 7.8m), located within the eastern section of the site.

- Construction of a grid offtake skid, a biomethane boiler (c. 5.6m in height to flue stack), a grid injection unit (c. 2.8m in height), and 2 no. propane tanks (c. 1.3m in height), located to the southeast of the CO₂ structures, at the eastern section of the site.
- Construction of a two-storey office and administration building (with an overall height of c. 8.6m and a GFA of c. 271.5 sq.m), located within the southeast section of the site, adjacent to the main site entrance.
- Associated works including parking (8 no. standard, 3 no. EV, and 1 no. accessible parking spaces; and bike storage), access arrangements (including new access point to the site from the adjacent road to the south), a weighbridge, provision of solar panels (roofed mounted solar array), wastewater treatment equipment, attenuation pond in the northern portion of the site, boundary treatments, lighting, services, lightning protection masts, drainage, landscaping, and all associated and ancillary works.

A detailed description of the Proposed Development is provided in **Chapter 2 – Project Description** of this EIAR.

1.2 The Applicant

Mr. Seoirse McGrath and Nephin Renewable Gas - Reatagh Limited

Mr. Seoirse McGrath is a local landowner and progressive farmer who owns and manages a dairy farm. The farm has been in the family's ownership since at least 1761. The McGrath family were the overall winners of the Glanbia Quality Milk Awards in 2007, and Saoirse McGrath was the winner of the Wicklow FBD Young Farmer of the Future in 2002. The dairy is located *ca*. 100m southeast from the Proposed Development.

Nephin Renewable Gas is a renewable energy company, located in Tipperary Town, Co. Tipperary. Nephin Renewable Gas is part of Nephin Energy, Ireland's largest gas production company. Nephin Energy produces indigenous natural gas and currently provides approximately 25% of the daily gas demand in Ireland. Nephin Renewable Gas is committed to making a meaningful contribution to the decarbonisation of Ireland's gas supply by developing *ca.* 1.2TWh of indigenous Irish biomethane, creating offtake opportunities of significant scale for large energy users.

Nephin Renewable Gas aims to become Ireland's largest producer of indigenous biomethane, building on the Group's existing position as Ireland's largest producer of domestic natural gas.

1.3 The Proposed Development Site

The Proposed Development site (herein referred to as 'the site') is located in the townland of Moneylane, Arklow, Co. Wicklow approximately 2.1km southeast of the town of Arklow, Co. Wicklow and approximately 23km southwest of Wicklow Town, Co. Wicklow. The approximate grid reference location for the center of the site is T 22154 72252, ITM: 722094, 672281. The site location is depicted in **Figure 1.1**.

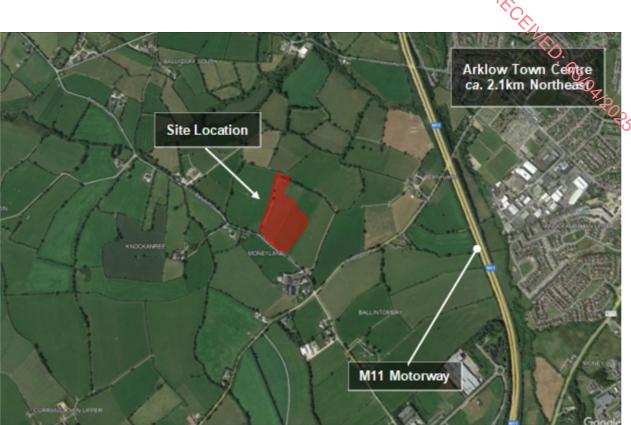


Figure 1.1: Proposed Development Site Location

The total site area measures *ca*. 4.02ha. The site is currently used as agricultural pastureland and bounded to the north, south, east, and west by further agricultural pastureland. An operational dairy farm is located ca. 100m to the southeast.

The site is bordered to the south by Ballyduff South Road (L6187) which intersects with the Knockenrahen Road (L2190), 57m southeast of the site. The Proposed Development will be accessed via Ballyduff South Road (L6187) and a new junction access.

Further site-specific details and existing environmental conditions relevant to each assessment topic are outlined in detail within **Chapters 5.0** to **14.0** of this EIAR.

1.4 Environmental Impact Assessment

The European Union (EU) Directive 2011/92/EU, amended by EU Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment (the 'EIA Directive'), requires Member States to ensure that a competent authority carries out an assessment of the likely significant effects of certain types of projects, as listed in Directive prior to development consent being given for the project.

EIA is a process for anticipating and predicting the effects on the environment caused by a project. It is defined in Article 1(2)(g) 4 of the amended Directive as a process consisting of:

- **1.** The preparation of an environmental impact assessment report by the developer, as referred to in Article 5(1) and (2);
- 2. The carrying out of consultations as referred to in Article 6 and, where relevant, Article 7;
- **3.** The examination by the competent authority of the information presented in the environmental impact assessment report and any supplementary information provided,

where necessary, by the developer in accordance with Article 5(3), and any relevant information received through the consultations under Articles 6 and 7;

- 4. The reasoned conclusion by the competent authority on the significant effects of the project on the environment, taking into account the results of the examination referred to in point (iii) and, where appropriate, its own supplementary examination; and
- 5. The integration of the competent authority's reasoned conclusion into any of the decisions referred to in Article 8a.

The 'EIA Directive' 2014/52/EU, as amended, was transposed into Irish planning legislation by the Planning and Development Acts 2000 to 2019 and the Planning and Development Regulations 2001 to 2019.

In accordance with the relevant legislation, the EIA of the Proposed Development will be undertaken by Wicklow County Council as the Competent Authority.

1.5 Environmental Impact Assessment Screening

Screening is the term used to describe the process of determining whether a Proposed Development requires an EIA, by reference to mandatory legislative threshold requirements or by reference to the type and scale of the Proposed Development and the significance or the environmental sensitivity of the receiving baseline environment.

Annex I to 'EIA Directive' 2014/52/EU, as amended, requires as mandatory the preparation of an EIA for all developments listed therein. Projects listed in Annex II to the Directive are not automatically subjected to EIA, however Member States can decide to subject such developments to an assessment on a case-by-case basis or according to thresholds and/or criteria, for example size, location and potential impact.

In Ireland, Schedule 5 (Part 1 and Part 2) of the Planning and Development Regulations 2001-2019, as amended, transposes Annex I and Annex II to the 'EIA Directive' 2014/52/EU, as amended.

In the context of the Proposed Development, the most relevant project type in Schedule 5 of the Planning and Development Regulations 2001-2019, as amended, is identified in Part 2, Class 11 (b) Other Projects:

(b) Installations for the disposal of waste with an annual intake greater than 25,000 Tonnes not included in Part 1 of this Schedule.

It is therefore concluded that there is a mandatory requirement to undertake an EIA of the Proposed Development. Accordingly, an EIA of the Proposed Development is required to be conducted by the Competent Authority, Wicklow County Council, prior to deciding on development consent.

1.6 Environmental Impact Assessment Scoping

The purpose of EIA Scoping is to identify the information to be contained in an EIAR and the methodology to be used in gathering and assessing that information. It should provide focus for the EIAR, enabling the EIA to be appropriately tailored to the likely significant impacts on the environmental factors set out in Article 3(1) of amended Directive.

Article 3(1) prescribes a range of environmental factors which must be addressed. The EIAR shall identify, describe, and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors:

- a) Population and human health;
 b) Biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;
 b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;

An EIAR scoping exercise based on the nature of the Proposed Development has been conducted to identify the key issues that may be considered likely to have a significant effect on the environment. The scoping exercise was based upon the available baseline information on the site and the feedback received during the pre-application consultation meetings held with Wicklow County Council. The recommendations of consultees have further informed the scope of the assessments undertaken and the contents of the FIAR.

The following environmental topics have been identified for assessment in the context of the **Proposed Development:**

- Population & Human Health •
- Biodiversity •
- Lands, Soils & Geology .
- Hydrology & Hydrogeology •
- Air, Odour & Climate •
- Noise & Vibration •
- Landscape & Visual •
- **Traffic & Transportation**
- Archaeology & Cultural Heritage
- Material Assets
- Interactions of the above •

1.7 Environmental Impact Assessment Report Methodology

This EIAR has been prepared in line with the Planning and Development Act, 2000 S.I. No. 30/2000, as amended, and associated Regulations having regard to the following guidelines.

- European Commission (EC) (2017) Environmental Impact Assessment of Projects -• Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU)
- EPA (2022) Guidelines on the Information to be contained in Environmental Impact • Assessment Reports;
- EPA (2015) Advice Notes on Current Practice (in the preparation on Environmental Impact Statements); and
- Department of Housing, Planning and Local Government (2018) Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment.

Further specific reference documents are cited within the environmental topic chapters of this EIAR, as appropriate.

1.7.1 Baseline Assessment

Annex IV(3) of the 'EIA Directive', as amended, requires 'a description of the relevant aspects of the current state of the environment, referred to as the baseline scenario, and an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of

environmental information and scientific knowledge'.

PECEIVED. The Baseline Assessment is an assessment of the current state of the environment and frow this is likely to evolve without the proposed project but having regard to existing and approved projects and likely significant cumulative effects – in other words the 'do nothing' scenario.

Within each technical chapter, the standard recognised methodology used in establishing the baseline scenario is documented in detail to enable replicable monitoring in the future, so that the future assessment results can be appropriately compared.

1.7.2 Identification of Potential Receptors

A receptor is defined in the EPA Guidelines 2022 as "any element in the environment which is subject to impacts". The environmental impact will depend on the relationship between the source, the available pathway and the sensitivity of the receptor identified. Topic specific receptors have been identified in each technical chapter.

1.7.3 Identification of Likely Significant Impacts

Where appropriate, the evaluation of effects on the environment has been evaluated according to the criteria outlined in Table 1.1 as referenced in the 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports' (EPA, 2022).

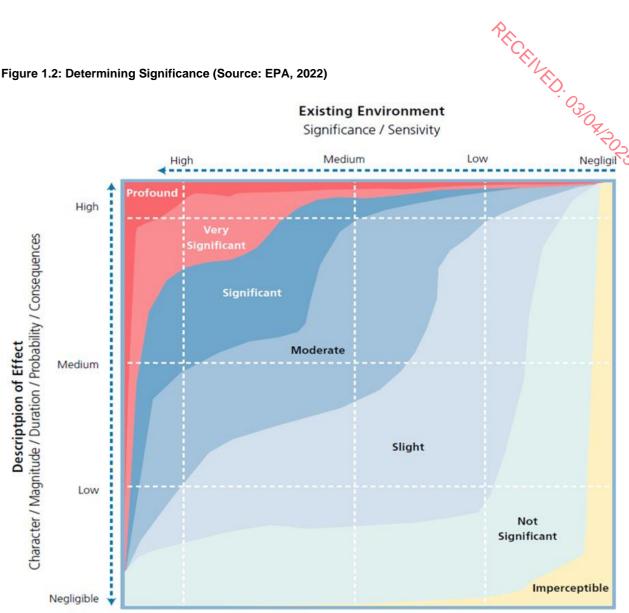
Each effect is considered in terms of its quality, significance, extent, duration and frequency, and where possible type. The use of standardised terminology for the classification of effects ensures that the EIAR employs a systematic approach to impact assessment, which is replicated across all environmental topics covered within the EIAR.

Table 1.1: Description of Effects (EPA, 2022)

	of Effects (EPA, 2022)
Table 1.1: Description	of Effects (EPA, 2022)
Quality of Effects	
	A change which improves the quality of the environment (for example, by Q_{2}
	increasing species diversity, or improving the reproductive capacity of an
	ecosystem, or by removing nuisances or improving amenities).
	Neutral Effects
	No effects or effects that are imperceptible, within normal bounds of variation or $ $
	within the margin of forecasting error.
	Negative/Adverse Effects
	A change which reduces the quality of the environment (for example, lessening
	species diversity or diminishing the reproductive capacity of an ecosystem, or
	damaging health or property or by causing nuisance).
Describing the	Imperceptible
Significance of	An effect capable of measurement but without significant consequences.
Effects	Not Significant
	An effect which causes noticeable changes in the character of the environment
	but without significant consequences.
	Slight Effects
	An effect which causes noticeable changes in the character of the environment
	without affecting its sensitivities.
	Moderate Effects
	An effect that alters the character of the environment in a manner that is
	consistent with existing and emerging baseline trends.
	Significant Effects
	An effect which, by its character, magnitude, duration or intensity, alters a
	sensitive aspect of the environment.
	Very Significant
	An effect which, by its character, magnitude, duration or intensity, significantly
	alters most of the sensitive aspects of the environment.
	Profound Effects
_	An effect which obliterates sensitive characteristics.
Describing the	Extent
Extent and	Describe the size of the area, the number of sites and the proportion of a
Context of Effects	population affected by an effect.
	Context
	Describe whether the extent, duration or frequency will conform or contrast with
Deceribing the	established (baseline) conditions (is it the biggest, longest effect ever?) Likely Effects
Describing the Probability of	The effects that can reasonably be expected to occur because of the planned
Effects	project if all mitigation measures are properly implemented.
LIIECIS	Unlikely Effects
	The effects that can reasonably be expected not to occur because of the
	planned project if all mitigation measures are properly implemented.
Describing the	Momentary Effects
Duration and	Effects lasting from seconds to minutes.
Frequency of	Brief Effects
Effects	Effects lasting less than a day.
	Temporary Effects
	Effects lasting less than a year.
	Short-term Effects
	Effects lasting one to seven years.
	Medium-term Effects
	Effects lasting seven to fifteen years.
	Long-term Effects
	Effects lasting fifteen to sixty years.
	Permanent Effects
	Effects lasting over sixty years.
	Reversible Effects

	P.C.
	Effects that can be undone, for example through remediation or restoration.
	Frequency of Effects
	Describe how often the effect will occur (once, rarely, occasionally, frequently,
	constantly – or hourly, daily, weekly, monthly, annually).
Describing the	Indirect Effects (a.k.a. Secondary or Off-site Effects)
Types of Effects	Effects on the environment, which are not a direct result of the project, often
	produced away from the project site or because of a complex pathway.
	Cumulative Effects
	The addition of many minor or insignificant effects, including effects of other
	projects, to create larger, more significant effects.
	'Do-nothing Effects'
	The environment as it would be in the future should the subject project not be
	carried out.
	'Worst-case' Effects
	The effects arising from a project in the case where mitigation measures
	substantially fail.
	Indeterminable Effects
	When the full consequences of a change in the environment cannot be described.
	Irreversible Effects
	When the character, distinctiveness, diversity or reproductive capacity of an
	environment is permanently lost.
	Residual Effects
	The degree of environmental change that will occur after the proposed
	mitigation measures have taken effect.
	Synergistic Effects
	Where the resultant effect is of greater significance than the sum of its
	constituents (e.g., combination of SOx and NOx to produce smog).

Figure 1.2 illustrates how comparing the character of the predicted effect to the sensitivity of the receiving environment can determine the significance of the effect.



1.7.4 Mitigation and Monitoring

Annex IV(7) of the EIA Directive, as amended, requires that the EIAR should include 'a description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced, or offset, and should cover both the construction and operational phases.

Mitigation by Avoidance has been incorporated into the design of the Proposed Development, as described in Chapter 3 - Consideration of Alternatives. Additional mitigation by prevention and reduction, with planned monitoring measures that have been proposed for each environmental topic are set out in each technical chapter within this EIAR.

A summary schedule of all proposed mitigation and monitoring measures is included in Chapter 16 – Schedule of Mitigation.

1.7.5 Residual Impacts

PECEINED. The residual impacts are the final predicted or intended effects which occur after the proposed mitigation measures have been implemented. Residual impacts that remain once additionate mitigation has been implemented are discussed in each technical chapter within this EIAR.

1.7.6 Cumulative Effects

Cumulative effects take account of the addition of many minor or significant effects to create larger, more significant effects. As outlined in the EPA Guidelines 2022, while a single activity may itself result in a minor effect, it may, when combined with other impacts (minor or significant), result in a cumulative impact that is collectively significant. A single effect which may, on its own, have a significant effect, may also have a reduced and insignificant impact when combined with other effects. Cumulative effects are assessed and discussed within each technical chapter in this EIAR.

1.7.7 Interactions between Environmental Factors

Interactions between effects may arise from the reaction between effects of the Proposed Development on different aspects of the environment which may exacerbate the magnitude of those effects. Such interactions are assessed and are presented in Chapter 15 - Interactions of this EIAR.

1.8 **EIAR Structure**

The information to be provided by the applicant within the EIAR must, at least, address the matters detailed in Article 5(1)(a) to (f) of the 'EIA Directive', as amended, outlined below:

- a) A description of the project comprising information on the site, design, size and any other relevant features of the project.
- **b)** A description of the likely significant effects of the project on the environment.
- c) A description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment.
- d) A description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment.
- e) A non-technical summary of the information referred to in points (a) to (d)
- f) Any additional information specified in Annex IV of the Directive/Schedule 6 to the 2001 Regulations, as amended, relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.

The EIAR has been prepared to address the matters outlined above and structured in accordance with the following best practice guidelines:

- European Commission (EC) (2017) Environmental Impact Assessment of Projects -• Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU)
- EPA (2022) Guidelines on the Information to be contained in Environmental Impact Assessment Reports:
- EPA (2015) Advice Notes on Current Practice (in the preparation on Environmental Impact • Statements); and

Department of Housing, Planning and Local Government (2018) Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment. •

This EIAR is presented in four volumes as follows:

- Volume II: **Environmental Impact Assessment Report**
- Appendices to the Environmental Impact Assessment Report Volume III:
- Volume IV: Drawings

Volume II: Environmental Impact Assessment Report is presented as 16 chapters, as outlined in Table 1.2 below.

Chapter	apter Structure Title	Author	Organisation
1.0	Introduction & Methodology	Oisín Doherty	ORS
	Sets out the background to, and		Block A Marlinstown Office
	location of, the Proposed	Dominick	Park Mullingar Co.
	Development, as well as providing	Doherty	Westmeath N91 W5NN
	details on the EIA process.		
2.0	Project Description	Oisín Doherty	ORS
	Describes the context of the		
	Proposed Development, the design,	Dominick	
	and physical nature of the	Doherty	
	development and its use, including		
	operational processes.		
3.0	Consideration of Alternatives	Killian Smith	ORS
	Describes the alternatives		
	considered including site selection,	Oisín Doherty	
	design iterations and alternative		
4.0	technologies. Planning & Policy Context		John Choin Accociates
4.0		Luke Wymer	John Spain Associates
	Summarises waste management,	Mark	39 Fitzwilliam Place Dublin 2
	energy, climate change and planning policy, and the legislative context at	Fitzgibbon	D02 ND61
	European, national, regional, and	Fitzgibboli	
	local levels with relevance to the		
	Proposed Development.		
	r roposed Development.		
5.0	Biodiversity	Larry Manning	ORS
	Addresses the requirement to assess	, ,	
	potentially significant effects on	Sean Burke	
	biodiversity, having particular		
	attention to species and habitats		
	protected under the EU Habitats		
	Directive and the Birds Directive.		
6.0	Population & Human Health	Mark	John Spain Associates
	Addresses the requirement to assess	Fitzgibbon	
	potentially significant effects on		
	population and human health.	Andrew Evans	ORS
7.0	Land, Soils and Geology	Alex	ORS
	Addresses the requirement to assess	Nascimento	
	the type of land, soil, and geology in		
	the area of the Proposed		

			PROFILE
	Development and identifies any potentially significant effects.		RD.
8.0	Hydrology & Hydrogeology Addresses the requirement to assess potentially significant effects to	Biancia Severgnini Anna Quaid	ORS 03 04 20
9.0	surface and ground water quality. Air, Odour & Climate Addresses the requirement to assess potentially significant effects to air quality in the surrounding environment.	Andrew Evans Neil Kelly Christopher Carr	ORS Irwin Carr Consulting 7 Osborne Promenade Warrenpoint Newry BT34 3NQ
10.0	Noise & Vibration Addresses the requirement to assess potentially significant effects from noise and vibration emissions.	Gary Duffy David Courtney	Enfonic Century Business Park Unit 2A Dublin D11 T0HV
11.0	Landscape & Visual Addresses the requirement to assess potentially significant effects on landscape and visual characteristics.	Anthony Ryan Geraldine Hayes	Hayes Ryan Landscape Architects Killmead Athy Co. Kildare
12.0	Traffic & TransportAddresses the requirement to assesspotentially significant effects on trafficand transport infrastructure.	Angeliki Kalatha Adam Price	ORS
13.0	Archaeology & Cultural Heritage Addresses the requirement to assess potentially significant effects on archaeological and cultural heritage.	Declan Moore	Moore Group 3 Gort na Rí Athenry Co. Galway
14.0	Material Assets Addresses the requirement to assess potentially significant effects on material assets i.e., existing utilities and infrastructure.	Dominick Doherty Oisin Doherty	ORS
15.0	Interactions Provides an assessment of the interaction between all of the environmental aspects referred to in this EIAR.	Killian Smith	ORS
16.0	Summary of Mitigation Describes mitigation and monitoring measures in order to avoid, prevent, reduce, or if possible, offset any identified significant adverse effects on the environment.	Anna McQuaid	ORS

Each technical assessment chapter, i.e., **Chapters 5.0** to **14.0** adopts the following structure:

- Introduction •
- Consultation •
- Assessment Methodology & Significance Criteria Description of the Receiving Environment •
- •
- Likely Significant Effects •
- Mitigation Measures •
- Cumulative Effects •
- **Residual Effects** •

- Monitoring .
- Summary of Significant Effects
- Statement of Significance •

	REC.E.
MonitoringSummary of Significant EffectsStatement of Significance	wings is presented below.
A schedule of drawings included in Volume IV: Drav	wings is presented below.
Table 1.3: Schedule of Drawings Name	Drawing number
SITE LOCATION MAP	241504-ORS-ZZ-00-DR-AR-100
RECORD PLACE MAP	241504-ORS-ZZ-00-DR-AR-101
EXISTING SITE SURVEY	241504-ORS-ZZ-00-DR-AR-102
PROPOSED SITE LAYOUT	241504-ORS-ZZ-00-DR-AR-200
PROPOSED STRUCTURES 01, 03, 05,07 & 50	241504-ORS-ZZ-ZZ-DR-AR-210
PROPOSED STRUCTURES 51, 53, 54 & 55	241504-ORS-ZZ-ZZ-DR-AR-211
PROPOSED STRUCTURES 52, 56, 57, 58, 59, 60, 61 & 62	241504-ORS-ZZ-ZZ-DR-AR-212
PROPOSED STRUCTURES 63, 64, 65, 67, 68 & 69	241504-ORS-ZZ-ZZ-DR-AR-213
PROPOSED STRUCTURES 70, 101, 102, 103, 104 & 105	241504-ORS-ZZ-ZZ-DR-AR-214
PROPOSED STRUCTURES 106, 107, 108, 109 & 110	241504-ORS-ZZ-ZZ-DR-AR-215
PROPOSED STRUCTURES 111, 112, 114, 115, 116, 117 & 118	241504-ORS-ZZ-ZZ-DR-AR-216
PROPOSED CONTINGUOUS ELEVATIONS AND LIGHTNING FINIALS	241504-ORS-ZZ-ZZ-DR-AR-217
CIVILS INFRASTRUCTURE - GENERAL LAYOUT	24118-DR-0101
CIVILS INFRASTRUCTURE - SIGHTLINES FOR SITE ENTRANCE - BALLYDUFF S.	24118-DR-0102
CIVILS INFRASTRUCTURE - ARRIVALS OF DESIGN HCV SWEPT PATH & PASSING BAY	24118-DR-0103
CIVILS INFRASTRUCTURE - DEPARTURES OF DESIGN HCV SWEPT PATH & PASSING BAY	24118-DR-0104
CIVILS INFRASTRUCTURE - SITE SECTIONS	24118-DR-0105
CIVILS INFRASTRUCTURE - SIGNS, ROAD MARKINGS, KERBS & WALL DETAILS	24118-DR-0106
CIVILS INFRASTRUCTURE - DRAINAGE GENERAL LAYOUT & BULK EARTHWORKS SCHEDULE	24118-DR-0501
CIVILS INFRASTRUCTURE - SURFACE WATER DRAINAGE - LONGITUDINAL SECTIONS	24118-DR-0502
LANDSCAPE PLAN	24/NRG/ORSML/A/001Rev D

Statement of Competency 1.9

Article 5(3)(a) of the EIA Directive, as amended, requires that "the developer/applicant shall ensure that the environmental impact assessment report is prepared by competent experts". This EIAR has been prepared and managed by ORS on behalf of the applicant. The range of expertise required within the EIAR project team has been identified during the scoping exercise, considering the significance, complexity, and range of effects to be assessed.

The EIAR project team outlined below possesses an appropriate combination of experience, expertise, and knowledge to ensure that the information provided by the applicant for the purpose of its examination by the competent authority is complete and of a high standard.

1.9.1 ORS

Oisin Doherty - Senior Environmental Consultant

Oisín Doherty holds a BSc. (Hons.) in Geography with Environmental Science from Ulster University, 2009, and a MSc. in Environmental Management from Queens University, 2011. Oisin has 15 years' experience in Anaerobic Digestion, Environmental Impact Assessment, Environmental Monitoring and Assessment, Environmental Licence Compliance and Waste Management.

Prior to joining ORS, Oisin spent 5 years as Environmental Manager and Plant Manager of two large-scale Biogas facilities operating under EPA and DAFM license conditions, gaining indepth knowledge of Anaerobic Digestion, Biomethane and Biogenic CO₂ production, Organic Waste Management, Environmental Licence Compliance and ISO14001 Environmental Management Systems.

Oisin is a Full Member of the Institute of Environmental Sciences (MIEnvSc) and a Charted Environmentalist (CEnv).

Luke Martin – Associate Director - Environmental Team Lead

Luke Martin holds a B.A. (Hons) in Natural Science from Trinity College Dublin, 2012, and a MSc. in Sustainable Energy and Green Technology from University College Dublin, 2015.

Luke has 12 years' experience across all aspects of environmental assessment including contaminated land, flood risk assessment, noise and air monitoring, and licence compliance / applications for a wide range of projects. Luke specialises in the field of Environmental Due Diligence, Industrial Emissions Licence Compliance, Environmental Planning and EIAR co-ordination.

Luke is a Full Member of the Ireland Brownfield Network (IBN), The Institution of Environmental Science (IES) and achieved Chartered Environmentalist (CEnv) status in 2022.

Cathal Tighe (ORS) – Senior Environmental Consultant

Cathal Tighe holds a B.Agr.Sc (Hons) in Agricultural-Environmental Science from University College Dublin in 2017 and has a background in Horticulture from Dublin City University and Teagasc.

Cathal has 3 years' experience working within the agri-environmental research and development sector within Ireland. Cathal has developed novel aerobic composting processes for the stabilisation of end-of-life substrates, and recycling processes to recover, rehydrate and reuse spent horticultural peat in the protected cropping industry.

Larry Manning – Senior Ecologist

Larry Manning holds a B.Sc. (Hons) in Applied Freshwater and Marine Biology, GMRT (Now Atlantic Technical University), 2011. Larry is a member of the Irish Whale and Dolphin Group, Birdwatch Ireland, Irish Wildlife Trust, Bat Conservation Ireland and the Marine Institute.

Larry has 13 years' experience in ecological assessment in terrestrial, freshwater and marine habitat. Larry's specialisations also include Ornithology monitoring and surveys at sea using the ESAS methodology, and on land using various methods. Larry has extensive experience in the delivery of Ecological Impact Assessment (EcIA), Appropriate Assessment screening and Natura Impact Assessment.

Sean Burke - Environmental Consultant

Seán Burke holds a BSc. in Science from Maynooth University, 2018 and a MSc. in Ecology & Biodiversity from Stockholm University, 2023.

Seán has 4 years of experience in environmental monitoring and ecological assessment for a variety of projects including microclimate monitoring in the agri-food sector, and more recently, water quality assessment and macroinvertebrate surveying of river waterbodies. Seán is a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Neil Kelly - Senior Environmental Consultant

Neil Kelly holds a B.A. (Hons) in Environmental Science and Health from Dublin City University, 2015.

Neil has 10 years' experience in the assessment of air quality a for a wide range of projects. Neil is an MCERTS Air and Emission certified Team Leader. Neil specialises in the fields of air dispersion modelling, stack emissions, air quality monitoring and Industrial Emissions Licence requirements.

Dominick Doherty - Senior Environmental Consultant

Dominick Doherty holds a BSc. (Hons.) in Geography with Environmental Science from Ulster University, 2008, and an MSc. Sustainable Energy and Green Technology from University College Dublin, 2011. Dominick has 12 years' experience in environmental science and renewable technologies.

Alex Nascimento - Senior Environmental Consultant

Alex Nascimento holds a BEng. (Hons.) in Environmental Engineering from Federal University of Mato Grosso do Sul (Brazil), 2011. Alex has 13 years' experience as an environmental consultant.

Andrew Evans- Environmental Consultant

Andrew Evans holds a M.Sc. in Sustainable Energy and Green Technology from UCD, 2019. Andrew has experience in air monitoring, Geographic Information Systems and the renewable energy sector. Andrew specialises in environmental assessments and environmental compliance.

Bianca Severgnini- Environmental Consultant

Bianca holds a B.Eng. (Hons) in Environmental Engineer with the University of Caxias do Sul,

Brazil, 2020. Bianca has 3 years' experience in hydrogeology, sustainable resource management, and environmental impact assessments. Her skill set includes Geographic Information Systems (GIS), data modelling, and technical reporting.

Anna Quaid holds a B.Sc. (Hons) in Environmental Science from Munster Technological University, 2021, and a MSc. in Applied Environmental Science from University College Dublin, 2022.

Anna has 4 years' experience in the assessment of hydrogeology for a wide range of projects. Anna has completed training in site suitability assessments for domestic on-site wastewater treatment (QQI). Anna specialises in the fields of hydrogeological analysis, pollutant fate modelling and contaminated land.

Killian Smith - Environmental Consultant

Killian Smith holds a B.Agr.Sc in Agri-Environmental Science from UCD, 2017. With a strong foundation in environmental science, Killian specialises in environmental assessments, auditing and compliance related to both environmental and agricultural sectors. Killian possesses experience in data analysis and interpretation with a focus on environmental impact.

Angeliki Kalatha – Senior Transport Engineer

Angeliki holds an MSc in Civil Engineering from Aristotle University of Thessaloniki (A.U.Th.), 2014, and an MSc in Engineering Project Management from A.U.Th., 2016. She is a member of Engineers Ireland and the Technical Chamber of Greece.

Angeliki is a Senior Transportation Engineer with ORS, bringing eight years of professional experience in transportation and infrastructure development. She has contributed to various transportation projects, including traffic analysis, Traffic and Transport Assessments, and initiatives promoting active travel and sustainable mobility. She is skilled in using TRL Junctions 10 and TRANSYT software for modelling and analysing roundabouts, priority junctions and signalised junctions.

1.9.2 Enfonic

Gary Duffy - Principal Consultant

Gary Duffy, BEng, MIOA is the managing director of Enfonic with over 25 years' experience as an acoustic engineer and consultant. He has extensive knowledge in the field of noise measurement, prediction, and impact assessment. He co-wrote the EPA's original guidance note on noise and represented the IOA on the technical advisory committee of the Department of the Environment's revision of Part E (Sound Insulation) of the Building Regulations. He is a founder member of the Irish branch of the Institute of Acoustics and a sitting member of the current committee.

David Courtney - Consultant & Technical Manager

David Courtney, BEng, MIOA (Consultant & Technical Manager) studied Mechatronic Engineering in DCU and gualified with IOA Diploma in Acoustics and Noise Control (2019) & Certificate in Environmental Noise Measurements (2017). He undertakes all types of noise and vibration surveys in relation to wind turbines planning and compliance, IPPC & IE compliance, BS4142, BS5228 and BS8233 assessments, traffic noise, construction, building acoustics and

occupational assessments.

1.9.3 Hayes Ryan Landscape Architects

PECENTED. 03/04 Assessment for this LVIA is being conducted by Geraldine Hayes and Anthony Ryan of Hayes Ryan Landscape Architects. Hayes Ryan are experienced landscape architects and landscape consultants with a wide array of experience in landscape design, management and landscape and visual impact assessment on public and private projects in both urban and rural environments. The partners competency ranges from standalone nationwide landscape architect, led projects to collaboration as part of multidisciplinary teams over a period of 25 years.

Geraldine Hayes - Partner - Landscape Architect

Geraldine Hayes holds a B.Agr.Sc. (Honours) in Landscape and Horticulture, and a MSc. in Landscape Architecture. Geraldine has 25 years' experience in Landscape Architecture, Horticulture, Irish cultural landscapes, LVIA studies, Community Development, Historic Landscapes, Landscape Design, Landscape Ecology and Planning.

Anthony Ryan Partner - Landscape Architect

Anthony Ryan also holds a B.Agr.Sc. (Honours) in Landscape and Horticulture, and a MSc. in Landscape Architecture. Anthony has 25 years' experience in Landscape Architecture, Horticulture, Detailed Site Design, Large Scale Residential Developments, Theme Park Design, Healthcare and Hospitality Projects.

1.9.4 Moore Group

Declan Moore - Managing Director

Declan Moore studied Archaeology and English at University College Galway, graduating in 1991. He obtained a Certificate in Management Studies in 1994 and became a Licence eligible archaeologist in 1999. Since graduating he has gained over 30 years' experience as a field archaeologist and consultant. Declan is a Member of the Institute of Archaeologists of Ireland and the European Association of Archaeologists. As Managing Director of Moore Group Declan has managed large-scale excavations as well as the cultural heritage elements of numerous urban and rural housing and industrial developments. He has project managed the cultural heritage sections of EIAR's for over 300km of powerlines throughout Ireland, including the 400kV North South Interconnector, the Grid West scheme, the North Kerry Transmission Line Project the Eirgrid North Connacht project, the Cloon – Lanesboro scheme and the Great Island to Kilkenny upgrade scheme.

Most recently he has overseen the cultural heritage assessments of data centres as well as housing developments in Galway, Dublin and Mayo and water schemes and gas pipeline schemes nationwide. He has also recently completed project management of the N52 Grange to Clontail Scheme Route Assessment report and is currently overseeing archaeological work on the N5 Westport to Turlough road as well as consultation for the proposed Kings Island Flood Relief Scheme in Limerick City.

1.9.5 Irwin Carr Consulting

Shane Carr - Director

Shane has over 25 years' experience working in both the Public and Private sectors, with particular expertise in the areas of environmental noise, modelling as well as staff and project management. Shane has been working as a consultant since 2007, joining Marshall Day 2010 and subsequently becoming a Director in Irwin Carr in 2016. In this time he has carried out noise modelling projects throughout Ireland and the UK and is currently the SoundPLAN distributor for Irwin Carr in Ireland.

Shane has a broad range of experience in all aspects of noise including environmental noise assessment and control. He has presented expert evidence on several occasions for a range of planning issues and environmental noise assessments.

Christopher Carr – Consultant

Christopher graduated from the University of Ulster at Jordanstown with a BSc (Hons) degree in Environmental Health and has recently completed a post graduate Diploma in Acoustics and Noise Control at Trinity College Dublin.

Christy has carried out an extensive number of noise impact assessments for renewable energy developments. This process has involved the setting up of monitoring equipment for background noise surveys, liaising with local authorities, acoustic modelling using the SoundPLAN software package, as well as assessment in line with both ETSU-R-97 and the Institute of Acoustics Good Practice Guidance.

1.10 Appropriate Assessment and Natura Impact Statement

Wicklow County Council (as the Competent Authority) are required to assess in view of best scientific knowledge, if the Proposed Development, individually or in combination with another plan or project is likely to have a significant effect on the European (or Natura 2000) site. To facilitate this requirement, an AA Screening Report (Document Ref: **241504-ORS-XX-XX-RP-EN-13d-005**) has been submitted to the Council for assessment.

1.11 Consultation and Engagement

Table 1 4: Consultation and Engagement

In accordance with best practice guidelines this EIAR included stakeholder consultation throughout the project design, EIA screening and EIAR scoping stages. A summary of consultation and engagement with relevant local stakeholders, organisations and statutory bodies on the Proposed Development is presented in **Table 1.4** below.

Date	Consultation Group	Торіс	Consultation Team
November 2023	All residential dwellings	Met average of 2-3	Nephin Renewable Gas
to November	in close proximity of the	family members per	Team
2024 and	proposed site	residence to discuss	
ongoing		Proposed Development	
June 2023 and	Local Agricultural	Consultation and	Nephin Renewable Gas
ongoing	Operators	discussion around	Team
		Feedstock supply	
June 2023 and	Regional Industries	Consultation and	Nephin Renewable Gas
ongoing		discussion around	Team
		Feedstock supply	
15/09/2023	EPA	Consultation meeting on	Nephin Renewable Gas
		licensing	Team
15/06/2024	Wicklow County Council	Pre-planning advice	Nephin Renewable Gas
		received	Team

05/09/2024	Wicklow County Council	Bio-Economy Forum Meeting and Presentation	Nephin Renewable Gas Team
17/11/2023	Wicklow County Council	Submission on Draft Climate Action Plan	Nephin Renewable Gas
10/12/2023	Dept of Agriculture, Food and the Marine (DAFM)	Consultation meeting on Stage 1 application	Nephin Renewable Gas Team
09/01/2024	Dept of Agriculture, Food and the Marine (DAFM)	Clarification meeting on Stage 1 application	Nephin Renewable Gas Team
09/11/2024	Dept of Agriculture, Food and the Marine (DAFM)	Stage 1 Application submitted to DAFM	Nephin Renewable Gas Team
12/01/2024	Environmental Protection Agency (EPA)	Consultation meeting on Industrial Emissions licensing	Nephin Renewable Gas Compliance Officer
22/01/2024	Environmental Protection Agency (EPA)	Follow-up consultation meeting on Industrial Emissions licensing	Nephin Renewable Gas Compliance Officer
08/02/2024	Gas Networks Ireland (GNI)	Consultation on Gas Grid Connection Strategy	Nephin Renewable Gas Team
13/11/2024	Gas Networks Ireland (GNI)	Further Consultation on Gas Grid Connection Strategy	Nephin Renewable Gas Team
15/02/2024	Bord Bia/Food Safety Authority	Consultation on the Sustainable Dairy Assurance Scheme	Nephin Renewable Gas Team

1.12 Limitations encountered during preparation of EIAR.

There were no limitations encountered in compiling the information within the EIAR.

1.13 Viewing of EIAR

The EIAR will be available to view online via the Department of Planning, Housing and Local Government's EIA Portal, which will provide a link to the planning authority's website on which the application details are contained.

The EIAR and all associated planning documentation will also be available for viewing at the offices of Wicklow County Council. The EIAR may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy during normal office hours at the following address:

• Wicklow County Council, County Buildings, Whitegates, Wicklow Town, A67 FW96 Planning Department Opening Hours: Monday to Friday 9.00am - 3.30pm.