

Biomethane for Carbon & Community

Planning, Permitting, & Policy Guidelines for Biomethane Projects

VERSION 3.0

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Biomethane
for Carbon and Community

The Biomethane for Carbon and Community project is co-funded by the Government of Ireland and the European Union through the EU Just Transition Fund Programme 2021-2027.



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Tipperary County Council



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Partner Organisations members and the brief details of the organisations:

Partner/ Organisation Name	About
 Comhairle Contae Thiobraid Árann Tipperary County Council	Tipperary County Council (TCC) (Lead partner of the Biomethane for Carbon and Community (BCC) project), as the Local Authority for Tipperary, provides an extensive range of infrastructural and social services and plays an active role in the development of the county's enterprise, environment and climate action, transport social, arts, heritage and cultural affairs. It also functions as the regulatory body for certain matters at local level.
	The Technological University of the Shannon (TUS) is a multi-campus institution prioritizing accessibility, inclusivity and innovation. Spanning seven campuses in Ireland's Midwest and Midlands, TUS fosters regional growth through education, research and collaboration. With over 15,000 students annually, TUS combines student-focused learning with industry partnerships, driving progress and shaping the future of education and innovation.
	The Irish Bioeconomy Foundation (IBF) is a pioneering hub for transforming Ireland's natural resources into sustainable, high-value products. Based at the National Bioeconomy Campus in Lisheen, Co. Tipperary, IBF fosters collaboration among agribusiness, forestry, marine and energy sectors, driving innovative projects, creating synergies and building a globally competitive bioeconomy that supports local communities and sustainable development.
	The Tipperary Energy Agency (TEA) is a not-for-profit social enterprise driving Ireland's energy transition. Funded through innovative engineering services, education and European grants, TEA enables local authorities, communities and businesses to deliver renewable energy and efficiency

projects. With over 40 European projects completed, TEA bridges climate targets and results through innovation, collaboration and leadership.

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- Sean Finan, CEO of Irish BioEnergy Association (IrBEA);
- John Brosnan, Bioeconomy Executive at Irish Co-operative Organisation Society (ICOS);
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- Barry Caslin, Energy & Rural Development Specialist at Teagasc.

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Abbreviations

Abbreviation Full Term

AA	Appropriate Assessment
ABP	Animal By-Products
AD	Anaerobic Digestion
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road
AG9	EPA Odour Guidance Note 9
ACP	An Coimisiún Pleanála
ATEX	ATmosphères EXplosibles (EU explosive atmospheres directive)
BAT	Best Available Techniques
BCC	Biomethane for Carbon and Community
BCMS	Building Control Management System
BDO	Biomethane Development Office
C&D	Construction and Demolition
CDP	County Development Plan
CEMP	Construction Environmental Management Plan
CGI	Central Grid Injection
CHP	Combined Heat and Power
COMAH	Control of Major Accident Hazards
CRU	Commission for Regulation of Utilities
DAFM	Department of Agriculture, Food and the Marine
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EPA	Environmental Protection Agency
FI	Further Information
FLEET	Feedstock and Land use Evaluation and Evidence Tool (Teagasc)

GAP	Good Agricultural Practice
GHG	Greenhouse Gas
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GNI	Gas Networks Ireland
GWh	Gigawatt hour
HACCP	Hazard Analysis and Critical Control Points
HSA	Health and Safety Authority
IBF	Irish Bioeconomy Foundation
ICOS	Irish Co-operative Organisation Society
IE	Industrial Emissions
IrBEA	Irish BioEnergy Association
LA	Local Authority
MCP	Medium Combustion Plant
NG4	EPA Noise Guidance Note 4
NIS	Natura Impact Statement
NMS	National Monuments Service
NORA	National Oil Reserves Agency
NPWS	National Parks and Wildlife Service
NSAI	National Standards Authority of Ireland
PC5	Price Control 5 (GNI regulatory period)
RED	Renewable Energy Directive
RGC	Reverse Grid Compression
RHO	Renewable Heat Obligation
S.I.	Statutory Instrument
SDRI	Sustainable Development and Research Institute
SuDS	Sustainable Drainage Systems

TEA	Tipperary Energy Agency
TFEU	Treaty on the Functioning of the European Union
TII	Transport Infrastructure Ireland
TRIS	Technical Regulations Information System
TUS	Technological University of the Shannon
TWh	Terawatt hour

Executive Summary

This guidance document sets out a practical, end-to-end pathway for consenting, delivering and commencing operations from a statutory perspective for an agri-led biomethane (anaerobic digestion) project in Ireland. It is written for developers, local authorities, regulators, utilities and community stakeholders who need a single, coherent view of what to do, when to do it and how to evidence decisions. The accompanying tables set out detail the specific consents, triggers, standards and submissions required in developing a biomethane plant in a suitable location.

Ireland's National Biomethane Strategy¹ sets a clear ambition of scaling indigenous biomethane production to up to 5.7 TWh by 2030. This will secure sustainable heat and displace fossil gas. The Strategy is organised around interconnected pillars of sustainability safeguards, market demand, the bio/circular economy, viable economics and enabling policy with a defined action list overseen by a Biomethane Implementation Group. Early measures include a Sustainability Charter and tighter integration with environmental and agricultural protections.

This document has been produced under the Biomethane for Carbon and Community (BCC) project, led by Tipperary County Council (TCC) and anchored at the Technological University of the Shannon's Sustainable Development and Research Institute (SDRI) with key role played by partner agencies of Tipperary Energy Agency and the Irish Bioeconomy Foundation. The BCC project is co-funded by the Government of Ireland and the EU through the EU JTF Programme 2012 – 2027. BCC's purpose is to support national policy implementation at a local level by providing a practical and replicable playbook, conditions-management tools and an evidence library that local authorities and private developers can adopt and adapt for planning and developing bio-methane projects both locally in Tipperary and wider across Ireland.

Rather than introducing new policy or advocacy positions, this guidance document organises existing requirements into a structured roadmap. The Planning and Permission Roadmap groups the process into clear stages from initial feasibility and site selection, through pre-planning engagement and environmental assessment, to planning determination, parallel consents, construction and operation. For each stage, this guidance document highlights the main statutory processes, competent authorities, key supporting studies and typical decision points and it indicates how these can be sequenced to reduce unnecessary delay while maintaining compliance.

This guidance document suggests a “design envelope first, paperwork second” principle. Early definition of a realistic but conservative design envelope for traffic, odour, noise, emissions, water and grid connections is presented as the foundation for coherent planning applications, environmental impact assessment (EIA), Appropriate Assessment (AA) and technical modelling. This, in turn, allows project teams to identify which combination of planning, environmental, safety and grid consents is likely to apply and to organise these into parallel tracks that can progress in step with each other.

As part of the BCC project, a review of 78 local authority planning applications for AD and biomethane projects nationally (2008–2025), carried out by KPMG Ireland, confirms that the

¹ [Ireland National Biomethane Strategy](#). Last Accessed Nov 2025.

planning system is workable but remains highly sensitive to application quality. Approximately 68% of non-extension applications resulted in a grant of permission at local authority or An Coimisiún Pleanála stage. However, the appeal rate for the sector is approximately 44% that is far above the national average of 7–10%. This indicates that contested outcomes and residual risk at local authority stage are a defining feature of this sector's planning pathway. Where permission is granted, it is invariably accompanied by extensive prescriptive conditions. Refusals of planning applications are most commonly driven by information gaps and policy non-compliance rather than opposition to biomethane in principle.

This guidance document is arranged to be used as a working handbook. Summary tables point to the core legislation, regulatory guidance and consent types; annotations describe when each requirement is likely to be triggered; and an indicative high-level timeline shows how long key stages can take under current practice. The intention is to provide a common reference frame for developers, advisors, local authorities, regulators and community stakeholders, improving transparency and helping to set realistic expectations about process and duration.

The remainder of the guidance document is organised in four main parts: an overview of the policy and regulatory context for biomethane in Ireland; a description of the reference project archetype and its main consenting “tracks”; the detailed Planning & Permission Roadmap, including the principal consents, assessments and studies at each stage; and short practical notes on specialist topics such as modular or mobile units, roles within a project team and typical engagement points with communities and regulators. Together, these are intended to support delivery of biomethane projects within the existing statutory framework.

➤ **Disclaimer:** This document is a ready reckoner and by no way a substitute for official government policies, legislation, procedures, guidance and Standard Operating Procedures (SOPs). This is intended as an indicative guide and developers must consult with all the relevant public bodies in advance of submitting a planning application.

1. Introduction & how to use this roadmap

1.1 Purpose and audience

There is currently no standalone national planning guideline specific to anaerobic digestion (AD) or biomethane development in Ireland. Planning authorities assess these proposals within the existing statutory framework and the Government has confirmed that dedicated guidance is in preparation under Action 5g of the National Biomethane Strategy. This document is designed to fill that gap now providing a structured, evidence-based reference for developers and planning authorities operating under existing arrangements and designed to remain consistent with the national guidance when published.

Developing a biomethane project in Ireland requires navigating more than 48 individual legislative instruments, licences and consents across 8 regulatory domains. This document organises those requirements into a coherent sequence so that project teams can identify what applies to their project, when it is triggered and what evidence is needed.

As a working guide for developers, planners, regulators, utilities and community stakeholders involved in agri-led biomethane (AD) projects, the tables in the document list the main consents, triggers, standards and evidence requirements. This section summarises how to use those tables to sequence activity, make early design choices and limit the risk of delay during planning and parallel permitting.

1.2 Project archetype and scope

This guidance document is based on a reference project of a grid-injecting biomethane plant with an annual output of approximately 40 GWh, supplied primarily by agricultural feedstocks with potential co-substrates from food processing. It is assumed to be in a rural or peri-urban setting, with Heavy Goods Vehicle (HGV) access from a regional road and a Gas Networks Ireland (GNI) connection for biomethane injection.

Variants such as combined heat and power (CHP) export, on-site flare or thermal oxidiser, tanker export of biomethane or satellite injection are highlighted only where they change regulatory triggers or evidence needs. Depending on size, scale and location, some consents or procedures listed in the tables may not apply.

This roadmap covers:

- Planning and environmental assessment
- Water, discharge and surface water management
- Air, odour and noise design standards
- Grid and utility interfaces
- Building control and safety regimes
- Operational compliance, monitoring and condition management
- Expected engagement approach with Irish planning authorities

This archetype directly reflects the scale of projects currently seeking planning permission in Ireland; the median plant in Ireland's planning pipeline has a throughput of around 46,000 tonnes per annum, consistent with a plant of this output range.

1.3 Structure of this Guidance Document

This guidance document includes a detailed road map with tables (sections 5-12) intended to be followed and organised into stages and parallel tracks:

- Stages run from initial feasibility and site selection through pre-planning, application preparation, determination, construction and commissioning.
- Parallel tracks group related consents and activities:
 - Planning application stage and planning assessment stage
 - Water quality considerations and environmental considerations
 - Grid and utilities
 - Build, safety and control

The “Biomethane Planning – Planning & Permission Roadmap” (Table 1) provides a high-level overview of these stages, key actions, decision makers, indicative timelines and principal references. The subsequent thematic tables (Planning Consent; Environmental Safeguards/Emissions; Movement & Roads; Utilities & Energy; Materials, Waste & ABP; Biodiversity, Heritage & Landscape; Health, Safety & Construction Operations; Other Site Specific Permits) give more detail on triggers and evidence for each topic.

Table 1: The regulatory landscape grouped by Thematic Area

Thematic Area	No. of Instruments	Key consents and requirements
Planning Consent	7	Planning Permission · EIAR · AA/NIS · Flood Risk Assessment · Fire Safety Certificate · Disability Access Certificate · Commencement Notice
Environmental / Emissions	9	EPA IE Licence · Air Pollution Act Licence · MCP Registration · Section 4 Licence (waters) · Section 16 Licence (sewer) · Water Abstraction · EPA NG4 (Noise) · EPA AG9 (Odour) · SuDS/drainage design
Traffic & Roads	6	TII Traffic & Transport Assessment · Road Opening Licence (MapRoad) · Abnormal Load Permit · ADR Compliance · Temporary Traffic Management (TII) · Bridge Clearance Checks
Utilities & Energy	4	ESB Networks Demand Connection · ESB/EirGrid Generator Connection · GNI Biomethane Injection · CRU Gas Act s.39A Consent

Materials, Waste & ABP	5	EU Reg. 1069/2009 (ABP) · EU Reg. 142/2011 · Nitrates Regulations S.I. 113/2022 · C&D Waste Management Plan · End-of-Waste/By-product determination
Biodiversity & Heritage	5	Habitats Directive (AA/NIS) · Birds Directive · EIA Directive · National Monuments Acts · Landscape & Visual Assessment
Health, Safety & Construction	7	Safety, Health & Welfare (Const.) Regs 2013 · ATEX 2014/34/EU · Pressure Systems (GA Regs 2007) · Dangerous Substances Licence · COMAH/Seveso S.I. 209/2015 · HSA Notification · CEMP
Site-Specific & Other	5+	Weighbridge Certification · MCP Registration · Building Regulations · BCMS Commencement Notice · Other LA Permits

Not all instruments will apply to every project. Applicability depends on scale, feedstock type, site location and configuration. Sections 5–12 of this document set out triggers, thresholds and evidence requirements for each area.

NOTE: Although the roadmap is presented in thematic sections, much of the technical work described in Sections 6–10 is normally prepared as part of the planning application in Section 5. Environmental topics such as air, odour, noise, traffic, biodiversity, surface water and materials, as well as utilities and certain health and safety considerations, are typically brought together in the planning statement, Environmental Impact Assessment Report (EIAR), where required and associated reports. The separate tables are intended to help scope and sequence these inputs, not to suggest that they are entirely separate from the planning assessment.

1.4 Applying this roadmap in practice

In practical terms, this roadmap is intended to be used in four consecutive steps:

- 1. Define the design envelope early:** Establish a realistic but conservative “worst credible case” envelope for throughput, storage, odour and air emissions, noise, traffic, water balance and grid connection. This provides the basis for EIA and AA screening, technical modelling and mitigation commitments and reduces the need for redesign during the process.
- 2. Identify applicable consents and triggers:** Use the thematic tables to confirm which planning, environmental, grid, safety and other consents are likely to apply. Note thresholds, regulatory references and typical deliverables so that scopes for surveys, modelling and design can be aligned from the outset.

3. **Plan the programme and responsibilities:** Map the identified consents onto the stage-based roadmap. Decide which applications can progress in parallel with the planning file and assign clear internal leads for:
 - Consenting and planning file coordination
 - Environmental assessment and monitoring plans
 - Grid and utility interfaces
 - Safety, building control and construction management
 - Community and communications
4. **Monitor progress and maintain alignment:** Track progress against a simple set of internal indicators such as: avoidance of late design changes, timely submission of parallel permits while the planning application process is ongoing, readiness to discharge conditions and visibility of grid and utility timelines.

Practitioner perspective: stakeholder engagement: Experience from developers who have successfully progressed AD and biomethane projects through planning in Ireland points to the importance of early, personal and locally grounded community engagement. Large public meetings can inadvertently mobilise broad opposition; smaller, door-to-door or targeted conversations tend to be more effective in building trust and providing genuine education about the project. Where the farmer is the named applicant, as the person who will manage feedstock supply and digestate spreading, this typically carries more credibility with local communities than a corporate or developer-led presentation. Effective engagement is not a procedural step but a material factor in whether a project gains the local acceptance needed to progress smoothly through planning.

2. Policy and Regulatory Context for Biomethane in Ireland

Biomethane development in Ireland sits within a wider climate, energy and agricultural policy framework. The National Biomethane Strategy establishes an indicative ambition of up to 5.7 TWh of biomethane per year by 2030, broadly equivalent to around ten percent of current gas demand. Biomethane is expected to contribute to decarbonising heat in industry, large buildings and rural enterprises, while also supporting a more circular agri-food sector. As of early 2026, two facilities are injecting biomethane into the national gas grid, producing approximately 75 GWh per year; less than 1.5% of the 2030 target. Ireland has been identified by the European Commission as the EU member state with the highest per capita potential for biomethane development, a position driven by the scale and intensity of its agricultural sector. Approximately 75% of Ireland's current gas consumption is imported, underlining the energy security case for indigenous production alongside the climate rationale. Ireland had no biomethane injection into the network until 2020. This gap between current output and 2030 ambition makes the quality and speed of planning consents a material constraint on national climate delivery, not merely a sectoral procedural matter.

Ireland's Climate Action Plan identifies biomethane as one of several indigenous renewable gases that can displace fossil gas, reduce exposure to international fuel price volatility and support security of supply. At the same time, it emphasises that any expansion of anaerobic digestion must protect water quality, biodiversity and air quality and must remain consistent with EU and national environmental law. This alignment between decarbonisation, environmental protection and sustainable land management is reflected in the consents and safeguards summarised in this roadmap.

At EU level, several directives and regulations shape how biomethane plants are planned and operated:

- The Renewable Energy Directive (RED) sets targets for renewable energy in final consumption and includes sustainability and greenhouse gas (GHG) criteria for bioenergy.
- The Industrial Emissions Directive and its transposition in Irish law define when larger facilities require an Industrial Emissions (IE) licence and set principles for Best Available Techniques (BAT).
- The Habitats and Birds Directives require Appropriate Assessment where projects may affect Natura 2000 sites and this is implemented through Irish planning law and guidance.
- Environmental impact assessment (EIA) requirements are set through the EIA Directive and reflected in Schedule 5 of the Planning and Development Regulations.

Agricultural and rural development policies also influence project design. The Nitrates Regulations, Good Agricultural Practice requirements and broader objectives for water quality under the Water Framework Directive shape how digestate is stored, transported and applied to land. Any biomethane project that relies on agricultural feedstocks must therefore demonstrate that it does not lead to nutrient over-loading on an area basis, deterioration in water status or unsustainable land-use change.

At the county level, County Development Plans, Renewable Energy Strategies and Local Authority Climate Action Plans, where relevant, climate or decarbonisation strategies are the main policy reference points for planners. These documents typically include objectives for renewable energy, rural enterprise, landscape protection, Natura 2000 sites, water protection and traffic safety. A successful application will show clearly how the proposed plant supports renewable energy and rural economic policies while complying with environmental and amenity safeguards.

The National Biomethane Strategy, Climate Action Plan and local policy instruments are therefore not separate from the consenting process. They provide the policy tests against which local authorities and An Coimisiún Pleanála assess whether a biomethane proposal is acceptable in principle and if so under what conditions. The technical consents and safeguards in the roadmap should be read in this context: they are the mechanisms through which policy objectives on climate, environment, agriculture and community well-being are applied to individual projects.

Finally, the emerging support framework for biomethane (for example, tariff or contract mechanisms and sustainability verification requirements) is expected to draw directly on these same safeguards. Developers will increasingly need consistent evidence for planning, licensing, finance and support scheme participation. A well-structured consenting pathway that anticipates these needs can therefore reduce duplication, lower transaction costs and improve bankability as the market matures.

2.1 Recent Policy Developments

Ireland's biomethane policy framework has continued to evolve since the publication of the National Biomethane Strategy. In November 2025, the Government published the Biomethane Environmental Sustainability Charter, which codifies best-practice expectations for project design, construction and operation; covering digestate management, sustainable feedstock sourcing, methane leakage controls and community engagement. The Charter applies to projects in receipt of public support and provides a baseline against which planning documentation can increasingly be assessed.

The Renewable Heat Obligation (RHO) Bill 2025 was approved for priority drafting in July 2025, with NORA designated as scheme administrator. Introductory obligation rates of 1.5% in year one and 3% in year two are proposed, with the scheme designed to commence administration in 2026 and run through 2045. Measures to support indigenously produced biomethane within the scheme design are flagged, subject to EU notification. The RHO is expected to be the principal demand-side driver for biomethane in Ireland and, once in place, will anchor long-term offtake for projects developed under the National Biomethane Strategy.

The RHO Bill as drafted included a domestic multiplier under which indigenously produced biomethane would receive 1.5 RHO certificates per gigajoule compared to 1 certificate for imported biomethane. On 29 March 2026, however, the European Commission issued a formal Detailed Opinion finding that this multiplier is incompatible with EU internal market rules specifically that it constitutes a measure having equivalent effect to a quantitative restriction on imported biomethane under Article 34 TFEU, by treating gas from other Member States less favourably than domestic production. The Commission assessed Ireland's justification against a four-limb proportionality test and found it failed at each stage, including on the grounds that the

multiplier pursued purely economic rather than legitimate EU-law objectives, that it was not shown to be necessary and that less restrictive alternatives had not been adequately examined.

As a consequence, Ireland is required to postpone adoption of the RHO legislation until 29 June 2026 at the earliest and to respond formally to the Commission's concerns. The scheme as currently designed is likely to require significant revision before adoption. Businesses in the biomethane sector should monitor whether Ireland redesigns or removes the multiplier, whether alternative support mechanisms such as direct production subsidies decoupled from the certificate scheme are introduced and the timeline for any revised EU notification. If Ireland proceeds with the scheme without addressing the Commission's objections, infringement proceedings under Article 258 TFEU remain a stated possibility.

The RHO nonetheless remains the expected principal demand-side driver for biomethane in Ireland. The scheme's core structure, requiring fossil fuel suppliers to source a proportion of supply from renewable heat, is not in question. What remains uncertain is whether the financial premium for domestically produced biomethane will survive in its current form, which has direct implications for project bankability assumptions made at feasibility stage.

Separately, the Sectoral Capital Plan 2026–2030 allocates between €100 million and €200 million in capital funding for biomethane, drawn from the Infrastructure, Climate and Nature Fund. A second round of the Biomethane Capital Grant Scheme building on the first round which provided 20% of capital costs up to €5 million per project is expected from 2026, funded from this allocation. Together, the RHO and the capital grant programme represent the two principal financial levers supporting project bankability as the sector scales. The bankability of projects that had factored in the domestic multiplier premium should be reassessed in light of the Commission's Detailed Opinion, pending confirmation of the scheme's final design.

It should also be noted that there is currently no standalone Section 28 planning guideline specific to anaerobic digestion or biomethane development in Ireland. Planning authorities assess such developments within the existing statutory framework. The Government has confirmed that dedicated planning guidance for AD and biomethane is in preparation as part of the implementation of the National Biomethane Strategy (Action 5g), intended to support more consistent assessment at local authority level. This roadmap is designed to be consistent with and complementary to that forthcoming guidance.

RED III permit-granting timelines (S.I. 274/2025)

A significant procedural change came into effect on 7 August 2025 when the European Union (Planning and Development) (Renewable Energy) Regulations 2025 (S.I. No. 274 of 2025) transposed the permit-granting requirements of the revised Renewable Energy Directive (RED III) into Irish planning law. Biomethane production facilities are treated as renewable energy projects under RED III and must now be permitted within a mandatory two-year period from the date a complete planning application is acknowledged or one year in designated renewables acceleration areas. Critically, these timelines cannot be paused for Further Information requests, which significantly increases the importance of pre-application engagement and application completeness. Biomethane projects also benefit from a statutory presumption that renewable energy development is in the overriding public interest, which carries weight in the planning

balance and in any environmental assessments involving EU legislation. Developers should be aware that from 1 October 2025, a mandatory EIA scoping process also applies for biomethane projects proceeding through An Coimisiún Pleanála.

The Commission's Detailed Opinion on the RHO multiplier is a reminder that national support scheme design for biomethane must be developed within the constraints of EU internal market law, alongside, not separately from the renewable energy and decarbonisation objectives of RED III. Where support mechanisms are found to be incompatible with free movement rules, the Commission has indicated it will work with member states to identify less restrictive alternatives rather than simply block domestic industry support entirely.

The National Biomethane Strategy sets out two deployment pathways. "Economic Deployment" envisages a smaller number of larger AD plants - averaging around 40 GWh, injecting directly into the national gas network, which is the model on which this roadmap's reference project is based. "Widespread Deployment" envisages numerous smaller, farm-scale plants, most of which would transport biomethane to centralised grid injection points. The two models carry different planning implications in terms of traffic, road access, distance to grid and likely local authority scrutiny. Developers should be clear at feasibility stage which model applies, as this affects site selection criteria, consent triggers and the level of supporting assessment likely to be required.

3. Planning Application Roadmap

This roadmap summarises the main stages in taking a biomethane project from initial feasibility through to commissioning and operation. It brings together the key actions, responsible parties, typical timeframes and core reference documents at each stage so that project teams can plan activity, sequence consents and identify potential bottlenecks at a glance. At the planning application stage, many of the topic-specific assessments listed later in Sections 5–10 are brought together in a single planning file and where relevant, an EIAR or NIS.

A 2026 analysis of planning applications for AD and biomethane projects lodged with local authorities across Ireland (KPMG Ireland, February 2026) found that approximately 68% of applications resulted in a grant of planning permission, either at local authority or An Coimisiún Pleanála stage. However, the sector's appeal rate is approximately 44% which is above the national average of 7–10% across all development types. This indicates a high level of contention at local authority stage. Where permission is granted, it is almost invariably accompanied by extensive and prescriptive planning conditions. Refusals are most commonly driven by information gaps and policy non-compliance rather than opposition to biomethane in principle.

This pattern has a direct implication for how applications are prepared: the quality and completeness of technical documentation, particularly on environmental risk, traffic, feedstock management and EIA/AA is the primary determinant of outcome. The roadmap below is structured to help project teams anticipate and address these requirements from the earliest stages.

Table 2: Planning Application Roadmap - Stage-by-Stage Guide (Feasibility to Commissioning)

Stage	What you need to do	Who leads / who decides	Indicative timing*	References (hyperlinked)
0. Feasibility & site select	- Desktop constraints scan (zoning, Natura 2000, flood, heritage), - Capacity checks (gas grid, electricity import)	Developer with planning & EIA consultant; early stage discussion with Local Authority (LA).	4 -8 weeks	The relevant County Development Plan the relevant Renewable Energy Strategy; OPW Flood Guidelines; NPWS AA guidance; EPA EIA Guidance.

	- Outline traffic & noise, early land control (options/heads of terms). - Land Tenure Check *			
1. Pre-planning & scoping	- Formal pre-planning request; - EIA/AA screening; agree surveys (traffic counts, ecology seasons, noise baseline, odour); - Confirm need for EIAR; - Confirm parallel licences path (EPA IE licence? S.4/S.16 discharge, ACP certificates).	LA (pre-planning); planning consultants; EPA/DAFM/Uisce Éireann consulted as needed.	6 -10 weeks	Planning & Development Act/Regs (EIA thresholds in Schedule 5); EPA EIAR guidance; NPWS AA guidance; TII TTA Guidelines. (Irish Statute Book)
2. Planning application	- Prepare full planning set: plans, planning statement, - EIAR (if required) or EIAR-level assessments, - AA Screening/NIS, Traffic & Transport Assessment, - Noise & Odour Assessments, - Flood Risk Assessment, - CMP outline, Landscape & Visual, Cultural Heritage, - Drainage/SuDS, - Construction & Demolition (C&D) Waste Plan. - Feedstock sourcing radius **	Applicant to LA; third-party appeals to An Coimisiún Pleanála (ACP) possible during first 5 weeks after an application is lodged	8 -20 weeks to LA decision (+ 4 weeks for appeal window after decision by LA made; ACP timeline varies)	ACP appeals rules; Flood Guidelines; NPWS AA guidance; EPA AG4/AG5/AG9 & NG4; CIRIA C753 SuDS (where used alongside Irish guidance). (An Coimisiún Pleanála)
3. Parallel consents (often overlapping Stage 2)	If waste throughput $\geq$ thresholds, apply for EPA Industrial Emissions (IE) licence; otherwise confirm	EPA; Uisce Éireann/LA; RMO/TII (roads); ESB Networks; Gas Networks Ireland; CRU for 39A	12 -30+ weeks (IE licence can run in parallel; connections often	IE licence thresholds (Classes 11.1/11.4/11.6); ABP EU Regs 1069/2009 & 142/2011; S.4/S.16 licensing; MapRoad (RMO) Road

	ABP/DAFM animal-by-products approvals; • Apply Section 4 (to waters) and/or Section 16 (to sewer) discharge; • Road Opening Licence for utility crossings; • ESB Networks electricity import; • GNI biomethane injection connection; • Check COMAH/Seveso screening.	pipeline consents (if any); HSA for COMAH screening.	6 -12+ months depending on works)	Opening; ESB connection process; GNI biomethane connection; CRU 39A pipeline consents; Seveso III & Irish S.I. 209/2015. (Irish Statute Book)
4. Construction mobilisation	• Appoint PSDP/PSCS; • Final Construction Management Plan (CMP); • Traffic Management under TII Temporary Traffic Management Manual; notify HSA if >30 days or >500 person-days; secure road opening licences; • Implement C&D Waste Plan.	Client/Contractor; HSA oversight; LA road authority/TII.	4 -8 weeks pre-start	Safety, Health & Welfare at Work (Construction) Regs 2013 (S.I. 291/2013) & HSA guidance; TII Temporary Traffic Management; DoT/RMO “Purple Book” for openings. (Irish Statute Book)
5. Commissioning & operations	• Grid and gas commissioning; • Odour/flare checks; emergency & safety file; • Staff training; • Complaints protocol; • Monitoring (noise/odour/traffic, emissions, discharges) and	Operator under EPA/LA licence conditions and planning conditions.	4 -12 weeks	EPA NG4 & AG9/AG5; licence conditions; GNI/ESB commissioning procedures. (EPA)

reporting per planning &
licences.

* Many proposed biomethane sites sit on agricultural land held under informal grazing arrangements or conacre lettings. Before any planning commitment is made, the interaction with existing tenancy arrangements under the Agricultural Holdings (Ireland) Act should be assessed. Option agreements covering the plant site, long-term leases and wayleaves for any pipeline route to the grid injection point must be negotiated and documented, with particular attention to access rights, reinstatement obligations and break provisions. Land and rights assembly is a material source of delay that is not visible in planning timelines but can determine whether a project is deliverable at all.

** A 2025 Teagasc spatial analysis (FLEET Project, funded by SEAI and GNI) found that under typical conditions, most AD feedstocks for a plant at a given location can be sourced within 10 km, extending to 15 km or more in constrained scenarios. The same research found strong farmer willingness to supply silage; respondents indicated availability of 175,000 hectares nationally, well above the 110,000–130,000 hectares estimated to be required for the 2030 target. A 20 GWh plant requires approximately 37,000 tonnes of feedstock and around 400–500 hectares of land for energy crops within its catchment. These figures provide a practical reference for early feasibility assessment of feedstock availability and haulage economics at a given site.

4. Common themes that can result in a planning authority request for Further Information during the planning application process

Analysis of planning decisions for biomethane and AD projects nationally shows that, regardless of county or local authority, a consistent set of concerns shapes outcomes. These tend to cluster into what can be described as a "risk bundle" a predictable set of topics through which planning authorities evaluate proposals. Understanding and front-loading evidence on each element of this bundle is the most effective way to reduce the risk of Further Information (FI) requests, contested conditions, or refusal.

Local authorities are required to balance multiple objectives when assessing biomethane proposals. In practice, planners and internal consultees tend to focus on a recurring set of questions:

- Is the proposal consistent with the County Development Plan and any renewable energy or climate strategies, including policies on rural enterprise, landscape, Natura 2000 sites and transport?
- Can potential impacts on nearby dwellings and communities, in terms of odour, noise, traffic and visual impact be mitigated?
- Are water quality, surface water management and flood risk addressed in line with national guidance?
- Are habitats, protected sites and species adequately assessed and protected, including in-combination effects with other projects?
- Is the scale and intensity of feedstock supply and digestate spreading compatible with sustainable agricultural practice and the Nitrates Regulations?

Where applications do not provide enough information on these topics, local authorities typically seek Further Information. Common FI themes for anaerobic digestion and biomethane projects include:

- **Insufficient design envelope definition.** For example, applications that do not clearly state maximum throughput, HGV numbers, storage volumes or operating hours can make it difficult to assess worst-case impacts.
- **Odour and noise uncertainty.** Requests are often made for more detailed baseline surveys, modelling, receptor mapping or mitigation measures, particularly where sensitive receptors are located within a few hundred metres of the site.
- **Traffic and road safety detail.** Additional traffic counts, junction capacity analysis, swept-path analysis, bridge clearances or construction traffic routing may be requested, especially on regional or local roads with existing constraints.

- **Digestate and nutrient management.** Local authorities may seek clearer evidence on the landbank available, nutrient balances, storage capacity and how the proposal aligns with the Nitrates Regulations and River Basin Management Plans.
- **Flood risk and drainage.** Where flood zones, poorly draining soils or complex drainage paths are involved, more detailed flood risk assessment or SuDS design may be required.
- **Clarity on parallel consents.** Local Authorities sometimes request confirmation that IE licensing, Section 4/16 discharge, animal by-product approvals or COMAH screening have been considered and that the planning design is compatible with those regimes.
- **Clarity on EIA/AA screening.** In a significant proportion of refused applications nationally, the planning authority cited the absence or inadequacy of EIA/AA documentation including insufficient baseline data, limited cumulative impact assessment, or incomplete Natura Impact Statements as a primary reason for refusal. Where the authority cannot be satisfied that likely significant effects have been fully assessed, refusal is the norm rather than the exception.

The roadmap and thematic tables in this document are designed to help project teams anticipate these information needs. Early definition of the design envelope, followed by structured scoping of surveys and assessments, can significantly reduce the risk of late changes or extensive FI requests.

From a local authority perspective, the most helpful applications tend to:

- Present a clear and consistent project description that is reflected across all drawings, reports and assessments.
- Demonstrate a logical link between potential impacts, the mitigation measures proposed and any planning conditions that may be appropriate.
- Reference relevant national and local policy clearly, without over-statement, showing how the project contributes to climate and energy objectives while protecting environmental quality and residential amenity.
- Provide a realistic overview of construction and operational traffic, including any abnormal loads and explain how these will be managed.
- Summarise engagement with communities and regulators to date, where appropriate and explain how concerns have influenced the design.

4.1 Judicial Review Risk

A small number of planning permissions granted on appeal have subsequently been quashed by the High Court following third-party judicial review. In the cases reviewed, the grounds were not opposition to biomethane in principle but deficiencies in the decision-making record including failure to address a material change in road classification, inadequate reasons for granting permission on zoned employment land and insufficient evidencing of COMAH/Seveso threshold compliance. The practical implication for developers is that consent resilience depends not only on receiving a grant of permission but on ensuring that the planning record robustly demonstrates

that all relevant policy requirements and technical constraints have been properly assessed and translated into enforceable conditions.

5. Planning Application Roadmap

This table summarises the principal assessments that will support a planning application that may apply to a biomethane project and the core assessments that support them. It sets out what each consent covers, the typical deliverables and the competent authority, providing a quick reference for confirming which planning routes are relevant to a given project.

In practice, the planning application is the main vehicle through which many of the assessments in this guide are presented. The environmental safeguards, traffic and transport work, utilities interfaces, materials and digestate management and biodiversity and landscape assessments described in Sections 6–10 generally feed into the planning file, whether as stand-alone reports or as chapters within an EIAR. Those same assessments then also inform any parallel licences and permits. This section should therefore be read alongside the subsequent tables, with planning permission acting as the central consent that draws the various strands together.

Table 3: Planning Application Considerations - Consents, Assessments and Evidence Requirements

Item	What it covers	Typical deliverables	Who/decision	References
Planning permission	Overall land-use consent for AD/biomethane facility and associated works (buildings, tanks, flare, gas treatment, grid/gas connections).	Planning statement; drawings; environmental reports; EIAR if required; AA Screening or NIS.	Local Authority; Appeal to ACP within 4 weeks of LA decision.	Planning & Development Acts/Regs (incl. Schedule 5 EIA classes); ACP appeal rules. (Irish Statute Book)
EIAR (if required)	Environmental Impact Assessment should follow the EPA Guidelines on the Information to be contained in EIAR (2022) and the Government's EIA Guidance (2018); align with Directive 2011/92/EU as amended by 2014/52/EU.	Chaptered EIAR; non-technical summary; public notices.	LA (or ACP on appeal).	EIA Directive 2011/92/EU as amended 2014/52/EU; EPA EIAR guidance; Schedule 5 thresholds. (EIAR Guidelines)
Appropriate Assessment	Use OPR Practice Note PN01 (2021) for screening and NPWS/European Commission Article 6 guidance; if likely significant effects → prepare NIS.	AA Screening; NIS (if significant effects cannot be excluded).	LA/ACP; NPWS consulted.	NPWS AA Guidance; OPR Practice Note (AA Screening); Habitats

				(92/43/EEC) & Birds (2009/147/EC). (npws.ie)
Flood Risk	Apply the Planning System and Flood Risk Management Guidelines (OPW/DoEHLG, 2009), including the sequential approach and, where needed, the Justification Test.	FRA incl. climate allowances, fluvial/pluvial risk & mitigation.	LA planning.	The Planning System and Flood Risk Management (2009). (Planning System 7 Flood Risk Management Guidelines for Planning Authorities)
Building Control - Fire Safety Certificate (FSC)	Required for most non-domestic works before occupation ; submit via BCMS with fire strategy, drawings and particulars.			National Building Control and market Surveillance Office
Building Control - Disability Access Certificate (DAC)	Required for new buildings and many extensions/alterations before occupation ; submit via BCMS with Part M compliance report and drawings.			National Building Control and market Surveillance Office
Building Control Commencement Notice (BCMS)	Lodge a Commencement Notice at least 14 days and not more than 28 days before works begin (or a 7-Day Notice with FSC where applicable).			National Building Control and market Surveillance Office

6. Environmental Safeguards/Emissions etc.

This table consolidates the main environmental safeguards and emission-related licences, standards and assessments that apply to air, water, noise, odour and surface water management. It indicates when each requirement is likely to be triggered and the key content expected in submissions, supporting a consistent environmental story across planning and permitting.

Table 4: Environmental Safeguards and Emissions - Licences, Standards and Submission Requirements

Topic	Licence/standard	When it applies	Key content to submit	References
Air (non-EPA sites)	Local Authority Air Pollution Act licence (industrial plant) where activity isn't EPA-licensed but has relevant emissions (e.g., large boilers, odour control units).	Prior to operation if required by LA.	Air emission inventory, abatement, dispersion/odour modelling, ELVs.	Air Pollution Act 1987 (licensing); S.I. 266/1988 regs; EPA Licensing & Permitting
EPA Industrial Emissions (IE) licence	If anaerobic digestion is the only waste treatment, the IE licensing threshold is 100 tonnes/day of non-hazardous waste (EPA Act First Schedule). Below this, confirm Waste Facility Permit/Certificate applicability.	Parallel to planning if throughput triggers.	BAT, emissions to air/water, odour/noise, monitoring plan, EMS.	EPA threshold classes (First Schedule). (Irish Statute Book)
Air Pollution Act licence (Local Authority)	Where an IE licence is not required but relevant emissions arise, a Local Authority Air Emissions Licence under the Air Pollution Act 1987 (Licensing of Industrial Plant) Regulations 1988 may be required; EPA hears appeals.			
	MCP (Medium Combustion Plant) registration/permit (1 -50 MWth boilers/thermal oxidisers) Medium Combustion Plant			S.I. 595/2017 and EPA MCP guidance/registration. Medium Combustion Plant. Link

	Combustion plant ≥ 1 MWth and < 50 MWth must register/comply with S.I. No. 595/2017 (MCP Regulations) via the EPA MCP portal.			
Water discharge to waters	Section 4 licence under Local Government (Water Pollution) Acts.	Any trade/effluent discharge to surface or ground waters.	Effluent characteristics, flow, treatment, mixing zone, monitoring.	LA guidance (example Meath); statutory basis. (Discharge to Waters)
Water Abstraction	Water Abstraction Registration (EPA) - Note: S.I. 261/2018 has been superseded; obligations now arise under the Water Environment (Abstractions and Associated Impoundments) Act 2022 as commenced, with EPA Abstraction Register.			Registration under S.I. 261/2018 and future licensing under the Water Environment (Abstractions and Associated Impoundments) Act 2022 (commenced in 2024 for key parts).
Trade effluent to sewer	Section 16 trade effluent licences are issued by Uisce Éireann (Irish Water).	Any trade effluent to public sewer.	Pre-treatment, loading, flow balance, maintenance, monitoring.	Uisce Éireann/LA guidance confirming S16 now issued by Uisce Éireann. (Trade Effluent)
Noise	Assessment & design against EPA NG4; construction per BS 5228 best practice. Set limits and assess tones/impulsivity per EPA NG4; include construction controls per BS 5228 and an operational monitoring plan.	Planning stage + compliance.	Baseline, prediction (plant, traffic, flare), mitigation & monitoring plan; CMP noise controls.	EPA NG4 (2016); BS 5228 cited in Irish practice. (EPA)
Odour	Design & assessment per EPA AG9 (odour emissions) and AG5 (impact for licensed sites). Follow EPA AG9 for odour assessment; include an Odour Management Plan	Planning/EPA licence; complaints mgmt.	Baseline sniff surveys where relevant, odour modelling (ouE/m^3 criteria), abatement (biofilter/carbon), OMP.	EPA AG9 (2019) & AG5 (2021). (EPA)

	outlining abatement, monitoring and complaints protocol.			
Surface water / SuDS	Site drainage and SuDS design; if to public sewer, Section 16; if to water, Section 4. Clarify discharge route: Section 16 to public sewer via Uisce Éireann or Section 4 to waters via Local Authority; align SuDS with site pollutant controls.	Planning design.	&	SuDS report, attenuation, fuel/chemical bunding, spillage control. FRA/OPW; SuDS best practice (CIRIA C753 used widely.

7. Transport & Road Traffic Safety

Traffic and road safety are among the most consistently cited concerns in planning decisions for biomethane projects across Ireland. The volume of HGV movements associated with feedstock import and digestate export particularly on rural or local roads is frequently the subject of Further Information requests, conditions and in some cases, refusal of planning permission. Planning authorities look for clear evidence on daily and peak HGV volumes, road and junction capacity, sightlines, interaction with vulnerable road users and cumulative effects where multiple developments share haul routes. Where the local road network cannot safely accommodate predicted traffic volumes and where realistic mitigation cannot resolve this refusal on road safety grounds is a recurring outcome in the national planning record. Early engagement with the roads authority and early commission of a Traffic and Transport Assessment are therefore strongly recommended, with mitigation designed into the scheme from the outset rather than offered as a post-submission response.

This table focuses on traffic and road-related requirements associated with construction and operation of a biomethane plant. It highlights the main assessments, consents and design standards for transport, temporary traffic management and road openings and outlines the evidence typically needed to satisfy roads authorities and transport guidance.

Table 5: Movement and Roads - Consents, Assessments and Design Standards

Topic	Consent/standard	When	What to submit	References
Traffic & Transport	Prepare TTA to TII PE-PDV-02045, addressing construction and operational HGV flows, safety and mitigation.	Planning stage.	TTA incl. trip gen for feedstock/biomethane tankers, junction capacity, safety, mitigation & routing.	TII TTA (2014). Traffic & Transport Assessment Guideline
Temporary Traffic Management	Temporary Traffic Management shall follow the National TTM Manual; road openings via MapRoad Licensing with reinstatement per the Purple Book/TII specifications.	Construction works / utility crossings.	Site-specific TTM plans; qualified designer/manager.	TII TTM Manual. Road management Office
	Road Opening Licence (MapRoad Licensing)			Road management Office

	Apply via MRL with method statements, traffic plans and reinstatement specification attached.			
	Abnormal/Indivisible Load permits (Garda/LA/TII) Confirm Garda/LA/TII permits for abnormal loads and check sweep paths/bridge limits on haul routes; integrate into the CTMP.			
	ADR compliance (dangerous goods transport) for CNG/biomethane/wastes Ensure ADR compliance for dangerous goods where applicable (vehicles, placarding, driver training, routeing).			Transport of Dangerous Goods
	Bridge/structure clearance checks (TII/LA) Record bridge/structure clearances and restrictions along proposed HGV routes; include mitigation or alternative routing where required.			
Road Opening Licence	MapRoad (MRL) national system; local authority issues licence.	Any opening in public road/footpath/verge.	Online MRL application, method statements, traffic plans, reinstatement spec ("Purple Book").	RMO/MapRoad; Tipperary example; Purple Book. (RMO)

8. Utilities & Energy

This table summarises the key utility and energy interfaces for biomethane projects, covering electricity import or export and biomethane grid injection. It outlines when to engage with network operators, what information is generally required and how these processes align with the wider programme so that connection timelines can be managed effectively.

Table 6: Utilities and Energy - Connection Consents and Programme Interfaces

Topic	Consent/standard	When	What to submit	References
Electricity import	ESB Networks demand connection (LV/MV).	Design stage; long lead item.	Online application (MIC, load profile), site plan; MV substation design if required.	ESB “Get Connected” & connection process; substation guidance; MIC guidance. (Link)
	Start ESB Networks feasibility early (MIC, load profile, MV substation design if required); long-lead procurement may influence programme.			
Generator export (if CHP)	Generator connection (if CHP export to grid)	If exporting power.	Generator application (not via standard online form), protection studies.	EirGrid/ESBN generator connections. (Eirgrid)
	For export, follow ESBN/EirGrid generator connection processes (studies, protection, metering).			
Biomethane grid injection	GNI connection & gas quality compliance; possible CRU 39A pipeline consent for new transmission pipelines. Gas quality for injection shall meet EN 16723-1; follow GNI Biomethane Connection Process and Producers Technical Handbook.	Pre-planning to lock route and station footprint.	Connection request; compliance with EN 16723-1 gas quality; odorisation, metering, telemetry.	GNI Biomethane Connection Process & Technical Handbook; EN 16723; CRU 39A framework. (Gas Networks Ireland) Biomethane Producers

				Biomethane Producers Technical Handbook
	CRU Gas Act s.39A consent (if a new pipeline under the Gas Acts requires consent) - Where a new gas pipeline is required, CRU consent under Gas Act s.39A may apply (with public consultation/EIA/AA as applicable).			

Reverse Grid Compression (RGC) - new interim connection mechanism: In early 2026, the CRU approved GNI's interim solution for Reverse Grid Compression, addressing a material infrastructure bottleneck affecting plants seeking to connect to the lower-pressure regional distribution network. Where local biomethane production would otherwise exceed local gas demand on the distribution network, reverse compression allows gas to be compressed up into the higher-pressure transmission system. GNI estimates the interim solution could unlock up to 437 GWh of additional injection capacity, equivalent to approximately 7.5% of the 2030 target. The PC5 Flexibility Pot has been increased from €10 million to €22.85 million to fund compression units. Developers should note that: (i) eligible projects must demonstrate a minimum annual network constraint of 4 GWh per annum; (ii) a developer contribution of approximately €370,000 applies; (iii) full planning permission with no active judicial review proceedings must be in place before the connection agreement is signed; and (iv) funding is allocated on a strictly first-come, first-served basis. Projects considering connection to the distribution network should assess their eligibility for RGC early, as it may determine whether grid connection is commercially viable.

9. Materials, Waste & Animal Byproducts

Feedstock clarity and digestate management are consistently among the primary determinants of planning outcomes for biomethane projects. Applications that specify predominantly local agricultural feedstocks, provide detailed landspreading plans and demonstrate compliance with the Nitrates Regulations tend to align better with planning policy and are more likely to be granted. In contrast, proposals with ambiguous feedstock supply chains, significant dependence on imported or non-local materials, or insufficient evidence of available landbank for digestate spreading feature disproportionately in refusals. Developers are advised to front-load this evidence including feedstock contracts or letters of intent, mapped landbank and auditable nutrient budgets rather than treat it as detail to be resolved post-permission.

This table brings together regulatory requirements for feedstocks, animal by-products, digestate use and construction and demolition waste. It identifies the main consents and standards, the points in the project lifecycle when they arise and the typical documentation required, supporting compliant material and waste management from design through to operations.

Table 7: Materials, Waste and Animal By-Products - Regulatory Requirements and Documentation

Topic	Consent/standard	When	What to submit	References
Feedstock (animal by-products)	EU Reg. 1069/2009 & 142/2011; DAFM approvals for ABP handling & transport; plant hygienisation where required. Confirm DAFM approvals for ABP handling/transport and any required hygienisation validation; maintain HACCP and records. Note: Where digestate or captured CO₂ is placed on the market, consider by-product or end-of-waste	Design & operations.	ABP categories, HACCP, pasteurisation/hygenisation validation.	EU ABP regs; DAFM ABP legislation hub. Animal By Products Legislations/Notices

	determinations with EPA; maintain supporting evidence.			
Digestate use	Nitrates Regulations (S.I. 113/2022, as amended); nutrient management planning. Operate under Nitrates Regulations (S.I. 113/2022, as amended) with nutrient planning, storage capacity, spreading records and buffers.	Operations.	Nutrient plans, storage, spreading records, buffer/setbacks.	S.I. 113/2022 (GAP Regulations).
Construction & Demolition Waste	Best practice plan for C&D waste management; local acceptance. Prepare a site-specific C&D Waste Management Plan aligned to national guidance and local acceptance criteria.	Planning/Construction.	C&D WMP aligned to national guidance.	DoEHLG Best Practice Guidelines (2006). (EPA)

Note: (1) There are currently no national end-of-waste criteria for digestate in Ireland. Research commissioned by the EPA has developed a proposed quality standard for digestate and recommended a strategy for implementing national criteria recommending the National Standards Authority of Ireland update standards and that a Quality Assurance Scheme be established. Until national end-of-waste criteria are in place, digestate produced at AD plants continues to be regulated as waste when placed on the market, unless an individual EPA end-of-waste determination is obtained. Developers wishing to sell or distribute processed digestate as a bio-fertiliser product should engage with the EPA early on the applicable classification pathway. This distinction has implications for IE licensing thresholds, transport documentation and the commercial value of digestate as a co-product.

(2) Beyond the nutrient management considerations, the Teagasc FLEET Project (December 2025) projected that developing a biomethane industry using grass silage and animal slurry to meet the 2030 target would reduce overall agricultural GHG emissions by 2.3% compared to a scenario without such development, while increasing agricultural sector income by an estimated €49–53 million annually. Slurry-based AD feedstock systems can deliver farm-level emissions reductions of up to 11% per hectare, while grass-based systems can reduce farm-level GHG emissions by 50–98% per



hectare on participating farms. These figures are relevant to planning arguments about the contribution of a proposed project to Ireland's agricultural sectoral emissions ceiling and may support applications that are challenged on land-use or environmental grounds.



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10. Biodiversity, Heritage & Landscape

This table sets out the principal assessments and protections relating to Natura 2000 sites, archaeology, built heritage and landscape and visual impact. It provides a concise overview of when specialised studies are needed, which guidance applies and how these topics should be addressed within the planning and environmental assessment process.

Table 8: Biodiversity, Heritage and Landscape - Assessments, Protections and Submission Requirements

Topic	Consent/standard	When	What to submit	References
Natura 2000	AA Screening/NIS under Habitats/Birds Directives. Screen for AA; if significant effects cannot be excluded, prepare NIS; apply mitigation hierarchy and in-combination assessment.	Planning.	Screening report; NIS if needed; mitigation hierarchy.	NPWS AA guidance; EU 2021 Article 6(3)/(4) methodological guidance. (npws.ie)
Archaeology & built heritage	National Monuments Acts (being replaced by Historic & Archaeological Heritage Act 2023 as commenced); Architectural Heritage Protection Guidelines (2011). Reference the Historic and Archaeological Heritage Act 2023 (as commenced) alongside Architectural Heritage Protection Guidelines (2011); obtain NMS licences/consents where required.	Planning & construction.	Archaeological Impact Assessment; visual/setting; method statements; monitoring.	Gov.ie legal protection note; Architectural Heritage Guidelines; 2023 Act. (Legal protection for Monuments)
Landscape/visual	CDP policies; GLVIA3 method (best practice).	Planning.	Photomontages, viewpoints, ZTV.	County Development Plan (example: Tipperary). (tipperarycoco.ie)

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11. Health, Safety & Construction Operations

This table summarises the core health, safety and construction-related obligations that apply during design, construction and operation of a biomethane plant. It highlights the main regulatory regimes, such as construction safety, ATEX, pressure systems and Seveso/COMAH and indicates when key documents and notifications should be prepared.

Table 9: Health, Safety and Construction Operations - Regulatory Obligations and Key Documents

Topic	Consent/standard	When	What to submit	References
Construction safety	Safety, Health & Welfare at Work (Construction) Regs 2013; appoint PSDP and PSCS; HSA notification thresholds. Appoint PSDP/PSCS; notify HSA where thresholds apply; maintain a CEMP with traffic, dust, noise and water controls.	Pre-construction & construction.	Preliminary Health & Safety Plan; appointments; site induction; incident procedures.	S.I. 291/2013; HSA guidance manual. (Irish Statute Book)
	ATEX zoning & equipment conformity (2014/34/EU, 99/92/EC) Undertake ATEX zoning and prepare an Explosion Protection Document; specify equipment to 2014/34/EU.			HSA page referencing 1999/92/EC and 2014/34/EU.
	Pressure systems Written Scheme of Examination (GA Regs 2007) Provide a Written Scheme of Examination and maintain inspection records.			
	Dangerous Substances licence (local authority) for liquid fuels storage (petrol/diesel/kerosene depots/private stores)			

	If storing petrol/diesel/kerosene, comply with the Dangerous Substances retail/private petroleum stores regulations (2019) and local licensing requirements.			
	Seveso/COMAH screening & (if triggered) notification (S.I. 209/2015) Screen against Seveso III thresholds (including compressed biomethane inventories); if exceeded, notify per HSA requirements			
Construction Environmental Management Plan (CEMP)				
COMAH/Seveso screening	Seveso III (2012/18/EU) and Irish S.I. 209/2015 if dangerous substances exceed thresholds (check compressed biomethane storage volumes/pressures).	Design stage.	Inventory calculations; if applicable, lower/upper tier notification.	Seveso III; Irish S.I. 209/2015. (Irish Statute Book)

12. Other Site Specific Permits

This table lists additional permits and design measures that may be required in specific configurations or site contexts, such as weighbridge certification, MCP registration, by-product determinations or bridge clearance checks. It is intended as a checklist to confirm whether any supplementary consents or technical provisions apply to the project.

Table 10: Other Site-Specific Permits - Additional Consents and Certifications

Topic	Trigger	Owner	When
Weighbridge certification & ADR signage	If installing weighbridge / hauling DG	Contractor/Operator	Pre-construction
Stormwater oil/silt separators	Vehicle yards / parking / fill points	Design team	Planning & detailed design
On-site boiler/flare MCP	1 -50 MWth thermal units	Operator	Parallel consents
By-product / End-of-Waste	Selling digestate/CO ₂ as product	Operator/EPA	Parallel consents
Bridge clearances	Abnormal loads routes	Haulier/Designer	Pre-construction

13. Conclusion

Ireland has set a target to produce up to 5.7 TWh of indigenously sourced biomethane per year by 2030, broadly equivalent to about ten percent of current national gas demand. Networked gas demand was approximately 54 TWh in 2024, which underlines the scale of the substitution task if biomethane is to make a visible contribution to heat decarbonisation and security of supply. At the same time, agriculture accounts for more than one third of Ireland's greenhouse gas emissions, which places particular scrutiny on how anaerobic digestion and associated feedstock and digestate practices are managed.

Meeting the national biomethane ambition will require a significant build-out of new projects. As of early 2026, only two facilities are injecting biomethane into Ireland's gas grid, producing approximately 75 GWh per year; under 1.5% of the 2030 target of 5.7 TWh. GNI estimates that meeting the target will require between 150 and 200 new AD plants. Only a few dozen sites currently hold planning permission and the gap between the current pipeline and the national ambition is the most immediate argument for why the consenting pathway set out in this document matters. In this context, a clear and predictable consenting pathway is not a procedural detail, but a precondition for timely investment decisions, credible community engagement and orderly grid and infrastructure planning.

This document responds to that need by assembling the main planning, environmental, safety and utility requirements that apply to a typical biomethane project and setting them out as a coherent roadmap. The stage structure and parallel tracks reflect how projects actually progress through feasibility, planning, parallel consents, construction and operation. The thematic tables then provide a practical reference on when specific consents are likely to be triggered, what information is usually required and how different regimes interact in practice.

Several implementation messages emerge consistently from the material:

- Early agreement on a realistic but conservative design envelope is essential for coherent assessment and reduces the risk of redesign.
- Alignment of planning, environmental permits, grid connections and construction controls as a single programme improves schedule certainty and helps avoid critical path surprises.
- Clear, consistent documentation and early engagement with planning authorities, statutory bodies and local communities improve confidence in decision-making and tend to reduce the extent of Further Information requests.
- Integrated management of planning conditions, licence requirements and monitoring obligations makes the transition from consent to operations more manageable and provides a better platform for any future modifications or capacity changes.

Evidence from planning decisions across Ireland points to a set of policy-level actions that would materially improve consistency and reduce avoidable delay: the publication of a national planning guidance note for AD and biomethane with standardised minimum information requirements; clearer locational policy distinguishing farm-scale and agri-integrated plants from larger waste-led or resource-intensive facilities; and practical tools like checklists, model conditions and standard templates to support consistent assessment across local authorities.

The forthcoming Action 5g guidance from the Biomethane Strategy Implementation Group is expected to address these gaps. In the interim, the roadmap and tables in this document are intended to serve a similar function for developers and planning authorities operating under existing arrangements.

The roadmap does not alter statutory requirements and does not replace project-specific legal, technical or financial advice. It is intended to sit alongside the National Biomethane Strategy, the Climate Action Plan, County Development Plans and sectoral guidance as an implementation tool. As regulations, support schemes and best practice evolve, the tables and references will need periodic review to remain accurate and aligned with current policy.

Looking beyond 2030, GNI's published "Pathway to a Net Zero Carbon Network" sets out a vision for the national gas network to operate on 100% renewable gases by 2045, comprising approximately 30% biomethane and 70% green hydrogen. The €32 million Central Grid Injection facility at Mitchelstown, Co. Cork, which began construction in 2024 and has a design capacity of up to 700 GWh per year is the first significant physical infrastructure investment of that long-term transition. The biomethane plants that progress through planning in the period to 2030 will provide the commercial and operational foundation on which that longer-term network transformation depends.

As Ireland moves from strategy to delivery and the number of biomethane projects increases, a shared understanding of the planning and permitting pathway will become progressively more important. A consistent approach of the type set out in this document can support timely, well-founded decisions, provide clearer expectations for communities and investors and help ensure that the expansion of biomethane production contributes meaningfully to climate, energy and rural development objectives.