3 Consideration of Alternatives

3.1 Introduction

The purpose of this chapter is to present the reasonable alternatives considered by the developer during the design and pre-application phases of the Proposed Development.

3.2 Legislative Context

Annex IV (2) of the EIA Directive 2014/52/EU requires the consideration of reasonable alternatives which are relevant to the project and take into account the effects of the project on the environment. An EIAR must contain:

"*…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*."

Schedule 6 of the Planning and Development Regulations, 2001 (as amended) sets out the information which is to be contained in an EIAR and Part 1 (d) of Schedule 6 states that the following shall be included:

"*A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment*."

In accordance with 2022 EPA Guidelines, different types of alternatives may be considered at several key stages during the process. As environmental issues emerge during the preparation of the EIAR, alternative designs may need to be considered early on in the process or alternative mitigation options may need to be considered towards the end of the process.

The EPA Guidelines (EPA, 2022) state:

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

The consideration and examination of alternatives is set out in the following sections.

3.3 Methodology

The EU Guidance Document (EU, 2017) on the preparation of EIAR outlines the requirements of the EIA Directive and states that, in order to address the assessment of reasonable alternatives, "*the Developer needs to provide:*

- *A description of the reasonable alternatives studied, and;*
- *An indication of the main reasons for selecting the chosen option with regards to their environmental impacts.*

The EU 'Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU)' (EU, 2017) states that reasonable

alternatives "*must be relevant to the proposed project and its specific characteristics, and resources should only be spent assessing these alternatives*". The guidance also acknowledges that "*the selection of alternatives is limited in terms of feasibility. On the one hand, an alternative should not be ruled out simply because it would cause inconvenience or cost to the Developer. At the same time, if an alternative is very expensive or technically or legally difficult, it would be unreasonable to consider it to be a feasible alternative*".

The current EPA 'Guidelines on the information to be contained in Environmental Impact Assessment Reports' (EPA, 2022) state that "*It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account in deciding on the selected option. A detailed assessment (or 'miniEIA') of each alternative is not required*."

With consideration of the legislative and guidance requirements taken into account, this chapter addresses alternatives under the following headings:

- Do Nothing Scenario;
- Alternative Locations;
- Alternative Designs and Layouts; and
- Alternative Technical Configurations.

3.4 Consideration of Alternatives

3.4.1 Do Nothing Scenario

Article IV, Part 3 of the EIA Directive states that the description of reasonable alternatives studied by the developer should include "*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*." This is referred to as the 'Do Nothing' scenario.

EU guidance (EU, 2017) states that the assessment should involve the assessment of "*an outline of what is likely to happen to the environment should the Project not be implemented – the so-called 'do nothing' scenario*."

In implementing this 'Do-Nothing' scenario, an Anaerobic Digestion Facility would not be developed and there would be no changes made to existing land-use practices. The site would likely continue to be used for agricultural grazing.

The Climate Action and Low Carbon Development (Amendment) Act 2021 has committed Ireland on a legally binding path to net-zero emissions by no later than 2050, and to a 51% reduction in emissions by 2030. Indigenously produced biomethane will play a significant role in enabling this transition to a net-zero economy as biomethane can to displace fossil gas in many hard-to-decarbonise sectors, such as high-temperature heat, while also playing a significant role in the decarbonisation of County Limerick's agriculture sector. In the 'Do-Nothing' scenario, the opportunity to capture a volume of County Limerick's bioenergy resource for the production of biomethane to supply the national grid would be missed.

Agriculture contributes 25% of County Limerick's total greenhouse gas emissions, amounting to 1,204,097 tCO_2e per year, making it the county's second-largest emitting sector. To meet the 25% emissions reduction target by 2030, agriculture must cut emissions by 301,024 tCO_2e.

ORS

This proposed development alone has the potential to reduce County Limerick's emissions by approximately 7,680 tCO_2e per year, representing 2.5% of the county's agricultural emissions reduction target. In a 'Do-Nothing' scenario, this reduction would not be realised, leaving a greater burden on other measures to achieve the required cuts.

Agricultural manures and slurries will be sourced from agricultural operators within a 25 km radius of the Proposed Development. Pig slurry will be supplied from a local piggery (Industrial Emissions Licence Ref: P0417), located 2.5 km northeast of the site. In the 'Do-Nothing Scenario', these agricultural wastes would not undergo local treatment through the anaerobic digestion (AD) process. Instead, untreated and unpasteurized manures and slurries would continue to be applied directly to the land at current volumes, alongside the ongoing use of chemical fertilizers. Additionally, methane (CH_4) emissions associated with these materials would remain uncaptured. Traffic movements related to transporting manures and slurries from source to farmland for spreading would also remain unchanged.

The Proposed Development will provide important construction stage employment. The construction phase will also have secondary and indirect 'spin-off' impacts on ancillary support services in the area of the site, such as retail services, together with wider benefits in the building supply services, professional and technical professions etc. These beneficial impacts on economic activity will be largely temporary but will contribute to the overall future viability of the construction sector and related services and professions over the construction period.

The operational stage will offer direct employment in the Anaerobic Digestion Facility, while also supporting existing employment opportunities on surrounding farms. Further indirect employment will be created as a result of the induced benefits of the development such as surrounding businesses catering for employee subsistence and hauliers, transporting materials to the facility. The Proposed Development will be of considerable benefit to the area in terms of employment provision and economic gain leading to a positive, medium-term impact which is significant in the context of its rural location.

The Proposed Development can deliver between 30-45 jobs to the immediate area (consisting of *ca*. 5-8 full time jobs in the biogas facility, 14 jobs in the applicant operational team and *ca*. 25 local contractors. Under the 'Do-Nothing' scenario the opportunity to generate direct and indirect local employment would be forgone. It would lead to a missed opportunity for an increase in employment opportunities in the area generally, and a missed opportunity for rural employment objectives of the County Development Plan to be fulfilled. The overall economic and social benefits that the development would bring to the area would not be experienced by the community in the event of the Proposed Development not occurring.

The 'Do-Nothing' scenario is discussed in further detail within each EIAR technical assessment chapter.

3.4.2 Consideration of Alternative Locations

A detailed site selection process was undertaken by the Applicant, with reference to the following criteria:

- **Accessibility & Transport** – Proximity of the site to well-developed road infrastructure, ensuring efficient transport of materials and access to key routes.
- **Feedstock Supply** – Availability of at least 80% of the required feedstock within a 25km radius, supporting operational sustainability and cost efficiency.
- **Digestate Receiver Proximity** – Availability of sufficient land within a 25km radius for the

distribution and management of digestate, ensuring regulatory compliance.

- **Land Use & Zoning** – Classification of the site as Greenfield, Brownfield, or Industrial, determining its suitability for development and planning constraints.
- **Landscape & Visual Impact** – Assessment of the site's visual impact on the surrounding environment, including proximity to scenic areas and potential mitigation measures.
- **Site Visibility & Exposure** – Evaluates whether the site is highly visible or concealed within the landscape, affecting potential opposition or planning restrictions.
- **Topography** – Physical terrain characteristics of the site, including elevation changes, flatness, and feasibility of engineering solutions for site preparation.
- **Archaeological Sensitivity** – Proximity of the site to known archaeological sites, assessing potential constraints and compliance with heritage regulations.
- **Infrastructure & Utilities (Gas Grid Access)** – Distance to the nearest gas grid connection, determining feasibility for direct integration with energy networks.
- **Infrastructure & Utilities (Electricity Grid Access)** – Distance to the nearest electricity grid connection, assessing power supply availability and connection costs.
- **Stormwater Discharge Access** – Proximity to a suitable watercourse for the discharge of attenuated stormwater, ensuring environmental and regulatory compliance.
- **Sensitive Receptor Proximity** – Distance from residential areas or other sensitive receptors that could be affected by noise, emissions, or other site activities.
- **Land Availability & Suitability (Size)** – Total available land size, ensuring the site meets the spatial requirements for development and operational efficiency.
- **Land Availability & Suitability (Ownership & Lease Options)** – Status of land availability, indicating whether the site is owned, available for lease, or subject to financial constraints.
- **Water Factors** – Proximity to watercourse for discharge of stormwater post-attenuation.
- **Designated Protected Sites Proximity** – Proximity to conservation areas such as Special Areas of Conservation (SAC) or Special Protection Areas (SPA), ensuring minimal environmental impact.
- **Flood Risk Classification** – Assessment of the site's location relative to flood risk zones, determining vulnerability and the need for flood mitigation strategies.

A scoring matrix was used to assess each alternative based on each of the site specific criteria outlined above. Site visits and desk based studies were completed for all candidate sites. Each candidate site was then assessed and an overall score assigned. The site-specific selection criteria and basis for assessment is included in **Table 3.1**.

ORS

Table 3.1: : Site-Specific Selection Criteria and Basis for Assessment

Assessment Category	Criteria	Score	Weighting	Total Score
Accessibility & Transport Infrastructure	Proximity to suitable road access and infrastructure			
Feedstock Supply Proximity	Availability of 80% of feedstock within 25km			
Digestate Receiver Proximity	Availability of 80% of landbank within 25km			
Land Use & Zoning Characteristics	Classification (Greenfield, Brownfield, or Industrial)			
Landscape & Visual Impact Factors	Sensitivity to landscape and visual impact			
	Visibility and exposure of the proposed site			
	Site topography			
Archaeological Sensitivity	Proximity to recorded archaeological sites			
Infrastructure & Utilities	Distance to nearest gas grid connection			
	Distance to nearest electricity grid connection			
Sensitive Receptor Proximity	Distance from residential or sensitive receptors			
Land Availability & Suitability	Available land size			
	Availability for sale or lease			
Water Factors	Distance from protected water sources			
	Proximity to suitable stormwater infrastructure			
Designated Protected Sites Proximity	Distance from designated sites (SAC / SPA / Other)			
Flood Risk Classification	Flood risk classification			
			Total Ranked Score	

3 no. alternative site locations within County Limerick were assessed under the above criteria, with the site at Cappanihane, Co. Limerick scoring highest overall. The Site-Specific Selection Criteria and Basis for Assessments for each candidate site are included in **Appendix 3.1**.

The rationale used in the identification of the Proposed Development site at Cappanihane, Co. Limerick is further discussed in the following sections.

3.4.2.1 Transport Network and Access

As the Proposed Development is located in the immediate vicinity of the R518, it offers connectivity to various locations across the county. The R518 is a two-way flow single carriageway approximately 6 metres wide with no hard shoulders available on either side of the carriageway. The R518 has a posted speed limit of 80 km/h. The R518 connects to the N20 and O'Rourke's Cross to the east, approximately 4.2 km from the assessed junction, and to the R520 and Lees Cross to the northwest, ca. 4.7 km from the junction.

The L8658 is a single-lane carriageway, approximately 6 metres wide, that accommodates two-way traffic and provides access to the regional road R518 to the south, with an increasing width towards the priority junction formed by the L8658 and the R518.

3.4.2.2 Proximity to Feedstock Supply and Biobased Fertiliser Receivers

The Proposed Development has been designed to accept and treat up to 90,000 tonnes per annum of predominantly locally sourced agricultural manures, slurries, food processing residues and crop-based feedstocks. The geographical distribution of these feedstock suppliers and biobased fertiliser receivers is represented in **Figure 3.1**. Of the 62 confirmed sources, 88% (55) are located within a 5 km radius of the site, and all are within a 25 km radius. Pig Slurry will be supplied to the Proposed Development by tanker from the neighbouring Piggery located 2.5km to the northeast.

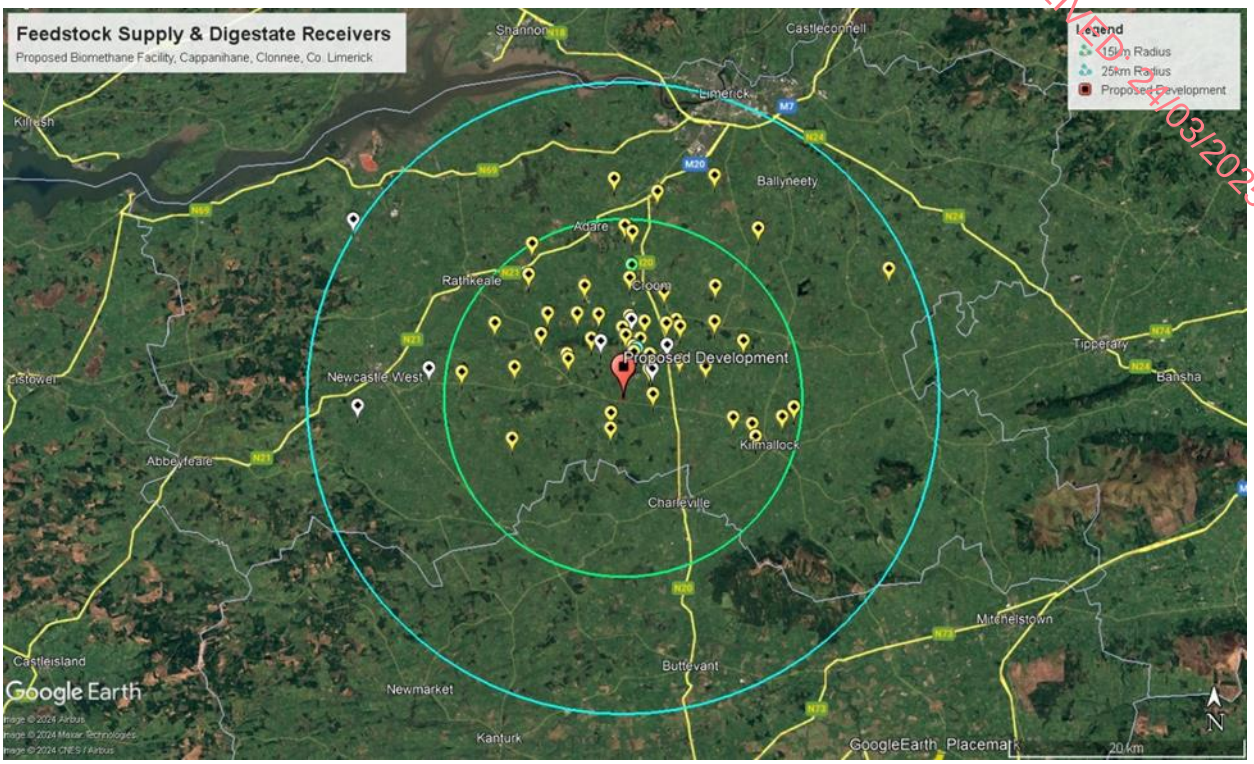

Figure 3.1: Feedstock Suppliers and Digestate Receivers

Alternative sites considered were deemed unsuitable for two primary reasons. Firstly, there was uncertainty regarding the availability of sustainably sourced agricultural feedstocks. Secondly, the distances required to transport these feedstocks from their source locations to the alternative sites would result in significantly more HGV (heavy goods vehicle) movements compared to the current proposal. The increased HGV traffic would lead to higher estimated greenhouse gas emissions, which would conflict with the overall sustainability goals of the Proposed Development.

3.4.2.3 Proximity to Sensitive Environmental Receptors and Designated Sites

The Proposed Development is not within or immediately adjacent to any site that has been designated as a Special Area of Conservation (SAC) or a Special Protection Area (SPA) under the EU Habitats or EU Birds Directive. Furthermore, the application site is not within or immediately adjacent to any nationally designated site, such as a Natural Heritage Area or a proposed Natural Heritage Area. Although there is a pathway to European sites from the application site, any risk of impact on those sites will be mitigated as provided for in the NIS and EIAR

All work within the Proposed Development site will take place in areas considered to be of low biodiversity value on a local level.

3.4.2.4 Landscape and Visual Impact

Alternative site locations were visited for preliminary landscape and visual impact surveys during summer 2024. Each site location and hinterland were examined and a preliminary assessment with respect to viewpoint sensitivity and the likely magnitude of change was made.

Following the preliminary assessments, the Proposed Development location was preferred as the existing topography and natural screening offered benefits in terms of minimising potential impacts.

3.4.2.5 Flood Risk

A preliminary flood risk assessment was undertaken for all candidate sites considered. There have been no recorded historic flooding incidents within the Proposed Development site boundaries and no part of the Proposed Development work is scheduled within an area which has been declared as Flood Zone A or B.

A Site-Specific Flood Risk Assessment accompanies the planning application (Document Ref: **231240-ORS-XX-XX-RP-EN-13d-011**)

3.4.3 Consideration of Alternative Design and Site Layout

The design of the Proposed Development has been an informed and collaborative process from the outset, involving design, engineering, planning, environmental, hydrological, geotechnical, archaeological, landscape and traffic specialists. The design process has also taken account of the comments of the relevant statutory and non-statutory consultees as detailed in **Chapter 1: Introduction**.

Throughout the preparation of the EIAR, the layout of the Proposed Development has been revised and refined to take account of the findings of all site investigations and baseline assessments, which have brought the design from its first concept layout (**Figure 3.3**) to the final site layout.

Figure 3.3: Concept Site Layout

Layout selection was an iterative process, with the objective of identifying a suitable layout that;

- Optimised the existing topography of the site in order to minimise excavation works.
- Optimised the existing topography of the site in order to minimise potential visual impacts on the local landscape.
- Met the design and operational requirements of DAFM guidance document CN11: Conditions for approval and operation of Biogas Plants transforming Animal By-Products and derived products in Ireland.
- Met the design and operational requirements of the EPA Industrial Emissions licencing.

The design of emissions stacks was considered throughout the design and planning process. Air dispersion modelling undertaken as part of the Air and Odour impact Assessment detailed in **Chapter 8: Air, Odour & Climate Change** informed the suitable height of the 2 No. CHP stacks, 1 no. Biomethane Boiler stack and 1 No. Odour Treatment stack.

The Concept Site Layout (**Figure 3.3**) was revised in order to provide additional area along the north, south, and eastern boundary of the Proposed Development to be utilised for landscaping. Additionally, in response to feedback from the local public consultation, the site location was relocated approximately 150 meters north, further away from the R518. A landscape plan has been incorporated and accompanies the application (Document Ref: **25/C0/ORS/PL/001**).

The landscape plan (**Figure 3.4**) offers short to long term buffering and is specifically developed to assist in integrating the Proposed Development into its surrounds. In addition, native planting is proposed adjacent to attenuation pond, in order to provide enhanced biodiversity areas within the Proposed Development. The alternate layout considered initially, which did not include this additional buffering, would have given rise to a higher degree of landscape and visual impact from the Proposed Development, compared to the design and layout ultimately selected.

Figure 3.4: Extract from Landscape Plan (Document Ref: 24/NRG/ORS/Rt/M/001) (Cropped and Rotated)

3.4.4 Consideration of Alternative Technical Configurations

Alternative Technical Configurations were considered as part of the design process of the Proposed Development.

There are several different process configurations around which AD systems may be designed. Factors considered when making design decisions included whether the process is 'batch' or 'continuous' feed, whether it is a 'dry' or 'wet' system, whether it is a 'single stage' or 'multi-stage' process and whether the anaerobic digester is operated at 'mesophilic' or 'thermophilic' temperatures.

3.4.4.1 Process Configuration

A Batch' Flow system involves the single addition of feedstock to a digester at the start of the process. When the feedstock has been placed in the digester, the unit is sealed for the duration of the process with no more material added. The process was ruled out as it is deemed unsuitable given the characteristics of the agricultural manures, slurries, food processing residues and crop-based feedstock available locally.

In contrast, Continuously Stirred Tank Reactor (CSTR) systems have feedstock added consistently or in stages with substrate displaced as new material is added. A multi-stage CSTR anaerobic digestion system is chosen for the Proposed Development, providing primary and secondary digestion within suitably sized Digestion Tanks. In comparison to single stage systems, multi-stage CSTR anaerobic digestion systems provide greater process stability, increased energy efficacy and better control over crucial parameters such as temperature, mixing, and substrate concentration. CSTR systems are fed consistently resulting in a steady-state and a consistent biogas production rate.

3.4.4.2 Operating Temperature

It is proposed to operate the AD process at mesophilic temperature range (30^{o}C – 40^{o}C). Mesophilic digestion systems are generally more stable than thermophilic systems (50^{o}C-60^{o}C) because a wider diversity of bacteria grow at mesophilic temperatures and these bacteria are generally more robust and adaptable to changing environmental conditions.

Thermophilic digestion offers the advantages of faster reaction rates compared to mesophilic digestion, leading to shorter retention times. However, thermophilic systems require significant additional energy to maintain the higher operating temperatures which is considered contradictory to the sustainability goals of the proposed project. The additional heat demand would increase the volume of biomethane required to be used on site as a fuel for the CHP engine and boiler, thereby reducing the overall volume of biomethane available for export to the national gas network thereby reducing the positive environmental impact of the proposed development with regard to the displacement of fossil fuels.

3.4.4.3 Biogas Uses Considered

Biomethane

A number of options were considered for the utilisation of the biomethane produced from the AD process.

- On-site generation of electricity and heat using a Combined Heat and Power (CHP) plant.
- Injection of biomethane to the existing gas network for industrial, commercial, or residential use.

The Proposed Development is conceived to adopt both options above, as both electricity and heat are required to support the process and enable the production of biomethane. On-site generation of electricity and heat using a CHP plant is incorporated to ensure the Proposed Development can be self-sufficient in terms of electrical and thermal energy demand.

The Irish Government is committed to supporting delivery of up to 5.7TWh of indigenously produced biomethane by 2030. The National Biomethane Strategy published by the Department of Environment, Climate, and Communications and the Department of Agriculture, Food and the Marine on the 28th of May 2024, sets the primary objective to deliver on the ambitious target set by the Government as part of the agreement on the sectoral emission ceilings.

Biomethane supplied via virtual pipeline to the gas network will be used as a direct substitute for fossil gas in various applications, such as high-temperature heat, electricity generation and transport. The biomethane produced by the Proposed Development will therefore directly contribute to meeting the national target of 5.7TWh of indigenously produced biomethane by 2030.

Biogenic CO_2

A CO_2 liquefaction system has been included within the Proposed Development. The biogenic CO_2 that is extracted during the biogas upgrading process can be captured and liquefied. By utilising this process, the biogenic CO_2 will be captured, purified, and reused.

3.4.4.4 Best Available Techniques (BAT)

The selection of processes outlined in Chapter 2: Project Description was guided by a detailed assessment of Best Available Techniques (BAT), regulatory requirements, and site-specific conditions. The chosen technologies and methodologies align with industry best practices, effectively contribute to emission control strategies, and have a well-established track record of reliability within the industry sector.

3.5 Conclusion

In conclusion, this chapter has thoroughly examined the practicable alternatives considered during the design and pre-application phases of the Proposed Development, in compliance with the legislative context and guidelines provided by the EIA Directive 2014/52/EU and the EPA. The methodology followed a structured approach, ensuring all reasonable alternatives were assessed with respect to their environmental impacts.

Detailed considerations were given to the 'Do Nothing' scenario, highlighting the significant environmental, economic, and social benefits that would be forfeited if the project were not implemented.

The chapter also detailed the alternative locations considered, using a comprehensive scoring matrix to evaluate site-specific criteria. By presenting a clear rationale for the selected option, this chapter underscores the careful and informed decision-making process that ensured

environmental considerations were taken into account in deciding on the selected options.

Appendix 3.1

ORS

Site-Specific Selection Criteria and Assessment: Cappanihane, Co. Limerick

Assessment Category	Criteria	Score	Weighting	Total Score
Accessibility & Transport Infrastructure	Proximity to suitable road access and infrastructure	4	3	12
Feedstock Supply Proximity	Availability of 80% of feedstock within 25km	4	3	12
Digestate Receiver Proximity	Availability of 80% of landbank within 25km	3	3	9
Land Use & Zoning Characteristics	Classification (Greenfield, Brownfield, or Industrial)	1	2	2
Landscape & Visual Impact Factors	Sensitivity to landscape and visual impact	3	2	6
	Visibility and exposure of the proposed site	2	2	4
	Site topography	3	2	6
Archaeological Sensitivity	Proximity to recorded archaeological sites	3	1	3
Infrastructure & Utilities	Distance to nearest gas grid connection	1	3	3
	Distance to nearest electricity grid connection	3	1	3
Sensitive Receptor Proximity	Distance from residential or sensitive receptors	1	3	3
Land Availability & Suitability	Available land size	3	3	9
	Availability for sale or lease	3	3	9
Water Factors	Distance from protected water sources	3	1	3
	Proximity to suitable stormwater infrastructure	3	3	9
Designated Protected Sites Proximity	Distance from designated sites (SAC / SPA / Other)	3	2	6
Flood Risk Classification	Flood risk classification (Flood Zone A / B, C)	3	3	9
Total Ranked Score				**108**

ORS

Site-Specific Selection Criteria and Assessment: Lands adjacent to Piggery Site, Kilmore, Co Limerick

Assessment Category	Criteria	Score	Weighting	Total Score
Accessibility & Transport Infrastructure	Proximity to suitable road access and infrastructure	1	3	3
Feedstock Supply Proximity	Availability of 80% of feedstock within 25km	4	3	12
Digestate Receiver Proximity	Availability of 80% of landbank within 25km	3	3	9
Land Use & Zoning Characteristics	Classification (Greenfield, Brownfield, or Industrial)	1	2	2
Landscape & Visual Impact Factors	Sensitivity to landscape and visual impact	3	2	6
	Visibility and exposure of the proposed site	1	2	2
	Site topography	3	2	6
Archaeological Sensitivity	Proximity to recorded archaeological sites	3	1	3
Infrastructure & Utilities	Distance to nearest gas grid connection	1	3	3
	Distance to nearest electricity grid connection	2	1	2
Sensitive Receptor Proximity	Distance from residential or sensitive receptors	1	3	3
Land Availability & Suitability	Available land size	2	3	6
	Availability for sale or lease	2	3	6
Water Factors	Distance from protected water sources	3	1	3
	Proximity to suitable stormwater infrastructure	3	3	9
Designated Protected Sites Proximity	Distance from designated sites (SAC / SPA / Other)	3	2	6
Flood Risk Classification	Flood risk classification	3	3	9
			Total Ranked Score	**90**

ORS

Site-Specific Selection Criteria and Assessment: Lands at Ballyneale, Co. Limerick

Assessment Category	Criteria	Score	Weighting	Total Score
Accessibility & Transport Infrastructure	Proximity to suitable road access and infrastructure	1	3	3
Feedstock Supply Proximity	Availability of 80% of feedstock within 25km	3	3	9
Digestate Receiver Proximity	Availability of 80% of landbank within 25km	3	3	9
Land Use & Zoning Characteristics	Classification (Greenfield, Brownfield, or Industrial)	1	2	2
Landscape & Visual Impact Factors	Sensitivity to landscape and visual impact	3	2	6
	Visibility and exposure of the proposed site	1	2	2
	Site topography	3	2	6
Archaeological Sensitivity	Proximity to recorded archaeological sites	3	1	3
Infrastructure & Utilities	Distance to nearest gas grid connection	1	3	3
	Distance to nearest electricity grid connection	2	1	2
Sensitive Receptor Proximity	Distance from residential or sensitive receptors	1	3	3
Land Availability & Suitability	Available land size	2	3	6
	Availability for sale or lease	2	3	6
Water Factors	Distance from protected water sources	3	1	3
	Proximity to suitable stormwater infrastructure	3	3	9
Designated Protected Sites Proximity	Distance from designated sites (SAC / SPA / Other)	3	2	6
Flood Risk Classification	Flood risk classification	3	3	9
			Total Ranked Score	**89**

ORS

Site-Specific Selection Criteria and Assessment: Lands at Tullovin, Co. Limerick

Assessment Category	Criteria	Score	Weighting	Total Score
Accessibility & Transport Infrastructure	Proximity to suitable road access and infrastructure	2	3	6
Feedstock Supply Proximity	Availability of 80% of feedstock within 25km	2	3	6
Digestate Receiver Proximity	Availability of 80% of landbank within 25km	2	3	6
Land Use & Zoning Characteristics	Classification (Greenfield, Brownfield, or Industrial)	1	2	2
Landscape & Visual Impact Factors	Sensitivity to landscape and visual impact	3	2	6
	Visibility and exposure of the proposed site	1	2	2
	Site topography	3	2	6
Archaeological Sensitivity	Proximity to recorded archaeological sites	3	1	3
Infrastructure & Utilities	Distance to nearest gas grid connection	1	3	3
	Distance to nearest electricity grid connection	2	1	2
Sensitive Receptor Proximity	Distance from residential or sensitive receptors	1	3	3
Land Availability & Suitability	Available land size	2	3	6
	Availability for sale or lease	2	3	6
Water Factors	Distance from protected water sources	3	1	3
	Proximity to suitable stormwater infrastructure	1	3	3
Designated Protected Sites Proximity	Distance from designated sites (SAC / SPA / Other)	3	2	6
Flood Risk Classification	Flood risk classification	3	3	9
			Total Ranked Score	**78**