

POWERSTOWN BIOENERGY

RESPONSE TO SUBMISSIONS

Prepared for:

Greengate Biogas 001 Ltd.



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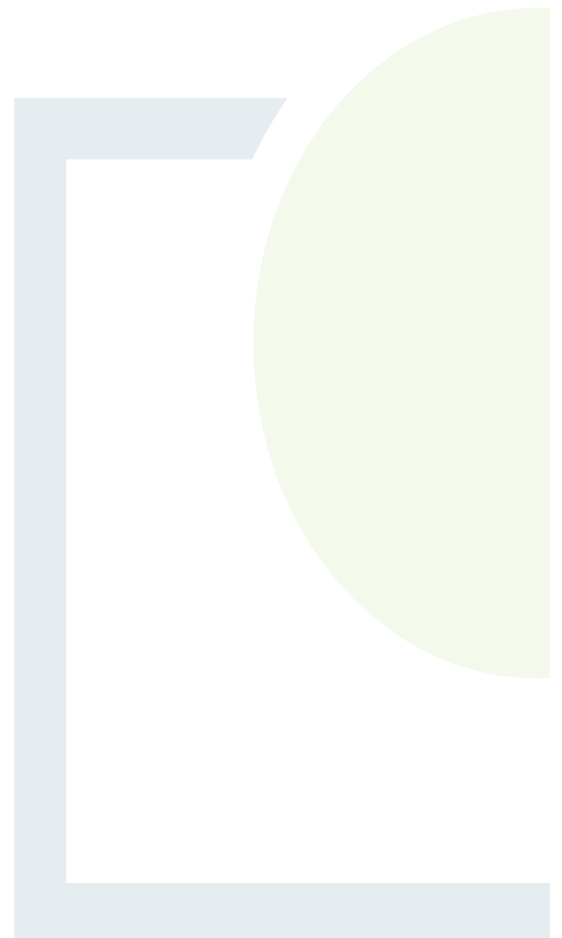
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POWERSTOWN BIOENERGY RESPONSE TO THIRD PARTY SUBMISSIONS

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Abstract: Fehily Timoney and Company is pleased to submit this Appeal Response Report to An Coimisiún Pleanála (ACP) for planning application ACP Ref. No. 324426-26, as issued by An Coimisiún Pleanála on 3rd September 2026 to Greengate Biogas 001 Ltd.

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Appendix 1 - Summary of Submissions



1. INTRODUCTION

Greengate Biogas 001 Ltd. applied for development consent to an Coimisiún Pleanála (ACP) for Powerstown Bioenergy (strategic infrastructure development) on 2 July 2026. The application was validated by ACP on 17 August 2026.

Under the planning process, prescribed bodies and the public were invited to make submissions to ACP on the strategic development application case. Twelve submissions were submitted to ACP.

On the 3 September 2026, An Coimisiún Pleanála (ACP) invited the applicant, Greengate Biogas 001 Ltd. to make a submission on the observations received.

Fehily Timoney and Company (FT) was engaged by Greengate Biogas 001 Ltd, to make a response to the submissions received by ACP.



2. RESPONSE CONTEXT

The Applicant seeks to respond to the submissions and observations which were submitted to An Coimisiún Pleanála regarding the proposed Bioenergy Anaerobic Digestion Plant. We respectfully request An Coimisiún Pleanála to review the documentation contained within the application in tandem with our considered response to all Third-Party submissions.

The observations and submissions contained a number of core issues which are discussed in detail in this response document. It is expected that these core issues will sufficiently address the issues in all of the submissions. These core issues are the umbrella topics which cover all aspects and concerns highlighted within the submissions.

A response is also given to each issue raised by the prescribed bodies and members of the public who lodged a submission, noting that the response to individual Third-Party submissions is also addressed by these responses insofar as they align.

Submissions were received from 6 no. prescribed bodies and from 6 no. third parties.

2.1.1 Prescribed Body Submissions

- Department of Housing, Local Government and Heritage
- Environmental Protection Agency
- Geological Survey Ireland
- Uisce Eireann
- Transport Infrastructure Ireland
- National Environmental Health

2.1.2 Third Party Submissions

- Colette Dermody
- Vincent Francis Dermody
- Lizzie Dermody
- Mary Foley
- Philip Deacon
- Deacon Family



3. PRESCRIBED BODIES

3.1 Department of Housing, Local Government and Heritage

The Department of Housing, Local Government and Heritage (DHLGH) made observations and recommendations pertaining to archaeology and nature conservation in relation to the application for development consent.

3.1.1.1 Response

The Applicant acknowledges that the DHLGH has reviewed the EIAR and advises that the following recommendations, which align with Sample Conditions C4, C5 and C6 as set out in OPR Practice Note PN03: Planning Conditions (Office of the Planning Regulator, 2022), with appropriate site-specific additions/adaptations based on the particular characteristics of this development and informed by the findings of the EIAR, should be included.

Archaeological Requirements:

The Applicant acknowledges the requirements regarding the following;

1. Implementation of Mitigation Measures: All archaeology and cultural heritage mitigation measures identified in Chapter 15 of the EIAR (June 2026) will be fully implemented unless superseded by planning conditions.
2. Archaeological Monitoring During Construction: The use of a suitably qualified and licensed archaeologist to monitor all site clearance, topsoil stripping, and groundworks along the gas pipeline route is detailed in Section 15.6.2 Construction Phase Mitigation of Chapter 15 Archaeological, Architectural and Cultural Heritage.
 - Procedure for Archaeological Discoveries and Remains will comply with the following recommendations: If archaeological remains are uncovered during works, the appropriate excavation and construction methods will be used to preserve and record any archaeological remains encountered. The developer will also facilitate archaeological recording, investigation, excavation, and any additional mitigation measures required by the authorities.
 - Construction activities must stop in the affected area.
 - The Planning Authority and National Monuments Service must be consulted.
 - Appropriate mitigation measures must be agreed before works recommence.

The procedure for unearthing remains is detailed in Section 15.6.2 Construction Phase Mitigation of Chapter 15 Archaeological, Architectural and Cultural Heritage.
3. The DHLGH requests that the Construction Environment Management Plan (CEMP) include the following:
 - All known archaeological and cultural heritage constraints.
 - Potential direct and indirect impacts on heritage assets
 - Protection and mitigation measures must be clearly set out for all construction phases.

The Applicant submitted a CEMP as Appendix 3.1 of Volume 3 of the EIAR. It includes a list of mitigation measures for archaeology and cultural heritage. Volume 2 of the EIAR contains the constraints and potential impacts. The mitigation measures contained in the CEMP are specific to the constraints/risks identified.



4. Final Archaeological Reporting: Upon completion of works, a final archaeological report documenting monitoring results, investigations, excavations, and any specialist analyses must be submitted to the Planning Authority and National Monuments Service. All archaeological monitoring, investigation, reporting, and associated costs are the responsibility of the developer.

This is covered in EIAR Chapter 15 Mitigation, where there is required notification of any remains to the National Monuments Service who will be consulted to determine any further mitigation measures.

Nature Conservation

European Sites and Appropriate Assessment

The DGLGH notes the proposed development is within the River Barrow catchment, with the River Barrow and River Nore Special Area of Conservation (SAC) boundary (Site Code: 002162) approximately 300 metres and 20 metres from the site respectively, while a horizontal directional drilling (HDD) crosses the River Barrow. The Applicant acknowledges that the DHLGH concurs that these are important pathways that require careful control given the proximity and hydrological connectivity of the development to the SAC. Mitigation measures regarding the Work Areas and the SAC boundary are identified in Section 13.6.1.1 of the EIAR.

Water Quality and Aquatic Ecology

The Applicant notes the consideration by the DHLGH that water quality is the principal ecological issue associated with the proposed development. It has been highlighted that construction activities, especially watercourse crossings and the HDD crossing beneath the River Barrow, could have potential impacts in the absence of mitigation. The robust water quality protection, monitoring and pollution prevention measures which are required throughout the construction process are identified in Section 13.6.1.1 of the EIAR.

River Barrow HDD Crossing

The Applicant acknowledges that the DHLGH concurs with the conclusions that there is an adequate precautionary approach to the potential risks associated with the HDD works.

The Applicant acknowledges that the DHLGH is of the opinion that contingency arrangements should include immediate cessation of works, containment and recovery of drilling fluids and appropriate notification and ecological assessment where an incident occurs. This has been reflected in Section 13.6.1.1 of the EIAR.

White-clawed Crayfish and Fish

The Applicant notes the DHLGH's opinions that the White-clawed crayfish as well as a number of fish species are qualifying interest of the SAC and that they warrant particular consideration during watercourse works. There are no instream works proposed and therefore there is no potential spread of invasive species including crayfish plague as detailed in Section 11.4.3.1 of the EIAR.

Otter

The Applicant acknowledges that although no otter breeding or resting places were identified within the relevant survey areas, that otter populations may commute and forage in the locality of the crossing of the River Barrow. The procedure for pre-construction checks and maintaining otter access and connectivity are identified in Section 1.3.2.3 of the NIS and will follow the 'Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes' (TII, 2006, reissued 2025), as discussed in Section 1.3.4 of the NIR.



The Guidelines For the Treatment of Otters Prior to the Construction of National Road Schemes (TII, 2006, reissued 2025) will also be adhered to as identified in Section 11.8.1 of the EIAR.

Biodiversity – Habitats and Protected Species

The DHLGH recommends that vegetation clearance is minimised and that retained hedgerows and linear habitats are protected throughout construction. These considerations have been noted in Section 11.7.3.1.1 of the EIAR. The landscape plan in Appendix 16.2 of Volume 3 of this EIAR shows the areas of existing hedgerow to be retained and bolstered. The Biodiversity Enhancement Management Plan in Appendix 11. 4 of Volume 3 has further detail on planting.

Bats and Lighting

The EIAR acknowledges the potential for lighting to spill into neighbouring areas, placing bats within the Zone of Influence for lighting disturbance. The recommendations by the DHLGH that external lighting is designed to minimise light spill onto surrounding habitats and retained linear features and for a wildlife-sensitive lighting design to be completed is identified in Section 11.8.1.2 of the EIAR where it lists mitigation measures for lighting to protect bats.

Birds

The Applicant acknowledges that the DHLGH concurs with the practice that vegetation clearance is undertaken outside the main breeding bird season where practicable and that appropriate pre-clearance checks are undertaken where works cannot be avoided during sensitive periods, as identified in mitigation measures for birds in Section 11.8.1.2 of the EIAR.

Protected and Threatened Flora

The Applicant acknowledges that the DHLGH agrees with the proposed mitigation measure of avoidance in regard to sensitive flora being clearly identified prior to construction and protected from disturbance. The 'Ecological Surveying Techniques for Protected Flora and Fauna During the Planning of National Road Schemes' (TII, 2008, republished 2025) will be followed. As well as this Section 11.7.3.1.1 of the EIAR describes the Ecological Impact Assessment which identified populations of bee orchid and pyramidal orchid within three areas on the Site that may be affected by construction works. To protect these species, the locations of identified orchid populations will be clearly marked prior to the commencement of site preparation works, and appropriate protection measures will be implemented where practicable to avoid or minimise disturbance. While the construction phase will result in the loss of some lower-value habitats, including ephemeral pools and limited areas of scrub, the majority of perimeter scrub habitat will be retained.

Conclusion

The DHLGH acknowledges the extensive ecological survey work undertaken and the detailed assessment contained within the NIS and the EIAR.

3.2 Environmental Protection Agency

The Environmental Protection Agency (EPA) made observations and recommendations pertaining the necessary licence and procedures for licence application in relation to the proposed development.



3.2.1.1 Response

The Applicant acknowledges and as per the pre application consultation with EPA as referenced in Chapter 5 of the EIAR, and as per site notices and Chapter 1 of the EIAR, that an IE licence is required. Section 13.8 of the EIAR identifies that monitoring will be completed in accordance with the IE licence issued by the EPA.

3.3 Geological Survey Ireland

The Geological Survey Ireland (GSI) made observations pertaining the use of their maps and datasets in relation to the proposed planning application.

Should development go ahead, all other factors considered, Geological Survey Ireland would much appreciate a copy of reports detailing any site investigations carried out. The data would be redacted for confidentiality and added to Geological Survey Ireland's national database of site investigation boreholes, implemented to provide a better service to the civil engineering sector.

3.3.1.1 Response

The Applicant welcomes GSI's confirmation that the Bedrock, Quaternary, Subsoils, Aquifer, Karst, Groundwater Vulnerability, Source Protection Areas, Wells & Springs, Groundwater Flooding, Landslide Susceptibility, Quarries, Aggregate Potential, Minerals and Geoheritage maps and datasets have been appropriately utilised and referenced within the EIAR.

Site investigation has been conducted, and the report is included in Appendix 12.1 of Volume 3 of this EIAR.

3.4 Uisce Éireann

Uisce Éireann (UE) made observations and recommendations pertaining connection to a public network and impacts on public drinking water, in relation to the proposed planning application.

3.4.1.1 Response

The Applicant acknowledges the conditions issued by UE;

'Where the applicant seeks a connection to the public network, the applicant shall enter into a connection agreement with Uisce Éireann prior to the commencement of the development and adhere to the standards and conditions set out in that agreement.' This is mitigated by the fact that water demand will be fully met on-site, eliminating demand on public water supply infrastructure and further identified in Section 14.6.3 of the EIAR.

As per Chapter 3, Section 3.3.19.8 of the EIAR, there is a groundwater well on site to provide process water. Chapter 5 of the EIAR, Table 5-4 (response to scoping) confirms that there is no proposed connection to public water or wastewater.

'The development shall not impact public drinking water sources and/or abstraction points and/or abstraction infrastructure.'



This has been addressed in Section 12.5.6.5 of the EIAR, which identifies that groundwater flow in the area is towards the west-northwest in the direction of the River Barrow, therefore no significant hydraulic impacts on existing wells and public drinking water sources are predicted. The facility is designed as described in Chapter 3 to protect the environment and to avoid any risks. See Section 3.3.7, 3.3.17, and 3.4.11 in particular which describe the bunding, the drainage infrastructure and its operation. Chapter 1 of the EIAR outlines the operational consents required.

Please note that this topic was also raised as a concern by third party submissions and is addressed in more detail in Section 4.6 and 4.7 of this response document.

3.5 Transport Infrastructure Ireland

Transport Infrastructure Ireland (TII) made observations and recommendations pertaining to the safety, capacity, and strategic function of the national road network in relation to the proposed planning application.

The applicant carried out extensive scoping with TII in advance of the application as documented in Table 5-4 of Chapter 5 Scoping and Consultation of the EIAR. TIIs requirements were included in Chapter 3 Description of the Existing and Proposed Development.

3.5.1 Issue: Concerns raised regarding National Transport Infrastructure 1. Potential proposed development interactions with the national roads network

TII submits it is appropriate to ensure that the technical standards and co-ordination requirements for utilisation of the national roads network for haul routing is included in the proposed CTMP. The information submitted does not appear to specifically identify these matters as mitigation for national roads network part of the proposed development construction traffic haul routing. Therefore, TII recommends an included list of conditions be included in any grant of planning permission contemplated.

References to abnormal loads.

3.5.1.1 *Response*

A CTMP is proposed for the management of traffic during the construction phase only. Construction activities in, on or adjacent to the national road network is addressed in the proposed development description and in the construction methodology.

Haul routes are identified in the EIAR for the operational phase of the development and Section 6.8.1 (Chapter 6) states that construction traffic will follow the same haul routes as operational traffic with the majority of traffic using Junction 6 of the M9.

The following statement by TII in their submission is not correct: "The EIAR submitted specifically identifies the M9 including M9 Junctions 8 and 11 as an assessed "principal haul route" and the M9 and M9 Junction 6 as "designated haul route"."

The principal haul route to the proposed development is identified in Figure 6.1 as the R448.



The impact assessment did not identify any significant impacts on the national roads network for these haul routes or junctions; therefore no specific mitigation is required. In accordance with the EU EIA Directive (2011/92/EU as amended by 2014/52/EU), the EIAR must include:

"a description of the features of the project and/or measures envisaged to avoid, prevent, reduce or, if possible, offset likely significant adverse effects on the environment.

The EIAR is very clear that GNI will be responsible for obtaining development consent for the pipeline as a Statutory Undertaker. GNI will be responsible for extending the gas pipeline to the proposed development site. The Applicant does not propose to carry out any construction activities on the national road network. The proposed development is limited to "upgrading the road markings on the L3045, high visibility directional signage and lighting. Permission is sought to add appropriate advance warning signage for both accesses on the L3045. Examples of the signs are included in Section 6,8 of Chapter 6 Traffic and Transportation" (Chapter 3, Section 3.3.1).

Chapter 3 of the EIAR includes the following statements which will be applicable to GNI:

Section 3.3.20.1 Motorway Crossing, and Section 3.6 includes requirements to comply with the following:

- Motorways consent under Section 53 of the Roads Act 1993 as amended to permit new infrastructure adjoining and under the motorway.
- TII technical standards

As such the list of planning conditions recommended for inclusion by TII in 1 (i-vi) are addressed in the EIAR.

TII Submission Reference	TII Submission	Relevant Section of Planning Application
1.i	Demonstration that Compliance with TII Publications (Standards) in accordance with relevant TII Publications (Technical) will be required for any work that may impact the national road pavement, structures and infrastructure including drainage.	EIAR, Chapter 3, Section 3.3.20.1 Motorway Crossing and Section 3.6
1.ii	Any proposed works to the national road network, including signage, to facilitate construction traffic shall comply with TII Publications and shall be subject to Road Safety Audit as appropriate. Works should ensure the ongoing safety for all road users and prior to any development necessary licenses, approvals or agreements with PPP Concessions, Motorway Maintenance and Renewal Contracts (MMaRC) Companies and local road authorities, as necessary, shall be in place.	Chapter 3. Section 3.3.1 and Chapter 6 Section 6.8.3.2.
1.iii	Any damage caused to the pavement of the existing national road due to the turning movement of abnormal 'length' loads (e.g. tearing of the surface course) shall be rectified in accordance with TII Pavement Standards and details in this regard shall be agreed with the Road Authority prior to the commencement of any development on site.	No abnormal loads, see Chapter Section 6.4



TII Submission Reference	TII Submission	Relevant Section of Planning Application
1.iv	All national road and ancillary overground/underground assets shall be subject to proper undamaged reinstatement and properly certified to the relevant standards in accordance with the assets' functions together with any working widths/depths which they require.	As per 1.i in this table, i.e. EIAR, Chapter 3, Section 3.3.20.1 Motorway Crossing and Section 3.6
1.v	Separate structure approvals/permits, and other licences may be required in connection with the proposed works, including where temporary modification to the road network may be required.	A per 1.i, i.e. EIAR, Chapter 3, Section 3.3.20.1 Motorway Crossing and Section 3.6
1.vi	In association with the above the applicant/developer shall consult with all PPP Companies, MMarC Contractors and road authorities over which the haul route traverses to ascertain any operational requirements such as delivery timetabling, etc. and to ensure that the strategic function of the national road network is maintained. TII requests referral of all proposals agreed between the road authority, PPP Concessions and MMarC Companies and the applicant impacting on national roads.	No abnormal loads as above. Construction traffic assessed in Chapter 6 Section 6.7 Table 6-12 determined potential impacts of the construction phase on traffic and transportation as negative, not significant, likely, short term and direct. Mitigation is not required. The Applicant suggests that adding this condition would require unnecessary consultation.

There are no abnormal loads as stated in the EIAR and in consultation with TII. Therefore, a specific planning condition is not relevant.

3.5.2 Issue: Concerns raised regarding National Transport Infrastructure 2. Potential project interactions with the national roads network

TII states that there is mitigation measures proposed for HDD crossings of watercourses. There does not appear to be a similar set of mitigation measures set out in the submitted EIAR for the HDD crossing of the M9 reflecting the technical requirements for motorway crossings as advised at pre application consultation arranged by Carlow County Council and at EIAR scoping stage (TII ref. TII25 134184).



3.5.2.1 Response

The Applicant concurs that this was discussed at EIAR scoping stage and is included in the EIAR, Chapter 3, Section 3.3.20.1 Motorway Crossing and Section 3.6 and referenced in Chapter 5 Consultation and Scoping. Please note that the requirement has been added as part of the proposed development, and not as mitigation as these are technical requirements. It is noted that all of TIIs requirements for the CEMP listed in points a) to e) of the submission are included in Chapter 3, Section 3.3.20.1 and explicitly states that "All works to install the pipeline will be outside of the Motorways Maintenance and Renewals Contract (MMaRC) boundary".

Conclusion

Consultation was carried out with TII during the preparation of the EIAR and that is documented in Chapter 5. The Applicant addressed each of TIIs concerns/requests raised during consultation in the EIAR as documented in Chapter 5. There are no new issues/requests raised in TIIs submission. The advantage of early consultation with TII was the ability to incorporate their requirements into the design of the proposed development to avoid impacts. They therefore do not appear as mitigation.

3.6 National Environmental Health Service

The National Environmental Health Service (NEHS) made observations and recommendations pertaining Environmental Health in relation to the proposed planning application.

3.6.1.1 Response

Public Consultation and the Non-Technical Summary (NTS)

The Applicant acknowledges the recommendation from the NEHS for a community liaison officer to be in place for the duration of the construction, operations and decommissioning phases.

Chapter 7, Sections 7.6.1.4 and 7.6.1.5 of the EIAR, (and the CEMP in Appendix 3.1 (Section 1.4.10 and Section 2) include a key mitigation measure to appoint a Community Liaison Officer (CLO) for the construction stage. The operation and decommissioning of the facility will be conditioned by the IE licence where it will be a requirement typically under Condition 2 to have a public awareness and communication programme in place.

Population and Human Health

The Applicant welcomes the opinion of the NEHS that the EIAR has identified the following areas within the report with regard to emissions into the environment during construction and operation of the proposed development, and which can be found in Section 7.5.2.5 Human Health of the EIAR;

- Any likely significant effect from exposure to noise during construction and operation
- Any likely significant reduction in air quality during construction, particularly dust and odour emissions
- Protection of ground and surface water during construction activities from contamination with hydrocarbon spillages or sedimentary run off.



Water (Hydrology and Hydrogeology)

The Applicant acknowledges the following recommendations given by the NEHS and advises that they have been addressed in Chapter 3, Section 3.3.17 Drainage Infrastructure, Section 4.5 Construction Methodology, Chapter 12 Soils, Geology and Hydrogeology, Section 12.7 Mitigation by Avoidance and Design, in Chapter 13 Hydrology and Surface Water, Section 13.1.1 Mitigation by Avoidance and Design of the EIAR and in the CEMP.

- A temporary drainage system will be established complete with oil interceptors and settlement ponds to remove contaminants from run-off, prior to discharge off-site.
- Stockpile areas for sands and gravel should be kept to minimum size, well away from storm water drains and gullies leading off-site.
- Covers are to be provided over soil and demolition debris stockpiles when high wind and inclement weather are encountered if required.
- Storage of harmful materials and stockpiles should not be in close proximity to the adjacent drainage ditch and/or the sinkhole present at the eastern boundary of the site.
- Excavations to be backfilled as soon as possible to prevent any infiltration of contaminants to the subsurface and the aquifer/groundwater.
- Landscaping should be carried out as soon as possible to minimize weathering and reduce the increased vulnerability in the area surrounding the sinkhole.
- Harmful materials such as fuels, oils, greases, paints and hydraulic fluids must be stored in bunded compounds well away from storm water drains and gullies.
- That all sewage infrastructure to be installed in accordance with the relevant industry standards and pressure tested/CCTV surveyed prior to commissioning to ensure absence of defects.
- Programme of inspection and maintenance to ensure any defects are repaired.
- Installation of Sustainable Urban Drainage Systems (SuDS) features such as Sumps in gullies and catchpits collect silts in run-off from roads, filter drains, discharge bypass separator.

The opinion that these measures will provide adequate protection for surface and ground water is welcomed by the Applicant.

Air Quality and Odour

The Applicant acknowledges that the NEHS states that all dust mitigation detailed in the CEMP shall be adhered to. The NEHS lists some further good examples for dust control. These are listed in the Dust Management Plan in the CEMP.

Further to this, the Applicant notes the opinion of the NEHS that the principal means of protecting population and human health during the operational phase is through the implementation of the mitigation measures set out in the CEMP (Appendix 3.1). The Applicant confirms that these measures will be implemented in full throughout the operational phase.

Noise

The Applicant acknowledges the recommendations given by the NEHS that operating times during the construction phase are limited, in order to minimise the impact of noise on residents. The operating hours will remain within the outlined operating hours and are further outlined in Section 10.10.2 of the EIAR.



Lighting and Disturbance

The Applicant acknowledges the recommendations by the NEHS regarding the Reduction of Obtrusive Light, in the fitting and operation of any external lighting, to ensure amenity is not adversely impacted at neighbouring dwellings by artificial light. The lighting design which is detailed in Section 3.3.19.5 of the EIAR has been developed to provide safe and efficient site operation while minimising light emissions beyond the Site boundary. Most operational activities will occur within enclosed buildings, significantly reducing external light emissions. External lighting will comprise directional, energy-efficient LED fittings designed to direct light towards operational areas and minimise light spill. Lighting within the tank farm and gas upgrading areas will be limited to essential infrastructure, while external security lighting will be controlled by passive infrared (PIR) and motion sensors to ensure illumination is only provided when required.

Given the enclosed nature of the facility, the use of directional low-spill lighting and sensor-controlled security lighting, significant adverse effects associated with light spill or light pollution are not anticipated. As referenced above there are mitigation measures to avoid impacts of artificial lights on bats in the EIAR.

Cumulative Impacts

The Applicant acknowledges the recommendations of the NEHS that the cumulative risks associated with the managing of local slurry stockpiles should be examined as a potential negative and unintended impact of the facility, alongside including mitigation measures for the decommissioning of the facility.

Please note all slurry will be stored in enclosed tanks at the proposed development.

Chapter 3, Section 3.2.6 describes the current practices for slurry management and the legislative controls. Section 4.4.10 states that digestate will be returned to supplier farms, tillage farms and contract landspreaders to be managed in accordance with the legislation as described in Section 4.4.10.



4. THIRD PARTY CORE TOPICS RAISED

As per the introduction to this report, each of the third party submissions outlined concerns about more than one topic. A table of submission topics raised was compiled and is included in Appendix 1 of this report. The submission topics have been collated and addressed under the headings of:

- Traffic and Transportation
- Population and Human Health
- Air Quality
- Climate
- Noise and Vibration
- Soils, Geology and Hydrogeology
- Hydrology and Water Quality
- Archaeology and Cultural Heritage
- Landscape and Visual Impact
- Any Other Topics

There was concern expressed about the operational impacts of the proposed development by third parties, all of whom reside full time or part time in the vicinity. Chapter 1 of the EIAR establishes the statutory consents that will be required along with planning consent, there are described in Sections 1.5.3, 1.5.4 and 1.5.5 as an IE licence from the EPA, an Animal By-Products consent from DAFM and a Seveso lower tier notification with the HSA. The IE licence and animal by-products consent will set operational conditions including but not limited to environmental monitoring and discharges, nuisance and safe handling of slurries and manures. The HSA will assess compliance with the Chemicals Act (Control of Major Accidents Involving Dangerous Substances) Regulations 2015 (COMAH).

4.1 Traffic & Transport

4.1.1 Issue: Concerns raised regarding increased traffic on the L3045, the suitability of the local road network, road safety, bridge constraints and HGV movements.

4.1.1.1 *Response*

The Applicant acknowledges the concern raised by local residents regarding increased traffic volumes on the L3045 in particular east of the railway bridge on the L3045 and the associated road safety that is coupled with that. The Applicant notes that there is a lot of information contained in the Application and that in particular the traffic section. Third Parties should be reassured of the following:

Chapter 6 Traffic and Transportation in Volume 2 of the EIAR describes the proposed traffic management for the proposed development. Section 6.6.1 states **The principal haul routes serving the site is the R448 Regional Road which will carry all development generated HGV traffic in both the construction and operational phases.** These are shown on Figure 6-1 (noting **no route on L3045 east of the facility entrances**).



Section 6.7.5.1.3 of Chapter 6 includes the following traffic restrictions:

- **no HGV approach to the site from the east via the L3045 all HGV use R448**
- no HGV to travel through Carlow Town Centre via Main Street Bridge
- no HGV travel on Milford Bridge due to weight restrictions. Milford Bridge is a historic five-arch stone bridge located in the townland of Milford, County Carlow, spanning the River Barrow
- vehicles travelling from south of Bagenalstown on the R705 turn left onto R724 avoiding Bagenalstown village centre (also applies to return route)

The Construction Traffic Management Plan in CEMP states:

"The proposed construction entrance/exit shall be located along the L3045 local road. This local road will be accessed via the former N9 national primary road, now the R448, a high-quality dual carriageway situated less than 100 m from the first site entrance and less than 200 m from the main site entrance, both on the L3045".

HGV Traffic will not be permitted to turn left out of the HGV access gate along the L3045, nor will they be allowed to approach the facility from the east along the L3045. Chapter 3, Section 3.4.2 states that "the transport of feedstock and digestate will be controlled by Greengate Biogas 001 Ltd. A fleet of 12 bulk haulers and tankers will transport feedstock and digestate from and to farms under contract". The Construction Traffic Management Plan in CEMP has controls for management of drivers.

Volume 1 Non-Technical Summary Section 3.5.1 states that "Greengate Biogas 001 Ltd. will control a fleet of 12 tankers and covered haulage vehicles to collect slurries and manures and deliver digestate. The tankers are similar to milk tankers. Only **these vehicles and vehicles with a contract** to supply feedstock or collect digestate will be allowed into the facility. Farmers will not be allowed to deliver or collect. This system allows the operator to manage traffic and time deliveries".

Construction Traffic

All concerns relating to construction traffic are addressed in Chapter 6, Section 6.8.1 of the EIAR. Mitigation measures include the preparation and implementation of a Construction Traffic Management Plan (CTMP), which will ensure that local residents and affected stakeholders are kept informed of construction activities, traffic management arrangements and any temporary traffic diversions that may arise.

In addition, a detailed CEMP which includes the CTMP (Appendix 3.1) will set out the allowable working day, construction traffic, parking arrangements and incorporates environmental protection measures.

Road suitability of the L3045 to Accommodate Additional Traffic.

Residents cited concerns regarding the suitability of the L3045 to accommodate additional traffic associated with the proposed development.



Section 6.7.5.1.3 of the EIAR highlights that a route analysis was undertaken using commercially available routing software based on Eircode data and applying specific routing constraints to ensure compliance with local road and bridge restrictions. The restrictions applied in determining HGV routes reflect the haulage route restrictions that will be applied by the operator of the site and include:

- no HGV approach to the site from the east via the L3045 all HGV use R448
- no HGV to travel through Carlow Town Centre via Main Street Bridge
- no HGV travel on Milford Bridge due to weight restrictions. Milford Bridge is a historic five-arch stone bridge located in the townland of Milford, County Carlow, spanning the River Barrow
- vehicles travelling from south of Bagenalstown on the R705 turn left onto R724 avoiding Bagenalstown village centre (also applies to return route)

Section 6.11 of the EIAR concludes that the L3045 is a suitable access route and is currently capable of accommodating HGV and commercial vehicle movements. The assessment found no significant adverse effects on the operation or capacity of the local road network.

Road Safety Impacts on Pedestrians, Cyclists and Other Vulnerable Road Users

The Applicant acknowledges concerns regarding road safety and the potential for impacts on pedestrians, cyclists and other vulnerable road users.

As outlined in Section 6.8.2.2 of the EIAR, all HGV drivers will be required to undertake site-specific induction training. This training will ensure drivers are aware of approved haul routes, applicable speed limits, road safety requirements and the need for courteous and responsible behaviour towards other road users. There is a footpath on the existing L3045 from the junction with the R448 to Powerstown Civic Amenity Centre.

The Traffic Assessment (Section 6.3.3.2 of the EIAR) concludes that no material change in collision risk or road safety performance will arise as a result of the proposed development. Construction traffic will be managed through the CTMP, including measures relating to vehicle routing, delivery scheduling and avoidance of peak commuter periods where practicable. On this basis, the development is not considered to adversely affect public road safety.

Structural capacity of the railway bridge on L3045.

The Applicant acknowledges concerns regarding the structural capacity of the railway bridge crossing the Dublin Waterford railway line on the L3045.

However, Section 6.7.5.1.3 of the EIAR confirms that HGV traffic associated with the proposed development will not approach the site from the east via the L3045. All HGV traffic will access the site via the R448 and, therefore, no HGVs will travel across this railway bridge. As such, no adverse effects on the structural capacity of the bridge are anticipated.



4.2 Population and Human Health

4.2.1 Issues: Concerns raised regarding potential impacts on residential amenity, quality of life, human health and recreational users arising from traffic, noise and operational activities associated with the Proposed Development.

The Applicant acknowledges the amount of information included in the application and EIAR. Volume 1 Non-Technical Summary, Section 3 summarises the proposed development (infrastructure and operation). In doing so, it should be very clear to the reader that:

"All material handling will take place indoors in:

- buildings for receiving solid materials
- buildings for receiving liquid materials

"The buildings contain equipment for handling and preparing materials and an odour control system. This operates like a vacuum pulling air out of the buildings all of the time. The doors to the buildings open and close quickly to maintain the vacuum in the buildings. The air sucked out of the buildings is cleaned before being emitted via a chimney stack".

"The discharge of exhaust air will be in compliance with an EPA Industrial Emissions licence. Post grant of planning, the Applicant will apply to the EPA for this licence".

" this is an anaerobic digestion plant, meaning the organic manures and slurries are broken down in the absence of oxygen and generating biogas (methane and carbon dioxide). This process occurs in large tanks. Pipework moves materials between the tanks and pipework collects gas from the tanks. The tanks have equipment to stir and heat the material. There is also an odour control system".

"The anaerobic digestion process takes place in a series of tanks. The tanks are all located within a bund which is a structure required by the operational licence and is designed to contain spills from tanks or connecting pipework. The manures and slurries are digested which generates biogas which is a mixture of mainly methane and carbon dioxide and some trace gases which make up less than 1% of the biogas. The process runs continuously and is carefully controlled".

Recreational Users of the Local Area.

The Applicant acknowledge the concerns regarding the recreational use of the local roads and **reiterates what is highlighted above that no HGVs will approach the site from the east via the L3045, nor will they exit the site and travel east.**

Quality of Life

The Applicant acknowledges the concerns regarding the quality of life for residents located close to the Proposed Development. Conclusion of Chapter 7 of the EIAR concludes that there are no significant effects on Population and Human Health.



Human Health

The Applicant acknowledges the concerns regarding the human health of residents located close to the Proposed Development. Section 7.6.1.5 of the EIAR concludes that the predicted residual, dust-related, human health impact of the construction phase of the proposed development is short-term, direct, negative and not significant. The air quality impacts during the operational phase are considered not significant in EIA terms and are further discussed in Section 7.5.3.5 of the EIAR.

4.3 Air Quality

4.3.1 Issue: General Concern about Air Quality at Property

A third party (sensitive receptor in air model) expressed concern regarding the results of air modelling .

4.3.1.1 *Response*

The air modelling contours shown in Chapter 8 Air Quality of the EIAR, were used to predict the likelihood of significant effects on sensitive receptors. No significant effects were observed at any sensitive receptor.

4.3.2 Issues: Concerns raised regarding odour emissions from the proposed facility.

4.3.2.1 *Response:*

The Applicant acknowledges that several submissions that refer to concerns over the potential for persistent odour, flies and other pests.

The Applicant refers as previously to the Non-Technical Summary and Chapter 3 where it is clearly described that all feedstock arrives at the facility in either enclosed tankers or covered haulage trucks operated by the Applicant and that all feedstock unloading takes place indoors under negative pressure with an odour management system. There will be no outdoor feedstock handling that could give rise to flies or other pests.

Odour

The main potential contributor to odour emissions is discussed in Sections 3.4.4 and 3.4.5 of the EIAR. They outline how the solid and liquid feedstocks will be handled and therefore how the potential for odour emissions is minimised through the design of the facility.

All feedstocks will be received and handled within enclosed buildings maintained under negative pressure, ensuring that air is drawn into, rather than out of, the buildings. Solid feedstocks will be unloaded within a dedicated enclosed reception hall incorporating a "bell jar" system, whereby internal and external doors cannot be open simultaneously, preventing the escape of odorous air during unloading operations. Liquid feedstocks will be received within an enclosed liquids reception building and transferred via sealed pipework directly to storage and treatment systems. Air extracted from the reception and processing areas will be captured and treated through the site's Odour Control System before discharge. As feedstock reception, storage and processing activities are undertaken within enclosed, negatively pressurised environments with dedicated odour treatment systems, the potential for off-site odour impacts is considered very low and significant adverse odour effects are not anticipated.



The mitigation measures for odour emissions are further defined in Section 8.2.2 of the EIAR, and further concludes that odour impacts can be effectively controlled through the incorporation of embedded design measures and operational management procedures. The controls include;

- Feedstock will be delivered to the site in covered / sealed tankers and deposited in the enclosed solid and liquid feedstock reception buildings
- All feedstock and digestate processing activities will be undertaken within enclosed buildings which will be maintained under negative pressure, with fast acting roller shutter doors to prevent fugitive odour emissions from building entry points
- Air extracted from buildings held under negative pressure will be directed to the Odour Control System (OCS) for treatment (see details below) prior to discharge to atmosphere via an emission stack sufficiently high to ensure adequate dispersion.

The OCS has been designed in accordance with established odour management principles and will incorporate

- odour containment
- odour capture and extraction
- odour treatment

Odour modelling was carried out as part of the EIAR and is included in Chapter 8 Air Quality. It modelled odour concentrations at the nearest sensitive residential receptors and demonstrated that the predicted levels are lower than the relevant odour guideline value.

The operation of the facility will be licensed by the EPA who will impose conditions for odour management.

Pests and Flies

In relation the potential issue of pests, vermin and flies, the embedded design measures and operational management procedures mentioned above will ensure that pests, vermin and flies are not attracted to the proposed development. This will be conditioned by the EPA IE licence and the DAFM animal by-products consent.

Emergency Response

The Applicant acknowledges the concerns regarding how odour is being prevented if there were abnormal events such as power failure, equipment breakdown and spillages. Section 3.4.22 of the EIAR identifies that the IE licence will require an Emergency Response Plan (ERP) and procedures which is outlined in the CEMP in Appendix 3.1 of the EIAR. In the event of a power failure, feedstock acceptance would cease. The operation of the facility will be licensed by the EPA with protocols for emergency events.



4.3.3 Issues: Concerns raised regarding dust generation during construction and operation.

4.3.3.1 *Response*

The Applicant acknowledges the concerns regarding the generation of dust from construction and operational phases of the Proposed Development. Section 8.10.2.1 of the EIAR identifies the Construction Dust Assessment with results showing that the proposed development has been assessed as having a medium risk of dust soiling impacts and a low risk of dust related human health impacts and a medium risk of dust related ecology impacts during the construction phase as a result of construction and track out activities. A number of mitigation measures listed in Section 8.11.1 of the EIAR, which draw on best practice guidance from Ireland (DCC (2018), DLRC (2022)), the UK (IAQM (2024), BRE (2003), The Scottish Office (1996), UK ODPM (2002)) and the USA (USEPA, 1997)), shall be implemented during the construction phase of the Proposed Development.

The impacts of dust generation during the operational phase of the Proposed Development are predicted to be not significant and therefore non site-specific measures are proposed, as discussed in Section 8.11.2 of the EIAR.

4.3.4 Issues: Concerns raised regarding ammonia and methane emissions.

4.3.4.1 *Response*

The Applicant acknowledges the concerns regarding hydrogen sulphide, ammonia and methane emissions from the Proposed Development. An air impact assessment was carried out and documented in Chapter 8 of the EIAR. It examines any potential for impacts on human health or the environment from emissions to air. An air dispersion model was built to model potential pollutants. The potential impacts are not significant. Under the conditions of the IE licence to operate the facility, there will be air discharge limits and a condition to prohibit any nuisance at the boundary of the proposed development.

4.4 **Climate**

4.4.1 Issues: Concerns raised regarding the sustainability of the Proposed Development.

4.4.1.1 *Response*

The Applicant acknowledges the concerns regarding the climate resilience and overall sustainability of the Proposed development. As stated in Section 2.8.1 of the EIAR the Proposed Development has been assessed within the context of national and European climate policy and will make a significant contribution to Ireland's transition to a low-carbon economy. The facility will produce up to 250 GWh of renewable biomethane annually, sufficient to meet approximately the equivalent of County Carlow's annual gas demand, while displacing fossil fuels and reducing greenhouse gas emissions by approximately 181,000 tonnes of CO₂e per annum. The Proposed Development supports Ireland's legally binding climate commitments, including the reduction of greenhouse gas emissions by 51% by 2030 and the achievement of climate neutrality by 2050. It will also contribute towards national biomethane production targets of 5.7 TWh by 2030 and improve energy security by reducing reliance on imported fossil gas.

The project is based on the utilisation of existing agricultural residues, including slurries and manures, of which there is a substantial existing supply within the catchment area (See Chapters 2 and 4). By processing these materials into renewable biomethane and nutrient-rich digestate, the Proposed Development supports circular economy principles, improves manure management practices, reduces agricultural emissions and can reduce reliance on chemical fertilisers.



A climate impact assessment was carried out and is presented in Chapter 9 of the EIAR. The operation of the proposed development will result in a direct, long term, beneficial impact on climate. The primary function of Powerstown Biogas is a renewable energy facility. The need for the proposed development is set out in Chapter 2, along with the developments alignment with international, european, national, regional and local legislation and policy.

4.5 Noise & Vibration

4.5.1 Issues: Concerns raised regarding noise and vibration from construction activities, plant and traffic.

4.5.1.1 *Response*

As per the site notice/newspaper notice and various chapters within the EIAR, the facility will be licensed by the EPA under an IE licence to operate. The licence will condition all potential environmental emissions including noise. The licence will set noise limits and will require noise monitoring. Chapter 10 of the EIAR assessed the potential for noise and vibration impacts and concluded no potential for significant effects.

Construction Noise and Vibration

The Applicant acknowledges third party concerns regarding perceived noise and vibration from construction activities. Section 10.3.2 of the EIAR discusses that noise emissions and vibration will primarily be as a result of mobile plant operations, the installation of equipment, general construction works and construction related traffic including HGVs.

Section 10.10.2 of the EIAR highlights that construction activities will generally be limited to standard working hours, with any requirement for out-of-hours working agreed in advance with the Planning Authority. Residents will be informed of significant construction activities through the Community Liaison Officer. It is also discussed that noise and vibration associated with the gas connection works will be temporary and short-term in nature. Where required, temporary noise barriers or screens will be installed to reduce construction noise at nearby receptors. Advance notification will also be provided to residents where perceptible vibration may occur.

Noise and Vibrations from Processing Equipment within the Proposed Development

The Applicant acknowledges the concerns regarding the perceived operational noise from the processing equipment within the Proposed Development and refers to Section 10.10.3 that discusses that noise modelling results for the daytime, evening and night-time scenarios demonstrate that the predicted noise levels are below the noise limits at all noise sensitive locations. No significant noise impacts are anticipated during the operational phase of the proposed development and as such, no mitigation measures are deemed necessary. Section 10.4.8 of the EIAR identifies that there are no significant sources of vibration associated with the operations of the proposed development.

Traffic and HGV Noise and Vibration

The Applicant acknowledges the concerns regarding the perceived noise and vibrations associated with traffic and HGVs entering and departing the Proposed Development site. Section 10.6.6 of the EIAR identifies that operational traffic associated with the Proposed Development will comprise a combination of staff vehicles, LGVs and HGVs travelling to and from the Proposed Development Site. Section 10.6.5 of the EIAR also highlights that no HGVs will enter or depart the buildings during evening and night-time.

It is reiterated that HGVs will not be permitted to travel east from the facility gate along the L3045.



4.5.2 Issues: Concerns raised regarding cumulative noise and vibration effects with nearby quarry activities.

4.5.2.1 *Response*

The Applicant acknowledges concerns regarding potential perceived cumulative noise and vibration effects arising from the Proposed Development in combination with nearby quarry activities. A detailed Noise and Vibration Assessment is detailed in Section 10.7.2 of the EIAR. Cumulative traffic noise was also assessed. The assessment concluded that the Proposed Development will make a limited contribution to the existing noise environment, with the highest predicted operational noise level of 49 dB L_{Aeq} , which is below the typical daytime quarry noise limit of 55 dB L_{Aeq} . Given the separation distance between the sites, intervening screening, and the existing soundscape which is already influenced by quarry and road traffic activities, significant cumulative noise effects are not anticipated. Furthermore, there are no significant sources of operational vibration associated with the Proposed Development and therefore cumulative vibration impacts are not expected.

The two closest operational quarries' are Kilcarrig Quarries Ltd to the south and Dan Morrissey and Company to the north east. Kilcarrig Quarry is a sand and gravel pit with no blasting. Dan Morrissey and Company was granted development consent by An Coimisiún Pleanála (planning ref ACP 300425). An EIAR accompanied that application. Conditions 11,12 and 13 set vibration and noise limits for operations including blasting. The EIAR included an assessment of blasting and did not cite any potential impacts of structural damage due to the operational phase on the nearest structures.

4.6 Soils, Geology & Hydrogeology

4.6.1 Issue: Concerns raised regarding groundwater vulnerability at the site.

4.6.1.1 *Response*

The Applicant acknowledges concerns regarding the site's classification as a High Groundwater Vulnerability area and its location over a regionally important aquifer. A detailed hydrogeological assessment found in Section 12.5.6 of the EIAR was undertaken to assess potential risks to groundwater receptors and groundwater quality. The assessment concluded that the proposed development has been specifically designed to prevent impacts on groundwater through the use of impermeable surfaces, sealed drainage systems, bunded storage areas, sealed process infrastructure and a fully lined stormwater lagoon. No direct discharge to groundwater is proposed and the development will not result in deterioration of groundwater quality or groundwater body status.

4.6.2 Issue: Concerns raised regarding the adequacy of hydrogeological investigations.

4.6.2.1 *Response*

The Applicant notes concerns regarding the extent and adequacy of the hydrogeological assessment completed for the site. A comprehensive programme of investigations was undertaken, including a desk study, the results of which are discussed in Section 12.4.6 of the EIAR, as well as site walkovers, a site investigation including drilling of boreholes, trial pits, dynamic probing, groundwater monitoring, groundwater quality sampling and a 72-hour pumping test, the results of which are found in Section 12.5.9 of the EIAR. The results of the Site Investigation are included in Appendix 12 in Volume 3. The findings provided sufficient information to characterise the site's hydrogeological environment, establish baseline conditions and inform the assessment of potential construction and operational impacts. The results were used to develop the embedded groundwater protection measures incorporated into the project design.



4.6.3 Issue: Concerns raised regarding containment failure and seepage risks.

4.6.3.1 *Response*

The Applicant acknowledges the concerns regarding tank failure or leakage. Section 3.3.7 and 3.3.7.11 of the EIAR describes the tank farm which will be constructed within a fully contained lowered bunded area to prevent the escape of liquids in the unlikely event of a major tank failure or spillage. The concrete bund will be designed and constructed in accordance with the requirements of;

- IPC Guidance Note on Storage and Transfer of Materials for Scheduled Activities (EPA, 2004)
- BS 8007 Code of practice for design of concrete structures for retaining aqueous liquids (BSI, 1987)
- CIRIA C736 Containment systems for the prevention of pollution (CIRIA, 2014)

Section 3.3.7.11 outlines the controls on the bund.

4.6.4 Issue: Concerns raised regarding long-term groundwater monitoring.

4.6.4.1 *Response*

The Applicant acknowledges concerns regarding the need for ongoing groundwater monitoring throughout the operational life of the facility. Groundwater and environmental protection measures will continue through the implementation of the facility's Environmental Management System (EMS) and any future Industrial Emissions Licence requirements as discussed in Section 12.6.3 of the EIAR. Monitoring, inspection and maintenance programmes will be undertaken for containment infrastructure, drainage systems and water quality controls. These measures will provide ongoing verification of the effectiveness of mitigation measures and ensure that any unforeseen issues are identified and addressed promptly.

4.7 Hydrology and Water Quality

4.7.1 Issue: Concerns raised regarding potential contamination of groundwater, impacts on private wells and water supplies and impact on local drains, streams and the receiving environment.

4.7.1.1 *Response*

Contamination of Groundwater

The Applicant notes the concerns regarding potential contamination of groundwater and associated receptors. Section 12.5.11 of the EIAR includes a detailed hydrogeological assessment, which confirms that the Site overlies the Athy-Bagenalstown Gravels Groundwater Body and a Regionally Important Karstified Aquifer. The assessment considered all potential pathways between the Proposed Development and groundwater receptors including groundwater, private wells, drains, streams, watercourses and surrounding agricultural lands. The baseline assessment identified no significant contamination of soil or groundwater and confirmed that the existing groundwater quality is within the applicable regulatory standards.



Section 13.1.1 of the EIAR discusses that no direct discharge of stormwater to groundwater, surface water bodies or off-site drainage systems will occur during the construction phase. During operation, all process waters will be fully contained within the facility, and stormwater will be managed through a dedicated drainage network incorporating continuous monitoring, attenuation and containment measures. The development includes impermeable surfacing, sealed process infrastructure, bunded containment areas and emergency response measures, thereby preventing contaminants from entering the surrounding soil and groundwater environment.

Private Wells and Water Supplies.

The Applicant acknowledges concerns regarding potential impacts on private wells and water supplies. A review of the Geological Survey Ireland database in Section 12.5.6.5 of the EIAR identified groundwater wells within the wider study area, and the hydrogeological assessment considered these receptors. Groundwater flow in the area is towards the west-northwest in the direction of the River Barrow, therefore no significant hydraulic impacts on existing wells are predicted. A pump test was carried out to check the yield of the proposed groundwater supply well; it is included in Appendix 12.2 of Volume 3. There was no drawdown of groundwater levels in surrounding wells. As stated above, baseline groundwater monitoring was carried out and is presented in the EIAR.

The IE licence will include a condition to monitor groundwater in the environment on a regular basis for parameters indicative of operations at the proposed development.

Local Drains, Streams and the Receiving Environment.

The Applicant acknowledges the concerns regarding the drains, streams, watercourses and surrounding farmland. The Proposed Development as described in Chapter 3 Drainage Infrastructure (Sections 3.3.17 and 3.4.11), Section 13.3.1.2 of the EIAR incorporates a robust surface water management strategy comprising fully separated drainage networks for roof water runoff, plant drainage and interceptor drainage. The drainage design includes a range of Sustainable Drainage Systems (SuDS), including swales, check dams, filter drains and a lined stormwater lagoon, providing attenuation, sediment removal and water quality treatment prior to discharge management. The chapter references the relevant drainage design drawings. This was also described in the non-technical summary.

Section 12.6.2 of the EIAR discusses that there will be no direct discharge of stormwater to groundwater, local watercourses or the wider environment. During construction, stormwater will be directed to a lined stormwater lagoon for reuse in the process, while significant dewatering and deep excavations are not required. The development has also been designed to avoid pathways to sensitive groundwater and surface water receptors, including the River Barrow and River Nore SAC. Additional safeguards include hydrocarbon interception, water quality monitoring, pollution control measures, routine inspection and maintenance procedures, and emergency response measures. Section 12.6.3 of the EIAR come to the same conclusion that during the operational phase of the proposed development there is limited to no potential for any direct effect on the receiving land, soil, geology and hydrogeology environment at the proposed development site taking account of the operational design for the proposed development.



4.8 Archaeology & Cultural Heritage

4.8.1 Issue: Concerns raised regarding potential impacts on the railway bridge.

4.8.1.1 *Response*

The Applicant Response 4.1.2 which highlights that no HGVs will be permitted to travel over the railway bridge on the L3045 east of the facility.

4.9 Landscape and Visual and Amenity Value

4.9.1 Issue: Concerns raised regarding visual impacts on nearby residences and surrounding natural landscapes

4.9.1.1 *Response*

The Applicant acknowledges the concerns regarding the visual impacts of the Proposed Development on the surrounding landscape. Section 16.7.2 of the EIAR concludes that potential construction and operational stage landscape and visual effects arising from the proposed development and proposed Gas Pipeline are considered Not Significant. Section 16.8 of the EIAR includes general recommendations for construction phase mitigation as well as landscape mitigation for the operational phase of the Proposed Development. The Applicant prepared Photomontages of the Proposed Development (Appendix 16.1) from key locations.

The Applicant notes the contention that the proposed development will be visible from the River Barrow amenity walk. The LVIA considered all locations where there is potential to see the proposed development site taking into account sensitive amenities and views using the ZTV, see Figure 16-8 in Chapter 16. Photomontage VP4 was taken on the Barrow Way Amenity trail. The proposed development is well screened at this location due to the existing topography. The photograph was taken in winter when vegetation is bare.

4.10 Any Other topics/ issues etc

4.10.1 Issue: Concerns raised regarding the supply viability

4.10.1.1 *Response*

The Applicant acknowledges concerns regarding the long-term viability and security of feedstock supply for the Proposed Development. As outlined in Section 3.2.6 of the EIAR, the proposed feedstocks comprise agricultural residues including cattle slurry, pig slurry, duck slurry, poultry manure and farmyard manures. A comprehensive feedstock assessment identified approximately 3.65 million tonnes of suitable feedstock available annually within 35 km of the Site, generated from approximately 6,382 farms across Counties Carlow, Kildare, Kilkenny, Laois, Wexford and Wicklow. This significantly exceeds the feedstock requirements of the Proposed Development.

4.10.2 Concerns raised regarding enhancement to the community

The Applicant acknowledges Third Party observations regarding community enhancement.



4.10.2.1 Response

The Applicant will comply fully with any terms and conditions relating to a Community Benefit funds for any connection agreements put in place.

4.10.3 Concerns raised regarding fire, explosion and major-accident risk

4.10.3.1 Response

The Applicant acknowledges the concerns regarding explosions and fire hazards associated with anaerobic digestion. A land use assessment was submitted with the planning application pack, separate to the EIAR and NIS. It maps risk-based land use planning contours and assesses societal risk associated with the proposed development. The individual risk contours are based on consequence assessment and risk modelling of major accident scenarios identified for the proposed development. The assessment has been completed in accordance with the Health and Safety Authority's Guidance on technical land-use planning advice for planning authorities and COMAH establishment operators (HSA, 2023).

The COMAH status is assessed in accordance with the criteria set out in Schedule 1 of the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015 (S.I. 209 of 2015) (COMAH Regulations 2015). The proposed development will be classified as a "lower tier" COMAH establishment and as such will be subject to the provisions of the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations, S.I. No. 209 of 2015.

Under the planning process, ACP will submit the land use assessment to the Health and Safety Authority who will offer advice to the planning authority regarding grant of permission based on the risk assessment.

The land use assessment report concluded that the individual location-based risk contours corresponding to the tolerable levels for new COMAH establishments do not extend to any off-site work location and the 1 x 10⁻⁶ per year risk contour extends to the property east of the BNEF container where the public are present. On grant of planning permission an agreement is in place whereby Greengate Biogas will acquire the site as a vacant property for future commercial use. Any future use will comply with the HSA's land use matrix in Table 3-1 in Section 3.2. The criteria in Table 1 of the HSA's Guidance on Technical Land Use Planning advice (HSA, 2023) are therefore met, and the level of off-site risk at the proposed development is acceptable. No major accident scenarios were identified that would result in off-site fatalities. The societal risk Expectation Value (EV) is therefore 0, which is below the developmental threshold of 100 above which further risk reduction would need to be demonstrated. Accordingly, no further risk reduction is required.

4.10.4 Concerns raised regarding light spillage

4.10.4.1 Response

The Applicant acknowledges the concerns regarding light spillage into local residential properties. The lighting design which is detailed in Section 3.3.19.5 of the EIAR has been developed to provide safe and efficient site operation while minimising light emissions beyond the Site boundary. Most operational activities will occur within enclosed buildings, significantly reducing external light emissions. External lighting will comprise directional, energy-efficient LED fittings designed to direct light towards operational areas and minimise light spill. Lighting within the tank farm and gas upgrading areas will be limited to essential infrastructure, while external security lighting will be controlled by passive infrared (PIR) and motion sensors to ensure illumination is only provided when required.

Given the enclosed nature of the facility, the use of directional low-spill lighting and sensor-controlled security lighting, significant adverse effects associated with light spill or light pollution are not anticipated.



5. CONCLUSION

As detailed within our Strategic Infrastructure Development Application, we respectfully request An Coimisiún Pleanála to review our response to the submissions lodged when reaching their decision on the application in the interest of proper planning and sustainable development of the area. It is submitted that all the concerns raised in the submissions have been addressed in the planning application. No new information has been added in this report, it merely points to the existing planning documentation.

This renewable energy project is an important part of contribution to lowering CO₂ levels and in meeting our statutory renewable energy targets. It is submitted that, having regard to National Energy Policy, and the policies set out in the County Development Plans which supports Renewable Energy development in Carlow, the proposed development is in accordance with the proper planning and sustainable development of the area.

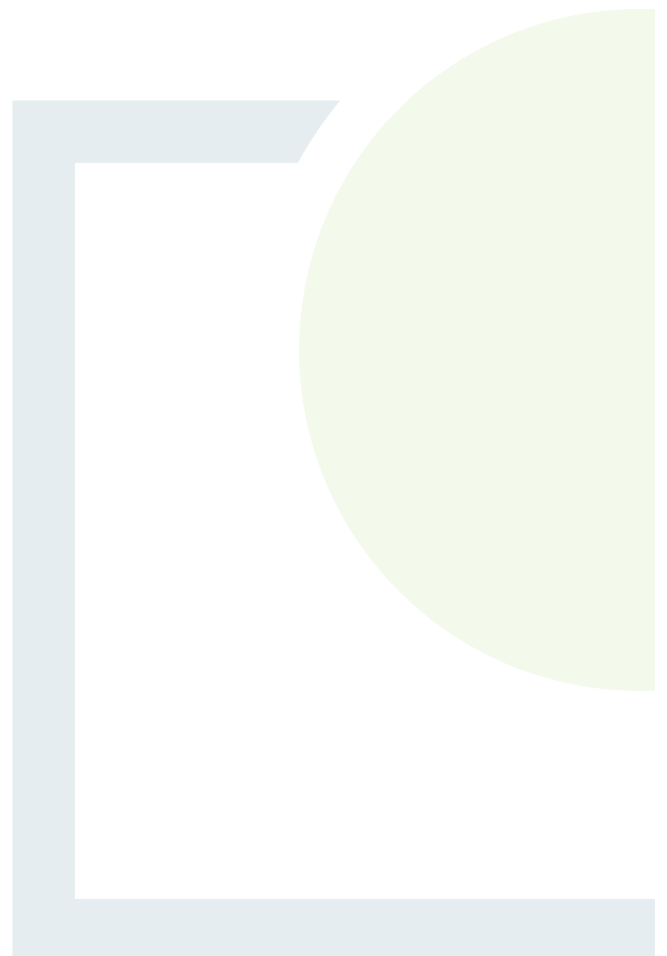
It is submitted that this submission response and the SID application already submitted has adequately addressed the concerns raised in submissions.



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 1

Summary of Submissions



Submission by:	Traffic & Transport	Population and Human Health	Air Quality	Climate	Noise & Vibration	Biodiversity	Soils, Geology & Hydrogeology	Hydrology & Water Quality	Archaeology & Cult. Heritage	benefit	Material Assets & Telecoms etc.	Any other topics / issues etc.
Colette Dermody	Concerns regarding traffic volumes associated with the proposed development, increased HGV movements on local roads, road safety implications, and suitability of the local road network to accommodate operational and construction traffic.	Concerns regarding impacts on residential amenity, quality of life, and enjoyment of nearby properties arising from the operation of the development.	Concerns regarding potential odour emissions and their impact on nearby residents and outdoor amenity areas.		Concerns regarding operational disturbance and impacts on the amenity of nearby residences.		Concerns regarding potential impacts on groundwater resources and the protection of underlying aquifers.	Concerns regarding groundwater quality, contamination risks, and protection of local water resources.		Concerns regarding visual impacts of the development, including visibility from the dwelling and surrounding area, and impacts on the character of the rural landscape and nearby recreational users of the Barrow towpath.		pests and vermin
Vincent Francis Dermody	Significant concerns regarding suitability of the L3045, narrow carriageway, blind chicane, railway bridge constraints, HGV routing, road safety, structural capacity of bridge, lack of road safety audit, cumulative agricultural traffic, vulnerable road users, and enforceability of routing controls. Requests refusal or strict traffic management measures.	Community severance, impacts on elderly and disabled residents, loss of safe pedestrian access, health and wellbeing impacts from reduced mobility, residential amenity impacts from odour, noise and traffic.	Concerns regarding odour, dust, airborne emissions, air quality receptor selection, prevailing winds carrying emissions toward nearby houses, and adequacy of modelling.	Supports renewable energy and national climate targets but argues this does not override local site-specific environmental and safety concerns.	Concerns regarding operational noise, tanker movements, traffic noise increases on the L3045, construction noise and residential amenity impacts.	Concerns regarding adequacy of ecological surveys, winter bird surveys, Natura Impact Statement, River Barrow and River Nore SAC, potential effects on protected habitats and species, and proximity to designated sites.	Major concern regarding development on former quarry/extraction pit, groundwater vulnerability, lack of hydrogeological assessment, absence of groundwater monitoring, borehole protection and containment failure risks.	Concerns regarding surface water pathways to the SAC, spills, containment failures, digestate storage, runoff, stormwater controls, private wells and impacts on groundwater and watercourses.	Concerns regarding the unassessed 19th-century railway bridge (OPW 79) and lack of consultation with Iarnród Éireann.	Concerns regarding visual impacts, selected viewpoints, omission of public viewpoints, visibility from houses, recreational routes and elevated viewpoints, and adequacy of photomontages.	Concerns regarding railway infrastructure, gas pipeline consenting, infrastructure constraints, road condition deterioration, bridge structural integrity and utility connections.	pests and vermin wants permission for 5 years Adequacy of EIAR; corporate accountability; COMAH risks; enforceable monitoring; financial bonds; ownership changes; 10-year permission duration; oral hearing request; vermin and pest impacts; resident liaison committee.
Lizzie Dermody	Concerns regarding existing HGV traffic, inability to safely walk on the local road, pedestrian safety, road danger at the bridge, and request to prevent lorry use of the road past her home.	Impacts on mobility, independence, elderly residents, partially sighted persons, ability to exercise, family health and wellbeing, and concerns regarding contaminated well water.	Concerns regarding odours, flies, rats and potential contamination affecting residential amenity.				Concerns regarding private well contamination and groundwater protection.	Reliance on private well water and concerns regarding pollution of water supplies.			Concerns regarding local road infrastructure and accessibility.	Concerns regarding vermin, flies and rats based on previous experiences associated with the landfill. Requests refusal of permission and mitigation measures if approved.
Mary Foley	Concerns regarding significant increase in traffic (240 movements per day), cumulative traffic with quarry, agricultural and local business traffic, and impacts during construction.	Concerns regarding quality of life, human health impacts from odours and gases, effects on vulnerable residents, loss of rural amenity, and lack of direct community benefit.	Concerns regarding odour, hydrogen sulphide, methane, emissions, quarry dust, cumulative air quality impacts and persistent foul smells.	impact of climate change	Concerns regarding quarry noise, blasting, increased traffic noise and additional noise associated with the proposed development.	Notes presence of mature trees, hedgerows, flora, fauna and bat activity in the area, with concern regarding industrialisation of the rural environment.	Concerns regarding impacts on private wells and groundwater resources.	Concerns regarding impacts on private well water supplies.		Concerns regarding visual impacts from the scale of the development, cumulative visual impacts with the solar farm in Ballybar, and industrialisation of the rural landscape.		Concerns regarding vermin, feedstock availability, economic viability, community benefit, corporate social responsibility, construction disruption and quarry-blasting safety risks.
Philip Deacon	Concerns regarding increased HGVs, tankers, agricultural and construction traffic; local road width, alignment, visibility, road condition, pedestrian and cyclist safety; need for realistic traffic assessment and road safety audit; permission should be refused if roads cannot safely accommodate traffic.	Concerns regarding impacts on residents' quality of life, enjoyment of homes and gardens, public safety, and potential health impacts from emissions and odours.	Concerns regarding odour, dust, ammonia, methane, bioaerosols, vehicle exhaust emissions and human health impacts; requests monitoring and enforcement measures.		Concerns regarding compressors, pumps, fans, vehicles, reversing alarms, generators and construction noise; cumulative vibration effects with quarry activities.		Concerns regarding impacts on soils, groundwater, wells and surrounding farmland; requests detailed bunding, containment, monitoring and protection measures.	Concerns regarding leaks, overflows, slurry and digestate spills, polluted runoff, firewater contamination, impacts on groundwater, streams, drains and watercourses.		Concerns regarding industrialisation of rural landscape, visual effects of tanks, buildings, pipework and lighting; requests accurate photomontages and landscaping.	Concerns regarding local road infrastructure, emergency access, road wear, drainage infrastructure and plant infrastructure associated with the development.	Unsuitable rural location; cumulative impacts with quarry; fire and explosion risk; feedstock and digestate controls; independent review of assessments; construction management; oral hearing request.
Deacon Family	Concerns regarding increased HGV traffic, road width, alignment, junction capacity, road condition, railway bridge constraints, poor visibility, and safety risks to residents, pedestrians, cyclists and road users.	Concerns regarding quality of life, household living conditions, agricultural activities, livestock health, farm operations, public safety and local community impacts.	Concerns regarding odours, smells from waste processing, dust, emissions from vehicles and operation of the facility.	environmental benefits, transport distances and overall sustainability of the project.	Concerns regarding compressors, pumps, fans, generators, reversing alarms, vehicle movements, construction noise and cumulative quarry vibration impacts.n		Concerns regarding spillages, leaks, overflows, contamination of farmland, drainage infrastructure and ground conditions affected by nearby quarry activities.	Concerns regarding leaks, slurry/digestate spills, overflows, impacts on wells, drains, streams, watercourses, groundwater and water quality.		visual impacts on the family home and farm.	Concerns regarding gas pipelines, storage tanks, foundations, drainage infrastructure, buried services, plant integrity, quarry blasting impacts and road wear.	Concerns regarding vermin, flies and pests, fire and explosion risks, feedstock supply, environmental benefit claims, local economic benefits, cumulative impacts with quarries and blasting at dan morrissey causing damage to plant infrastructure

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Department of Housing, Local Government and Heritage						Reviewed the NIS and EIAR; identified the River Barrow and River Nore SAC as the principal ecological receptor. Emphasised protection of water quality, aquatic ecology, white-clawed crayfish, fish, otter, bats, breeding birds, amphibians and protected flora. Recommended biosecurity measures, ecological monitoring, otter protection, breeding bird protection and wildlife-sensitive lighting.		Identified water quality as the principal environmental issue. Raised concerns regarding hydrological connectivity to the River Barrow and River Nore SAC, HDD crossing of the River Barrow, sedimentation, drilling-fluid frac-out and accidental pollution risks. Recommended robust water quality protection, monitoring and contingency measures.	Reviewed the Archaeological Impact Assessment and recommended archaeological monitoring of all groundworks along the gas pipeline route, implementation of EIAR mitigation measures, preservation by record where required, inclusion of archaeological constraints within the CEMP, and submission of a final archaeological report.			
Environmental Protection Agency		Notes that environmental emissions and associated impacts will be assessed through the Industrial Emissions licensing process.	States that all emissions to the environment will be assessed through the EPA Industrial Emissions licensing process and regulated using Best Available Techniques (BAT).		Noise emissions to be considered as part of any future Industrial Emissions licence assessment.			Environmental emissions to waters and associated impacts will be assessed under the Industrial Emissions licensing regime.			Notes the development will require an Industrial Emissions Licence and is also subject to COMAH regulations as a Lower Tier establishment.	Advises that the development may require an Industrial Emissions Licence under Class 11.4. States that the EPA will undertake a separate EIA of matters within its remit, apply BAT and relevant EU and national standards, and may refuse a licence if the activity cannot be adequately regulated.
Geological Survey Ireland				Recommends use of GSI climate datasets, including groundwater climate, geothermal, carbon accounting and climate change datasets.		References Geoheritage datasets and environmental assessment resources.	Welcomes use of GSI datasets including bedrock, subsoils, aquifers, groundwater vulnerability, karst, landslide susceptibility and quarry mapping data. Requests site investigation reports be submitted to GSI.	Recommends use of groundwater, surface water, flooding and related datasets in environmental assessment.	Identifies archaeological, underwater archaeology and historical landscape datasets as available resources.	Recommends use of physiographic, historical landscape and geoheritage datasets.		General recommendation to utilise GSI datasets throughout the EIAR and planning process.
Uisce Éireann							Reviewed EIAR Chapters on Soils, Geology and Hydrogeology. Notes groundwater abstraction well on site and concludes development is unlikely to affect Uisce Éireann groundwater abstractions.	Notes development is outside public drinking water abstraction catchments and unlikely to impact Uisce Éireann abstractions.			Notes no existing connection to public water or wastewater infrastructure.	Recommends conditions relating to service connections, protection of abstraction sources, trade effluent licensing and protection of Uisce Éireann infrastructure.
Transport Infrastructure Ireland	TII concerned that mitigation measures not included to follow TII stds Concern regarding abnormal loads Concern regarding works within motorway reseveration											
National Environmental Health		Reviews impacts on population and human health; recommends full implementation of mitigation measures, appointment of a Community Liaison Officer and protection of residents from noise, dust, odour and traffic effects.	Assessed air quality and odour impacts; recommends implementation of dust suppression measures, odour controls, wheel washing, covering loads, water spraying and compliance with EPA licensing requirements.		Reviews noise assessment; recommends restricted construction working hours, complaint management procedures and implementation of all noise mitigation measures contained within the CEMP.	Notes proximity to the River Barrow and River Nore SAC and recommends protection of environmental receptors through mitigation measures.	Assesses hydrogeology impacts and recommends pollution prevention measures, bunding, protection of groundwater, sinkhole protection and monitoring of drainage infrastructure.	Reviews hydrology assessment, drainage design and water quality protection measures. Recommends temporary drainage controls, SuDS measures, bunded storage, water quality monitoring and protection of surface water and groundwater.		Recommends compliance with guidance on reduction of obtrusive lighting to protect residential amenity.		Recommends operation should not commence until EPA and DAFM approvals are obtained; recommends community liaison arrangements, environmental monitoring, management of cumulative impacts and implementation of all mitigation measures.



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