4 Planning and Policy

4.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) examines the relevant waste management, energy, climate change and planning policy, and the legislative context at European, national, regional, and local levels with relevance to the Proposed Development at the townlands of Curraghnagarraha, Reatagh, and Curraghballintlea, Co. Waterford.

The planning history most relevant to the subject site is also summarised below.

4.2 Site Planning Application History

The following planning history is based on a review of the Proposed Development site and surrounding area using the Planning Authority online planning search tool.

Reg. Ref.: 10/222 – Biogas Plant – At the Subject Site and Adjacent Lands to the South

Waterford City and County Council (WCCC) granted permission on 30th March 2011 for the following development:

"Permission for a Biogas Plant consisting of 2 no. digester tanks, geomembrane lined manure storage basin, fibre store, 3 no. feed tanks, reception building, reception bays, plant building, pasteurisation tank, weighbridge, and associated site works to produce renewable energy and fertilizer incorporating the footprint of the plant approved under planning reference no. (06/1518). This development comprises of an activity in relation to which a license under Part IV of the Environmental Protection Agency Act 1992 as amended by the Protection of the Environment Act 2003 is required. An EIS will be submitted to the Planning Authority with the application."

As part of their assessment, WCCC requested Further Information (FI) on the 12th of August 2010 and the 18th of November 2010. The FI items requested are summarised below:

- Clarify the status of the EIS: if the submitted EIS relates to the existing farm, was prepared as part of an application / review of IPCC licence or was submitted solely to provide additional information in support of the current proposal.
- Revised EIS: include the following:
- Clarify ownership of the dwelling to the south of the proposed development.
- Submit a land registry folio map showing the total landholdings in the area including copies of the title deeds and land registry documents which demonstrate ownership of the site.
- Clarify the traffic movements that will be generated (sizes, times, frequency of deliveries and if certain times of the year will generate more traffic than other types).
- An assessment of the traffic impact.
- Revised site layout plan (1:500) showing the entrance located such that clear and unobstructed sightlines are available from a point 4.5m back from the nearside edge of the roadway at the centre of the entrance to a point to the left and right on the nearer edge of the major road running carriageway (including the hard shoulder) for a distance of 160m. The appropriate eye (1.05m and 2.0m) and object heights of 0.26m and 2.0m respectively shall be used. The road boundary fence shall be set back behind the sightlines so as to accommodate this requirement.

- It was stated that water samples were taken from wells supplying the unit, from storm water runoff points and that dull analyses results from an independent laboratory are included in the Annual Environmental Report. However, no details of water samples taken from wells are provided – please clarify and submit details of same.
- Submit well pumping tests to demonstrate there is sufficient supply for the proposed development. Pumping schedule to be included.
- Submit the dates of the conducted Habitat Survey – including a habitat map according to Fossit classifications and flora list, fauna list and bird list.
- Screening for an Appropriate Assessment of the Lower River Suir SAC as the surface water runoff will discharge to a stream that feeds the River Suir.
- Baseline quality of the air shall be determined and subsequently assess the potential impacts of the operation of the development. Mitigation measures to minimise the potential impacts shall be included.
- A day and night acoustic assessment.
- Archaeological Impact Assessment.
- The Traffic Impact report stated that queuing of traffic entering and existing the proposed plant will be negligible because of the requirement for other regulating authorities for independent access to the plant – details of the requirements of other regulating authorities, routes etc. shall be submitted.
- It is stated that deliveries of biomass will be at a rate of 1 to 2 loads a day, however, the summary and conclusions of the Traffic Impact report states that the additional traffic impact from the delivery of biomass to the plant equates to equivalent of 1 trip per hour between 8:00 and 18:00 – please clarify.
- A Screening for an Appropriate Assessment shall be submitted.

Following the applicant's response to the FI items, a grant of permission was issued on 20th March 2011 by WCCC, subject to 21 no. conditions. A summary of relevant conditions are included below for reference. The biogas plant was not constructed on the site and permission has since expired:

- <u>Condition 2:</u> *A revised site layout plan shall be summitted indicating the entrance located such that clear and unobstructed sight lines are available from a point 4.5m back from the nearside edge of the roadway at the centre of the entrance to a point to the left and right on the nearer edge of the major road running carriageway from a distance of 160m. The appropriate eye (1.05m and 2.0m) and object heights of 0.26m and 2.0m respectively shall be used. The road boundary fence shall be set back behind the sightlines so as to accommodate this requirement.*
- <u>Condition 3:</u> *Any change of use, intensification of use or scaling up of activities shall be subject of a further planning application;*
- <u>Condition 4:</u> *Prior to commencement of any development, the developer shall have obtained a license in accordance with Conditions for Approval and operation Of Biogas Plants Treating Animal By-Products in Ireland, Governing EU Legislation;*
- <u>Condition 5:</u> *Prior to the commencement of any development, an application for and approval of a review of the existing Integrated Pollution Prevention and Control (IPPC) License shall be submitted to and approved by the Environmental Protection Agency;*
- <u>Condition 7:</u> *Haulage of waste along a public road shall be carried out using a watertight container and in a manner which will avoid the creation of a nuisance, disagreeable and unsafe conditions for pedestrians and residents and a traffic hazard for other road users. The delivery of all organic material to the site (16,000 tonnes per annum as per the submitted E.I.S) shall be via the regional road and Piquet's Cross Roads to the west of the site.*

- *<u>Condition 11:</u> A landscape plan shall be submitted to the Planning Authority, including details of all existing trees and hedgerows, specifying those proposed for retention, together with measures for their protection. Special attention shall be paid to southern, western and northern boundaries;*
- *<u>Condition 18:</u> A 5m riparian area between the stream bank and the new boundary fence surrounding the facility shall be maintained. A 5m riparian area between the re-routed stream and the new boundary fence surrounding the facility shall be established and maintained. Details of silt control measures to mitigate the potential negative impacts of silt / suspended solids entering watercourses shall be submitted to the Planning Authority for agreement;*
- *<u>Condition 19:</u> Revised plans shall be submitted to the Planning Authority for a concrete digestate storage basin in lieu of geomembrane lines manure basin as indicated by the submitted plans.*

This previous grant of planning permission on the subject site provides a relevant precedent for development of this nature at the subject site.

The previous planning process has also helped to inform the current application, which also takes account of significant improvements in technology and updates to planning, environmental, and energy policy in the interim, resulting in a refined process and physical design for the Proposed Development.

<u>Reg. Ref.: 23/190 – Solar PV System – Southeast of Subject Site</u>

Waterford City and County Council ('WCCC' hereafter) granted permission on the 3rd August 2023, subject to 3 no. conditions, for the following development at Reatagh, Carrick-on-Suir, Co. Waterford:

"A 450 kwp ground mounted Solar PV system on 0.94 ha site and all associated ground works to the rear of the premises."

<u>Reg. Ref.: 19/896 – Retention and Change of Use – Southwest of Subject Site</u>

WCCC granted retention permission on the 30th January 2020, subject to 8 no. conditions, for the following development at Curraghnagarraha, Carrick-on-Suir Co. Waterford:

"Retention for buildings as constructed for use as activity centre for bouncy castle, play centre for children and for change of use of part of existing dairy building for use as a kitchen and toilets to service the activity centre and planning permission to decommission existing septic tank serving the activity centre/residence, and install packaged wastewater treatment system and polishing filter to service the activity centre/residence and planning permission to alter and improve the existing Vehicular Entrance serving both the activity centre and residence".

<u>Reg. Ref.: 19/655 – Erection of Solar Panels – Southeast of Subject Site</u>

WCCC granted permission on the 29th of October 2019 for the following development:

"The erection of PV solar panels on the western aspect of the roofs of the following buildings in the farmyard complex: Fattening Houses A, B, C, D, P, Q, R, A-B, A-C, Farrowing House Gi, Weaner Houses Gii, Dry sow Houses L & M. The development comprises of an activity in

relation to which an Industrial Emissions Directive Licence (formerly IPPC Licence) is operated".

Reg. Ref.: 07/1016 – Dry Store, Mill and Mix Room – Southeast of Subject Site

WCCC granted permission on the 21st of May 2007, for the construction of a dry store, mill and mix room. This development comprises of an activity in relation to which a license under Part 1V of the Environmental Protection Agency Act 1992 as amended by the Protection of the Environment Act 2003 is required. Permission was granted subject to 6 no. conditions that can be summarised as follows:

- All roof water of the building shall be disposed of separately to soakaways or watercourses; gutters and downpipes shall be properly maintained, and gullies constructed in such a manner as to prevent soiled water entering them; and no surface water, effluent or soiled waters shall be allowed to discharge to a public roadway;
- All galvanised cladding shall after weathering match the colour of the existing farm buildings;
- All excavated material shall, where practicable, be reused on site. Surplus material to be removed from the site shall be brought to an authorised facility. Prior to the removal of any surplus material, the Environmental Section of Waterford County Council shall be informed on the approximate quantity of material and the location of the proposed facility;
- The applicant is required to employ a qualified archaeologist to monitor all associated groundworks;

Reg. Ref.: 06/1518 – Farrowing House Replacement – Southeast of Subject Site

WCCC granted permission on the 20th of February 2007 for the following development:

"Permission for the replacement of farrowing house (G) with new farrowing house (G11) and weaner rooms (G111). The construction of farrowing house (G1) and fattening house (A-D) in compliance with Welfare Regulations. Also, for the revision of the type and location of the tanks, engineered storage basin and shed for a Biogas Plant to process pig manure and other organic material to produce renewable energy and fertilizer".

Permission was granted subject to 16 no. conditions.

Reg. Ref.: 05/458 – Modify the Dry Sow House – Southeast of Subject Site

WCCC granted permission on the 13th of June 2005 for the following development:

"To modify the dry sow house granted by Planning Permission 04/1418. This development comprises of an activity in relation to which a license under Part 1V of the Environmental Protection Agency Act 1992 as amended by the Protection of the Environment Act 2003 is required."

Permission was granted subject to 3 no. conditions.

Reg. Ref.: 04/1418 – Construct a Dry Sow House – Southeast of Subject Site

WCCC granted permission on the 18th of November 2004 for the construction of a dry sow house. Permission was granted by the Planning Authority subject to 6 no. conditions.

Reg. Ref.: 04/1325 – Retention of relocation and retention of extension – fattening house and tank – Southeast of Subject Site

WCCC granted retention permission on the 4th of October 2004 for the:

"The retention of relocation of fattening house AA, retention of extensions to fattening house AB(i), AB(ii) and retention of tankY3. This development comprises of an activity in relation to which a licence under part 1V of The Environmental Protection Agency Act 1992 applies."

Permission was granted subject to 5 no. conditions.

Reg. Ref.: 03/610 – Shed, Tanks and Basin; Process Pig Manure and Produce Renewable Energy – Southeast of Subject Site

WCCC granted permission on the 3rd of February 2004 for the development of a *"Five span shed, 3 overground storage tanks, engineered storage basin and associated site works incorporating a digester to process pig manure and other organic material to produce renewable energy and fertiliser".*

Permission was granted subject to 13 no. conditions.

Reg. Ref.: 02/812 – 2 No. Fattening Houses – Southeast of Subject Site

WCCC granted permission on the 1st of October 2002 for the construction of 2 no. fattening houses to comply with pig welfare regulations.

Permission for development was granted subject to 1 no. condition.

Reg. Ref.: 01/670 – Double Garage and Alterations to Existing Residence – South of Subject Site

WCCC granted permission on the 29th of August 2001, subject to 3 no. conditions, for the erection of a double garage, alterations to the existing residence and retention permission in respect of extension to same.

Reg. Ref.: 01/119 – Bungalow – West of Subject Site

WCCC granted permission on the 28th March 2001, subject to 9 no. conditions, for the *"erection of Bungalow Residence, Septic Tank, Entrance & Garage".*

Reg. Ref.: 01/118 – Bungalow – West of Subject Site

WCCC refused outline permission on the 30th May 2001 for a Bungalow Residence, Septic Tank & Entrance.

Reg. Ref.: 98/931 – Mobile Home – North of Subject Site

WCCC granted permission on the 25th November 1998, subject to 2 no. conditions, for the temporary siting of a mobile home.

Reg. Ref.: 81/63 – House – Southeast of Subject Site

WCCC granted permission on the 16th April 1981, subject to conditions, for the construction of a house.

Reg. Ref.: 79/247; 81/429; and 81/433 – Bungalow – Southwest of Subject Site

WCCC granted permission in 1979, 1982 and 1982, subject to conditions, for the development of a bungalow at Curraghnagarraha, Carrick-on-Suir.

4.3 European Policy and Legislation

4.3.1 Energy and Climate

The need to recognise the impact of anthropogenic climate change and transition our way of life towards dealing with the effects of climate change is dealt with across European policy and legislation. The key energy and climate policies and legislative documents with relevance to the Proposed Development are set out in this section.

The EU has pledged to achieve climate neutrality by 2050, delivering on commitments under the Paris Agreement (COP21). Reaching this objective will require a transformation of Europe's energy supply, society, and economy. With the 2030 Climate Target Plan[1], the EC proposes to raise the EU's ambition on reducing greenhouse gas (GHG) emissions to at least 55% below 1990 levels by 2030. The plan recognises the significant contribution of the agricultural sector to GHG emissions and while these emissions can never be fully eliminated under existing technology and management options, they can be significantly reduced, whilst ensuring food security is maintained in the EU. Efficient use of fertilisers, adopting precision farming, a healthier herd and the deployment of AD technologies treating organic waste to produce renewable biogas are highlighted within the plan as examples of existing technologies.

The European Green Deal package of policy initiatives was launched by the EC in 2019, which aims to set the EU on the path to a green transition, with the ultimate goal of reaching climate neutrality by 2050. The associated Fit for 55 legislative package aims to translate the ambitions of the Green Deal into law. The policy package itself underlines the need for a cross-sectoral approach in which all relevant policy areas contribute to the ultimate climate-related goal. The package includes initiatives covering the climate, the environment, energy, transport, industry, agriculture, and sustainable finance.

The Green Deal recognises that "*renewable and low-carbon gases, such as biomethane, will play a central role in achieving climate neutrality*"[2]. Biogas and biomethane, renewable and low carbon hydrogen have the potential to gradually replace fossil gases, including natural gas, and can be used as a fuel to reduce emissions in hard-to-abate sectors, particularly in industry and transport.

[1] Communication from The Commission to The European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions - *Stepping up Europe's 2030 climate ambition Investing in a climate-neutral future for the benefit of our people*. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0562

[2] European Commission, Directorate-General for Communication, (2021) *Delivering the Green Deal: the role of clean gases including hydrogen.* https://data.europa.eu/doi/10.2775/718801

As part of the Deal, the EU Farm to Fork Strategy[3] was published which includes proposals to transform agriculture and position it as a key sector for climate mitigation and adaptation. The development of an agri-led biomethane industry in Ireland is strongly aligned with a number of the headline Farm to Fork goals, including:

- Ensure food production has a neutral or positive environmental impact.
- Carbon Farming Initiative - implement green business models that sequester carbon.
- Promote a circular bio-based economy.
- Reduce pesticide use and excess nutrients in the environment by 2030.
- Achieve a 50% reduction in nutrient losses without reducing soil fertility leading to a 20% reduction in fertiliser use.
- Increase the proportion of organic farming to 25% by 2030.

4.3.2 EU Common Rules on Renewable Gasses

The common rules for the internal markets for renewable gas, natural gas and hydrogen (recast) European Parliament legislative resolution was published on the 11th of April 2024.

The common rules outlined that the Commission communication of 8 March 2022 entitled 'REPowerEU: Joint European Action for more affordable, secure and sustainable energy' (REPowerEU), which was adopted after the beginning of Russia's unprovoked and unjustified military aggression against Ukraine, highlighted the importance of diversification of gas supplies to phase out the Union's dependency on Russian energy.

REPowerEU recognised that "*scaling up sustainable biomethane and the roll-out of renewable hydrogen could play a decisive role"* in ensuring secure and more sustainable power supply for the EU.

The common rules recognise that "*Although electrification is a key element of the green transition, household natural gas consumption, including increasing volumes of renewable gas, in particular biomethane, will continue to exist in the future."*

The common rules go on to state the following:

"Member States should take concrete measures to assist the wider use of sustainable biomethane, or other types of gas, that can technically and safely be injected into, and transported through, the natural gas system, the producers of which should be granted non-discriminatory access to that system, provided that such access is compatible with the relevant technical rules and safety standards on an ongoing basis and unless otherwise provided for in this Directive"

The rules also state that Member States should seek to expedite and support the connection of biomethane producers to the natural gas network, and that Member States must ensure that transmission and distribution system operators adhere to reasonable time limits to assess requests for the injection of biomethane.

[3] Communication from The Commission to The European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions - *A Farm to Fork Strategy for a fair, healthy, and environmentally friendly food system.* https://ec.europa.eu/info/sites/default/files/communication-annex-farm-fork-green-deal_en.pdf

4.3.3 Renewable Energy Directive

The current Renewable Energy Directive 2018/2001/EU[4] entered into force in December 2018 and has since been amended by Directive EU 2023/2413[5] (RED III). On 12 September 2023, RED III was adopted by the Parliament. The Directive establishes a basis in policy for the production and promotion of renewable energy, setting a new binding renewable energy target for the EU for 2030 of at least 42.5%, with this target having been revised upward in 2023 from 32%.

This target is a continuation of the 20% target for 2020. In order to help EU member countries to achieve this target, the directive introduces new measures for various sectors of the economy, particularly on heating, cooling, and transport. It also includes new provisions to enable citizens to play an active role in the development of renewables by enabling renewable energy communities and self-consumption of renewable energy. It also establishes strengthened criteria to ensure bioenergy's sustainability.

The 2023 amending Directive altered the 2018 Directive to align with increased climate ambitions and recognise renewable energy as an “overriding public interest” in the Appropriate Assessment process.

Under this revision the planning, construction and operation of renewable energy plants, their connection to the grid and the related grid itself, and energy storage assets are presumed to be in the overriding public interest and serving public health and safety when balancing legal interests for the purposes of the Birds, Habitats, and Water Framework Directives. The revisions to the Directive present further evolution of the target to accelerate the development of renewable energy developments in EU member states.

Building on the 2009 and 2018 directives, the revised directive introduces stronger measures to ensure that all possibilities for the further development and uptake of renewables are fully utilised. This will be key to achieving the EU's objective of climate neutrality by 2050 and to strengthen Europe's security of energy supply.

In addition to the new headline target to double the existing share of renewable energy sources, a strong policy framework will facilitate electrification in different sectors, with new increased sector-specific targets for renewables in heating and cooling, transport, industry, buildings, and district heating/cooling, but also with a framework promoting electric vehicles and smart recharging.

To support renewables uptake in transport and heating and cooling, the revised directive converts into EU law some of the concepts outlined in the energy system integration and hydrogen strategies, published in 2020. These concepts aim at creating an energy-efficient, circular, and renewable energy system that facilitates renewables-based electrification and promotes the use of renewable fuels, including hydrogen, in sectors like transport or industry where electrification is not yet a feasible option. For these hard-to-electrify sectors, the directive sets new binding targets for renewable fuels of non-biological origin.

[4] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources. https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=uriserv:OJ.L_.2018.328.01.0082.01.ENG

[5] Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023L2413&qid=1699364355105

As an important bottleneck to the deployment of renewables on the ground, permitting procedures will also be easier and faster both for renewable energy projects (including through shorter approval periods and the creation of 'Renewables acceleration areas') and for the necessary infrastructure projects. Under the amended Directive, member states must identify areas for the acceleration of renewables where projects will undergo a simplified and fast-track procedure.

Member States (including Ireland) must transpose RED III into national law by 21 May 2025. However, certain provisions – including those aimed at accelerating permit-granting procedures – are required to be transposed into national law by 1 July 2024.

4.3.4 REPowerEU Energy Plan

The European Commission presented the REPowerEU Energy Plan on the 18th of May 2022, which aims to tackle the climate crisis by accelerating Europe's clean energy transition and adopts a call to end European dependency on Russian fossil fuels. The Plan recognises that the uptake of biomethane involves a continued support to innovative technologies for the production of sustainable biomethane, upgrade of biogas to biomethane and its integration within the gas network.

The proposal contains a Biomethane Action Plan[6] to stimulate the renewable gas value chain within EU member states and achieve production of 35 billion cubic metres (bcm) of biomethane by 2030. This plan also includes a targeted revision of the Fitfor55 energy efficiency and renewable targets, together with the necessary measures to accelerate Renewable Energy Sources (RES) permitting and recommendations to facilitate renewable gas injection.

4.3.5 EU Strategy to reduce Methane Emissions

After CO_2, methane is recognised as the second largest GHG contributor to climate change. Methane emissions from livestock originate from ruminant species, manure management and feed cultivation. The EU Strategy to reduce Methane Emissions[7], published in 2020, acknowledges the agriculture sector as having the highest potential in overall benefits for reducing methane emissions. The Strategy points to the benefits of biogas derived from organic agricultural wastes to reduce methane emissions, generate new revenue streams for farmers and contribute to wider rural development.

The use of digestate is also identified as an organic soil improver and mechanism to displace chemical fertilisers. It is noted that sequential cropping can be used with manure as feedstock for sustainable biogas production, while contributing to sustainable farming practices. The Strategy aims to provide targeted support to accelerate the development of the EU market for biogas from sustainable sources such as livestock manure, organic waste, and residues via policy initiatives.

[6] Biomethane Action Plan. https://eur-lex.europa.eu/legal content/EN/TXT/?uri=SWD%3A2022%3A230%3AFIN&qid=1653033922121

[7] European Commission (2020) *Communication from the Commission to the European Parliament, The European Council, The Council, The European Economic and Social Committee and the Committee of the Regions* - on an EU strategy to reduce methane emissions

4.3.6 Waste

The benefits of Anaerobic Digestion (AD) are recognised and promoted in European Union (EU) waste management legislation and policy. The EU Directives and policies discussed below, which set the context for the management of waste in Ireland (and which are transposed and implemented by domestic legislation), encourage the use of AD as an essential element of sustainable waste management and an efficient recycling method for organic wastes.

The Waste Framework Directive (2008/98/EC, as amended by Directive (EU) 2018/851) enshrines a key principle which aims to move waste away from landfill and towards treatment options. The separate collection of organic waste with a view to its biological treatment, through processes such as AD, is encouraged by this Directive.

The objective of landfill diversion is also a requirement of the Landfill Directive (1999/31/EC).

The foundation of EU waste management is the five-step "waste hierarchy", established in the Waste Framework Directive. It establishes an order of preference for managing and disposing of waste.

Figure 4.1: The Waste Hierarchy

On the 5th of July 2023, a targeted revision of the Waste Framework Directive[8] was published by the Environment Directorate General of the European Commission. The proposal aims to bring about increased circular and sustainable management of waste and aims to reduce the environmental and climate impacts of food systems associated with food waste generation.

Towards a circular economy: a zero-waste programme for Europe[9] was proposed in 2014 by the EC to establish a common and coherent EU framework to promote the circular economy. In

[8] Proposal for a targeted revision of the Waste Framework Directive. https://environment.ec.europa.eu/publications/proposal-targeted-revision-waste-framework-directive_en

[9] Communication from The Commission to The European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions - *Towards a circular economy: a zero-waste programme for Europe.* https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52014DC0398

December 2017, a provisional agreement was reached with representatives of the European Parliament on all four legislative proposals of the package with new targets. An obligation on EU member states to separately collect organic waste and associated ban of organic waste landfilling will come into effect as of 2024. The circular economy principles, and particularly the development of a bioeconomy can provide opportunities for agricultural residues such as those from crops, animal manures and dairy by-products, to be used to produce biobased fertiliser and renewable energy through the AD process.

4.4 National Planning, Climate, and Waste Policy and Legislation

4.4.1 National Biomethane Strategy[10]

The National Biomethane Strategy (NBS hereafter) was published by the Department of Environment, Climate, and Communications and the Department of Agriculture, Food and the Marine on the 28th of May 2024. The NBS sets out the necessary policy and regulatory measures and provides a roadmap to developing a biomethane industry of scale in Ireland. In all aspects, this application aligns with the aspirations set out in the NBS as described in more detail below.

A wide range of support mechanisms were assessed during the development of the NBS, including Feed in Tariffs (FiT) and Contracts for Difference (CfD). Given the need to swiftly stimulate the industry, the Renewable Heat Obligation in conjunction with Capital Grants were the chosen method to support the delivery of a biomethane sector in Ireland. This offers budget certainty for the support programme while delivering a sector of scale.

Renewable Heat Obligation: The NBS states, *"To support the need to decarbonise the heat sector, the Government has agreed to the introduction of a Renewable Heat Obligation (RHO). The RHO **will support an increased use of renewable energy in the heat sector and contribute to a reduction in emissions** in line with Ireland's climate ambitions. As Ireland imports most of its fossil fuels, the heating sector is a significant contributor to Ireland's high energy import dependency. The RHO will also help reduce our reliance on imported fossil fuels and strengthen our energy security due to greater diversification of our energy streams. Under current proposals, the RHO would recognise biomethane as an eligible fuel for certification, providing an important policy tool to support the development of an indigenous biomethane sector. CAP 24 commits to the publication of a high-level RHO scheme by Q3 2024".* [**Emphasis added**].

The vision of the NBS states, *"By 2030, Ireland will have developed a sustainable biomethane industry of scale, meeting ambitious targets set by the Government".*

The primary objective of the NBS is to deliver on the ambitious target set by the Government as part of the agreement on the sector emission ceilings. This ambition is to scale up indigenously produced biomethane to 5.7 TWh per annum by 2030, which has been increased substantially from a previous Climate Action Plan 2019 target of 1.6 TWh by 2030.

The NBS states that *"biomethane has the potential to progressively replace fossil gas supplies at a national level as we substantially reduce our use of gas over the next 15 to 20 years."*

The strategy states that Ireland is recognised by the European Commission as having one of the largest potentials for biomethane production in Europe on a per capita basis due to its

[10] National Biomethane Strategy (2024): https://www.gov.ie/en/publication/d115e-national-biomethane-strategy/

substantial agriculture sector. The development of a new agri-centric biomethane industry can engender cross sectoral benefits for Ireland. However, the strategy states that currently Ireland has only two operational biomethane facilities injecting biomethane into the gas grid; the volume of biomethane injected into the grid at present is small, equating to c. 75 GWh per annum (0.001% of Ireland's current gas demand).

The benefits that Ireland can realise from the development of a new agri-centric biomethane industry are summarised as follows:

- Without biomethane, Ireland is unlikely to meet its legally binding climate targets.
- Biomethane helps to reduce agriculture sector emissions.
- Diversification option for farmers.
- Opportunity to replace chemical fertiliser with a supply of biobased fertiliser.
- Helps reduce Ireland's energy emissions.
- Improves gas security and diversification of supply.
- Stimulation of the rural economy.

This application proposes to develop an AD facility to produce biomethane for injection into the national grid. This proposal is supported by the National Biomethane Strategy, and it is evident from the strategy, that this development type is crucial in order to achieve climate targets, rural and farm diversification, the replacement of chemical fertiliser with a supply of biobased fertiliser and improve gas security and diversification of supply. The proposal will create c. 75 full time jobs (direct and indirect), stimulating the rural economy.

The Strategy also notes the importance of biomethane production for ensuring security of energy supply in Ireland. It is noted that c. 75% of Ireland's gas supply is currently imported from the UK, with biomethane (along with hydrogen in the future) playing a key role in ensuring a domestic supply of renewable gas to diversify gas supply and displace fossil gas. The Proposed Development directly contributes to this objective.

The Strategy analyses a range of policy options for the roll-out of biomethane production, with a combination of small scale and larger-scale facilities ultimately supported by Government Policy. Therefore, the scale of the plant aligns with the aspirations of the NBS.

The strategy recognises the effectiveness and maturity of carbon dioxide capture technology as part of biomethane production. This technology is an integral part of the Proposed Development, with CO_2 resulting from the biogas upgrading / refining process to be captured at source. In summary, this application fully aligns with the aspirations set out in the NBS as presented above.

4.4.2 National Planning Framework

The National Planning Framework[11] (NPF hereafter) was published in 2018 and forms the top tier of Ireland's planning policy hierarchy, setting the policy context at a national level for Regional Spatial and Economic Strategies, County and City Development Plans, and Local Area Plans.

The Proposed Development aligns with the National Planning Framework, the overarching policy and planning framework for the social, economic, and cultural development of Ireland.

[11] Government of Ireland (2020) *National Planning Framework*: 39baaa8c-48dc-4f24-83bd-84bbcf8ff328.pdf (www.gov.ie)

This development specifically relates to the NPF in terms of Planning for Diverse Rural Places (Chapter 5) and Realising our Sustainable Future (Chapter 9).

National Policy Objective (NPO hereafter) 21 states the following:

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

The role of rural areas in providing a sustainable renewable energy supply is recognised in the NPF, which states:

"In planning Ireland's future energy landscape and in transitioning to a low carbon economy, the ability to diversify and adapt to new energy technologies is essential. Innovative and novel renewable solutions have been delivered in rural areas over the last number of years, particularly from solar, wind and biomass energy sources.

In meeting the challenge of transitioning to a low-carbon economy, the location of future national renewable energy generation will, for the most part, need to be accommodated on large tracts of land that are located in a rural setting, while also continuing to protect the integrity of the environment and respecting the needs of people who live in rural areas."

Furthermore, the competitive advantage of rural activities associated with the bioeconomy is highlighted in the NPF, which states:

"The transition to a more circular economy and bioeconomy, where the value of bio-based products, materials and resources is maintained in the economy for as long as possible, and the generation of waste management is minimised, will provide an essential contribution to our national goal of developing a sustainable, low-carbon, resource efficient and competitive economy.

We take special note of the following National Policy Objectives, which aim to:

Reference	Description
NPO 23	*"Facilitate the development of the rural economy through supporting a sustainable and economically efficient agricultural and food sector, together with forestry, fishing and aquaculture**, energy and extractive industries, the bio-economy and diversification into alternative on-farm and off-farm activities**, while at the same time noting the importance of maintaining and protecting the natural landscape and built heritage which are vital to rural tourism."* [**Emphasis added**].
NPO 53	*"Support the circular and bio economy including in particular through greater efficiency in land management, greater use of renewable resources and by reducing the rate of land use change from urban sprawl and new development."*

The NPF identifies the need to reduce emissions while ensuring that Ireland has a reliable and resilient energy supply, as expressed in Section 9.2:

"Ireland's national energy policy is focused on three pillars: (1) sustainability, (2) security of supply and (3) competitiveness. The Government recognise that Ireland must reduce greenhouse gas emissions from the energy sector by at least 80% by 2050, compared to 1990

levels, while at the same time ensuring security of supply of competitive energy sources to our citizens and businesses."

The transition of the energy sector towards low-carbon and renewable sources of energy is recognised as playing a key role in achieving a sustainable and climate-friendly future for Ireland, as expressed by the following National Policy Objectives:

Reference	Description
NPO 54	*"Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions."*
NPO 55	*"Promote renewable energy use and generation* ***at appropriate locations within the built and natural environment*** *to meet national objectives towards achieving a low carbon economy by 2050."* [**Emphasis added**].

Finally, the NPF supports circular economy principles that aim to minimise the amount of waste that goes into landfill and maximise the utilisation of waste as a resource, as expressed by the following National Policy Objective:

NPO 56: *"Sustainably manage waste generation, invest in different types of waste treatment and* ***support circular economy principles****, prioritising prevention, reuse, recycling and recovery, to support a healthy environment, economy and society".* [**Emphasis added**].

It is noted that on the first draft revision to the National Planning Framework was published on the 10th of July 2024. The draft revision to the NPF includes the following statement in relation to biomethane within Chapter 9, which deals with Climate Transition and Environment:

"Biomethane is a carbon-neutral renewable gas made from farm and food waste through a process known as anaerobic digestion. A National Biomethane Strategy has been published which requires the development of policies with the primary objective of delivering the ambitious target of producing 5.7 TWh of indigenous biomethane by 2030.

It is estimated that over 80% of biomethane will be produced from grass silage and cattle slurry. This will require grass from 120,000ha (3% of total agricultural area) to produce the required feedstock.

To meet Ireland's target of 5.7 TWh of biomethane by 2030, a large number of anaerobic digestion facilities will need to be developed, alongside the related infrastructure necessary to support these facilities."

4.4.3 National Development Plan 2021 – 2030

The National Development Plan[12] (NDP hereafter) sets out the national capital investment priorities to realise the objectives of the NPF, providing a guide for national, regional, and local planning and investment decisions during this decade. The NDP recognises that public capital investment choices over the next 10 years must not only contribute to the objective of a 51% reduction in greenhouse gas emissions by 2030 but also lay the pathway to achieve the national climate objective of net-zero greenhouse gas emissions by 2050. The Plan states that

[12] Government of Ireland (2021) *National Development Plan 2021-2030*: a36dd274-736c-4d04-8879-b158e8b95029.pdf (www.gov.ie)

significant Exchequer investment, combined with further household, State-Owned Enterprise (SOE), and crucially private sector investment in renewable energy projects such as the Proposed Development, are critical to delivering on these climate action objectives.

The NDP sets out 10 National Strategic Outcomes (NSOs) with Strategic Investment Priorities with a particular emphasis on Climate Action and strengthening and developing rural economies and communities. The NSOs and Strategic Investment Priorities of particular relevance to the Proposed Development are outlined below:

Reference	Description
NSO 3 - Strengthen Rural Economies and Communities	This outcome recognises the importance of rural communities and community engagement in achieving the goals of the NPF and NDP. The NDP highlights the role that rural economies and communities can play in responding to climate change across sectors and supports the sustainable development of Ireland's agri-food sector. For example, the On-Farm Capital Investment Scheme supports farmers looking to increase their environmental efficiency through, inter alia, the investment in and adoption of new technologies.
NSO 8 – Transition to a Climate-neutral and Climate Resilient Society	This outcome responds to the significant commitments by the Government to tackle the effects of climate change, reduce greenhouse gas emissions by 51% by 2030 (as compared to 2018 levels), and work towards achieving net-zero greenhouse gas emissions by 2050 in line with the Climate Action and Low Carbon Development (Amendment) Act 2021 (see below). The NDP recognises the special importance of the energy sector in achieving these targets, and that radical changes may be needed to reduce our reliance on fossil fuels: *"Action in the energy sector will be critical to the achievement of Ireland's climate targets and the transformation to a high-renewable, net-zero emissions future. This will require a fundamental shift in the means by which we supply, store, and use energy."* The NDP also recognises the continued need for the supply and use of gas in Ireland, particular with regards to ensuring security of energy supply. Underpinning this theme is a commitment to a just transition, to ensuring that all people are able to participate in and benefit from the decarbonisation of economy: *"A key focus of this investment is to support the transition of the existing workforces and the creation of new enterprise and employment opportunities so that the region remains vibrant, innovative and makes the most of the opportunities that decarbonisation will bring."*
NSO 9 – Sustainable Management of Water and Other Environmental Resources	This outcome highlights the need for investment in the environmental resources and infrastructure Ireland, with a particular focus on the sustainable management of waste and water. This theme is supported by the whole-of-government Circular Economy Strategy (see below) as recognises that investments in waste management is critical to achieving an environmentally and economically sustainable future: *"While the overall focus of Government waste policy is on prevention and waste minimisation, investment in indigenous waste treatment capacity remains critical to our environmental and economic well-being."*

	AD facilities, such as the Proposed Development, are highlighted as one investment opportunity to achieve this NSO: *"Capacity will continue to be built in waste facilities, **including anaerobic digestion**, hazardous waste treatment, plastics processing, recycling, waste to energy, and landfill and landfill remediation, to meet future waste objectives."* [**Emphasis added**].

4.4.4 Climate Action Plan 2024

The Climate Action Plan 2024[13] (CAP24 hereafter) is the third annual update to Ireland's Climate Action Plan, adopted by Government on the 21st of May 2024 following public consultation in early 2024. Under section 15 of the Climate Action and Low Carbon Development Act 2015, as amended, the Planning Authority must perform its functions in a manner which is consistent with the current Climate Action Plan, in so far as is practicable.

CAP24 builds upon last year's Plan (CAP23) by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings. The Plan provides a roadmap for taking decisive action to halve Ireland's emissions by 2030 and reach net zero by no later than 2050, as committed to in the Climate Action and Low Carbon Development (Amendment) Act 2021.

The target for biomethane production under CAP 24 is for 1TWh by 2025 and 5.7TWh by 2030.

Section 16 'Agriculture' of the CAP 2024 identifies a required reduction in annual agricultural emissions (on 2018) of 25% (17.25 $MtCO_2eq.$ per annum by 2030).

CAP24 states that the agricultural sector is the largest contributor to Ireland's greenhouse gas emissions.

CAP24 reiterates the need of the "*production of up to 1 TWh of Biomethane by 2025" and the "production of up to 5.7 TWh of Biomethane by 2030".*

Section 14 'Built Environment' consists of a key target of *"up to 0.6 TWh of heating provided by biomethane by 2025, and up to 1.1 TWh by 2030".*
Section 14.4.1 'Measures to Delivery Required Abatement' states that to meet the required level of emissions reduction, in regard to residential, by 2025 we will:

- *"Develop the appropriate policies and safeguards, as set out in chapter 16, to supply up to 0.4 TWh of biomethane to decarbonise residential heating; and*
- *Supply 0.7 TWh of biomethane to decarbonise residential heating."*

In regard to the Commercial/Public sector, by 2025 we will:

"Develop the appropriate policies and safeguards to supply biomethane for use in commercial and public buildings of up to 0.4 TWh".

Section 15.2.1.3 'Road Haulage Strategy – Decarbonisation Programme' states that *"there is a full relief from the carbon component of Mineral Oil Tax for liquid or gaseous fuels that have*

[13] Government of Ireland (2024) *Climate Action Plan 2024:* https://www.gov.ie/en/publication/79659-climate-action-plan-2024/

been produced from biomass. This means that no carbon tax applies to biofuels, such as Hydrogenated Vegetable Oil or biomethane, used in any road vehicle, private or commercial."

Section 16.6.1 'Actions for 2024' states that *"there is also increasing potential for the use of bio-fertilisers and digestate coming from a developing biomethane industry to replace chemical nitrogen combined with more efficient use of existing animal slurries through achieving our targets for low-emission slurry spreading."*

Other key measures to deliver climate adaptation in agriculture, indicated in the CAP include the following:

- RE/24/6: Increase investment in research to support agricultural and land use diversification.
- AG/24/22: Establish a Biomethane Coordination Group to oversee delivery of 5.7 TWh target and National Biomethane Strategy implementation activities.
- AG/24/21: Identify and address the research and knowledge gaps around supply of feedstocks, the role of biobased products including digestate and the sequestration potential regarding biomethane production.
- Introduce obligation in the heat sector, incentivising the production of indigenously produced biomethane.

CAP24 states that *"guided by the Food Vision 2030 Strategy, Irish farmers and food producers will be supported to continue to produce world-class food whilst reducing greenhouse gas emissions and achieving high levels of sustainability"*. The Government will also take measures to promote diversification into less greenhouse-gas practices, such as biomethane feedstock production.

4.4.5 Sectoral Emissions Ceilings

Following the approval of the Carbon Budgets, Ireland's Sectoral Emissions Ceilings were agreed by Government on 28 July 2022. Section 6C of the Climate Action and Low Carbon Development Act 2015 (as amended) (the Act) provides for the preparation of Sectoral Emissions Ceilings which set out the maximum amount of greenhouse gas emissions that are permitted in different sectors of the Irish economy.

This carbon budget programme comprises three successive 5-year Carbon Budgets as follows:

- 2021-2025: 295 Mt CO 2 eq. This represents an average reduction in emissions of 4.8% per annum for the first budget period.
- 2026-2030: 200 Mt CO 2 eq. This represents an average reduction in emissions of 8.3% per annum for the second budget period.
- 2031-2035: 151 Mt CO 2 eq. This represents an average reduction in emissions of 3.5% per annum for the third provisional1 budget.

Following the process set out in the Act, the carbon budget programme proposed by the Climate Change Advisory Council was approved by the Government on 21 February 2022, and subsequently adopted by the Oireachtas on the 6th of April 2022.

For the agriculture sector, the sectoral emissions ceilings mandate a reduction in emissions of 10% over the period from 2021-2025, and a reduction of 25% from 2026-2030.

The rollout of AD and Biomethane production helps to contribute to a reduction in agricultural emissions, while also benefiting efforts to reduce carbon emissions in other hard to abate sectors which are currently reliant on natural gas.

4.4.6 Climate Action and Low Carbon Development Acts 2015 and 2021

The first Climate Action and Low Carbon Development Act 2015[14] provided the statutory basis for the national goal of progressively pursuing a low carbon, climate resilient and environmentally sustainable economy by 2050.

In 2021 the Government passed the Climate Action and Low Carbon Development (Amendment) Act 2021[15] enshrining the target to achieve net zero emissions by 2050 and a 51% reduction in emissions by 2030 into law. The roll-out of an agri-led biomethane industry can help to decarbonise both industry and agriculture, contributing to the goals set out in the new Act.

The Climate Action and Low Carbon Development Act 2015 established the National Mitigation Plan (NMP) and National Adaptation Framework (NAF), both of which are designed to address the causes and consequences of climate change in Ireland.

Published in July 2017, the NMP represented an initial step in transitioning Ireland to a low carbon, climate resilient and environmentally sustainable economy by 2050. This whole-of-government Plan drew on the perspectives and responsibilities of a range of government departments and reflected the central roles of key ministers responsible for electricity generation, the built environment, transport, and agriculture.

The Plan acknowledges the role of the circular economy and particularly the bioeconomy, and opportunities for residues and agriculture residues such as from crops, animal, and dairy by-products to be used to produce biomaterials and biochemicals through biorefining or to produce heat and/or power through combustion or AD.

The NMP identifies the role that anaerobic digestion can play in contributing to the bioeconomy in particular, and the circular economy in general:

"The circular economy, or bioeconomy, provides opportunities for FBB and agriculture residues, such as animal by-products (ABP), to be used to produce heat and/or power through combustion or anaerobic digestion. In addition there is potential to reduce carbon emissions along the full life cycle of the food/processing chain through food waste reduction."

The NAF provides a framework to ensure local authorities, regions, and key sectors can assess the key risks and vulnerabilities of climate change, implement actions to build resilience to climate change, and ensure climate adaptation considerations are mainstreamed into all local, regional, and national policy.

The Climate Action and Low Carbon Development Act 2021 commits the Government to moving to a climate-resilient and climate-neutral economy by the end of 2050. It sets the commitment to achieve net zero emissions by 2050 and a 51% reduction in emissions by 2030.

[14] *Climate Action and Low Carbon Development Acts 2015:* Climate Action and Low Carbon Development Act 2015 (irishstatutebook.ie)
[15] *Climate Action and Low Carbon Development (Amendment) Act 2021:* Climate Action and Low Carbon Development (Amendment) Act 2021 (irishstatutebook.ie)

It introduces carbon budgets for the State, and sectoral emissions ceilings.

We note in particular Section 4 of the Climate Action and Low Carbon Development Act 2021 (as amended), which states that:

"4. (8) For the purposes of performing their respective functions under this section, the Minister and the Government shall have regard to the following matters;

- *(h) the fact that the means of achieving a climate neutral economy and other measures to enable the State to pursue the national climate objective may not yet be fully identified and may evolve over time through innovation, evolving scientific consensus and emerging technologies;*

- *(n) the special economic and social role of agriculture, including with regard to the distinct characteristics of biogenic methane."*

Section 15 of the Climate Action and Low Carbon Development Act 2015, as amended, states the following:

"(1) A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—

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

This places a responsibility on Planning Authorities to consider the compliance of each Proposed Development with these criteria and to make decisions which are consistent with the listed policies in so far as practicable.

The criteria are addressed in turn below to assist the Planning Authority in considering the current application and in undertaking an Environmental Impact Assessment of the Proposed Development with cognisance of the above requirement of the Act.

Consistency with Climate Action Plan

The objectives of the CAP24 (which is now the current most recent approved climate action plan) which the Proposed Development will support have been set out above.

Consistency with Long Term Climate Action Strategy

The Long-term Climate Action Strategy[16] was published on the 28th of April 2023. The Long-term Climate Action Strategy outlined the importance of (i) completing the actions in the Climate Action Plan, (ii) greater demand side management, (iii) better annual forecasting for

[16] Long-term Strategy on Greenhouse Gas Emissions Reductions. https://www.gov.ie/en/publication/e4e81-long-term-strategy-on-greenhouse-gas-emissions-reductions/

the electricity and gas systems and (iv) security of gas supply infrastructure, particularly in the context of electricity generation.

The Long-term Climate Action Strategy recognises the role that biogas and biomethane can play in reducing carbon emissions in hard to abate sectors including the industrial sector.

The Strategy states:

"In other industries including the food sector, the most likely decarbonisation path is to electrify low/mid-temperature heat and to use zero-emissions gas and/ or bioenergy for high-temperature heat. As discussed above, an important short-term priority will be to define the future of zero-emissions gas, given its particular importance for high temperature heat production."

The Proposed Development will support the achievement of the goals and objectives of the Long-term Climate Action Strategy.

Consistency with Approved National Adaptation Framework and Approved Sectoral Adaptation Plans

The National Adaptation Framework (NAF hereafter) (DECC, 2024) has outlined several actions to help ensure a targeted approach to achieving climate resilience into the future

Section 2.2 of the NAF states, that for climate resilience, Ireland must be open to innovative climate change solutions. It must have a reduced reliance on fossil fuel, will need to transition towards sustainable agricultural practices such as agroforestry and organic farming and Irish industries must embrace circular economy principles.

The NAF provides key guiding principles for climate adaptation, grouped into high-level themes including: 'Adaptation governance, engagement and resourcing': *"Mobilise Existing and New Resources: Maximise the efficient use of existing and new resources, including financial, human, and natural resources, to achieve adaptation."*

Section 2.6.4 of the NAF outlines the role of the private sector in enabling climate change adaptation. *"Businesses and industries, being both affected by climate change impacts and contributors to adaptation efforts, are at the forefront of developing and implementing innovative technologies and practices to enhance climate resilience.* ***This entails investments in renewable energy, sustainable agriculture****, and efficient water management systems, for example. Collaborative partnerships with the government further empower businesses to fulfil their role in climate adaptation by pooling resources and expertise, innovation, fostering green job opportunities, and collectively working towards a more sustainable and resilient future for Ireland."* [**Emphasis added**].

Section 2.9 of the NAF outlines the future research prioritise for climate change adaptation in Ireland including the following:

- ***"Ecosystem Resilience:*** *Understanding how ecosystems respond to climate change is crucial. Research into the adaptation of natural environments, biodiversity, and the sustainable management of natural resources will be essential."*

- *"**Infrastructure Adaptation:** Investigating how infrastructure, such as buildings, transportation, and energy systems, can be made more resilient to climate impacts, including retrofitting, sustainable design, and disaster preparedness."*
- *"**Agriculture and Food Security:** Given the importance of agriculture in Ireland, research into climate-resilient farming practices, crop and livestock management, and the impact of climate change on food security will be critical."* [**Emphasis added**].

The NAF outlines the potential impacts of the electricity and gas networks sector from climate change:

- Water shortages and drought may affect the availability of cooling at conventional power plants,
- Changes in rainfall distribution could reduce hydro power generation during certain seasons, while increasing the role of hydro station flood alleviation.
- Floods may damage electricity and gas transmission systems, and coastal erosion could impact infrastructure.
- Increased wind variability may require backup generation or storage, and strong winds may lead to turbine shutdown or damage.

Climate proofing of the project was undertaken using the approaches outlined in the *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment* (EC, 2013) and *IEMA EIA Guide to Climate Change Resilience and Adaptation* (IEMA, 2020). Both documents outline a methodology for undertaking a risk assessment where there is a potentially significant impact on the project receptors due to climate change.

Furtherance of the National Climate Objective

Under the Climate Action and Low Carbon Development Act 2015 (as amended by the 2021 amendment Act). The National Climate Objective is as follows:

"The State shall, so as to reduce the extent of further global warming, pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy."

The Proposed Development will reduce GHG emissions and help to decarbonise Ireland's energy system by generating renewable gas to displace fossil fuels. The digestate produced by the Proposed Development (which will be a bio-based fertiliser) will also displace chemical fertilisers, which are generally produced using fossil fuels. The development will directly further the National Climate Objective.

The Objective of Mitigating Greenhouse Gas Emissions and Adapting to the Effects of Climate Change in the State

The Proposed Development, which comprises a renewable energy development, directly addresses the need to mitigate greenhouse gas emissions by producing renewable energy to displace conventional natural gas in the gas grid.

The development serves to directly mitigate GHG emissions and to improve the resilience of the state to climate change by enhancing security of renewable energy supply.

4.4.7 Support Scheme for Renewable Heat (SSRH)

This support scheme[17] was developed to contribute towards Ireland's 2020 renewable energy and emission reduction targets. It focuses on support mechanism to increase the energy generated from renewable sources in the heat sector, including an on-going operation support for biomass boiler and AD heating systems. This scheme aims to incentivise the development and Biomethane Utilisation and Renewable Gas Certification

The SSRH comprises an installation grant for heat pumps and an operational support (an ongoing payment for up to 15 years) for biomass and anaerobic digestion (biogas) heating systems. The SSRH was developed to incentivise the delivery of an additional 3% of heat use in Ireland to come from renewable sources. The current National Development Plan includes an allocation of €300 million for the rollout of the SSRH for the period up to 2027.

Gas Networks has recognised that there is significant growth in demand from households and businesses looking to source sustainable fuel alternatives that have been produced in Ireland. They state that:

"Gas Networks Ireland registers and issues certificates to Irish producers that inject renewable gas into the gas network. This includes biomethane, which is a renewable gas produced by anaerobic digestion of biodegradable matter that is then upgraded to network entry specifications prior to injection. Each certificate represents our guarantee that the equivalent amount of renewable gas has been injected into the gas network."[18]

AD facilities must be compliant with the requirements of Gas Networks Ireland's Renewable Gas Certification for the export and utilisation of biogas. This certification system is in place to ensure that natural gas produced in Ireland is compliant with relevant legislation, and to assure customers that their gas has been generated in a sustainable manner. This is also relevant to ensure that gas produced aligns with EU policies and guidance, such as the EU Methane Strategy (2020) which estimates that by 2050, the EU's annual consumption of biogas and biomethane will increase to between 54 and 72 Mtoe (up from c.17 Mtoe in 2017).

4.4.8 White Paper: Ireland's Transition to a Low Carbon Energy Future 2015–2030

The White Paper[19] sets out a framework to guide policy and the actions that the Government intends to take in the energy sector from 2015 up to 2030.

We note in particular Section 133 on bioenergy, which sates:

"Bioenergy is a versatile source of energy that can be used for heating, transport, and power generation. The most advantageous economic benefits arise when it is used for heating. Bioenergy encompasses a range of fuels in solid, liquid, and gaseous forms, including forest-based biomass, dry agricultural residues, energy crops, organic materials including wastes, and landfill gas and other biogases. ***Bioenergy can contribute to broader policy objectives such as waste recovery and rural development, as is the case with anaerobic digestion,***

[17] Department of the Environment, Climate and Communications (2019) *Support Scheme for Renewable Heat (SSRH):* gov - Support Scheme for Renewable Heat (SSRH) (www.gov.ie)
[18] Gas Networks Ireland, *Renewable Gas Certification:* Renewable gas certification (gasnetworks.ie)
[19] Department of Environment, Climate and Communications (2020) *The White Paper:* Department of Communications, Energy and Natural Resources - Ireland's Transition to a Low Carbon Energy Future - 2015-2030 - e5aa9f25-da81-43eb-804d-57309615681e.pdf (www.gov.ie)

which not only generates energy, but also gives effect to national waste policy in terms of utilising waste as a resource. *It has been highlighted in waste management plans as a technology suitable for development at a local and regional level and at varying scales.* ***Anaerobic digestion also has the potential to improve air quality, for example through mitigation of ammonia emissions and odour by diverting slurry from land spreading.*** *However, expanding the uptake of bioenergy involves several challenges, including the availability of sufficient sustainably-sourced biomass, competition with other land uses such as food production, and the cost of support. Consideration must be given to the most prudent uses for bioenergy."* [**Emphasis added**].

We also note Section 136 on waste policy, which states:

"Waste Management Policy in Ireland recognises the need to develop efficient ways to extract as much value as possible from waste in accordance with the requirements of the waste hierarchy and the opportunity for waste to be used as an indigenous energy resource [34]. In this regard, three new regional waste management plans for the period 2015-2021 support the development of additional thermal recovery and biological treatment capacity within the State. The REFIT schemes, which support the generation of electricity and CHP technologies including waste-to-energy, anaerobic digestion, and landfill gas, continue to support the use of waste as a renewable energy feedstock."

4.4.9 Biomethane Energy Report – Gas Networks Ireland

While not a policy or guidance document, the Biomethane Energy Report was published by GNI, who are the public body responsible for connecting customers to the gas network and for connecting developments such as the Proposed Development to the grid. The Energy Report provides a detailed insight into the potential for biomethane production in Ireland. The Gas Networks Ireland (GNI) Biomethane Report[20] provides a rationale for accelerating biomethane production in Ireland and states the following:

- *"Domestically produced biomethane, dispersed throughout the country, boosts security of supply and can displace fossil gas from Corrib as it declines;*
- *Similar to the early years of the wind industry, the biomethane gate price is currently more expensive than natural gas.;*
- *Biomethane could rapidly reduce climate emissions across hard to abate energy demand sectors and can create negative emissions;*
- *Biomethane production boosts employment in rural areas, promotes circular economy in agriculture, and can improve soil health. Digestate, a byproduct of biomethane production can displace fossil produced fertilizer;*
- *Biomethane can deliver highly valuable energy, which is dispatchable, suitable for intensive heat industries, transport and other hard to abate sectors; and*
- *Biomethane is produced with existing technology and can therefore be rapidly scaled up. It can also be transported, stored, and distributed through existing gas grids."*

[20] Gas Networks Ireland, *Biomethane Energy Report:* *The Biomethane Energy Report (gasnetworks.ie)*

The GNI report refers to the Climate Action and Low Carbon Development (Amendment) Bill. In 2021 the Bill was *"signed into law and Ireland is now on a legally binding path to net-zero emissions no later than 2050, and to a 51% reduction in emissions by the end of this decade".*

Section 6 of the report states that after the Russian invasion of Ukraine, *"Ireland must ensure that security of energy supply is maintained as Ireland transitions to a net-zero emissions future".*

The report concludes by stating that *"Ireland has a real opportunity to develop a biomethane industry at scale, which will offer multiple benefits for our agricultural economy, assist in the decarbonisation of Ireland's economy more generally, enhance our security of energy supply and lead to the development of a key renewable indigenous energy resource in the build-up to 2030".*

4.4.10 Energy Security in Ireland to 2030

The Government Strategy for Energy Security in Ireland to 2030 was published in November 2023.

Energy Security in Ireland to 2030 outlines a new strategy to ensure energy security in Ireland for this decade, while ensuring a sustainable transition to a carbon neutral energy system by 2050. This report is being published as part of an Energy Security Package, containing a range of supplementary analyses, consultations, and reviews, which have informed the recommendations and actions related to energy security.

Informed by the Government's energy security policy objectives - to ensure energy is affordable, sustainable, and secure - the review considered the risks to oil, natural gas, and electricity.

The strategy states that "*the National Biomethane Strategy in development sets us on a trajectory to develop a new source of renewable indigenous gas in Ireland*".

The strategy is clear that Biomethane has an important role to play in supporting Ireland's energy transition, while maintaining and safeguarding security of supply through indigenous renewable gas generation.

4.4.11 National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland

The National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland: 2017-2030[21] sets an ambitious target that from 2030 all new cars and vans sold in Ireland will be zero emission (or zero emission-capable) and that other technologies, perhaps still unknown, will be fueling larger vehicles, so that by 2050, the nation's car fleet, along with much of our public transport buses and rail lines, will be low/near zero emissions.

The framework highlights the importance of greater diversification of fuels in the freight sector to include a mix of natural gas, biogas/biomethane, electricity and renewable diesel or other biofuels.

[21] Department of Environment, Climate and Communications (2017) *National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland:* [6186_NPF_Alternative Fuels_V5.indd - 6ce8a48a99c44e1dbf40a59a073cb06d.pdf (www.gov.ie)]

4.4.12 Ag Climatise – National Climate & Air Roadmap for the Agriculture Sector

The National Climate & Air Roadmap for the Agriculture Sector[22] sets an ambitious vision for a 'climate neutral agriculture sector by 2050' and includes 29 actions with specific and targets aimed at reducing the environmental footprint and further building on the strong credentials of Irish Agriculture. Of particular relevance to the Proposed Development are the following action and targets:

Reference	Targets
Action 20	Engage with stakeholders to maximise the potential opportunities from Anaerobic Digestion for the agriculture sector. Work closely with DCCAE and other key stakeholders to set a target for the level of energy to be supplied by indigenous biomethane injection and consider the necessary supports including funding mechanisms. Work with DCCAE and other stakeholders to develop the necessary research, policies, and measures to provide policy certainty around the development of an Anaerobic Digestion industry in Ireland.

The roadmap recognises that the agriculture sector has a key role to play in the provision for bio-energy feedstocks for the production of biogas/biomethane as a key renewable energy resource for the decarbonisation of the transport and heat sectors in particular.

4.4.13 National Energy and Climate Plan (NECP) 2021-2030

Ireland's National Energy & Climate Plan[23] (NECP hereafter) 2021-2030 was submitted to the European Commission in December 2018. The Plan outlines a long-term vision for the agriculture, forest and land use sectors based on an approach to carbon neutrality in these sectors, which does not compromise the capacity for sustainable food production. This effectively means that agricultural emissions are balanced by reducing emissions of methane, nitrous oxide, and carbon dioxide in so far as the best available science allows, increasing carbon-sequestration through forests and land use and displacing fossil fuel and energy intensive materials with renewable sources.

The NECP set an indicative target of 1.6 TWh/yr (Terawatt hour per year) for the level of energy to be supplied by indigenous biomethane injection in 2030, taking account of the domestic supplies of feedstock that meet strict sustainability criteria and agreed a commitment to consider how the supports necessary to reach this target would be funded.

The NECP stated the following:

"In the absence of certainty in relation to the mechanism by which biomethane will be supported, it is proposed to set an indicative target which will be reviewed in 2023 as part of the review process for the National Energy and Climate Plan. This review will take into account the development of supports and market development for biomethane and progress towards the indicative target. The indicative target for indigenous biomethane is therefore set at 1.6 TWh

[22] Department of Agriculture, Food and the Marine (2020) *A Roadmap towards Climate Neutrality:* *7c8b812c-d857-4f39-96b9-1e7f134ba896.pdf (www.gov.ie)*

[23] Department of Environment, Climate and Communications (2020) *National Energy and Climate Plan 2021-2030:* *NECP_DRAFT_BRANDED - f3e50986-9fde-4d34-aa35-319af3bfac0c.pdf (www.gov.ie)*

and will be reviewed in 2023."

As noted previously in this EIAR chapter, the CAP24 include the following key actions relevant to the development of a biomethane industry in Ireland, including:

- *"By 2025 – Production of up to 1 TWh of Biomethane by 2025; Construction of up to 20 AD plants of scale; and*
- *By 2030 – Production of up to 5.7 TWh of Biomethane by 2030; Construction of up to 200 AD plants of scale."*

This represents a significant uplift in the targeted level of biomethane production by 2030 vis a vis the National Energy and Climate Plan.

4.4.14 The Planning and Development Act 2000 (as amended)

The Planning and Development Act 2000[24] (as amended) also sets out provisions for climate change within Section 10 (2) (n). This includes requirements to:

- reduce energy demand in response to the likelihood of increases in energy and other costs due to long-term decline in non-renewable resources,
- reduce anthropogenic greenhouse gas emissions, and
- address the necessity of adaptation to climate change; in particular, having regard to location, layout, and design of new development.

The Planning and Development Act, as amended also transposes the requirements of the EIA Directive and provides the framework within which the Planning Authority, as competent authority, will undertake EIA of the current development proposal.

4.4.15 Whole of Government Circular Economy Strategy 2022 – 2023

The Whole of Government Circular Economy Strategy 2022-2023[25] is Ireland's first national circular economy strategy. It serves as a driver for the Irish government to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and to reach net-zero emissions by no later than 2050, as per commitments in the Programme for Government and the Climate Act 2021. The strategy was a specific commitment in the Waste Action Plan for a Circular Economy (see below).

The Strategy states:

*"In Europe today, just **16% of bio-waste is recycled into something useful.** The EU has set a **target by 2035 of 65% of bio-waste to be reused or recycled.** In Ireland, the agri-food and municipal wastewater treatment sectors together produce over 100,000 tonnes of bio-waste per year. This waste is largely applied to agricultural land or disposed of as waste, thereby missing the opportunity for recycling into energy."*

This strategy also discusses the role of the bioeconomy in transitioning to a carbon-neutral and circular economy. It describes the bioeconomy as:

[24] *Planning and Development Act 2000:* Planning and Development Act, 2000 (irishstatutebook.ie)
[25] Department of Environment, Climate and Communications (2021) *Whole of Government Circular Economy Strategy 2022-2023:* bd90130d-494e-4d32-8757-46d36c77b912.pdf (www.gov.ie)

"… the part of our economy which uses renewable resources such as crops, forestry and fisheries to produce food, products, as well as energy, while also reducing waste. Increasing the scope of the bioeconomy will mean diminishing our reliance on fossil-based fuels and carbon intensive resources and will boost our use of renewable biological resources."

4.4.16 A Waste Action Plan for a Circular Economy Strategy 2020-2025

This plan[26] provides a roadmap for cross-sectoral waste planning and management in Ireland. It broadly discusses the role of the Circular Economy in achieving the Sustainable Development Goals, including SDG7 'Affordable and Clean Energy'.

Among the measures outlined to achieve the optimum results of the Waste Action Plan is the following, which commits to the development of a government circular economy strategy (see above):

"One of its first tasks will be the development of a high-level all of government circular economy strategy. This will set a course for Ireland to transition across all sectors and at all levels of government toward circularity. Policy coherence across government will be key to ensuring all policy levers are set towards the same objective."

We note in particular the following:

"We want to realise the Anaerobic Digestion (AD) and composting potential of the food waste resource. AD and composting provide opportunities for regional development with benefits for communities through sales of locally generated energy and compost."

4.4.17 National Policy Statement on the Bioeconomy (2018)

This national policy statement[27] elaborates on how the strategic development of the bioeconomy might be advanced through greater policy coherence across all relevant sectors and dealing with fundamental challenges to its commercial success and social development. It outlines Ireland's comparative advantages in developing bioeconomy and provides commitments in the form of a Policy Framework for Developing the Bioeconomy.

4.4.18 Common Agricultural Policy (CAP) Strategic Plan 2023 – 2027

First established in 1962, the CAP23[28] (as revised) consists of a Two Pillar Structure: Pillar 1 Income Support (including Basic Payment Scheme and Greening) and Pillar 2 Infrastructure, Environment and Development Support (including GLAS, EIP-AGRI and TAMS).

4.4.19 European Union (Waste Directive) Regulations 2020[29]

This Statutory instrument sets out regulations for the mode by which waste compost and digestate is recycled into fertiliser products. We note in particular the following replacement of

[26] Government of Ireland (2020) *A Waste Action Plan for a Circular Economy: Ireland's National Waste Policy 2020-2025:* dcf554a4-0fb7-4d9c-9714-0b1fbe7dbc1a.pdf (www.gov.ie)
[27] Government of Ireland (2018) *National Policy Statement on the Bioeconomy:* gov - National Policy Statement on the Bioeconomy (www.gov.ie)
[28] Department of Agriculture, Food and the Marine (2020) *The CAP Strategic Plan 2023-2027*: gov - The CAP Strategic Plan 2023 - 2027 (www.gov.ie)
[29] Gov. of Ireland: *European Union (Waste Directive) Regulations 2020:* S.I. No. 323/2020 - European Union (Waste Directive) Regulations 2020 (irishstatutebook.ie)

Regulation 38 in the Regulations of 2011 (Bio-waste):

"38 (2): The Minister shall take measures in accordance with sections 21A and 32(1) of the Act of 1996 to: (a) encourage the recycling, including composting and digestion, of bio-waste in a way that fulfils a high level of environment protection and results in output which meets relevant high-quality standards."

4.4.20 Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations, 2013[30] and Waste Facility Permitting

All operators of an AD Facility require consent to operate under one of the following: Waste Management Act, 1996[31] (as amended), the Environmental Protection Agency Act, 1992[32], the Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations, 2013[33], S.I. No. 821 of 2007, Waste Management (Facility Permit and Registration) Regulation (as amended 2008), the Industrial Emissions Directive (2010/75/EU) which introduced a class of license that can be granted by the EPA, known as an Industrial Emissions License.

S.I. No. 821 of 2007 Waste Management (Facility Permit and Registration) Regulation (as amended)[34] sets out the procedures for the making of applications for waste facility permits for the purposes of section 39(4) of the Waste Management Act, 1996, and the manner by which a waste authorisation can be granted by the EPA. The Regulations also provide rules pertaining to public consultation, consideration by the local authorities of submissions in relation to permit applications, and the grant, refusal, and review of permits by local authorities. They also prescribe rules for the spreading of organic waste on land from waste facilities and other matters relative to organic waste.

4.4.21 Animal By-Products Regulations

In order to build and operate a biogas plant, an operator must comply with the European Communities (Animal By-Products) Regulations 2014 (S.I. No. 187 of 2014)[35] and in accordance with Regulation (EC) No. 1069/2009 and Regulation (EU) No. 142/2011. If animal by-products are processed within the AD facility, certification may be required and obtained from the Department of Agriculture, Food, and the Marine.

Document 'CN11 – Conditions for Approval and Operation of Biogas Plants Transforming Animal By-Products and Derived Products in Ireland' provides details on the requirements of a biogas plant such as that proposed here. These include general requirements including animal by-product feedstocks, structural and equipment requirements, plant operational requirements, requirements for microbiological testing, Plant HACCP Plans and Plant Pre-requisite Programmes (PRPs), and record keeping requirements.

[30] Gov. Of Ireland (2013) *Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations 2013:* S.I. No. 137/2013 - Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations 2013. (irishstatutebook.ie)
[31] *Waste Management Act, 1996:* Waste Management Act, 1996 (irishstatutebook.ie)
[32] *Environmental Protection Agency Act, 1992:* Environmental Protection Agency Act, 1992 (irishstatutebook.ie)
[33] *S.I. No. 137/2013:* S.I. No. 137/2013 - Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations 2013. (irishstatutebook.ie)
[34] Gov. of Ireland: *Waste Management (Facility Permit and Registration) Regulations 2007*: S.I. No. 821/2007 - Waste Management (Facility Permit and Registration) Regulations 2007 (irishstatutebook.ie)
[35] *European Union (Animal By-Products) Regulations 2014:* S.I. No. 187/2014 - European Union (Animal By-Products) Regulations 2014. (irishstatutebook.ie)

4.5 Regional Planning Policy

4.5.1 Regional Spatial and Economic Strategy for the Southern Region

The Regional Spatial & Economic Strategy for the Southern Region[36] (RSES hereafter) determines at a regional scale how best to achieve the shared goals set out in the NPF.

The RSES acknowledges that the effects of climate change will be felt in the environment, society, and the economy of the Southern Region. Out of the 11 key goals of the RSES, we highlight the following as being of particular relevance for the Proposed Development:

Reference	Regional Policy Statements
Statement 3 – Strengthened Rural Economies and Communities	Strengthening the role of and improving quality of life in the Region's diverse rural areas and communities and valuing our rural Region as dynamic, resilient and outward looking.
Statement 8 – Low Carbon, Climate Resilient and Sustainable Society	Safeguarding and enhancing our environment through sustainable development, prioritising action on climate change across the Region, driving the transition to a low carbon and climate resilient society.
Statement 9 – Sustainable, Planned and Infrastructure-led Development	Providing infrastructure and services in a sustainable, planned and infrastructure-led manner to ensure the sustainable management of water waste and other environmental resources.

The RSES identifies the significance of the threat of climate change in Chapter 5, stressing the importance to transition to a low carbon economy. The Regional Assembly, evident from the RSES, is committed to implement regional policy consistent with national Climate Action Plans.

We note the following Regional Policy Objectives (RPOs) as being of particular relevance for the Proposed Development:

RPO 44 – Common Agricultural Policy: *"It is an objective to ensure the delivery of sustainable actions under the Rural Development Programme (RDP) 2014-20 and beyond in priority areas of innovation, bio-diversity restoration, water and soil management, renewable energy and waste management, carbon conservation and sequestration, diversification, job creation and ICT development in our rural areas"*

RPO 50 – Diversification: *"It is an objective to further develop a diverse base of smart economic specialisms across our rural Region, including innovation and diversification in agriculture (agri-Tech, food and beverage), the marine (ports, fisheries and the wider blue economy potential), forestry, peatlands, renewable energy, tourism (leverage the opportunities from the Wild Atlantic Way, Ireland's Ancient East and Ireland's Hidden Heartlands brands), social enterprise, circular economy, knowledge economy, global business services, fin-tech, specialised engineering, heritage, arts and culture, design and craft industries as dynamic divers for our rural economy."*

RPO 56 – Low Carbon Economy:

a) *"The RSES recognises the urgency to transition to a low carbon future and it is therefore an objective to accelerate the transition towards low carbon economy and circular economy."*

[36] Southern Regional Assembly (2020) *RSES*: Southern Regional Assembly (southernassembly.ie)

b) *"It is an objective to develop enterprises that create and employ green technologies."*
c) *"Local authorities should ensure that the development of green industry and technologies incorporates careful consideration of potential environmental impacts at project level including the capacity of receiving environment and existing infrastructure to serve new industries."*

RPO 58 – Bio-economy and Rural Areas: *"It is an objective to facilitate the development of the rural economy through supporting a sustainable and economically efficient agricultural and food sector, together with the bioeconomy."*

RPO 87 – Low Carbon Energy Future: *"The RSES is committed to the implementation of the Government's policy under Ireland's Transition to a Low Carbon Energy Future 2015-30 and Climate Action Plan 2019. It is an objective to promote change across business, public and residential sectors to achieve reduced GHG emissions in accordance with current and future national targets, improve energy efficiency and increase the use of renewable energy sources across the key sectors of electricity supply, heating, transport and agriculture."*

RPO 89 – Building Resilience to Climate Change: *"It is an objective to support measures to build resilience to climate change throughout the Region to address impact reduction, adaptive capacity, awareness raising, providing for nature-based solutions and emergency planning."*

RPO 90 – Regional Decarbonisation: *"It is an objective to develop a Regional Decarbonisation Plan to provide a framework for action on decarbonisation across all sectors."*

RPO 94 – Decarbonisation in the Agricultural Sector: *"It is an objective to support initiatives that advance an approach to achieve carbon neutrality for agriculture and land-use that does not compromise sustainable food production."*

RPO 95 – Sustainable Renewable Energy Generation: *"It is an objective to support implementation of the National Renewable Energy Action Plan (NREAP), and the Offshore Renewable Energy Plan and the implementation of mitigation measures outlined in their respective SEA and AA and leverage the Region as a leader and innovator in sustainable renewable energy generation."*

RPO 96 – Integrating Renewable Energy Sources: *"It is an objective to support the sustainable development, maintenance and upgrading of electricity and gas network grid infrastructure to integrate renewable energy sources and ensure our national and regional energy system remains safe, secure and ready to meet increased demand as the regional economy grows."*

RPO 98 – Regional Renewable Energy Strategy: *"It is an objective to support the development of a Regional Renewable Energy Strategy with relevant stakeholders."*

RPO 112 – Water Quality: *"It is an objective to support commitments to achieve and maintain "At Least Good" status, except where more stringent obligations are required, and no deterioration of status for all water bodies under the Marine Strategy Framework Directive and its programme of measures, the Water Framework Directive and the River Basin Management Plan."*

RPO 219 – New Energy Infrastructure: *"It is an objective to support the sustainable reinforcement and provision of new energy infrastructure by infrastructure providers (subject to appropriate environmental assessment and the planning process) to ensure the energy needs*

of future population and economic expansion within designated growth areas and across the Region can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs."

RPO 225 – Gas Network: *"Subject to appropriate environmental assessment and the planning process where required, it is an objective to:*

- *Promote renewable gas leading to carbon emission reduction in agriculture, industry, heating and transport as well as sustainable local employment opportunities; and*
- *Support investment in the sustainable development of agricultural biogas sector and regional gas supply projects which strengthen gas networks in the Region and assist integration of renewable gas to the grid network."*

RPO 102 – Energy Resource Funding: *"It is an objective to support initiatives for energy research funding within our Region to accelerate diversification away from fossil fuels to green energy, including the potential of wind, wave, solar, biomass, biofuels, biogas and hydrogen in the Region."*

Section 8.3 'Gas Networks' of the RSES states that *"Gas Networks Ireland are committed to integrating indigenous renewable has production, including biogas derived from waste… . There is significant potential for the Region to lead in the integration of the biogas sector and biogas production as a core element of sustainable agriculture, developing a significant indigenous renewable energy industry".*

Statement of Consistency with the Regional Spatial and Economic Strategy

The RSES highlights the agricultural and energy sectors as key sources of emissions and recognises that there is a capacity in the region to supply the infrastructure required to reduce the carbon impact of these sectors and to generate renewable energy.

AD facilities apply the principles of the bioeconomy and circular economy, by utilising biomass as a resource for the use and long-term security of renewable energy across the region. Such facilities also contribute to the competitiveness of the agricultural sector, by encouraging the use of green technologies and other mitigation / adaptation opportunities. As such, this proposal is compliant with and supported by the RSES for the Southern Region.

4.6 Local Planning Policy

4.6.1 Waterford City and County Development Plan

The Waterford City and County Development Plan 2022 – 2028[37] (CDP hereafter) recognises the central role of land use planning in promoting a low carbon society, mitigating the impact of climate change, and progressing towards a sustainable energy future for County Waterford.

The CDP aligns with the NPF, by recognising the role that rural areas play in driving the economy, for example by attracting entrepreneurship and innovation development, particularly where low carbon outputs can be achieved. The CDP also contains development management standards, policies and objectives and references statutory guidelines which will inform decision making over the period of the CDP. The approach is centred on the core principles of

[37] Waterford C&CC (2022) *County Development Plan 2022-2028:* Volume 1: Written Statement | Waterford City & County Council (waterfordcouncil.ie)

sustainability and compact growth with a focus on regeneration and economic development, supported by vibrant, liveable, climate resilient communities.

The Vision for the CDP is:

By 2028, Waterford City and County will have continued to grow and will be evolving to become an even more attractive, prosperous, resilient, and sustainable place, anchored by Waterford City and Metropolitan area as the Regional Capital, a University and Learning City, and an economic driver for the region. It will be the best City and County in which to live, learn, visit and do business.

The Vision additionally states that *"The Council will have taken a proactive approach towards development that promotes and facilitates appropriate and sustainable development, that nonetheless:*

- *Ensures the sustainable use of natural resources;*
- *Enables us to live within the area's environmental capacity;*
- *Enables and enhances our resilience to climate change; and*
- *Creates a more open, diverse and inclusive society."*

4.6.1.1 Zoning and Designation Specific to the Subject Site

The site of the Proposed Development is located in the rural hinterland of Carrick-on-Suir and is not subject to any zoning or specific objectives under the provisions of the CDP.

Designated Sites

There are three designated sites located to the north / northeast of the subject site. The Lower Suir River SAC is located c. 1.6km Northeast (site code: 002173), the Tibberaghny Marshes pNHA is located c. 2.km northeast (site code: 000411), the Fidown Island pNHA is located c. 1.9km North (site code: 000655).

According to Appendix 8, Section 5, of the CDP, the subject site is not situated in close proximity to any protected views or scenic routes. The site is not subject to any tree preservation orders, nor does it contain any trees of special amenity value.

Sites of Archaeological Importance

There are 3 no. sites of archaeological importance in proximity to the Proposed Development site. 2 no. fulacht fia's are located c. 351m and c. 360m north west of the site (WA003-094), and a bullaun stone located c. 514m northeast of the subject site.

4.6.2 Landscape Character

According to the Landscape and Seascape Character Assessment (Appendix 8) of the CDP, the subject site is located within the 'Farmed Lowlands' ('Rathgormuck Lowlands') landscape character area.

The subject site is located within a 'Low Sensitive' landscape area of primarily pastureland, according to Appendix 8 of the CDP. The CDP states that *"These areas have potential to absorb a wide range of new developments subject to normal planning and development control*

procedures. In these areas the Planning Authority will have regard to general restrictions to development such as scenic routes, siting, road set backs, road widening plans, parking numbers, road and sewage disposal criteria."

The landscape and visual impact of the Proposed Development is addressed in detail within the landscape and visual impact chapter of this EIAR, based on the preparation of a range of photomontages, which demonstrates the ability of the Proposed Development to integrate effectively into its local visual environment.

4.6.2.1 Core Strategy Policy Objectives

We take note of the following Core Strategy Policy Objectives of the CDP:

- **CS 02 'UN Sustainable Development Goals':** *"Through implementation of the Core Strategy and the policy objectives of the Development Plan we will contribute, as practicable, towards achievement of the 17 Sustainable Development Goals8 of the United Nations' 2030 Agenda for Sustainable Development, which came into force in 2016 and the outcomes derived there from as set out in Section 1.6 of Chapter 1 of the Development Plan."*

- **CS 09 'Low Carbon Future':** *"Through the implementation of the Core and Settlement Strategies, we will put in place a pattern of land use and associated policy objectives and actions, which facilitate a just transition to a low carbon society."*

- **CS 06 'Environmental Directives':** *"We will require, where appropriate, all plans and projects within Waterford to comply with the requirements of the Strategic Environmental Assessment Directive, the Habitats Directive, Water Framework Directive and Floods Directive."*

4.6.2.2 Chapter 6: Utilities Infrastructure, Energy & Communication

It is a strategic objective of the CDP *"to promote and facilitate the provision of energy efficient, low carbon infrastructure and utilities and support infrastructure, whilst supporting industry to innovate, decarbonising the energy sector in order to contribute to a national target of zero net emissions of greenhouse gases in Ireland by 2050".*

Section 6.4 'Energy' of the CDP states that *"a focus on renewable energy will thus also require the integration and implementation of projects which provide a wider range of renewable energy sources, such as offshore and onshore wind/renewable energy, hydro, wave,* ***biogas (i.e. anaerobic digestion)*** *and heat."* [**Emphasis added**].

Section 6.6 'Renewable Energy' of the CDP states that *"there is a significant potential to use renewable energy (solar, biomass,* ***anaerobic digestion,*** *hydro, wave and on/offshore wind), including through micro-generation (which typically assist in lowering energy demand), to achieve climate change emission reduction targets. Low carbon technologies present economic opportunities for various sectors, and green technology development is emerging as a major field of innovation and growth".* [**Emphasis added**].

The CDP recognises the need to transition to renewables, including biogas / AD. Objective UTL 13 strongly supports renewables, while objective UTL 14 requires the consideration of human health as part of new proposals this EIAR includes a chapter dealing specifically with the

predicted impact of the Proposed Development on Population and Human Health, and provides mitigation measures to ensure that there will be no significant impact on human health arising from the construction or operation of the Proposed Development.

Under section 6.9 'Utility, Energy & Communication Policy Objectives' of the CDP, policy objective UTL 13 'Renewable Energy' states:

"It is the policy of Waterford City and County Council to promote and facilitate a culture of adopting energy efficiency/ renewable energy technologies and energy conservation and seek to reduce dependency on fossil fuels thereby enhancing the environmental, social and economic benefits to Waterford City and County. It must also be recognised that other sources of electricity generation such as natural gas, particularly renewable and indigenous gas, will continue to have a role to play in the transition to a low carbon economy. As such, renewable energy developments may require support from such sources in times of high energy demand."

This policy objectives continues to state that this can be achieved by *"supporting appropriate options for, and provision of, low carbon and renewable energy technologies and facilities, including* ***anaerobic digestion*** *and the extraction of energy and other resources from sewerage sludge".* [**Emphasis added**].

In accordance with the above objectives, the development represents an opportunity to sustainably utilise agricultural waste for the delivery of renewable energy and high-quality biobased fertiliser which will help to displace fossil fuel-based chemical fertilisers.

4.6.2.3 Chapter 9: Climate Action, Biodiversity & Environment

Section 9.3 'Water Quality' of the CDP highlights the importance of water quality and the requirement to mitigate water pollution. Policy objective 'WQ 01 – Water Framework Directive and Associated Legislation' states:

"We will contribute towards, as appropriate, the protection of existing and potential water resources, and their use by humans and wildlife, including rivers, streams, wetlands, the coastline, groundwater and associated habitats and species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (as amended), the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (groundwater) Regulations 2010 (as amended) and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). To support the application and implementation of a catchment planning and management approach to development and conservation, including the implementation of Sustainable Drainage System techniques for new development."

Policy objective 'ENV 04 – Air and Energy' states that *"we will contribute towards compliance with air quality legislation; greenhouse gas emission targets; management of noise levels; and reductions in energy usage".*

Within 'Appendix 2' of the CDP, the Carrick-on-Suir area is subject to specific development objective 'CKED03', which states that *"it is an objective of the Council to protect the favourable conservation status of the Lower River Suir SAC".*

This application is accompanied by an EIAR, an AA Screening Report and a Natura Impact

Statement (NIS) prepared by ORS. The assessments have considered the distance from the site to the Lower River Suir SAC and any potential impacts and conclude that the proposal will not have any impact on the SAC.

4.6.2.4 Chapter 4: Economy, Tourism, Education and Retail

Section 4.7 'Rural and Marine Economy' of the CDP states:

"The Council acknowledges that the development of rural enterprise and employment opportunities are vital to sustaining the rural economy and will continue its support of the sector through appropriate policy formulation and support for rural based enterprises and supporting infrastructure".

Policy objective 'ECON 13 – Rural Resources' states:

"To facilitate farm or rural resource related enterprises and diversification, including food production and processing on farm/ agricultural holdings, mineral and aggregate extractive industry, aquaculture and marine, the circular economy, and proposals which support rural tourism initiatives which are developed upon rural enterprise, social enterprise, natural/ cultural heritage assets and outdoor recreational activities, subject to the capacity of the site and the location to facilitate the proposal."

The Proposed Development will assist in the delivery on the above objectives of the CDP. The Proposed Development will generate renewable energy from organic waste, enhance security of energy supply, and assist in the achievement of the renewable energy targets set out in the Plan. The proposal will generate employment on site which will support the local and rural economy.

4.6.2.5 Volume 2: Development Management Standards

Volume 2 of the CDP sets out development management standards for various forms of development in the county, including renewable energy developments.

Section 5.24 of Volume 2 states the following:

"The Council will support renewable energy developments in line with policy objective UTL 13 of the Development Plan (Volume 1: Section 6.9)."

While the majority of the guidance within this section of the CDP relates to wind energy and solar energy development, the following is stated at Page 46:

"Other forms of renewable energy (e.g. hydro; geothermal; anaerobic digestion etc), can also play a part in the sustainable development of Waterford's renewable energy mix, and the Council is generally supportive of these, subject to environmental considerations."

This section of the CDP also highlights the importance of community engagement and consultation in respect of renewable energy projects. It is noted that the applicant for the Proposed Development has undertaken extensive and constructive direct consultation with stakeholders in the locality. These consultations are outlined in Table 1.4 of the accompanying EIAR.

Development Management Objective DM31 lists key considerations for various forms of renewable energy development, and is as follows:

- *"The Waterford Landscape and Seascape Character Assessment.*
- *Visual impact particularly on raised/elevated sites.*
- *Archaeological Impact Assessment and Heritage Impact Assessment.*
- *Zone of visual influence, and visual impact of the structures.*
- *Glint and glare report and potential impact on adjoining road networks and dwellings.*
- *Construction impacts, including road access and impact on road network serving the site during the construction phase (A pre and post construction impact report may be required).*
- *Incorporation of security measures – use of CCTV/surveillance cameras and security fencing, fencing proposals should be appropriate for wildlife through-access.*
- *The suitability/strength of the grid and accessibility to it.*
- *The suitability of the site, having regard to other land use policies, including the need to protect areas of important built and natural heritage.*
- *Impact on drainage patterns and water tables.*
- *Incorporation of green infrastructure elements and opportunities provided to enhance/ improve biodiversity and biodiversity linkages.*
- *Decommissioning of obsolete infrastructure and after-use."*

The accompanying EIAR and application documentation thoroughly addresses each of the foregoing items where they are of relevance to the Proposed Development. The EIAR includes a full and detailed assessment of impact on the landscape and visual environment, archaeology, and construction impacts, proposing appropriate mitigation measures where required. The applicant has consulted with GNI in respect of a gas grid connection. While such a connection will be provided and designed by GNI and subject to a separate consenting process, the grid connection has been addressed and assessed within the EIAR. The Proposed Development includes a comprehensive landscaping scheme, which will enhance the overall level of green infrastructure on site. The proposed development is intended as a permanent installation and any demolition and / or decommissioning would be subject to separate planning permission.

4.6.2.6 Volume 3: Appendix 7: Renewable Energy Strategy 2016-2030

Section 7.2.4 of the Waterford Renewable Energy Strategy[38] (RES hereafter) recognises the potential for AD development in the county. The RES states that there has been limited investment in AD facilities to date, however, climate change obligations and national energy targets could result in an increase of such facilities, *"as the burning of methane in an AD facility could significantly reduce greenhouse gas emissions from agriculture".*

Section 7.2.4.1 of the RES recognises the importance of agricultural AD facilities and their potential in Waterford.

The RES states (Table 3.3) that there was no energy produced from biogas within Waterford in 2016. Additionally, it estimates that biogas energy will provide 1.12% of electrical energy and 1.32% of thermal energy for County Waterford by 2030.

[38] WC&CC (2016) *Renewable Energy Strategy*: Renewable Energy Strategy - Waterford City & County Council (waterfordcouncil.ie)

4.6.3 Waterford City and County Council Climate Action Plan 2024-2029

The Waterford City and Council Climate Action Plan[39] ('WCCCAP' hereafter) was adopted in March 2024.

The vision of this plan is *"to be a climate resilient and low carbon organisation that inspires, leads, and facilitates ambitious and just climate across the county and city".*

The 'Plan Mission' states that the plan will *"Ensure that Waterford is ambitious in its approach to climate action and that measures are implemented based upon the best available science".*

Under Strategic Goal 2: Built Environment and Transport, it is an objective *"to reduce Waterford City and County Council's greenhouse gas emissions by reducing reliance on fossil fuels through increased energy efficiency, a move to active and public transport, deployment of renewable energy technologies and influencing behavioural change internally and externally".*

Under Strategic Goal 5: Sustainability and Resource Management, it is an objective *"to ensure waste generated is reduced, removed and reused through the implementation of effective waste management policies and procedures and to shift away from a "take-make-waste" model towards a more sustainable and circular economy to create long-term environmental, economic and social benefits".* To support this objective, Action 5.8 states that the Council's green waste will be used in the bioeconomy to produce bioenergy.

Under Strategic Goal 4, Action 4.29 is to *"Prepare feasibility study to facilitate a pilot Anaerobic Digestor project in conjunction with other stakeholders (farmers, agri-business and others)".*

4.7 Summary Statement

This chapter has examined and summarised the relevant planning, climate, and waste management policy, and the legislative context at European and national levels with relevance to the Proposed Development at Curraghnagarraha, Reatagh, and Curraghballintlea, Co. Waterford.

The Proposed Development aims to lessen the dependence on imported fossil fuels, provide greater security in energy supply, and increase the provision of renewable energy in line with government and planning policy at the national, regional, and local level.

It is considered that the Proposed Development is supported by the Waterford City and County Development Plan 2022-2028 and the local, regional and national policy discussed within this chapter.

The Proposed Development has been carefully designed so it will integrate into the local landscape, will not be prejudicial to public health, and would be acceptable in terms of traffic safety. The Proposed Development would therefore be in accordance with the proper planning and sustainable development of the area and will deliver local renewable energy generation and employment to support the economic development and prosperity of the area.

This EIAR is accompanied by a detailed Planning Report, produced by John Spain Associates.

The Planning Report is intended to supplement this chapter of the EIAR with a more extensive

[39] Waterford C&CC (2024) *Climate Action Plan 2024-2029:* Waterford-Climate-Action-Plan-2024-2029.pdf (waterfordcouncil.ie)

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and detailed assessment of the consistency of the Proposed Development with the relevant national, regional, and local planning policy context. We refer the Planning Authority to the accompanying Planning Report prepared by John Spain Associates for further details.