

28<sup>th</sup> March 2022

Public Consultation on the Draft National Food Waste Prevention Roadmap,  
Waste Policy and Enforcement Division,  
Department of the Environment, Climate and Communications,  
Newtown Road,  
Wexford,  
Y35 AP90.

## **Re: Consultation on Ireland's National Food Waste Prevention Roadmap**

Dear Sir/Madam,

With reference to the above consultation process, **Stream BioEnergy** welcomes this opportunity to contribute to this discussion on waste management in Ireland.

### ***Company Background***

**Stream BioEnergy** (SBE) is a biogas development and operation company with an emphasis on delivering infrastructure to process organic waste in Ireland. As part of a vision for an improved, safer, more secure and sustainable clean energy future, SBE promotes the use of Anaerobic Digestion (AD) to generate renewable energy from organic materials in a way that safeguards our environment.

SBE has constructed and now operates a £23m AD plant near Ballymena, Co. Antrim, that generates 3MWe from processing 40,000 tonnes of poultry litter per annum. This plant became operational in October 2017 and the electricity generated is exported to the national grid and is sufficient to power c.4,000 homes. Planning permission was recently secured for a large-scale expansion of this facility (15MWe equivalent) with development of that project underway.

SBE has also acquired planning permission for a large-scale AD facility in Little Island, Cork to process 90,000 tonnes per annum of non-hazardous biodegradable wastes including household and commercial organics. When operational this plant will provide a sustainable way of managing organic wastes generated in the Munster region as well as generating 10MW of renewable energy, in the form of biomethane, that could be utilised in the heat and/or transport sector.

Stream is part of a dedicated Irish anaerobic digestion platform being developed with the support of Pioneer Point Partners LLP ("Pioneer") through its fund Pioneer Infrastructure Partners SCSp ("Fund"). Established in 2008 by four partners with over 90 years of combined private investment experience, Pioneer is an independent, sustainable infrastructure investment manager focused on European infrastructure. With deep sector specialisation, Pioneer targets opportunities in the energy transition and environment sectors. Pioneer has particular expertise in the biogas market and currently owns Nature Energy based in Denmark which is the largest biomethane producer on the European grid.

As a developer of critical energy and waste infrastructure we would be obliged if you would consider our comments set out below.

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## ***Responses to Specific Public Consultation Questions***


**Q1: Do you think the approach as outlined in the draft Roadmap will deliver the reductions necessary to reduce Ireland's food waste by 50% by 2030?:**

**Stream Response:** Stream supports food waste prevention in line with the EU Waste Hierarchy. However, we urge careful consideration of the definition of food waste as there is an important distinction between wasted food and unavoidable food waste such as peelings, skin, shells, stalks, cores and other inedible parts of animals and vegetables. Inedible and unavoidable food waste and other non-food biowaste, such as grass, should not be included in the definition of food waste or be considered the same as avoidable wasted food. This non-food biowaste can be used as feedstock for AD plants which convert this unavoidable and inedible waste into much needed renewable energy and nutrient rich biofertiliser. Incorrect labelling of this material as avoidable food waste and inclusion of it in future waste prevention schemes will result in the following unintended and adverse consequences:

1. Negative impact on investor confidence in developing AD plants and other biological treatment facilities in Ireland if Government sends a signal to the market that feedstock for those plants will be halved by 2030. A failure to develop new infrastructure for the treatment of biowaste in Ireland will lead to export of that material or other treatment methods that are lower in the waste hierarchy. Stream is concerned about the damaging impact such a signal may have on the ability to maintain current investment plans for much needed treatment capacity for household and commercial organic waste in Ireland.
2. Biomethane produced in AD plants can make an important contribution to achieving Ireland's 2050 decarbonisation targets. Biomethane can reduce reliance on and replace fossil fuels used in heating and transport and in particular can help with hard to decarbonise parts of industry and transport. As mentioned above, unavoidable and inedible food waste is an important feedstock for AD plants and indeed is recognised as such in the EU Renewable Energy Directive II. There is no environmental case to reduce this element of feedstock for AD plants, so food waste prevention measures must be limited to avoidable food waste only. Without this waste feedstock, AD plants would require energy crops that would be grown on land otherwise used for growing food crops. Using unavoidable food waste has a recognised significantly lower carbon footprint than using energy crops.
3. With the reduction in peat harvesting in Ireland, for environmental reasons, it is more important than ever that we sustainably produce nutrient rich digestate for use in horticulture as a peat replacement. Unavoidable and inedible food waste, along with other wastes such as animal manures, are the best feedstocks to produce digestate in the most sustainable and environmentally friendly manner. This important example of a circular economy, converting unavoidable wastes into renewable energy to offset fossil fuels and nutrient rich digestate to replace peat, would be significantly undermined if unavoidable and inedible food waste is captured in future waste prevention schemes that should be aimed solely at avoidable food waste.

In summary, there is a concerning risk that the term 'food waste' could be used too broadly in the draft Roadmap and the objectives should be focussed entirely on avoidable food waste if future waste prevention schemes are to succeed in the context of the EU Waste Hierarchy.

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**Q2: What additional actions do you think would be effective in helping Ireland reduce its food waste?**

**Stream Response:** Identifying and measuring wasted food without including inedible and unavoidable biowaste derived from food production, preparation and consumption. Otherwise food waste could be seen to be reduced by the exclusion of grass in brown bins or by the closing of food production factories. These materials must be distinguished from avoidable wasted food.

**Q3: What are the most effective awareness raising measures that could be taken to reduce food waste?**

**Stream Response:** The 'Stop Food Waste' campaign has been successful in creating public awareness of this issue.

**Q4: Which sectors or stakeholders do you think should play a key role in the implementation of the Roadmap?**

**Stream Response:** No comment.

**Q5: Are you satisfied with the proposed Roadmap monitoring and evaluation arrangements?**

**Stream Response:** No comment.

**Q6: Have you any other comments or feedback on the content of the draft Roadmap?**

**Stream Response:** We respectfully request that consideration is given to the following wide ranging and cross-sectoral benefits that can be delivered by AD. These many important benefits could be lost to Ireland if the objectives of future waste prevention schemes do not exclude unavoidable and inedible food waste in the definition and consideration of wasted food. As mentioned above, use of unavoidable and inedible food waste is an important example of a circular economy, converting these materials into renewable energy to offset fossil fuels and nutrient rich digestate to replace peat. It is crucial that investor confidence in this opportunity is not undermined through the lack of distinction between unavoidable food waste and wasted food.

### ***The Benefits of Anaerobic Digestion***

AD is a proven and efficient technology that delivers multiple energy, climate, environmental, societal and economic benefits. It can help Ireland meet a number of important energy and non-energy EU and national policy commitments and it has many wide-ranging cross-sectoral benefits. It also has an advantage of flexibility and can be deployed at different scales and designed to process many different organic feedstocks.

Biogas is a valuable product of AD which can play an important role in helping to achieve our EU Renewable Energy Targets for 2030 and beyond. Biogas can be converted to energy via an on-site Combined Heat & Power Plant (CHP) and electricity generated from the CHP process can be used in neighbouring industrial or commercial enterprises or can be fed into the national grid. The surplus heat generated can be used in industrial processes or for district heating systems.

Alternatively, the biogas can be upgraded on-site to biomethane for use as a natural gas substitute to help achieve our renewable heat and transport targets. The upgraded renewable gas can be injected directly into the gas network, a significantly underutilised national resource, to maximise efficiency in

distribution and usage. As AD provides a constant supply of electricity, gas and/or heat, it can be used to provide a stable base-load of renewable energy to the grid. The biomethane can also be compressed on-site to create a CNG which can be transferred by road to end-users. Therefore, AD can play a significant role to help achieve an objective of increasing the level of renewable energy used in the heat sector.

As well as producing heat and power that can be fed into our communities, AD has an important role to play in the fight against climate change as it can reduce Greenhouse Gas Emissions (GHG) which Ireland has international commitments to decrease. Landfilling and landspreading of organic wastes and animal manures generates uncontrolled emissions of methane to the atmosphere as the waste degrades. By diverting these wastes to AD, the organic materials are processed in a totally enclosed system which prevents the uncontrolled release of methane. Replacing fossil fuels with renewable energy generated in this manner also reduces GHG emissions.

AD not only recovers the energy from organic waste, but it also produces a nutrient rich digestate that can be suitable for use as an organic soil conditioner or biofertiliser for agricultural and horticultural purposes thus reducing reliance on artificial fertilisers that are becoming increasingly expensive to manufacture. The nutrients contained in digestate are more amenable to plant uptake than other organic fertilisers and thus its use in a circular economy has water quality, environmental and health benefits as it decreases organic pollution potential as well as reducing risk of spreading microbial contamination by avoiding landspreading of untreated manures.

Feedstock's for biogas production include domestic and commercial organic waste (MSW), industrial organic waste from the food and beverage processing industry and sewage sludge from wastewater treatment plants, and organic wastes from the agricultural sector. AD can therefore make a significant contribution to the management of organic materials in Ireland as well as achieving national and EU waste recycling targets.

There is massive potential for a new rural industry generating biogas from farm waste and agricultural organic residues in AD plants. This would support sustainable development in rural areas, provide better control of energy costs for farmers, as well as offering new income opportunities to supplement family farm incomes which have dropped significantly in the past few years. It would generate jobs in the rural economy and attract young people back to farming.

The agriculture sector faces a significant challenge to moderate its GHG emissions (32% of Ireland's total) and convert to a low carbon sector. Furthermore, targets have been set to increase the output from the Irish Agri-Food and Fisheries industry going forward. This will increase the volume of agricultural organic residues and wastes that will need to be managed in a sustainable way as we aim to address the challenge of converting to a low carbon agricultural sector going forward. AD can make a valuable contribution to achieving this objective in conjunction with increasing food production levels from agriculture, thus achieving sustainable smart agriculture which is a key component in the promotion of Ireland's food exports under the banner of the Bord Bia initiative, Origin Green.

A new AD sector would also create many new direct permanent jobs across Ireland. Employment would also be created in support industries such as engineering and manufacturing and other local professional services. There would be new business opportunities for sectors that can provide services to the AD industry and the development of the AD sector would also promote more balanced regional economic development as investment is made in the local economy and revenue from the plants is likely to be spent locally.

### ***Conclusions***

Now more than ever there are many broad national reasons for supporting the development of AD in Ireland including the generation of renewable energy that can be used in the heat and transport sectors which we need to decarbonise. On a local level it makes sense to recycle our unavoidable and inedible food waste into energy and biofertiliser, avoiding harmful GHG emissions and sustaining much needed employment in the process. If the correct economic conditions prevail, in line with other European countries, a new energy industry with huge potential could develop in Ireland.

We trust that you will consider these points carefully in developing a National Food Waste Prevention Roadmap and Stream BioEnergy is available at your convenience for further engagement in relation to any of the issues raised in this correspondence.

I would be grateful if you could please acknowledge receipt of this submission.

Sincerely,

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