

SUBMISSION BY DINGLE HUB
TO THE PUBLIC
CONSULTATION ON IRELAND'S
DRAFT NATIONAL
BIOMETHANE STRATEGY

**Submission by Dingle Hub to the Public Consultation on the
Ireland's Draft National Biomethane Strategy (January 2024)**

Executive Summary

1. Dingle Hub

[The Dingle Hub](https://dinglehub.com/),¹ as a community engaged with anaerobic digestion since 2018, welcomes the publication of the [Ireland's Draft National Biomethane Strategy \(January 2024\)](https://www.gov.ie/en/consultation/9b170-consultation-on-the-draft-national-biomethane-strategy/#consultation-overview)² and, in particular, it welcomes the commitment for further engagement with stakeholders. It is expected that groups, such as Dingle Hub (which is coordinating closely with the local community and farming community on the Dingle Peninsula) are considered 'stakeholders' (p. 32)³.

2. The Draft Strategy favours large anaerobic digesters and this may be a high risk strategy

The draft Strategy favours large anaerobic digesters (40 GWhr), as represented by Scenario Three in the Strategy. While it is appreciated that such large plants may appear to be required to deliver the target of 5.7TWhr by 2030, it is also worth noting that having a Strategy that is predominantly based on erecting c.140 new plants, in a developer-led approach, presents a serious risk to the timely delivery of the plants, with the consequential risk of ongoing significant fines imposed on the State for failure to meet its international commitments.

Ireland's experience of delivering large scale infrastructure (including one-off large plants in rural areas) has not been great and, as the new plants will require planning permission (and other permits) and they run the risk of lengthy delays within the planning, permitting and legal systems, due to possible objections from local communities, there is a significant risk involved that does not appear to be acknowledged in the Strategy.

It is recommended that some reference is made to (or even a section is included) on potential risks associated with delivering the projects, as there are serious risks associated with seeking to construct 140 large anaerobic digesters and to have them operational by 2030, based on the experience of delivering infrastructure projects in Ireland.

An assumption in the draft Strategy is that specific policies are in place and resources available to the State bodies involved with the Biomethane sector. Therefore, a sense of realism is needed, as historically there are delays in policy implementation and in the provision of resources to the State bodies to support new initiatives. Therefore, it is recommended that the Plan should provide for a fallback position that looks at slower provision of the required policies and resources and the consequent slower roll out of the anaerobic digesters.

¹ <https://dinglehub.com/>

² <https://www.gov.ie/en/consultation/9b170-consultation-on-the-draft-national-biomethane-strategy/#consultation-overview>

³ Outreach and Engagement with Key Stakeholders

Effective outreach and engagement with key stakeholders will be paramount for a successful Biomethane Sector in Ireland. It involves building meaningful relationships, fostering trust, and ensuring alignment of goals with multiple different stakeholders from a wide variety of backgrounds from farming to financiers. The Biomethane Coordination Group will actively seek stakeholder input and feedback on the Draft National Biomethane Strategy and will host information sessions to share learnings from the process. This will help inform the public on the Biomethane.

It is further recommended that the likely cost of delay to the rollout of the anaerobic digesters should be factored into the overall comparison of different scenarios and some additional weighting given to smaller⁴, community-owned/led anaerobic digesters that are likely to have greater support and get through the permitting process more easily and quicker.

It is also recommended that a twin track approach should be adopted in the Strategy, for a number of reasons:

- (i) risk reduction (by spreading the risk and accepting that smaller plants are more likely to get through the permitting process sooner).
- (ii) recognising that the longer it takes to deliver the 5.7 TW hrs of biomethane, the greater the cost of fines that will be required to be paid in 2030, so, by incentivising early delivery of the plants, these fines can be minimised (although they are likely to still be enormous). These are real and significant costs to the State.
- (iii) greater support for the smaller, community owned/led⁵ anaerobic digesters (with associated biorefineries) will contribute far greater to the Bioeconomy, Circular Economy and to the sustainability of smaller farms and local communities.

We would recommend that the statement in the Strategy (supporting small anaerobic digestion plants) should be expanded to cover small local community-owned/led anaerobic digesters, with associated biorefineries, and we suggest that this approach is continued throughout the Strategy, as opposed to being a one-off independent statement in the Strategy.

3. Ignoring the development of smaller, anaerobic digesters is a lost opportunity

With the legal obligation to significantly reduce greenhouse gas emissions and address both climate change and biodiversity loss, the Scenario Three approach is likely to result in suboptimal impacts at a community/societal level in respect of addressing climate change and biodiversity loss, compared to Scenario One. We see this as a lost opportunity, as Scenario Three will not seriously engage the rural communities (and, indeed, farmers) on an ongoing basis in the required energy and climate transformation, as they are unlikely to have any financial/ownership stake in the plants.

On the other hand, Scenario One has the potential to provide for (ongoing) ownership (or part ownership) of the (small) anaerobic digestion plants by local communities, thereby giving these communities a stake in their own future. This is likely to increase the level of acceptance for the construction of the plants and for their ongoing presence in local communities. This could mean that the small plants come on stream earlier than the larger plants and, in the process, help to reduce the fines that will be due to be paid by the State.

⁴ In this submission 'smaller' is defined to mean any anaerobic digester from 4 GW hrs up to 40 GW hrs as opposed to the definition in Scenario One as meaning from 20 – 40 GW hrs.

⁵ 'Community owned/led' refers to a community cooperative (or similar) either (i) owning the plant in full or (ii) part-owning the plant, in conjunction with external bodies. In any case, the initiative (of developing the anaerobic digester and any associated biorefinery) is led by the community as opposed to a (non-community) developer'. In such a case, the design, operation, maintenance etc. of the plant will be carried out by a professional experienced company on behalf of the owners.

This approach of supporting local community ownership or a community-led approach (with some external co-investment) of renewable energy is embedded in renewable energy policies (e.g [Microgeneration Scheme](#))⁶ and it merits consideration in the Strategy, both because of its importance and to ensure consistency in policies.

4. Comparison with Denmark may not necessarily be appropriate

One reason stated for choosing Scenario Three is the experience of a country such as Denmark but, what is not stated in the comparison, is any reference to the policy introduced in Denmark (in 2010) that mandated a reduction in slurry spreading on land, with a total ban on spreading slurry on land by 2030. Ireland does not have such a policy, so it would not be unreasonable to conclude that the comparison is not necessarily a correct comparison for Ireland, particularly if a similar policy is not in place in Ireland.

It is recommended that supporting policies (such as in Denmark) are put in place to enable the success of the Biomethane Strategy. These should be accompanied by policies that would support farmers and local communities to actively support (and preferably engage with) anaerobic digestion and biomethane.

5. The Strategy should encompass more than just the focus on Biomethane for the gas grid and for decarbonisation of hard-to-decarbonise industries

Focusing mainly (if not solely) on the production of biomethane, in large plants, to supply the gas grid and/or to decarbonise hard-to-decarbonise industry, does not take into consideration the overall significant impact that is possible on rural communities and farmers who wish to engage with anaerobic digestion. This engagement with anaerobic digestion by almost all farmers will ultimately be essential if the move to achieving a greater reduction in emissions and the more scientific use of digestates from the anaerobic digestion process is to lead to a reduction in the nitrates etc. on the land and in waterways.

Therefore, it is recommended that the Strategy should seek to encourage and incentivise all farmers and local communities to engage with and embrace anaerobic digestion. This should include incentives for community-owned/led anaerobic digesters and associated biorefineries.

6. The Strategy needs to identify different models for different areas of the country and the supports need to reflect these differences

Clearly there are different local conditions and requirements across the country, with some farms likely to be located close to large scale anaerobic digesters and a national gas grid injection point and some farms and plants quite distant from the national gas grid. Therefore, different requirements, supports and models should apply across the country.

We recommend that the Strategy should include the Scenario One option (small, dispersed plants), as complimentary to Scenario Three (large plants) and not just focus on a single option (i.e Scenario Three).

⁶ <https://www.gov.ie/en/press-release/bfe21-homes-farms-businesses-and-communities-to-benefit-as-minister-ryan-announces-the-micro-generation-support-scheme/>

7. A preferred option for more rural and peripheral plants that are located a significant distance from a national gas grid injection point

The Strategy addresses the large plants (in Scenario Three) but there is no clear vision for more rural or peripheral communities that are located far from a national gas grid injection point. As a community that is located 80 km from the gas injection point in Listowel, the Dingle Hub would suggest the following model for the Dingle Peninsula. (Other areas may also prefer such a model).

A support scheme that encourages and facilitates:

- Smaller community owned/led anaerobic digesters and resources to facilitate and support their establishment and operation. Clearly, community-owned/led plants have greater local support and they provide ongoing incomes to the farmers and the local rural community, thereby supporting the ongoing viability and sustainability of these communities.
- Biorefineries to be associated with the anaerobic digesters, so that multiple high value products can be produced (that can supplement the other farm income streams), along with biomethane, to replace fossil fuel in, for example, tractors on local farms or, in the case of the Dingle Peninsula, tour boats.

This is likely to generate far greater support for the projects in the local communities; result in a more positive impact on income streams for the farmers and local communities involved; and a greater strengthening of the Bioeconomy and the Circular Economy in these local communities.

These positive externalities may not show up in the financial numbers for the anaerobic digesters but they are real numbers and add real value to the local communities and to the national effort.

It is recommended that the draft Strategy be revised to include specific consideration for peripheral communities that are not located close to gas injection points and that these plants should be encouraged and supported to be community owned/led and with an option of having an associated biorefinery as part of the overall anaerobic digestion project.

8. A dual approach Strategy is recommended

It is recommended that the Strategy should include a dual approach – one based on the Scenario Three options and one based on the Scenario One option, with additional supports provided to encourage and enable community-owned/led anaerobic digesters and biorefineries in rural areas that are remote from gas injection points.

We would recommend including ‘local communities’ as part of the ‘cooperative model’, as they are critical to gaining acceptance for the plants.

9. Some statements in the draft Strategy appear to be standalone and not integrated into the overall approach

The Dingle Hub welcomes the section ‘*Enhancing alignment between Biomethane, Biodiversity and the Bioeconomy*’. (Page 31) and it particularly notes the important statement:

“It is vital that agri-led biomethane expansion is developed alongside the sustainable development of the bioeconomy and its key enabling technology of biorefining, with the potential for co-location and the production of multiple biobased products being a key consideration.”

Disappointingly, this statement appears to be more a standalone statement and it does not seem to be carried through the document. We recommend that the Strategy should be made consistent with this statement and be amended accordingly, with the aspirations contained in the statement repeated throughout the Strategy.

10. A Role for Enterprise Ireland

It is recommended that Enterprise Ireland should be engaged in the process to ensure that opportunities for Irish SMEs are fully transparent. (This issue is discussed in detail in the Dingle Hub paper '[Proposals for Anaerobic Digestion and Biomethane: Some Considerations](#).' ⁷

11. TAMS Programme

We recommend that the [TAMS programme](#)⁸ should facilitate and support the installation of on farm anaerobic digesters and also support the installation of sufficient storage capacity for the slurry to feed the digester.

12. Sustainability Criteria of Biomethane Production

We recommend that the information on Sustainability Criteria of Biomethane Production should also be shared with the farming communities and those communities that are interested in developing anaerobic digesters.

Furthermore, we recommend that even greater supports are provided for the community-owned/led anaerobic digesters (and associated biorefineries), as they may tend to lack the financial capability (internally) to undertake such a large project.

13. Green Gas Certification Scheme will ensure Sustainability

The absence of Green Gas Certification for non-grid gas is disappointing and again reflects a disappointing attitude in the draft Strategy to smaller anaerobic digestion plants. It is recommended that the Green Gas Certification Scheme should be expanded to cover all the biomethane produced, irrespective of end use.

14. The Cascading Principle

"The cascading principle indicates that higher value applications are preferentially derived from biological resources (e.g., food, biobased materials and chemicals) prior to their use in energy and fuel generation which enables the maximum value to be derived from bioresources."

It is not clear from the draft Strategy how this policy requirement is proposed to be implemented and it is recommended that a statement (and an appropriate graphic) should be provided in the Strategy that explains how this is being addressed in the Strategy.

15. Biomethane Charter to enhance Sustainability

While welcoming the Charter, it is recommended that 'local communities' should be added to the list of 'stakeholders'.

⁷ https://docs.google.com/document/d/1fUCcRuPBhzm6jUbv6-5plh9x9Y7XRmB8/edit?usp=drive_link&ouid=112597923401472316647&rtpof=true&sd=true

⁸ <https://www.gov.ie/en/collection/0e509-tams-3/>

16. Green Biorefineries

This statement on Green Biorefineries is welcome and it is recommended that greater recognition be given in the Strategy to the importance of green biorefineries and more guidance is provided in relation to them. Again, disappointingly, this appears to be a stand-alone statement that is not carried through the remainder of the Strategy.

17. Sustainable Digestate Management

This statement again, disappointingly, appears as a standalone statement that is not demonstrably integrated into the Strategy and we recommend that it should be incorporated more fully and consistently across the Strategy.

18. Carbon Dioxide capture from gas upgrading equipment

As the ‘innovative opportunities’ (as outlined in the strategy), could offer additional opportunities for smaller, more remotely located farm communities, we recommend that specific provision be provided for research support to those communities wishing to explore this issue further.

19. Biomethane Consumption in Ireland by Sector

“It is critical that biomethane resources are principally used in sectors where no alternative decarbonisation options exist, such as high temperature heat processes. In the absence of policy interventions, it is expected the sector that pays the highest premium for biomethane will ultimately secure the resource.”

The draft Strategy contains a definitive statement which we would like to query. We recommend that the Strategy should make provisions for different requirements for the large biomethane producers located near the gas injection points and other, more remote producers, such as in peripheral areas of the country. Production of biomethane, for example, for use in tractors, and production of multiple high value products, through a biorefinery, may be more economic and more consistent with the Bioeconomy and Circular Economy and the sustainability hierarchy.

It is further recommended that a similar definitive statement should be included in the Strategy, as follows:

“While large anaerobic digesters will focus on producing biomethane, smaller anaerobic digesters (not located close to gas injection points) will be facilitated to produce biomethane for use in the local Circular Economy and, through an associated biorefinery, they will be encouraged to produce multiple high value products that will provide additional income stream to farmers and the local communities, in line with the principles enshrined in the Bioeconomy and Circular Economy and the sustainability hierarchy.”

20. Enabling Policies to Deliver a Successful Biomethane Sector in Ireland

“Non-financial policy enablers will have a considerable impact on the successful development of a biomethane industry in Ireland. These enablers can streamline the process, ensure timely development of the sector, and embed best practices into the sector at an early stage.”

We would refer to the agreed policy in Denmark (mentioned previously) that mandates an end to spreading slurry on land by 2030 but it is helping the farmers to move to this end state through the provision of suitable supports. This is an excellent example of a policy having large impact and, as of 2023, almost 40% of the gas in the Danish gas grid was biomethane, with the objective of having 100% biomethane by 2030.

We recommend the use of complimentary, focused non-financial and financial policies to deliver an end state of at least 5.7 TW hrs of biomethane production by 2030.

We also recommend that the policy should distinguish between larger plants that are close to gas injection points and more remote plants that should have an associated biorefinery that can produce multiple high value products, in addition to biomethane that can be used for use within the local Circular Economy.

21. Resourcing Ireland's Key Agencies

“The scale of the ambition to achieve renewable electricity targets, emergency electricity generation, biomethane production, and other targets set out in the Climate Action Plan requires significant resourcing, particularly in specialist areas such as environmental assessment, for those decision-making bodies which are already operating at capacity. It is an absolute priority of Government to ensure key agencies for the energy transition are suitably resourced.”

Having accepted the absolute necessity of having local community support and engagement, if the new plants are to be constructed in as short a timeline as possible, we recommend that a similar consideration is given to resourcing local community engagement in respect of the biomethane industry as is proposed for Ireland's key agencies. Community engagement does not happen of its own accord. It requires a local, respect and capable convenor, who can knowledgeably and confidently engage with the local community and address their concerns. Otherwise, the developments will be delayed and they may have serious difficulties getting permitted, resulting in continuing fines being imposed on the State.

Appendix 1 has a more detailed treatment of the importance of funding local community engagement, probably one of the single most important issues (and likely the best investment by Government) if the biomethane industry is going to gain acceptance in local communities.

22. Planning Permission for Developments

We agree that anaerobic digestion and other assets are required to undergo a planning process and we recommend that the Strategy should have a requirement for early and sustained community engagement, which is essential, if the projects are to receive approval and acceptance (i.e a 'social licence').

23. Building Capacity and Capability to enhance delivery of a Biomethane Sector

We recommend that the Education and Training Boards should be fully engaged in this process.

24. Principle of any Bioeconomy is cascading use

We recommend that this statement should be integrated more across the Strategy, as it is an important statement.

25. Growing and Developing the Bioeconomy

We would recommend that the biorefining and demonstration projects should be rolled out as soon as practicable and they should not focus on larger plants but, rather, their focus should be on the smaller plants, particularly those that are remote from gas injection points. The permitting of the that can progress them much quicker and with greater local community impact.

We recommend that specific supports are provided not just for the large plants and farmers supporting these but, more importantly, for the smaller plants where the availability of a biorefinery may help sustain the plant.

26. Green Biorefineries

We recommend that the importance of green biorefineries is acknowledged and integrated across all the Strategy. Again, it appears to be a standalone statement and it does not appear to be carried through the draft Strategy.

27. Outreach and Engagement with Key Stakeholders

We would recommend the specific inclusion of ‘local communities’ that may be impacted by the new anaerobic digesters.

Development of Project Development Assistance and an online Portal for Biomethane Developers

We would recommend that special provision should be made for local communities interested in establishing a community-owned/led anaerobic digester and associated biorefinery.

28. Governance, Monitoring and Reporting

“Community engagement from developers will also be key locally to gain support from the communities that will be hosting the AD plants. The online portal that will be developed will provide guidance to developers on best practice engagement and examples from successful projects will be shared.”

We recommend that this be expanded to include the role of community-owned/led projects.

We also recommend that the examples of such bodies as [EirGrid](https://www.eirgrid.ie/community/engaging-public)⁹ and the experience of the [Sustainable Energy Authority of Ireland](https://www.seai.ie/publications/community%20renewables%20stakeholder%20and%20community%20engagement)¹⁰ and the roll out of [Community-owned/led Microgeneration](https://www.seai.ie/business-and-public-sector/business-grants-and-supports/commercial-solar-pv/)¹¹ should be consulted as, in our experience, the importance of effective community engagement cannot be overestimated.

⁹ <https://www.eirgrid.ie/community/engaging-public>

¹⁰

<https://www.seai.ie/publications/community%20renewables%20stakeholder%20and%20community%20engagement>

¹¹ <https://www.seai.ie/business-and-public-sector/business-grants-and-supports/commercial-solar-pv/>

Background

The [Dingle Peninsula](#)¹² has been designated as County Kerry's Decarbonisation Zone and it has been involved in addressing Climate Change, Biodiversity loss and Energy Transformation to low/zero carbon since 2018. The Hub has a proven track record of achievements and it has deep knowledge and experience of community engagement, since 2018.

The two major economic sectors on the Dingle Peninsula are Tourism and Hospitality (30% of the overall economy) and Farming/Agriculture. Since 2018, in conjunction with [University College Cork/MAREI](#)¹³, the Dingle Hub has [been actively involved](#)¹⁴, with the local community (including the local farming and tourism and hospitality communities) in seeking to explore the role of anaerobic digestion and biomethane in addressing the reduction of greenhouse gas emissions on the Peninsula (which comprised [49% of all emissions at the time](#)¹⁵). This was part of a comprehensive and integrated approach to Sustainability that underlies the [Dingle Hub approach](#)¹⁶ to addressing Climate Change and Biodiversity. It includes a proposal for '[Farm to Fork](#)¹⁷' (which would require an abattoir on the Peninsula to slaughter and process local animals and the construction of at least one community-owned/led anaerobic digester on the Dingle Peninsula. This would allow the abattoir to operate locally, as there would be an outlet for the abattoir waste through the anaerobic digester. This makes the digester a key enabler of other economic activities on the Peninsula, demonstrating the positive externalities that come from having an anaerobic digester located in rural communities.

[A Feasibility Study on Anaerobic Digestion on the Dingle Peninsula](#)¹⁸ (supported by Údarás na Gaeltachta and Gas Networks Ireland) was completed (2020) and work has continued in exploring options but, in the absence of a National Strategy, it was decided to hold off on finalising any proposal. A [Learning Brief \(Anaerobic Digestion on the Dingle Peninsula, May 2021\)](#)¹⁹ was also published.

In March 2023, Dingle Hub submitted detailed comments on '[Proposals for Anaerobic Digestion and Biomethane: Some Considerations](#)'²⁰ and these recommendations are still worth consideration by the Task Force, as they represent the views of a small rural, peripheral community that is 80 km from the nearest injection point to the gas grid (Listowel) and has been endeavouring to undertake a comprehensive community-wide transition to zero-carbon. (In fact, the objective is for the Dingle Peninsula to become carbon negative or nature positive Peninsula -but that is for another forum).

From an early stage, the importance of anaerobic digestion was recognised, not just in relation to the production of biogas and biomethane, but in a wider context for changing the approach to farming and addressing slurry storage, fertiliser use and runoff to the rivers, while turning waste products into income streams for farmers. These are more of the externalities.

¹² <https://dinglehub.com/projects/sustainability/>

¹³ <https://www.marei.ie/>

¹⁴ <https://dinglehub.com/projects/sustainability/energy/#bioenergy>

¹⁵ <https://dinglehub.com/wp-content/uploads/2023/06/Dingle-SEC-Energy-Master-Plan-February-2020.pdf>

¹⁶ <https://dinglehub.com/projects/sustainability/>

¹⁷ https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en

¹⁸ https://dinglepeninsula2030.com/wp-content/uploads/2020/07/XDC_Dingle-AD-Feasibility-Study_final-report.pdf

¹⁹ <https://dinglepeninsula2030.com/learningsandreports/learningbriefs/>

²⁰ https://docs.google.com/document/d/1fUCcRuPBhzm6jUbv6-5plh9x9Y7XRmB8/edit?usp=drive_link&ouid=112597923401472316647&rtpof=true&sd=true

Another significant opportunity was identified in the wider community setting and that was how an anaerobic digester might provide an opportunity for the development of an abattoir on the Peninsula. This would allow the slaughtering of animals that could, in turn be classified as 'Dingle Food' and sold in the local restaurants and eateries. With a resident population on the Peninsula of 13,000 and tourists totalling over 1 million per annum, the idea of a 'Farm to Fork' initiative aimed at the local community and tourists alike could become a reality.

In this case, the anaerobic digester facilitates the production of local food; increases the value of the locally-produced food; enhances the relationship between the producers (farmers) and purchasers (restaurants); and helps support the local Bioeconomy and Circular Economy, while also supporting the wider community, as tourism is 30% of the economy of the Dingle Peninsula.



Fig 1. Bioenergy on the Dingle Peninsula

As part of the approach to engaging with farmers in addressing climate change and biodiversity loss, the [West Kerry Dairy Farmers Sustainable Energy Community](https://dinglehub.com/projects/sustainability/agriculture/#west)²¹ was established (in 2020) as Ireland's first thematic Sustainable Energy Community (SEC) and with more than 100 farmers involved. The findings of the [Energy Master Plan](https://dinglehub.com/wp-content/uploads/2023/06/WKDF-SEC-Energy-Master-Plan.pdf)²² undertaken for the SEC showed that, In 2019, this farming community used more than 10,000 MWh of energy, at a cost of around €1 million (and released over 2,900 tons of CO₂). They also identified that diesel was the biggest agricultural energy component (52%), costing €750,000 (at that time). Therefore, switching to biomethane would see a substantial reduction in fossil energy demand the importation of fossil fuels on to the Peninsula, while also supporting the local Circular Economy and Bioeconomy.

²¹ <https://dinglehub.com/projects/sustainability/agriculture/#west>

²² <https://dinglehub.com/wp-content/uploads/2023/06/WKDF-SEC-Energy-Master-Plan.pdf>

These results fed into the overall approach to what an anaerobic digester might be capable of producing and then the idea of upgrading the biogas to biomethane for use as replacement (non-fossil) fuel for tractors was born (see Fig 2).



Fig 2. Anaerobic Digestion Pathway for cooperative community investment in secure, local, affordable and sustainable energy

Based on the success of the West Kerry Dairy Farmers Sustainable Energy Community, another thematic community was established on the Dingle Peninsula (in 2023) to bring together the Tourism and Hospitality sector. This was the [Tourism and Hospitality Sustainable Energy Community](https://dinglehub.com/projects/sustainability/tourism/)²³ (with more than 120 premises involved). They adopted the same approach as the West Kerry Farmers' SEC and undertook an Energy Master plan and both SECs have been working closely together, demonstrating the power of different sub-communities collaborating.

As the Irish phrase states: "Ní neart go cur le chéile."

²³ <https://dinglehub.com/projects/sustainability/tourism/>



Fig. 3 The Sustainable Energy Communities on the Dingle Peninsula

In August 2023, a project, [Developing Cascading Biomethane Biochemicals and Biofertiliser Systems for a Circular Bioeconomy in Ireland \(CABBBIE\)](https://www.marei.ie/project/cabbbie/)²⁴ was initiated (by UCC MAREI, with the Dingle Hub as a partner). It is funded by the Department of Agriculture, Food and the Marine and the Sustainable Authority of Ireland. The aim of the project is, by 2050, to provide a comprehensive pathway to commercialise photosynthetic biogas upgrading technology for an adaptive, flexible and secure Irish bioeconomy.

In this project (see Fig. 4) it became clear that, if successful, it would be possible to upgrade the biogas to biomethane, using microalgae, and the biomethane could then be used to supply fuel for the tractors on the Peninsula, thereby reducing the c. €750,000 per annum in energy cost for diesel. This would reduce or remove the need for imported fossil fuels and enhance the Circular Economy on the Dingle Peninsula.

In addition to the generation of biomethane for transport use, research is also underway to explore how local wool could be scoured locally and the waste products used as part of the feedstock for the anaerobic digester, to support the microalgae that will be used to upgrade the biogas to biomethane.

Finally, it is envisaged that the products from the biorefinery will be high-value products (possibly Spirulina) that can be sold as products in their own right.

This is an excellent example of the local Circular Economy and Bioeconomy in action on the ground and it shows the critical role that can be played by an anaerobic digester, with an associated

²⁴ <https://www.marei.ie/project/cabbbie/>

biorefinery, and seeing the outputs as not just biogas but upgraded gas (biomethane) for transport and multiple high value products.

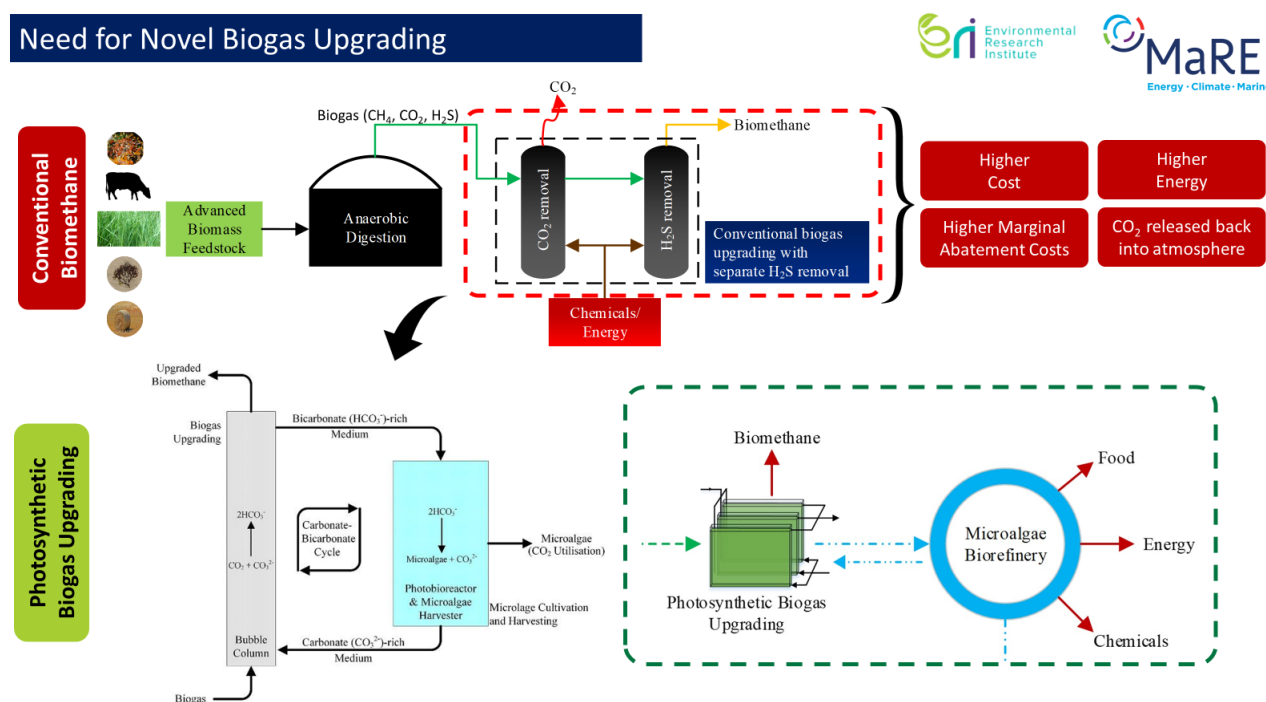


Fig 4. CABBBIE project outline

This approach is consistent with the statement in the draft Strategy, as follows:

*Enhancing alignment between Biomethane, Biodiversity and the Bioeconomy. (Page 31)*²⁵

"The bioeconomy must have a central role in the emerging development of renewable energy. As outlined in the Climate Action Plan 2024, the Government has committed to delivering up to 5.7 TWh of indigenously produced biomethane, based mainly on agricultural feedstocks. The production of biomethane is a valuable component of a functioning bioeconomy.

"However, a key principle of any bioeconomy is cascading use, whereby higher value products should be extracted from a feedstock first, before lower value products, such as bioenergy. This can lead to opportunities for higher, and more resilient, farm incomes.

"It is vital that agri-led biomethane expansion is developed alongside the sustainable development of the bioeconomy and its key enabling technology of biorefining, with the potential for co-location and the production of multiple biobased products being a key consideration."

We consider that this is the approach being proposed on the Dingle Peninsula and we would like to see it given greater recognition in the Strategy, as it has widespread applicability across the country, particularly in more peripheral rural communities that are not located in close proximity to gas injection points.

²⁵ <https://assets.gov.ie/282319/b82783de-f66b-49e1-9bd2-ed2d6442b199.pdf>

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The 'overriding ambition' of the draft Strategy includes the following:

"Present a credible and sustainable diversification option for Ireland's rural economy."

"Optimise the use of primary bioresources and valorise waste streams and by-products."

It is not clear how these important aspirations are going to be met by the draft Strategy, particularly for more rural communities that are not located close to a gas injection point.

Alternative models, other than focusing solely on the large anaerobic digesters (Scenario Three), need to be included in the Strategy if it is to be relevant and meaningful to many rural communities and if it not to be seen as simply as an effort to support large investments in significant anaerobic digestion plants that can be used to feed into the national gas grid. Not to provide for smaller plants and biorefineries would be a huge lost opportunity.

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"Vision: By 2030, Ireland will have developed a sustainable biomethane industry of scale, meeting ambitious production targets set by the Government."

The vision seems to be very limited and focused only on developing a 'sustainable biomethane industry' that delivers on the production targets set. In this, the Strategy loses a huge opportunity to see biomethane as more than just a gas for burning but, rather, to see it as a critical enabler for the Bioeconomy that can support farmers (with new income streams, while also addressing other challenges faced by them) and something that can also support local communities to embrace and engage with the Bioeconomy, Climate Change and addressing Biodiversity loss, particularly if they become participants in community-owned/led anaerobic digesters and biorefineries.

"Mission: The Draft National Biomethane Strategy will be agri-led and farmer-centric with a focus on supply of suitable feedstocks, including animal slurries, grass silage and suitable waste streams from non-farm wastes. It will align with circular bioeconomy development and will contribute positively to both the sectoral emissions ceiling for agriculture, as well as to the decarbonisation of Ireland's energy mix."

This Mission statement may be inconsistent with the 'Vision' above and the draft Strategy, as written, does not appear to support the Mission. It simply is not 'agri-led and farmer-centric' nor is it necessarily 'aligned with circular bioeconomy development.' On the contrary, it appears to be led by an investor approach to building c. 140 large anaerobic digesters and, in the process, to ignore all the wider context of the Bioeconomy and the potential role that anaerobic digesters could play in the transformation of farming to becoming more sustainable and more integrated into local rural communities that could also, themselves, become more resilient and sustainable.

Not to consider these issues is a lost opportunity for the Strategy.

“Values: Sustainability, Diversification, Decarbonisation, Energy Security, Circular Economy and Bioeconomy”

It is not clear in the draft Strategy how the values listed, such as, ‘sustainability’, ‘diversification’, ‘Circular Economy and Bioeconomy’, are incorporated throughout the document and what is clearly and, disappointingly, missing any reference to ‘community’ and ‘on-farm diversity’.

Page 6

In the *Framework for Developing the National Biomethane Strategy*, there is a notable absence of any role for Enterprise Ireland and for Irish SMEs to be involved, in a structured manner, and to be given opportunities to be part of the significant capital investments that are about to take place.

It is recommended that Enterprise Ireland should be engaged in the process to ensure that opportunities for Irish SMEs are fully transparent. (This issue is discussed in detail in the Dingle Hub paper [‘Proposals for Anaerobic Digestion and Biomethane: Some Considerations’](#).)²⁶

“Pillar: Bioeconomy and Circular Economy

“Pillar Description: Ensure that biomethane, bioeconomy and circular economy development are integrated and the benefits of producing biomethane with other biobased products and biorefining are considered.”

It is not clear how this is addressed in the draft Strategy (particularly for large anaerobic digesters) and it is recommended that it should be spelt out specifically how this will be addressed. We would suggest that this is particularly relevant to those communities that are not located in close proximity to gas injection points and they would be better having a biorefinery associated with the anaerobic digester.

“Pillar: Economics of Biomethane

“Pillar Description: Assess the pathways to meet the 5.7 TWh target by 2030. This will involve assessment of optimal deployment approaches, end use sectors that biomethane will be an economically viable option, agri-centric considerations, scale of plant and grid connections.”

In the economics, it is important to differentiate between the large plants and the small, community-owned/led plants that bring some significant positive externalities that do not appear to be captured in the current draft strategy. It is not clear how the ‘agri-centric considerations’ have been factored into the draft strategy.

It is recommended that some reference is made to (or even a section is included on) potential risks associated with delivering the projects, as there are serious risks associated with seeking to construct 140 large anaerobic digesters and to have them operational by 2030, based on the experience of delivering infrastructure projects in Ireland.

It is recommended that the Strategy should include a dual approach – one based on the Scenario Three option and one based on the Scenario One option.²⁷ Additional supports should be provided to enable community-owned/led anaerobic digesters and biorefineries in rural areas that are not located in close proximity to gas injection points.

²⁶ https://docs.google.com/document/d/1fUCcRuPBhzm6jUbv6-5pih9x9Y7XRmB8/edit?usp=drive_link&ouid=112597923401472316647&rtpof=true&sd=true

²⁷ With the definition of ‘small’ anaerobic digesters as outlined previously

Page 7

"Pillar: Enabling Policy Requirements

"Pillar Description: To ensure timely development of a biomethane industry in Ireland, various enabling policies must be delivered and current impediments addressed (e.g. coordination, consultation, advisory, capacity building, codes of practice, skills development.)"

While this is very much supported, a sense of realism is also needed, as historically these policies and resources are not generally provided in a timely manner. Therefore, it is recommended that the Plan should provide for a fallback position that looks at slower provision of the required policies and resources.

Page 8

"Biogas is typically comprised of 60% methane and 40% CO₂ and can be used locally for heat purposes or for combined heat and power production. Biogas can also be upgraded to sustainable biomethane to replace natural gas."

It should be noted that biogas, upgraded to biomethane through the use of microalgae, can also be used to fuel vehicles (such as tractors) and other products should be high valued products.

Page 9

"These opportunities with biomethane for agriculture include diversification opportunities for livestock farmers, reduced emissions from animal wastes, biobased fertiliser replacing chemical fertiliser and carbon sequestration on land."

We support this statement and we note that diversification will be enhanced if a biorefinery is associated with the anaerobic digester, as this is capable of producing multiple high value products and support innovative farming practices.

"To maximise the emissions reduction potential of biomethane in the agriculture sector, it is essential to invest in appropriate infrastructure, promote sustainable and innovative farming practices, and support policies that incentivise the adoption of biomethane. Collaboration, similar to the cooperative model, between farmers, biomethane producers, and policymakers is key to harnessing the environmental and economic benefits of biomethane for the agriculture sector."

We would recommend the including 'local communities' as part of the 'cooperative model', as they are critical to gaining acceptance for the plants.

Page 10

"The Climate Action Plan 2024 (CAP 24) states that reaching the 2030 emission reduction targets in the agriculture sector requires supports and options available for farmers to transition to alternative land uses through diversification options. The agri-centric biomethane sector will be a key diversification option for farmers alongside increasing organic farming, forestry, bioeconomy, and other energy production methods."

We agree with this statement and we would welcome an elaboration on the supports envisaged, particularly for smaller anaerobic digester plants with associated biorefineries, that we consider can support and are, indeed, essential for greater organic farming and support for the wider Bioeconomy and Circular Economy.

“Farmers will need access to sufficient resources and expert guidance to determine whether biomethane production is a viable diversification option for their farm and their communities.”

This applies more to the smaller anaerobic digester plants that are located far from gas injection points. Besides advice, they will also require supports that are in excess of what is required for the larger plants.

The cost benefits come in the positive externalities from having rural communities providing livelihoods and incomes for farmers, while also supplying food and looking after biodiversity and nature – all in compliance with Government policies.

Page 11

“AD offers an opportunity to add value to the animal slurry by processing it into a safe and valuable product (biobased fertiliser) and removing the need for slurries to be spread in the immediate vicinity of farms. AD with digestate process will allow for centralised management of manure in areas of surplus nutrients and creates an opportunity to support compliance with the Nitrates Directive limits.”

We recommend that the [TAMS programme](#)²⁸ should facilitate and support the installation of on farm anaerobic digesters and also support the installation of sufficient storage capacity for the slurry to feed the digester.

“Scenario analysis carried out as part of the National Biomethane Strategy showed that Ireland meeting its 5.7 TWh target by 2030 would save cumulative CO₂ emissions greater than 2.1 million tonnes¹¹ of CO₂eq.”

Table 1 then shows a total reduction of c.2.1 million tonnes of emissions.

This raises the question of why only Scenario Three considered when Scenarios One, Two and Three, are not mutually exclusive. If there was a dual strategy (as recommended previously), focused on Scenario One and Three (seeing as Scenario Two does not require any additional policy changes etc.) This figure for reduction in emissions could exceed 2.1 million tonnes and there could be greater support for biomethane across the farming (and local) communities.

Therefore, we recommend a dual strategy, based on both Scenario One and Scenario Three.

Page 12

“The Biomethane Energy Report, published by Gas Networks Ireland, provides an indicative view of potential biomethane developments on a county-by-county basis. The report highlights the significant opportunity for rural counties in Ireland to develop biomethane.”

A distinction needs to be drawn between those communities in relatively close proximity to gas injection points and those remote from such points and the supports available to the more remote areas needs to reflect that they have to have an alternative, based on a smaller anaerobic digester in their area and an associated biorefinery.

Page 13

“Applying these findings (from the report by SEAI – Economic Assessment of Biogas and Biomethane in Ireland) to Ireland’s 5.7 TWh target, indicates the potential to generate up to 1,800 direct jobs and

²⁸ <https://www.gov.ie/en/collection/0e509-tams-3/>

4,400 indirect jobs across the rural economy in Ireland, helping to stimulate and sustain rural communities.”

The estimate of these jobs is probably based upon Scenario Three, whereas if Scenario One was utilised, with a focus on additional incomes for farmers and local communities from a successfully operating anaerobic digester and associated biorefinery in the community, the likelihood (from the estimates on the Dingle Peninsula, as outlined in the Background section above), is that there would be a far greater local impact and it would leverage and sustain more local jobs.

The essential difference is that an anaerobic digestion plant (and associated biorefinery) located in a peripheral area (such as the Dingle Peninsula) helps sustain existing jobs, while increasing incomes to the farmers and the local community.

“It is important to note the development of biomethane across Europe (including Denmark and the United Kingdom) has been supported with operational financial supports.”

When drawing comparisons to other countries, it is important that the policy contexts are properly understood and incorporated into the comparisons. One reason for favouring Scenario Three is cited as the experience of a country such as Denmark but, what is not stated in the comparison, is any reference to the policy introduced in Denmark (in 2010) that mandated a reduction in slurry spreading on land, with a total ban on spreading slurry on land by 2030. Ireland does not have such a policy, so it would not be unreasonable to conclude that the comparison is not necessarily a correct comparison for Ireland.

It is recommended that supporting policies (such as in Denmark) are put in place to enable the success of the Biomethane Strategy. These should be accompanied by policies that would support farmers and local communities to actively support anaerobic digestion and biomethane production.

Page 14

Scenario Analysis Completed for the Draft Strategy

“While each scenario contains numerous assumptions and uncertainties, they represent possible and credible pathways depending on the design and policy decisions chosen in the Draft National Biomethane Strategy. These decisions include the level of financial support that is available, preferred plant scale and whether to target support for specific end users.”

Please see the reference above to the Danish policy that forbids slurry spreading from 2030.

Based on Ireland’s experience of delivering infrastructure (and plants such as the large anaerobic digestion plants), it seems imprudent (at the least) to not include the planning and permitting risks associated with the construction of 140 plants by 2030. It is clearly not insignificant but there are no references to these risks in the draft Strategy.

“Centrally located, larger plants utilising the national gas network reduce overall emissions and energy consumption. While smaller plants with virtual pipelines require more energy, they were seen as a viable solution for farming groups and community groups as the overall level of sustainable feedstock required could be sourced from the immediate vicinity.”

This statement is interesting: *“smaller plants with virtual pipelines require more energy, they were seen as a viable solution for farming groups and community groups as the overall level of sustainable feedstock required could be sourced from the immediate vicinity”* but the focus is still on serving the gas grid (through virtual pipelines, i.e. mobile transport). Disappointingly, there is no reference to the

more peripheral communities that are not located close to the gas injection point and require to be stand-alone. Their approach needs to be underpinned by the local Circular Economy and Bioeconomy approach, for example, as proposed for on the Dingle Peninsula.

It is recommended that the draft strategy be revised to include specific consideration for peripheral and coastal communities that are not located close to the gas injection points and that these plants should be encouraged and supported to be community-owned/led and with an option of having an associated biorefinery, within the overall anaerobic digester project.

Pages 15/16

Figure 1 does not include consideration of the contextual policies operating in Denmark (and maybe UK) and this is a serious error in the comparison. Similarly, no negative weighting is attached to the likely opposition to the 140 major investor-led plants, in contrast to the likelihood of smaller, community-owned/led plants (with proper support and resources being assigned by the State to assist them to get operational). These plants are far more likely to be accepted by the local communities. Scenario Three projects 3 TWh (i.e more than 70 plants) being operational by Year 4 (which is half-way towards the eight years to 2030 envisaged in the Strategy. This is highly unlikely, for the reason listed previously. If the total timeline is 8 years (to 2030) then Year 4 must be considered to be 2026 or the 2030 deadline must be considered to be delayed to at least 2032. Either way, from Fig. 1, the 140 plants will not be constructed before 2032.

Similarly, Table 2 fails to include the risks associated with the planning and permitting processes and, as in Fig. 1, it also fails to include any reference to the community-owned/led plants.

Scenario 1

“Scenario One focused on the development of a larger number of smaller, farm-scale AD facilities. Due to their size and location, it was likely that the majority of these would need to truck and trailer their gas to centralised grid injection facilities or to end users.

“The benefits of this scenario include involving a greater number of rural communities and farmers in the biomethane industry which may also assist with community buy-in.

“The main downfall of smaller developments is that they require a higher price for their gas which, without specific financial support, would leave them a less viable option.”

We agree with the statement ‘*The benefits of this scenario include involving a greater number of rural communities and farmers in the biomethane industry which may also assist with community buy-in*’ but we consider that the statement fails to appreciate the important role that anaerobic digestion can play in the following areas:

- (i) Facilitating the Bioeconomy and Circular Economy in local communities.
- (ii) Anaerobic digestion on farms, as the country is required to reduce emissions significantly and introduce a large increase in organic farming (for which anaerobic digestion will be required to produce the fertiliser and limit the runoff to local waterways, etc.)
- (iii) Supporting farmers and local communities to come together in community-owned/led anaerobic digesters, and associated biorefineries, that can help diversify the income streams for the farmers and the broader community, while ensuring that the community is fully engaged in a holistic and integrated manner in addressing the climate change and biodiversity challenges.

- (iv) For example, in the case of the Dingle Peninsula, it is envisaged that the output from the anaerobic digester (biogas) will be upgraded to biomethane (through the use of microalgae) and this biomethane will be used in local farmers' tractors, thereby contributing to a local Circular Economy.

In addition to the generation of biomethane for transport use, research is also underway to explore how local wool could be scoured locally and the waste products used as part of the feedstock for the anaerobic digester, to support the growth of microalgae, that will be used to upgrade the biogas to biomethane.

Finally, it is envisaged that the products from the biorefinery will be high-value products (possibly Spirulina) that can be sold as products in their own right.

This approach is far more comprehensive and integrated and, as a result, more impactful, than simply seeing the farmers as suppliers to large anaerobic digestion plants.

As regards the statement: *"The main downfall of smaller developments is that they require a higher price for their gas which, without specific financial support, would leave them a less viable option."*

If the only consideration is the price of gas, then we would see that as far too reductionist in approach and it does not take into consideration the broader Government policy imperatives in respect of Bioeconomy, Circular Economy, Sustainability, Rural Development, etc. and the positive externalities from having a large number of community-owned/led local anaerobic digesters (and associated biorefineries) that are focused on more than just producing biogas for the gas grid.

It is also worth recalling that the report, [Estimating the Potential Cost of Compliance with 2030 Climate and Energy Targets \(DPECC & DPER, February 2023\)](https://assets.gov.ie/246850/5982d0ec-1590-4caf-8c40-ce8bf178f5fc.pdf),²⁹ estimates that, by 2030, the cumulative compliance cost for the State for not achieving international commitments is highly likely to be greater than €8 billion. This means that any delays in delivering the rollout of the Biomethane industry and the 5.7 TW hrs of biomethane are going to incur additional penalty costs to the Irish State. This should mean that there is a premium associated with early delivery of plants and, therefore, having local community owned/led plants can incentivise this early delivery.

That the cost of not achieving the emission reductions was included in a tender for consultants by the Department of Transport, that were asked to review the Local Link Service (2023). The tender stated as follows:

"Quantify what Exchequer funding would be required to deliver the new organisation structure (and operations), correlate the costs to the projected outputs and outcomes, and outline the costs to the Exchequer of failing to deliver the legally binding Climate Action targets."

It is recommended that the cost of delay to the rollout of the anaerobic digesters should be factored into the overall comparison of different scenarios and some additional positive weighting given to smaller, community-owned/led anaerobic digesters that are likely to have greater community support and get through the permitting process more easily and quicker.

It is further recommended that a twin track approach should be adopted in the Strategy, for a number of reasons:

²⁹ <https://assets.gov.ie/246850/5982d0ec-1590-4caf-8c40-ce8bf178f5fc.pdf>

- (i) risk reduction (by spreading the risk and accepting that smaller plants are more likely to get through the permitting process sooner)
- (ii) recognising that the longer it takes to deliver the 5.7 TWh of biomethane, the greater the cost of fines to the State that will have to be paid in 2030, so, by incentivising early delivery of the plants, these fines can be kept lower.
- (iii) greater support for the smaller, community-owned/led anaerobic digesters (with associated biorefineries) will contribute far greater to the Bioeconomy, Circular Economy and to the sustainability and viability of smaller farms and local communities.

Page 17:

Scenario 3: Economic Deployment

“Scenario Three focussed on what is seen to be the most economic and cost-efficient pathway for developing a biomethane industry. A smaller number of larger plants requires less infrastructure, benefits from economies of scale and can offer lower off-take prices than smaller plants.

“In this scenario, the average sized plant developed is 40 GWh per annum, very similar to the European average. This scenario gave the Government the best chance of meeting its 2030 biomethane production target but had a smaller involvement for the farming community.”

“Scenario analysis carried out as part of the Draft National Biomethane Strategy shows that larger, grid connected plants can produce biomethane at a significantly cheaper price than a smaller scale plant utilising truck and trailer transport of gas.”

We accept that, taking solely the economic costs of producing biomethane, the larger plants are more ‘cost effective’. But the development of the biomethane industry cannot be taken in isolation from the wider Government policies, such as those for the Bioeconomy, Circular Economy and Rural Development.

The comparison with Europe should be a comprehensive (not selective) comparison, including the associated policies (such as in Denmark, that prohibits farmers from spreading slurry on land from 2030).

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“However, all plant sizes have a role to play. Both large and small models are important, especially the smaller model in the context of achieving buy-in from farmers, the rural community, and the Agri-sector stakeholders.

“A similar model to the current cooperative models could be implemented in the developing biomethane sector in larger plants to allow for greater farmer involvement and/or ownership.

We agree with the acknowledgement of the role of “large and small models, especially the smaller model in the context of achieving buy-in from farmers, the rural community, and the Agri-sector stakeholders,” but this statement is not apparently integrated across the draft Strategy, as it is perceived as a more stand-alone statement that is unconnected to the thrust of the Strategy.

We recommend that the above statement is fully integrated across the Strategy and not just as an apparent stand-alone statement.

While the acknowledgement that ‘a similar model to the current cooperative models could be implemented in the developing biomethane sector in larger plants to allow for greater farmer involvement and/or ownership’, is welcome, it fails to address the community ownership/led issue and it is still likely to lead to opposition through the permitting processes.

“There is a potential role for smaller scale AD plants which use on-farm feedstocks and consume energy on-site (Biogas to Combined Heat and Power). While not contributing substantially to the national biomethane targets, these can play an important role in terms of decarbonising agriculture and play a strong role in the ‘social acceptance’ of AD.”

While accepting that there is some acknowledgement of a role “for smaller AD plants, which use on-farm feedstocks and consume energy on-site (Biogas to Combined Heat and Power” and that “these can play an important role in terms of decarbonising agriculture and play a strong role in the ‘social acceptance’ of AD”, we consider that this statement does not make provision for smaller anaerobic digestion plants that do not consume energy on-site. Instead, they contribute to the local community by providing biomethane for use locally and, through a biorefinery, they can produce multiple high value products and exhibit other positive externalities.

We would recommend that the statement (supporting smaller anaerobic digestion plants) should be expanded to cover local community-owned/led anaerobic digesters, with associated biorefineries and we further recommend that this approach is continued throughout the Strategy, as opposed to being a one-off independent statement.

In Table 3, we note the Green Premium required for biomethane, as follows:

10 - 20 GWh per annum plant - €90 to €150 per MWh

40 GWh per annum plant - €50 to €80 per MWh

40+ GWh per annum - €50 per MWh

We accept that, if the cost of biomethane is the sole criterion, then the larger plants require less ‘Green Premium’ (at c. €50 per MWh, rising to - €90 to €150 per MWh for the smaller plants). But we consider that there are positive externalities associated with the smaller plants (as outlined previously) and these should be captured in any comparison.

We recommend that the positive externalities from the smaller anaerobic digestion plants, particularly community-owned/led plants and those with associated biorefineries, should be included in any serious comparison of overall costs (including societal costs and costs to the State for failing to meet the climate emissions’ targets, as outlined previously).

Government Funding to support Biomethane production

“An operational support guarantees the biomethane developer revenue for every unit of biomethane injected into the gas grid for a defined time period.”

While accepting that this is true, we wonder why it is limited to biomethane injected into the gas grid. As stated previously, it appears many times throughout the draft Strategy that, anything other than large anaerobic digesters producing biomethane for the gas grid, simply do not effectively count and any reference to them is more a stand-alone, non-connected statement that does not permeate throughout the draft Strategy. This is very disappointing to a peripheral community that has been working on anaerobic digestion since 2018, with a hope that the new strategy would support small,

community-owned/led plants (and associated biorefineries) and not just support larger plants, as it appears to do.

We recommend that the Strategy should include the Scenario One option (small, dispersed plants), as complimentary to Scenario Three (large plants) and that appropriate support are provided to small, community-owned/led plants (and associated biorefineries), in order to reflect their peripheral locations.

Page 19

Sustainability Criteria of Biomethane Production

“A key part of the communications planned around the Strategy and the online portal to be developed will to ensure that information, guidance, and best practice around sustainability is shared with potential developers.”

We recommend that this information needs to be also shared with the farming communities and those communities that are interested in developing anaerobic digesters. Furthermore, we recommend that even greater supports are provided for the community-owned/led anaerobic digesters (and associated biorefineries), to assist with the community ownership aspect.

Page 20

Green Gas Certification Scheme will ensure Sustainability

“Currently there is no certification scheme or guidance around biomethane that is not injected into the gas network. “

This is disappointing and again reflects a disappointing attitude in the draft Strategy towards smaller anaerobic digestion plants. It is recommended that the Green Gas Certification Scheme should be expanded to cover all the biomethane produced, irrespective of end use.

Page 21

“The cascading principle indicates that higher value applications are preferentially derived from biological resources (e.g., food, biobased materials and chemicals) prior to their use in energy and fuel generation which enables the maximum value to be derived from bioresources.”

It is not clear from the draft Strategy how this policy requirement is proposed to be implemented. Therefore, it is recommended that a statement (and an appropriate graphic) should be provided in the Strategy that explains how this is being addressed (in the Strategy).

The approach being proposed on the Dingle Peninsula is more likely to achieve this policy objective, as opposed to the Scenario Three approach alone.

Develop a Biomethane Charter to enhance Sustainability

“The Charter could be developed to cover AD plant developers and owners, those supplying feedstock into AD plants, plant operators, and those farmers acting as off-takers for the digestate. This Charter will be fully developed in consultation with policy, industry, and societal stakeholders.”

While welcoming the Charter, it is recommended that ‘local communities’ are added to the list of ‘stakeholders’.

Page 23

Sustainable Feedstocks and Pre-Treatment of Feedstocks for Biomethane Production in Ireland

“The consideration of integrated approaches for AD and green biorefinery is also important due to green biorefinery systems being a consideration for the production of climate-smart sustainable biobased products from grasses, legumes and green crop residues that can be integrated with AD development.”

This statement is welcome and it is recommended that greater recognition should be given in the Strategy to the importance of ‘green biorefineries’ and further guidance is provided in relation to them. Again, this appears to be a stand-alone statement that is not carried through the remainder of the Strategy.

Page 24

Sustainable Digestate Management

“Sustainable biomethane production must also be cognisant of the digestate output after the AD process.”

“However, transforming digestate into valuable biobased fertiliser can shift this ‘waste’ material into a potential revenue stream for plant operators.”

“The use of digestate as a key ingredient to produce biobased fertiliser to replace chemical fertilisers aligns with the aims of a circular economy and bioeconomy, as well as EU Farm to Fork Targets. Furthermore, it avoids emissions associated with chemical fertiliser production.”

We agree with this statement and it supports the broader, more holistic approach proposed by Dingle Hub, which encompasses the ‘Circular Economy and Bioeconomy, as well as EU Farm to Fork Targets.’

This statement again appears as a standalone statement that is not demonstrably integrated into the strategy and we recommend that it should be integrated more fully across the strategy.

Page 25

Carbon Dioxide capture from gas upgrading equipment

“Capturing biogenic CO2 improves the sustainability of biomethane production as it limits emissions to the atmosphere, in addition to biogenic CO2 directly replacing sources of fossil fuel produced CO2.”

“New innovative opportunities considering the use of biogenic CO2 for food and biobased product production could be considered. Other potential markets could open in the medium to long term, once economic models and/or technologies are mature (such as enhancing methane production in AD through hydrogen-based upgrading of the CO2), and the right policy framework is in place.”

We agree with this statement and we are exploring this approach on the Dingle Peninsula, along with our research partners, MAREI.

It again appears to be a one-off statement that is not carried through across the Strategy and, in this regard, that is disappointing.

As the ‘innovative opportunities’ (as outlined above), could offer additional opportunities for smaller, more peripherally located farm communities, we recommend that specific provision be provided for research support to those communities wishing to explore this issue further.

Biomethane Consumption in Ireland by Sector

“It is critical that biomethane resources are principally used in sectors where no alternative decarbonisation options exist, such as high temperature heat processes. In the absence of policy interventions, it is expected the sector that pays the highest premium for biomethane will ultimately secure the resource.”

This is a definitive statement which we would like clarified. We recommend that the Strategy should make provisions for different requirements for the large biomethane producers located near the gas injection points and other producers, such as those located in more peripheral areas of the country. Production of high value products through a biorefinery that produces multiple high value products and biomethane, for example, for use in tractors, may be more economic and more consistent with the Bioeconomy and Circular Economy and the sustainability hierarchy.

Pages 26-28

Biomethane Consumption in Ireland by Sector

It is noted that there are definitive statements, such as the following:

“➤Biomethane will support the decarbonisation of Ireland’s heat sector through the RHO scheme. “

“➤ Biomethane will support the decarbonisation of Ireland’s transport emissions through the RTFO scheme.”

“➤ ESB Networks is proposing that data centres providing demand flexibility services to the electricity grid would be required to purchase renewable gas purchase.”

“➤ The use of biomethane in the Built Environment, in both the residential and commercial sectors will be driven through the design and implementation of the RHO.”

It is recommended that a similar definitive statement be included, as follows:

“➤ While large anaerobic digesters will focus on producing biomethane, smaller anaerobic digesters (not located close to gas injection points) will be facilitated to produce biomethane for use in the local Circular Economy and, through an associated biorefinery, they will be encouraged to produce multiple high value products, in line with the Bioeconomy and Circular Economy and the sustainability hierarchy. Specific support will be made available to community-owned/led anaerobic digestion plants and associated biorefineries.’

Page 28

Enabling Policies to Deliver a Successful Biomethane Sector in Ireland

“Non-financial policy enablers will have a considerable impact on the successful development of a biomethane industry in Ireland. These enablers can streamline the process, ensure timely development of the sector, and embed best practices into the sector at an early stage.”

We agree with this statement and we would refer to the agreed policy in Denmark (mentioned previously) that mandates an end to spreading slurry on land by 2030 but is supporting the farmers to move to this end state, by the provision of suitable supports. This is an excellent example of a policy having big impact and, as of 2023, almost 40% of the gas in the Danish gas grid was biomethane, with the objective of having 100% biomethane by 2030.

We recommend the use of complimentary non-financial and financial policies to deliver an end state of at least at least 5.7TWhrs of biomethane by 2030. We also recommend that the policy distinguishes between larger plants that are close to gas injection points and more peripheral plants, that should have an associated biorefinery, that can produce multiple high value products, in addition to biomethane that can used in the local Circular Economy.

Resourcing Ireland’s Key Agencies

“The scale of the ambition to achieve renewable electricity targets, emergency electricity generation, biomethane production, and other targets set out in the Climate Action Plan requires significant resourcing, particularly in specialist areas such as environmental assessment, for those decision-making bodies which are already operating at capacity. It is an absolute priority of Government to ensure key agencies for the energy transition are suitably resourced. “

We agree with this and, having accepted the absolute necessity of having local community support and engagement, if the new plants are to be erected in as short a timeline as possible, we recommend that a similar consideration should be given to resourcing local community engagement in respect of the ambitions for the biomethane industry. Otherwise, the developments will be delayed and they may have serious difficulties getting permitted, with consequential fines being imposed on the State for the delays.

Appendix 1 has a more detailed treatment of the importance of funding local community engagement, one of the single most important issues (and one of the best investments by Government) if the biomethane industry is going to gain acceptance in local communities.

Page 29

Planning Permission for Developments

“AD and other integrated assets are therefore correctly required to undergo a planning process to ensure proper consideration of a range of factors, including location, visual impact, land-zoning plans, and ecology.

We agree with this statement and we recommend that the Strategy should have a requirement for early and sustained community engagement, which is essential, if the projects are to be approved in a timely manner.

“The Department of Agriculture, Food and the Marine together with the Department of Housing, Local Government and Heritage will develop a standardised code of practice for local authorities to be followed when assessing an AD and biorefining planning application.”

We welcome this commitment.

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Building Capacity and Capability to enhance delivery of a Biomethane Sector

“Ireland will need to develop skills and training programmes, as required, for jobs directly involved in the AD biomethane sector and the wider bioeconomy. Alongside the need for construction workers in the near term, plant operators and skilled management teams will be required to operate the AD and other integrated facilities. The responsiveness of the education and training system to facilitate the development of the workforce with the skills and capabilities to meet this demand, will be an important aspect of enabling a successful biomethane industry and wider bioeconomy in Ireland.”

“Farmers will play a vital role in the development of biomethane in Ireland and capacity and capability will need to be developed.”

We support these statements and we recommend that the Education and Training Boards should be engaged in this process.

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“The production of biomethane is a valuable component of a functioning bioeconomy. However, a key principle of any bioeconomy is cascading use, whereby higher value products should be extracted from a feedstock first before lower value products such as bioenergy. This can lead to opportunities for higher, and more resilient, farm incomes. It is vital that agri-led biomethane expansion is developed alongside the sustainable development of the bioeconomy and its key enabling technology of biorefining, with the potential for co-location and the production of multiple biobased products being a key consideration.”

“Key to this is green biorefineries which process materials such as grass, silage, and other forages to extract out valuable compounds and substrates including proteins and fibres. The resulting residual material and other by-products, which would usually be waste products, can instead be used in co-located AD plants as co-substrate, for instance for slurry.”

We support these statements and they are very much aligned with our approach on the Dingle Peninsula. Disappointingly, this again appears to be a standalone statement and it does not permeate throughout the Strategy. We recommend that the aspirations in this statement should be integrated more across the Strategy, as it is an important statement.

“The Government aims to grow and develop the bioeconomy and will be investing up to €30 million in biorefinery piloting and demonstration facilities over the next 2-3 years. In addition, a new national Bioeconomy Action Plan for 2023-2025⁴¹ was published in October 2023.”

We welcome this commitment and we would recommend that the biorefinery and demonstration projects should be rolled out as soon as practicable and they should not just focus on larger plants but, rather, their focus should be on the smaller plants that can progress them much quicker and with greater local community impact.

“The roll out of a biomethane industry based on sustainable and productive agriculture has the potential to positively contribute to biodiversity via the replacement of chemical fertilisers and

incorporation of legumes in grassland pastures, which have been proven to enhance biodiversity, provided they are not incorporated on 'high nature value' grasslands.

We agree with this statement and we would recommend that specific supports are provided not just for the large plants and farmers supporting them but also for the smaller plants.

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"Green Biorefineries with anaerobic digestion involve products such as proteins or fibre-based materials that may be extracted. The resulting by-product or residual streams may be used as a substrate or co-substrate for anaerobic digestion. On one hand, this ensures that the full potential of the biomass or grass silage is delivered in various applications."

We agree with this statement and we recommend that the importance of green biorefineries is incorporated across the Strategy, Again, it appears to be a standalone statement and its aspirations do not appear to be carried through the Strategy.

Outreach and Engagement with Key Stakeholders

"Effective outreach and engagement with key stakeholders will be paramount for a successful Biomethane Sector in Ireland.

"It involves building meaningful relationships, fostering trust, and ensuring alignment of goals with multiple different stakeholders from a wide variety of backgrounds from farming to financiers."

We agree with the commitment to outreach and engagement and we would recommend the specific inclusion of 'local communities' impacted by the new anaerobic digesters.

Development of Project Development Assistance and an online Portal for Biomethane Developers

"To reduce development times and avoid delays, an online portal will be developed that will outline the exact requirements for a project, depending on scale, feedstock type, and tonnages."

We welcome this commitment and we would recommend that special provision be made for local communities interested in establishing a community-owned/led anaerobic digester and associated biorefinery.

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Governance, Monitoring and Reporting

"Community engagement from developers will also be key locally to gain support from the communities that will be hosting the AD plants. The online portal that will be developed will provide guidance to developers on best practice engagement and examples from successful projects will be shared."

We welcome this commitment and we recommend that it be expanded to include the role of community-owned/led projects.

We also recommend that the examples of such bodies as [EirGrid](#)³⁰ and the experience of the [Sustainable Energy Authority of Ireland](#)³¹ and the roll out of [Community-owned/led Microgeneration](#)³² should be consulted as, in our experience, the importance of effective community engagement cannot be overestimated.

³⁰ <https://www.eirgrid.ie/community/engaging-public>

³¹

<https://www.seai.ie/publications/community%20renewables%20stakeholder%20and%20community%20engagement>

³² <https://www.seai.ie/business-and-public-sector/business-grants-and-supports/commercial-solar-pv/>

Appendix 1

Financing Climate Action in Local Communities

1. Introduction

The challenges facing Ireland in reducing its carbon dioxide emissions by 2030 are immense and the consequences for not achieving the emissions reductions are also huge. In a DECC/DPER report³³ published in February 2023 and taking the scenarios used in the report, the cumulative compliance cost under the Climate Action Plan 2021 (CAP 21) are calculated as €8.102 billion (assuming Fit-for-55, *With Existing Measures*). This is the amount that will fall on the Exchequer to pay in the event of the emission targets not being achieved over the period 2022-2030.

The reduction in emissions cannot be achieved by policy changes alone. Most of the emission reductions are highly dependent on behavioural changes by the citizens and communities. This will require significant, sustained individual and community support and deep engagement, with sustained activation of citizens, at local community level, if the targets are to be achieved.

To date, Government policy has provided some specific community support through, for example, the Sustainable Energy Authority of Ireland's Sustainable Energy [Communities Programme](#)³⁴, [Creative Ireland Climate Action Fund](#)³⁵ (which is a competitive process), Science Foundation Ireland (which requires some Engaged Research with the community)³⁶, and others but all of the Government-supported schemes assume that there is volunteer capacity and capability in the local community to apply for, manage, administer and monitor the schemes and, in the process, to engage widely with local community members (a not-insignificant challenge). Moreover, in these instances, there is also an assumption that there is a local not-for-profit company (i.e. a company limited by guarantee) that can be held accountable for the Exchequer funds provided to the local community.

Under this approach, the essential engagement with the local communities has, effectively, been outsourced to local communities, acting in a voluntary capacity, to fulfil some of the greatest challenges facing the State in relation to Climate Change and Biodiversity and the consequences of failure to meet these targets are likely to be more than €8 billion by 2030 and continuing to accumulate until the targets are met.

It does not appear to be either credible or fair to the local communities and their volunteer members that they are asked to undertake such a huge set of tasks, with massive financial consequences for the State for not achieving the targets. Without a streamlined support mechanism that resources and leverages the voluntary efforts of the local communities, the community engagement will simply not deliver. One of the consistent failings in all State supports to date is a failure to acknowledge (and resource) some sustained form of local community group or company limited by guarantee (e.g. such as the local Hubs) that can activate and engage fully with the citizens in the local community.

³³ Spending Review 2023: Estimating the Potential Cost of Compliance with 2030 Climate and Energy Targets (Department of the Environment, Climate & Communications and Department of Public Expenditure & Reform, February 2023) - <https://assets.gov.ie/246850/5982d0ec-1590-4caf-8c40-ce8bf178f5fc.pdf>

³⁴ <https://www.seai.ie/community-energy/sustainable-energy-communities/>

³⁵ <https://www.creativeireland.gov.ie/en/blog/?category=creativity-and-climate-change#posts>

³⁶ What was the actual scheme?

The [Local Authority Climate Action Plan Guidelines](#)³⁷ do not address this issue at all and they appear to build on the assumption that the local communities will do all the necessary work on a voluntary basis without any resources provided for the essential application, coordination, engagement and administration elements of the work. The local authorities see their role as follows (p.13): 1

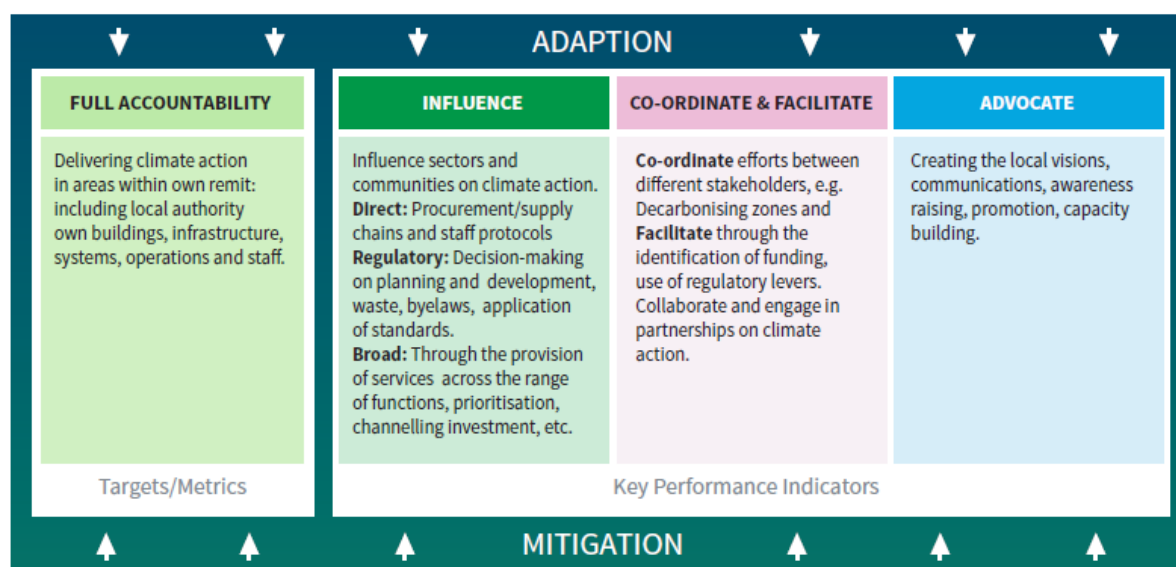


Fig. 1 Accountability of Local Authorities

“Influence sectors, business, communities and individuals in the delivery of local climate action through the various functions and services provided, as well as using many regulatory levers and the sector's broader remit to enable, facilitate and support them.

“Co-ordinate and facilitate by bringing together key stakeholders, engaging in partnerships to maximise efforts and creating interactions that will yield successful initiatives and projects which may not otherwise occur.

“Advocate for climate action by raising awareness, communicating and engaging in open dialogues on climate related issues and responses.”

The local authorities do not see themselves as having responsibility and accountability for what is required to be done in the local communities and they do not appear to have plans for how they will structure and resource the local community engagement processes. The current approach will simply not deliver the scale and depth of changes that are required, if the country is to achieve its legally binding targets of reducing the emissions by 51% by 2030.

This paper suggests a more streamlined approach by Government to supporting local communities in their efforts to address Climate Change and Biodiversity and it is likely to be far more successful in engaging with local communities. But it requires a policy intervention at Government level, together with a coordinated approach to delivering the resources in a streamlined manner that are focused on the needs of the local communities as opposed to the administrative arrangements that best suit the Government Departments and agencies.

³⁷ [https://d.docs.live.net/38cbf53b91cd9ba6/Documents/Local Authority Climate Action Plan Guidelines](https://d.docs.live.net/38cbf53b91cd9ba6/Documents/Local%20Authority%20Climate%20Action%20Plan%20Guidelines)

2. The scale of the challenge that is required to be met by Local Communities

Under the [Local Authority Climate Action Plan Guidelines](#), most of the heavy lifting with regard to addressing Climate Change and Biodiversity loss will fall on local communities and individuals.

The local authorities, see themselves more as ‘interested bystanders’, *“Influencing sectors, business, communities and individuals in the delivery of local climate action through the various functions and services provided... co-ordinating and facilitating by bringing together key stakeholders... and advocating for climate action by raising awareness, communicating and engaging in open dialogues on climate related issues and responses.”*

The impact of the Climate Change and Biodiversity challenges are accepted as being of an existential nature and therefore, the scale of the challenges to address these issues are equally huge and well beyond the ability of the local communities and individuals to tackle without significant, sustained, resources being provided by Government and the public service. That support should be focused not simply on ‘raising awareness’ but on empowering local communities to active the whole community and with the community itself in the leadership role. (This is discussed further in Section 4, below).

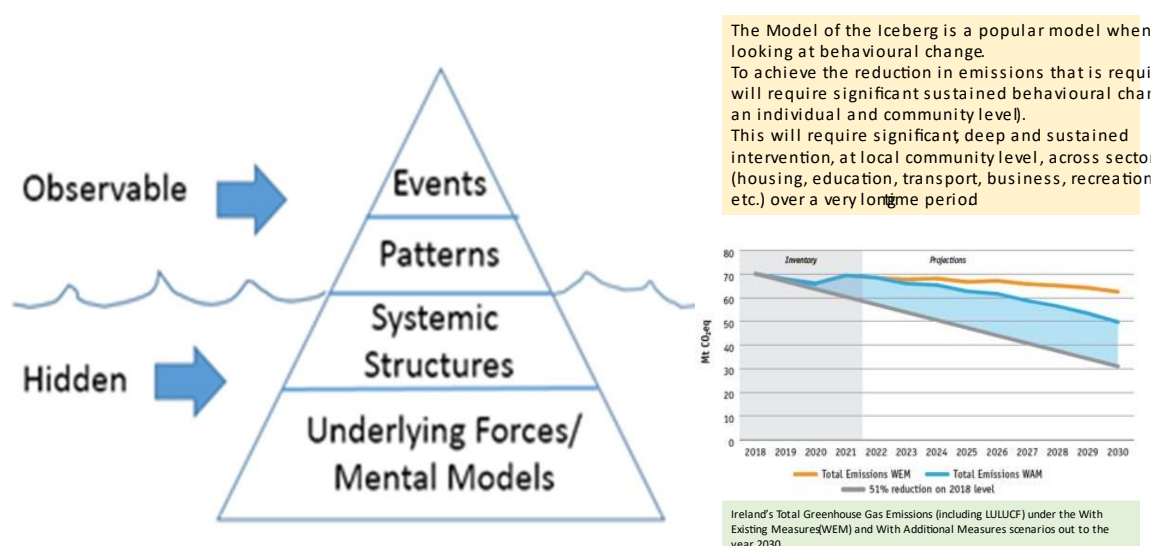


Fig. 2. The Model of the Iceberg as a way of understanding the scale of the challenges that need to be addressed.

Ireland is not currently on target to achieve the emission reduction targets and, according to the report [Estimating the Potential Cost of Compliance with 2030 Climate and Energy Targets \(DPECC & DPER, February 2023\)](#)³⁸ the cumulative compliance cost (for failure to meet the targets under the Climate Action Plan 2021) are specified as €8.102 billion (Fit-for-55, *With Existing Measures*). Therefore, the depth and scale of change required, even in the current decade until 2030, is phenomenal and requires significant, sustained and deep interventions both at local community and individual levels.

³⁸ <https://assets.gov.ie/246850/5982d0ec-1590-4caf-8c40-ce8bf178f5fc.pdf>

3. Shortcomings in the existing support mechanisms for local communities

There are several shortcomings in the current mechanisms designed to support local communities to address climate change.

- i. No acknowledgement of the requirement for fulltime people (and some resources) to activate the local voluntary effort and to support the ongoing, sustained engagement with local communities.
- ii. Schemes are designed to suit the Department's and State agencies' administrative requirements and not the local communities' requirements.
- iii. There is significant interest by very competent and committed people who wish to be involved in addressing climate change and biodiversity but the timelines and associated employment contracts (where they exist) for the schemes are too short to attract talented and committed people and to expect them to commit themselves.
- iv. The current schemes are usually designed around competitive application and funding for narrowly scoped, one-to-two-year projects, with specific outputs to be delivered. Because of that, it is not possible to plan over the longer period and, without continuity (e.g through a local company limited by guarantee), there is no building of institutional memory within the community and across projects and each project requires starting from the beginning again. This is a waste of valuable resources and is very frustrating for local communities.
- v. The example of [Green Offaly](https://greenoffaly.ie/)³⁹ is a timely reminder of what happens when the funding source dries up. (Green Offaly, a flagship project in Just Transition, was forced to close in autumn 2023 and it cannot reopen until it has a new funding source, despite the huge efforts put into successfully activating the local community).

SEAI has consistently state that it is conscious of the imperative to fully engage communities in the energy transition and to do it in a manner that is scalable and replicable nationally. From experience of the original SEAI pilot in Dundalk, SEAI understands that having fulltime people on the ground to activate the local community volunteers is critical and this has to be at a level below the local authority.

SEAI previously operated an accelerator fund that enabled the establishment of Energy Agencies. These agencies originally supported the local authorities to implement energy efficiency measures but, over time, they had no choice but to divert focus to draw down EU project monies in a bid to survive. Some eventually became commercial entities (e.g [Tipperary Energy Agency](https://tippenergy.ie/)⁴⁰, [Codema](https://www.codema.ie/)⁴¹) and, in the process, had to move away from their original briefs.

- vi. SEAI has Memoranda of Understanding (MoU) in place with some local authorities and with Údarás na Gaeltachta (for Energy Bureau services) and an MoU is being explored with Fáilte Ireland.
- vii. To date, local authorities have considered that they have lacked the mandate and capacity to be energy champions. The Local Authority Climate Action Plans should have enabled a changed mandate for local authorities but the local authorities have collectively decided that their role is one of 'interested bystander' (influencing, coordinating, facilitating and

³⁹ <https://greenoffaly.ie/>

⁴⁰ <https://tippenergy.ie/>

⁴¹ <https://www.codema.ie/>

advocating) but not leading climate change in the local authority functional areas. They also claim that they do not have the capacity to do otherwise.

- viii. The citizens of Ireland continue to acknowledge the importance of addressing climate change, both at [EU level](#)⁴² and [in Ireland](#)⁴³. Many communities are willing to take on the role of climate change champions but are not resourced to do this. By way of example, [Dingle Hub](#)⁴⁴ is very reliant on Enterprise Ireland supports (which are primarily aimed at creating and supporting businesses (but only where 'businesses' is defined within the Enterprise Ireland scope, as opposed the full scope of business enterprises that exist)). In the case of the Dingle Hub, the base of Enterprise Ireland funding was leveraged and, because of that, Dingle Hub has been able to deliver a broad suite of Climate Action services and these have attracted some additional funding from national and EU funding sources.
- ix. The EU requires community engagement through its various funding channels and it promotes community-driven initiatives to foster local climate action. The lack of sub-county structures in Ireland inhibits the ability of community organisations to avail of these funds and it ensures that Ireland will remain a remain laggard in climate action, as community engagement is critical to activating communities in respect of climate change.

4. The Stages of Community Engagement



Fig. 3 Stages of Community Engagement

In the Irish context, Community Engagement tends to be perceived by Government and public bodies as more about *Awareness and Education* and less about *Empowerment and Leadership*. But, if the local community is to be activated in taking both personal and community actions to address

⁴² <https://europa.eu/eurobarometer/surveys/browse/all/series/2981>

⁴³ <https://www.irishtimes.com/environment/climate-crisis/2023/11/10/almost-half-of-people-say-government-not-doing-enough-on-climate-change-survey-finds/>

⁴⁴ <http://www.dinglehub.com/>

climate change and biodiversity loss, the level of Community Engagement needs to be in the Empowerment and Leadership area (with Evaluation and Adaptation following on as it progresses).

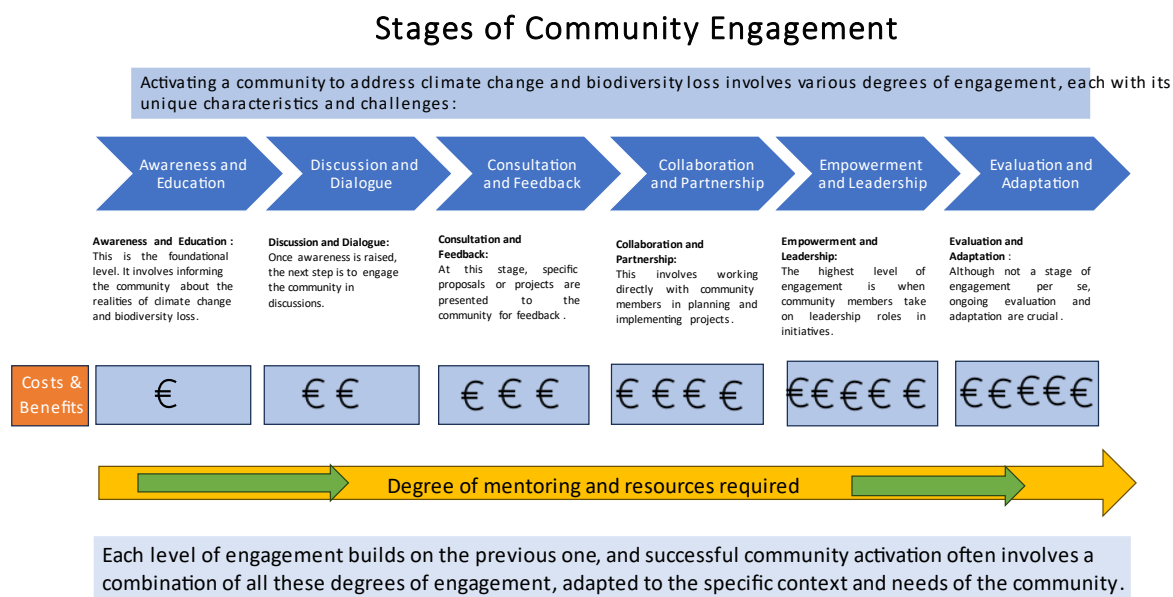


Fig 4. Stages of Community Engagement – Costs and Benefits

Over the years, funding schemes have been put in place to address *Awareness and Education* in local communities about different issues, but just addressing this does not address the issue of activating the community and maintaining that activated community over a sustained period. That requires a significant investment in local communities and a focus on *Empowerment and Leadership* (and all in between).

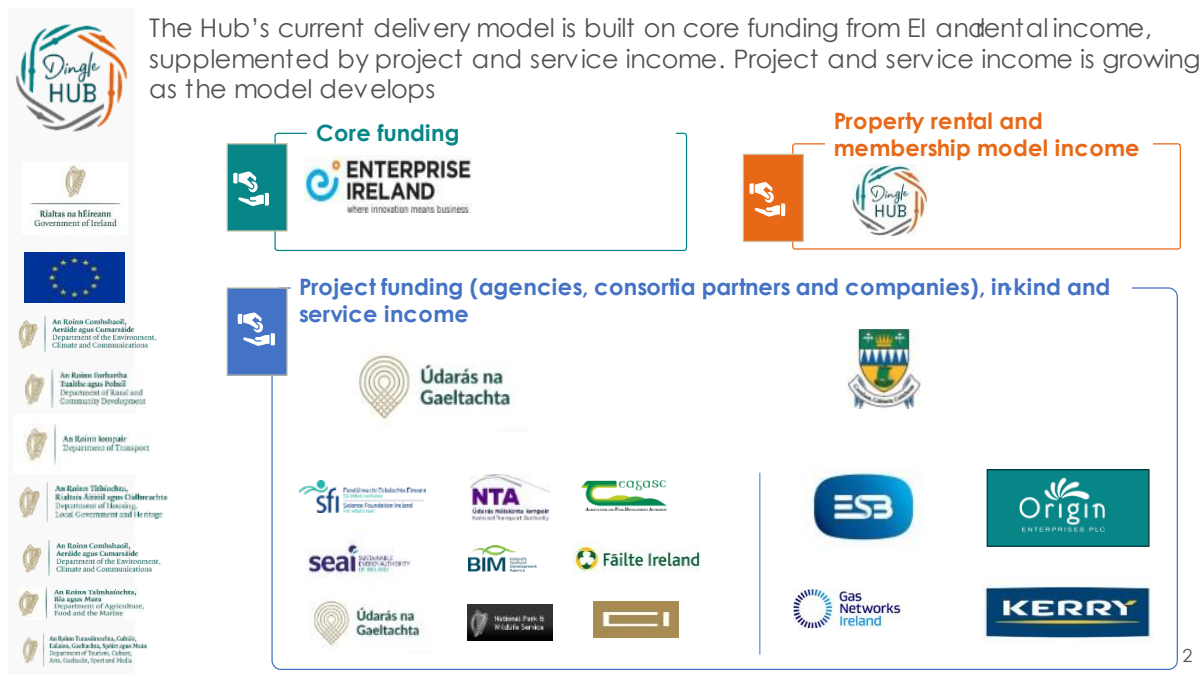
5. A proposed approach to streamlining Financial Resources to Local Communities wishing to engage in Climate Action

A model is proposed that provides a funding mechanism that can deliver for multiple Departments and agencies, thereby optimally leveraging Exchequer investment to create maximum impact, while also ensuring accountability for the expenditure of Exchequer funding.

It is proposed that the coordinating Government Department would be the Department of Rural and Community Development and funds would be channelled through a process whereby Government Departments and agencies would offer a menu of climate, biodiversity and transition services that the local communities might be willing to provide under contract to the relevant Department or agency.

By way of example, Dingle Hub currently provides services for Enterprise and Employment, Environment, Climate and Communications, Transport, Agriculture and Marine and Rural and Community Development but these are all currently provided through direct schemes offered by each Department.

This proposed new model would replace the individual bilateral agreements between Government Departments and agencies and local communities. A single, cross departmental Climate Action Fund, with appropriate targets and key performance indicators (KPIs) for local communities, could be relatively easily accommodated and there would be full accountability for the expenditure and outputs, as there is currently for the Enterprise Ireland funding.



An analogous mechanism exists in respect of HSE services being provided to the Department of Rural and Community Development and, similarly, HSE passenger non-emergency transport services being provided through Local Link Donegal to the HSE. There are likely to be many other such funding mechanisms in existence, so the principle is well established.

There is also an alignment of the proposed model with SEAI requirement for Energy Bureau services, as they currently operate between SEAI and (i) some local authorities and (ii) Údarás na Gaeltachta. These services could be delivered by local communities through similar MoU models to what SEAI utilises with the various agencies and bodies, by adding on supports for the delivery of named specific energy transition/climate action. For example, subject to confirmation, it may be possible for, say, Hubs (or other appropriate community-based companies limited by guarantee) to access these supports through existing EI mechanisms. If the EI mechanisms are restricted, for example, to ensure that they are in compliance with General Block Exemption Regulation (GBER), to address any State Aid concern, the voluntary contribution of community members could be regarded as the local contribution to matched funding (if required).

The types of services that may be envisaged by the MoU might include the following:

- Community-engaged transition advisory and community engagement services
- Partnership with agencies and government bodies to guide/manage Sustainable Energy Communities (especially sectoral) through the Energy Master Planning process (e.g in the case of Dingle Hub, the Tourism and Hospitality Sustainable Energy Community).
- Membership of panels to provide expert advice to consultancy partners of government bodies and agencies (e.g First Western / Fáilte Ireland; Bricolage / Údarás na Gaeltachta)
- Facilitation of and supporting feasibility studies relating to sustainability (e.g e-mobility hubs with Fáilte Ireland and ESB Innovation)

So, what is required to help local communities to deliver the required emission reduction and mitigation/adaptation measures?

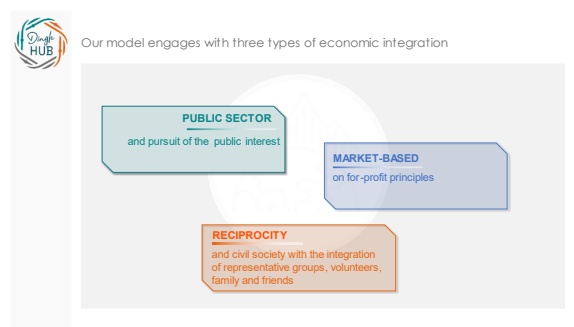
A new model for funding is required that puts the local communities at the centre and delivers the funding mechanism (from Government Departments, agencies and State bodies) in a manner that is easy for local communities to apply, access and administer.

Other issues that should be considered include:

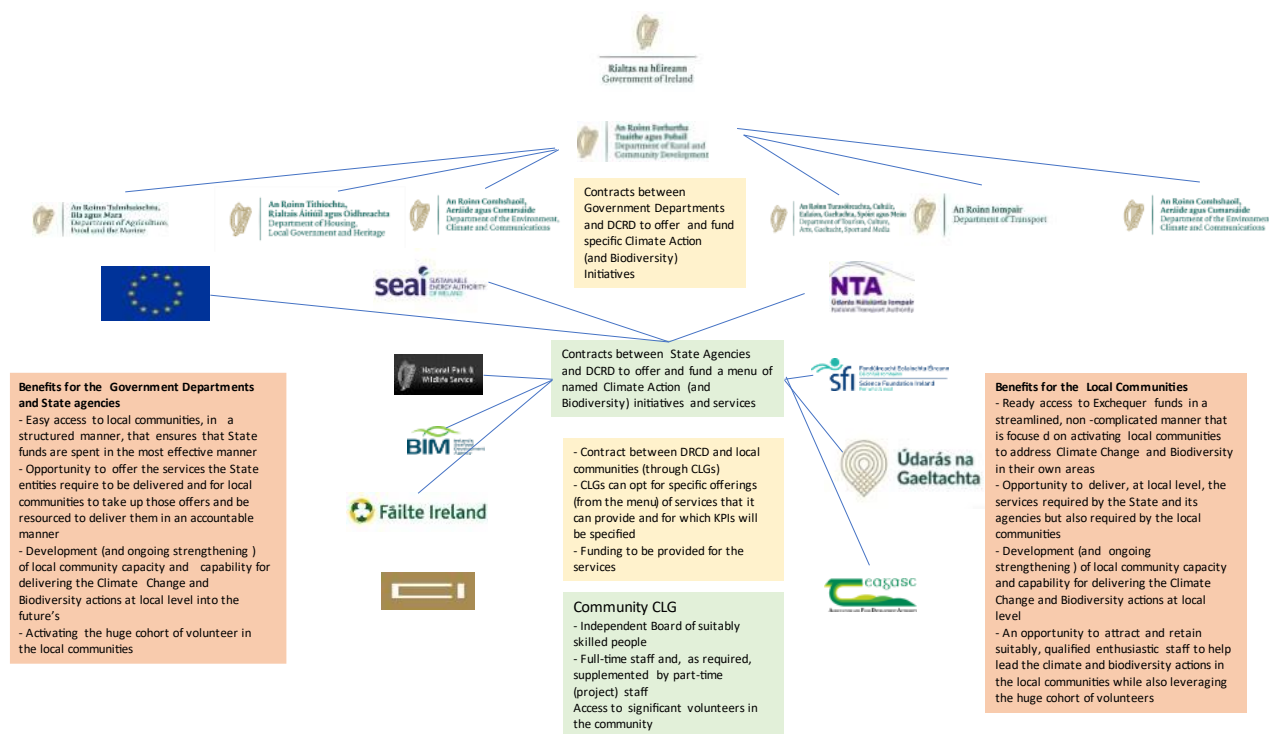
- Ambition at scale that engages with the interdependent and multi-dimensional nature of the problems and assets at hand.
- The correct partners working together.
- Long-term funding, of appropriate characteristics, that allows for institutional memory to be maintained in local communities and encourages suitably qualified staff to apply for (and remain in) posts.
- Reasonable conditions for the team of the right calibre and commitment
- Explicit plan-rooted approach, with intentional design for scalability and replicability in other contexts

Features of a new model should include:

- Community-anchored and easy for local communities to apply for support.
- Exchequer funding as an enabler to leverage other funding and resources, particularly through leveraging, say, the Hub staff and organisations to deliver other services which will be an incremental cost on the currently provided services.
- Access to commercial funds to leverage the acquired expertise of the community and attract further commercial funds.
- Excellent return for both the State and the local community with less duplicative administration and more use of the funds for the purposes for which they are intended.
- Private and public good benefits harnessed and harvested.



What a new model might look like



6. Conclusions

The current inefficient system of funding local communities to deliver on the climate and biodiversity actions is both cumbersome, non-comprehensive and unsuitable to deliver what is required.

The proposal in this paper, provides a new model that puts the local communities at the heart and enables Government Departments and State agencies to request from the local communities the climate, energy, biodiversity and transition services the State requires and then, through a centralised system operated under the aegis of the Department of Rural and Community Development, the local communities can apply to deliver these services. Because the local community bodies are companies limited by guarantee, there will be full accountability for the expenditure of Exchequer funding, together with associated key performance indicators related to the specific services provided.

Appendix 1

Types of Community Engagement

Activating a community to address climate change and biodiversity loss involves various degrees of engagement, each with its unique characteristics and challenges:

1. **Awareness and Education:** This is the foundational level. It involves informing the community about the realities of climate change and biodiversity loss. Activities might include workshops, seminars, educational campaigns, and the distribution of informational materials. The goal here is to raise awareness and understanding.
2. **Discussion and Dialogue:** Once awareness is raised, the next step is to engage the community in discussions. This can be done through town hall meetings, forums, and social media platforms. The aim is to encourage community members to express their thoughts, concerns, and ideas. This level of engagement is crucial for understanding the community's perspective and for building a collective vision.
3. **Consultation and Feedback:** At this stage, specific proposals or projects are presented to the community for feedback. This could be in the form of surveys, public consultations, or focus groups. The objective is to gather input and make adjustments to plans or strategies based on community feedback.
4. **Collaboration and Partnership:** This involves working directly with community members in planning and implementing projects. It could include forming action groups, committees, or partnerships with local organizations. This degree of engagement is essential for ensuring that initiatives are well-aligned with the community's needs and capabilities.
5. **Empowerment and Leadership:** The highest level of engagement is when community members take on leadership roles in initiatives. This can be facilitated by providing training, resources, and support. Empowered communities are more likely to sustain efforts over the long term and can become advocates and role models for other communities.
6. **Evaluation and Adaptation:** Although not a stage of engagement per se, ongoing evaluation and adaptation are crucial. This involves regularly assessing the effectiveness of engagement strategies and community initiatives, and being willing to make changes based on what is learned.

Each level of engagement builds on the previous one, and successful community activation often involves a combination of all these degrees of engagement, adapted to the specific context and needs of the community.