

Renewable gas: Policy developments and opportunities for biomethane

The decarbonisation of the gas network through the introduction of renewable gases is an important part of Ireland's net zero strategy. With Ireland also seeking to identify strategies to decarbonise the agricultural sector, the production of renewable gas from agricultural activities is an attractive proposition for Government, gas utilities and the agricultural sector.

Focus on biomethane

Biomethane can be produced from a broad range of biomass materials including agricultural wastes, food waste and crops. Given Ireland's large agri-food sector, biomethane production is recognised as having the potential to allow farms to become more sustainable while also providing rural jobs and a diversified income for the farming sector. The use of biomethane can help produce a circular economy through the production of renewable gas and bio-fertiliser.

Furthermore, biomethane is a flexible and easily storable fuel and when mixed with natural gas, no adjustments to equipment designed to distribute natural gas are required. Biomethane has already begun to replace natural gas in the national network.

Policy context

A number of policy measures have been introduced which will help incentivise the development of biomethane production.

- **Climate Action Plan 2023 (CAP23):** under the recent CAP2023, Ireland has committed to deliver up to 5.7 TWh of indigenously produced biomethane by 2030, based on agricultural feedstocks. This represents a tripling of its ambitions under CAP21;
- **National biomethane strategy:** CAP23 commits to the Department of Agriculture, Fisheries and the Marine and the Department of the Environment, Climate and Communications developing a National Biomethane Strategy, with a view to setting out the suite of actions that need to be implemented to deliver on Ireland's biomethane targets;
- **Renewable Heat Obligation Scheme (RHO Scheme):** The introduction of the new RHO Scheme, planned to be in place by 2024, will also incentivise investment into the renewable gas sector as suppliers are incentivised to ensure that a proportion of energy is renewable;
- **Guarantees of Origin (GOO):** The introduction of GOO for gas produced from renewable sources in 2022 allows the tracking and verification of the origin of renewable gas. Gas Networks Ireland (GNI) has been appointed as the issuing body for GOOs for gas in Ireland; and
- **Biofuels Obligation Scheme (BOS):** The BOS incentivises road transport users to use a proportion of environmentally sustainable biofuels across their general fuel mix. Whilst the scheme has been in place since 2010, it remains relevant in incentivising the transition to renewable transport fuels.

Connecting and injecting

Renewable gas is already being integrated into the gas system. GNI allows for the injection of biomethane into the existing gas network through two forms:

- direct injection (DI), where a pipeline extension between the biomethane production plant and the gas network are proximate; and
- central grid injection (CGI) where a centralised injection point is established between geographically dispersed biomethane production plant(s) and the gas network.

GNI's gas injection point in Cush, County Kildare and its planned CGI facility in Mitchelstown are examples of DI and CGI plants (respectively) and demonstrate the investment already taking place in infrastructure that facilitates biomethane injection at scale. The proposed CGI facility in Mitchelstown will have the capacity to receive renewable gas produced from farm and food waste from approximately 20 local producers with capacity to inject enough biomethane to meet the requirements of up to 64,000 tonnes. CGI facilities like this are key to the facilitation of a distributed network of biomethane production facilities.

The opportunity for Ireland

With a strong agri-food sector, the European Commission has identified Ireland as having the highest potential for renewable gas production per capita within the EU by 2030. The revised and ambitious biomethane production targets set out in CAP23 demonstrates the Government's commitment to realising that potential.

CAP23 has also stated that to achieve the target of 5.7 TWh by 2030 this will require approximately 150 to 200 anaerobic digestion plants. This is a significant number of new projects, which will require very significant private investment. It is important that developers and investors in these projects have clear investment signals including in relation to financial support, route(s) to market and a predictable planning and consenting regime. The publication of the National Biomethane Strategy may offer clarity on some of these areas.



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