

REGATRACE NEWSLETTER | IRELAND |

June 2021 edition with August updates



INTERNATIONAL BIOMETHANE NEWS

CARBON TRADE PRICE RISING STEADILY

The price of carbon has been rising steadily over the summer and reached an all-time high of over €60 per tonne at the end of August. This has huge implications for the emerging biomethane industry in Ireland, as it adds further weight to the business plan underpinning the vision for an agri-based biomethane industry – see Ireland News below.

EU Methane Strategy: Recognising the contribution of biogas to mitigate methane emissions

As part of the Green Deal, the European Commission presented its Methane Strategy in October 2020. Following carbon dioxide, methane is the second biggest contributor to human-caused global warming. Consequently, tackling methane emissions is crucial to achieving the EU's 2030 climate target and the goal of climate neutrality by 2050. The Methane Strategy proposes measures to mitigate methane emissions in the energy, agriculture, and waste management sectors and recognizes the pivotal role biogas and biomethane play herein.

Current efforts and the future potentials of the biogas and biomethane industries are recognised by the European Commission in the Methane Strategy. The methane emission mitigation potential of biogas and biomethane is twofold: first methane emissions are avoided when methane emitting feedstocks, such as manure from animal farming and bio-waste, are brought to the closed and controlled environment of a biogas plant. In the biogas production facility, methane is captured and utilised instead of released into the atmosphere during feedstock storage. Second, methane emissions are avoided by mitigating fugitive emission at the plants themselves. The Methane Strategy suggests implementing incentives for both mitigation routes.

Following the publication of the Methane Strategy, the European Biogas Association (EBA) held a workshop in January 2021 dedicated to the role of biogas in mitigating methane emissions. The online event was organised in the framework of the research project EvEmBi (Evaluation and reduction of

methane emissions from different European biogas plant concepts), which aims at evaluating different biogas plant concepts in the EU with regards to their fugitive methane emissions.

European Commission representative, Mr. Malcolm McDowell, provided insights into the future EU methane emission policy during the online discussion. Fugitive methane emissions from biogas plants are not a significant source of emissions in the energy sector, according to McDowell. Nevertheless, the occurring emissions should be avoided. He emphasised the value of research results from measurement campaigns on operational plants, which could provide an important basis for the revision of reference values. Mr. McDowell also stated that the revision of the Renewable Energy Directive (RED II) could incorporate the fugitive methane emissions in the sustainability criteria for biogas and introduce default values as well as a methodology to calculate actual values.

The EvEmBi project was completed in March 2021 and provided comprehensive results from actual measurement campaigns at numerous operational plants. In addition, minimum requirements for voluntary systems for methane emissions monitoring and mitigation at biogas and biomethane plants were established. The final results of the project were presented at the International Conference on Monitoring & Process Control of Anaerobic Digestion Processes, in a special EvEmBi session. The project will be presented as well during the European Biogas Conference 2021

Future certification system for renewable and low carbon gases at the April Madrid Forum

The 35th edition of **the European Gas Regulatory Forum, the Madrid Forum** took place in April 2021. During the high-level closed-door meetings, the Commission invited national regulatory authorities, EU national governments, actors from the whole value chain of the internal gas market (TSO, DSO, producers, suppliers, consumers, traders) and Energy NGOs to discuss opportunities and challenges related to the further develop of the internal EU gas market in line with the EU Energy & Climate goals.

A strong certification system for renewable and low-carbon gases was requested by EBA and partner associations to facilitate the integrated internal market's uptake.

Following the discussions, the European Commission was invited *“to come forward with proposals to facilitate the uptake of renewable and low-carbon gases, including a system of tradable Guarantees of Origin, whilst ensuring an integrated, liquid and interoperable EU internal gas market allowing for decarbonisation at least cost.”*

The Forum underlined the importance of ensuring that renewable and low-carbon gases have access to wholesale markets, transmission and distribution networks, storage and other flexibility sources. In this context, the Forum invites the European Commission to *“to ensure the coherence of the GO system necessary to optimise trading opportunities and market development”*.

Update from the European Biogas Association

On 14 July 2021, the European Commission adopted a package of proposals to make the EU's climate, energy, land use, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030. For EBA, European biogas is already today way better than **'Fit for 55'**. Our industry is fully committed to the climate-neutrality objective set by the EU. Global leadership to fight climate change demands strong ambition and technology-neutral solutions. Only a life-cycle approach to reduce emissions across all sectors of our economy will turn this ambition into reality. Technologies and fuels available in the EU today, including biogas and biomethane, will provide reductions as of now while helping us embrace the circular economy. With the relevant support, these solutions will continue driving the energy transition also in the coming years.

Following the launch of the 'Fit for 55' package, we will organise an **online info session for EBA members on 17 September 2021** in which our policy team will analyse the key takeaways of this package for our industry. This is the event not to be missed if you want to have a closer look to the 'Fit for 55' package. Stay tuned for more details!

Our sector is ready for expansion and perfectly placed to make a significant and sustainable contribution to hit net zero by 2050. The EBA Secretariat has already started to work on a fine-tuned **2021 edition of the Statistical Report**, to

provide an accurate assessment of the state of play in our sector, including a country-specific analysis. The EBA's annual Statistical Report has become a landmark publication for those seeking to understand the status of our industry in Europe. The 2021 edition is expected to be launched in November.

The upcoming years will be of significant importance to our industry. EBA has set its goal towards 2030 to have 45 GW of installed biomethane capacity available throughout Europe. The Technical Centre of the EBA has identified specific work areas needed to reach its goal and launched the opportunity for students and/or company employees to engage in this work. We have already started with one of the four working areas: analysing pathways to convert current AD-CHP plants towards AD-biomethane plants. Each internship/secondment will result in a paper summarizing the knowledge gained during the internship/secondment period. The paper will be shared with a broad audience through EBA's dissemination channels.

On the technical side, we are also expecting an important scientific paper coming out in the months ahead on sequential cropping across all regions in Europe with detailed analyses.

The preparations for the **European Biogas Conference 2021** are well on track. We are looking forward to welcoming you to the landmark event of the biogas sector, which will take place from 26 to 27 October in Brussels. The conference is planned as a physical event to ensure high-quality discussions and exchange between all participants. We are committed to strictly respect all relevant measures to ensure the safety of conference attendees and comply with the instructions from the competent institutions. In case in the unforeseen circumstances a physical event is not possible, the format of the conference will be adapted and we will keep participants duly informed at all times.

We look forward to meeting you in Brussels to discuss the freshly released 'Fit for 55' package and its impact on the renewable gas sector!

EBA Secretariat

Diary Date

The European Biogas Conference 2021 will take place from 26 to 28 October in Brussels

Programme: [Check the updated programme](#)

Speakers: [meet the speakers](#).

Booking: [Book your ticket](#) now and choose face-to-face/online participation later on.

REGATRACE PROJECT NEWS

Workshop on handling GOs in relation to energy conversion held March 2021

While Europe mandates the Member States to set up their own guarantee of origin systems, overcoming the challenges on handling energy tracking certificates in relation with energy conversion requires a joint conversation among the national system administrators for a start.

On March 11th, a workshop was held on "Mapping Challenges for certificate handling in relation with energy carrier conversion". It was targeted at issuing bodies and registry operators of guarantees of origin (GOs), with a view to have a discussion with the parties involved in the design and technical management of GOs regarding energy carrier conversion. 85 people participated.

The aim of this workshop was to establish a common understanding of the practical challenges and potential solutions, and to collect feedback from the attendees regarding the challenges they experience or foresee. Based on the [presentations](#) regarding the framework, challenges and case studies, active participation in polls provided the basis for a more detailed questionnaire to the issuing bodies and registry operators. This input will be used to elaborate solutions in the REGATRACE task 4.3 regarding coordination between the electricity and renewable gas and hydrogen certification systems. This task

4.3 is developing a harmonised set of rules for the conversion of GOs of various energy carriers (by October 2021) and a design study on the technical requirements of a coordinated conversion process (by April 2022). It is led by AIB in cooperation with ERGaR, EBA, AGCS and Dena. More about this and the other deliverables regarding integration of GOs for various energy carriers at <https://www.regatrace.eu/work-packages/wp4-integration-of-goo-from-different-renewable-gastechnologies-with-electric-and-hydrogen-goo-systems/> .

IRELAND NEWS

Momentum is Gathering ...

Momentum is gathering for Ireland to embrace biomethane within A New Legislative Framework And With Strong Industry Consumer Support

2021 has seen Ireland introduce a Climate Action Bill (*Climate Action and Low Carbon Development (Amendment) Bill 2021*) to support its transition to Net Zero by no later than 2050.

The Bill provides for the first time:

- a legally binding framework;
- clear targets and commitments, with carbon budgeting, set in law;
- structures and processes to achieve national, EU and international climate goals and obligations

It strengthens the role of the *Climate Change Advisory Council (CCAC)*, and puts renewed emphasis on using relevant scientific advice and drawing on international best practice. The former CCAC had advised Government to plan for the development of zero-carbon fuels, including biomethane and green hydrogen and it is hoped that the new CCAC will support the vision for AD biomethane.

Of some concern is that reference to soil carbon sequestration (central to the integrated approach to agri-biomethane and bio-fertiliser production) has been removed from the latest version of the Bill. This removal is being challenged by those who view it as contrary to the Paris Agreement and who want farmers to be credited for the carbon they are sequestering on their land.

The *Climate Action Bill* stipulates a 51% reduction in Ireland's carbon footprint by the end of the decade and Ireland will be legally bound to reduce its emissions (carbon footprint) by 7 % per year to hit its new 2030 target.

However, this target is extremely ambitious and it is not yet clear how it will be achieved. It brings home the hard decarbonisation challenges facing many businesses in terms of meeting legal requirements and global competitiveness.

Ireland's agri-food and beverages sector, in the form of a collaboration of some leading companies, has reached the conclusion that farm based AD biomethane and bio-fertiliser production using carbon farming practices, is the only commercially and technically viable way for it to decarbonise its thermal processes

This viewpoint has been informed by a series of KPMG Reports, providing independent analysis of scientific based targets, economic and financial data. Recent work has determined that, with appropriate Government policy support, AD biomethane and associated bio-fertiliser produced utilising

agri-based feedstock, has the potential to replace natural gas in a way that is technically and commercially viable, with tremendous environmental benefits in terms of reducing carbon emissions (c 700kt CO₂ pa), capturing carbon in soil, and improving biodiversity, air and water quality (reducing nitrate run-off). And as the price of carbon continues to rise the business case can only strengthen.

This approach would, at the same time, provide farmers with a reliable income stream, support the circular, rural economy and the commercial sustainability and competitiveness of the Irish food and drinks industry. It is projected to create 3,000 sustainable jobs across rural Ireland.

It aligns with the Paris Agreement, EU Green Deal, Farm to Fork Strategy, and national agricultural and climate action strategies, and will be underpinned by an AD Charter to ensure delivery of environmental commitments.

Ireland is particularly suited to farm based AD biomethane and bio-fertiliser production because 80% of its land is pasturelands, with a strong dairy industry and ready availability of silage and slurry feedstock. Recent research from the government agricultural research agency, Teagasc, and Devenish Nutrition, is particularly encouraging. It shows how a move to mixed species pastures can further the energy value and environmental benefits of the feedstock, with only 2% of land required for sustainable feedstock supply and 735k Ha of permanent pasturelands available for use to grow sustainable agri feedstock to supply an indigenous and sustainable AD biomethane industry.

The Renewable Gas Forum Ireland (RGFI) and industry members are currently liaising with government departments, political parties and farming representatives, to gather momentum for change.

The current ask of Government is:

- declared policy support for AD biomethane;
- Implementation of Article 23 RED II in 2021/2022, with a biomethane target of 11% by 2030;
- support with match capital funding of €24m for a pilot AD scheme 2021-2023 and capital funding to support full roll out to 2030;
- support industry in consultation on the optimum structure for a national carbon farming initiative

40 BY 30 Renewable Heat Plan

The 40by30 Renewable Heat Plan, published this summer is a united call from energy associations, for a target of 40% renewable heat by 2030 in Ireland, primarily from bioenergy, heat pumps, renewable gas and district heating. Through *Renewable Energy Ireland* they have published *40by30*, a roadmap to reduce our CO₂ emissions by 7% annually, in line with the *Climate Action Bill*.

The Report includes figures from 2018 showing that thermal energy use accounted for 40% of all energy used and circa 20% of all greenhouse gas emissions. €3 billion was spent that year on heating - one third of the national heat demand is in industry, two thirds in buildings.

RGFI was pleased to contribute to this wider partnership and is already pursuing some of the measures and policy recommendations identified, such as the early implementation of Article 23 REDII .

RGFI is advocating and supporting consumer and sector led initiatives to decarbonise industrial heat demand requirements, with an independent business case for AD biomethane production, which also benefits the environment and rural economy.

Ireland Regatrace Workshops

A vision for the renewable gas industry in Ireland has emerged from extensive collaborative work led by RGFI, through industry partnership and as part of the Regatrace EU project to create a stable, reliable and common market for biomethane and other renewable gases in Europe.

Over 60 delegates attended the 2nd Regatrace workshop “The vision for Biomethane in Ireland”, hosted by RGFI, held on 29 July 2021. The delegates ranged from government officials and academics to service providers and consultants. The workshop presented a collaborative vision for renewable gas in Ireland and described some important initiatives from industry collaboration and the agricultural perspective to urban schemes and community involvement.

The related presentations can be found at

<https://www.renewablegasforum.com/collaboration-on-the-vision-for-renewable-gas-biomethane-as-rgfi-hosts-2nd-regatrace-workshop/>

There was overwhelming support for the shared vision that has been developed through Regatrace and wider initiatives:

“A consumer led, at scale, renewable gas industry

- *decarbonising difficult to decarbonise sectors ie the thermal demands of industry, and agriculture*
- *supporting sustainable, profitable agriculture and the circular rural economy*
- *supporting sustainable transport*
- *aligned with EU and national sustainability and climate action policies*
- *underwritten by charter “*

RGFI is currently seeking views on how this vision can be realised and the draft roadmap already incorporates elements such as:

- **required** government support;
- capital funding from the Irish government / Europe,
- a renewable heat fuel obligation scheme,
- a higher carbon price tax ranked slightly ahead of exchequer funding and other tax incentives
- a pilot scheme having a number of at scale AD plants built by 2025
- a Green Gas Certification Scheme / Guarantees of Origin
- knowledge and information transfer
- greater public awareness of the opportunity to decarbonise and the associated environmental benefits
- facilitating cross border trade of renewable gases

A previous workshop, co-hosted by RGFI and Gas Networks Ireland, was held in June.

Delegates learned that Ireland is, in fact, a leader within the EU, in that it already has a Green Gas Certification Scheme and Renewable Gas Registry, operated by Gas Networks Ireland (GNI). Its blueprint was developed in 2018 by the German agencies DENA and DBFZ, co-ordinated by the International Energy Research Centre and supported by the Centre for Marine and Renewable Energy Research, University College Cork, GNI and RGFI.

The Scheme will certify biomethane produced in Ireland, complies with the sustainability criteria set out in the Renewable Energy Directive II, and is in line with best practice, carbon accounting principles. It provides confidence and assurances to gas consumers, in validating and verifying, in a fully accountable and transparent manner, that biomethane is sustainably produced. Gas Networks Ireland now operate the Scheme and they are also responsible for Ireland’s gas pipeline network – one of the most modern in Europe.

The next 2021 workshop is provisionally scheduled for 30 September and will present the draft Roadmap for renewable gases in Ireland.

PARTICIPANTS' UPDATE – FOCUS ON ITALY

Renewables, agriculture and green transition among the main investments within the Italian national recovery and resilience plan

The Italian Government National Recovery and Resilience Plan (NRRP) was officially transmitted to the European Commission on 30 April 2021. If all the steps will be met, the first funding (about 13%) could be released towards the end of summer 2021. The Plan outlines various areas of intervention that will accompany the country's development until 2026. In particular, Italy has the possibility of deploying approximately €235 billion of which €191.5 billion of the NRRP distributed over 6 Missions:

1. digitalization, innovation, competitiveness and tourism
2. green revolution and ecological transition
3. mobility infrastructure
4. education and research
5. cohesion and inclusion
6. health

The Plan also envisages a broad program of necessary reforms to facilitate implementation and contribute to the modernisation of the country. In terms of governance, the Plan provides for a central coordination structure at the Ministry of Economy and Finance (MEF), which represents the link between the Government and the European Commission. This structure will oversee the implementation of the Plan and will be responsible for sending payment requests to the European Commission. Every payment request is related to the achievement of the objectives set. Alongside this coordination structure, there are evaluation and control structures. A coordination structure for the implementation of the Plan will be set up in each Ministry involved in the implementation phase in liaison with the MEF and will be responsible for individual investments and reforms, sending periodical reports to the central coordination structure.

The Government will also set up local task forces that can help territorial administrations to improve their investment capacity and simplify procedures. Elements of agricultural and environmental relevance are mainly contained in Mission 2 'Green Revolution and Ecological Transition' where €69.9 billion of which €59.47 of the NRRP are committed for sustainable agriculture, circular economy, energy transition, sustainable mobility, energy efficiency of buildings, protection of water and land resources.

This mission includes several investment projects that aim to: increase the share of renewable energy sources (RES) in the system in line with European decarbonization targets; upgrade and digitalize grid infrastructures to manage the increase of RES and increase their resilience; promote the production, distribution and end uses of hydrogen; develop a more sustainable local transport; develop an international industrial and R&D leadership in the main sectors of the transition. Among the investment lines, *€1.92 billion are dedicated to the development of biomethane. According to the Plan, "if conveyed in the gas grid, biomethane can contribute to achieve the 2030 targets with an overall saving of greenhouse gases between 80 and 85 per cent, compared to the life cycle of fossil methane"*.

The specific project for the development of biomethane envisages reconverting and improving the efficiency of existing agricultural biogas plants towards the total or partial production of biomethane to be used both in the industrial and residential heating and cooling sector and in the tertiary and transport sectors. This process, which ensures the continuity of the existing plants, is flanked by support for the construction of new biomethane plants (through a contribution of 40 per cent of the investment), with

the same uses. In this context, the project does not fail to promote the dissemination of environmentally friendly agricultural practices linked to the biogas production (minimum tillage, innovative low-emission systems for digestate distribution) in order to reduce the use of synthetic fertilizers and increase the supply of organic matter in soils, and to create consortium hubs for the centralized treatment of digestates and effluents with production of organic fertilisers.



The plan also envisages the support for the replacement of obsolete and low-efficiency vehicles with vehicles powered by biomethane in order to encourage an ecological conversion process also in the agricultural mechanization sector. Moreover, regarding the existing small-scale agricultural plants, for which it is not possible to access to conversion measures, the Plan aims to improve their efficiency in terms of heat use and emission reduction. In order to make effective the planned timetable of implementation of these measures, and in general to allow the development of renewable plants in line with national targets, the Plan envisages two fundamental reforms: on the one hand, the simplification of authorization procedures, and on the other, new legislation to promote the production and consumption of renewable gas. The latter reform aims to promote, in coordination with existing instruments for the development of biomethane in the transport sector, the production and use of biomethane in other sectors as well, and consequently expands the possibility of reconversion of existing agricultural plants, ensuring market outlets in line with the production potential by 2026.

In this context, in terms of legislation and timing, a measure will be issued by the summer 2021, in order to establish a mechanism to promote the production and consumption of renewable gas in Italy (excluding thermoelectric uses) and a subsequent decree of the Ministry for Ecological Transition (to be approved by the end of 2021) which will establish the conditions, criteria and methods for implementing the system to promote the production and consumption of biomethane in the industrial, tertiary and residential sectors. Thus, it represents a wide-ranging development project that builds up a new scenario in which anaerobic digestion will play a primary role. In this context, the CIB will continue to support all members who wish to take advantage of the opportunities made available by the Plan.

At the same time, the CIB will continue its proactive action towards the main institutions involved, in order to highlight the specificities and needs of the agricultural sector during the implementation phase, for a virtuous development of our farms.

REGATRACE CONSORTIUM

The REGATRACE consortium is comprised of 15 partners from 10 countries (Austria, Belgium, Estonia, Germany, Ireland, Italy, Lithuania, Poland, Romania and Spain).

