Environment Agency Biomethane Resource Frameworks Consultation
REA Response
October 2024

REA Response to the Environment Agency's Proposed Biomethane from waste Resource Framework

ABOUT THE REA

The Association for Renewable Energy and Clean Technology (the REA) is a not-for-profit trade association, representing British renewable energy producers and clean technology and promoting the use of renewable energy in the UK. It has around 550 corporate members, making it the largest renewable energy trade association in the UK.

The REA's Organics and Natural Capital forum and its Biogas forum together comprise 422 members, numerous of which operate commercial scale anaerobic digestion (AD) facilities. The REA works with stakeholders with the aim of achieving policy and regulatory frameworks for renewables and organic waste recycling that deliver an increasing contribution to the UK's electricity, heat, recycling, and transport needs. More info available at www.r-e-a.net.

REA have provided input, feedback, engaged with industry regarding the Biomethane Quality Protocol revision. We welcome the publication of the draft Resource Framework which is essential for industry.

OUR RESPONSE – BIOMETHANE RESOURCE FRAMEWORK

1. The Purpose of the Resource Framework

No comments.

2. Review and Update of the Resource Framework

No comments.

3. When the final product is no longer considered waste

We welcome the retention of biomethane from landfill within the scope. This keeps options open for future developments in the sector.

It is not very clear if all the bullet points in 3.1 are required, or only one. We assume all of them are required but as currently written it is open to interpretation. We suggesting adding 'and' after each requirement.

The last bullet point in section 3.1 and 3.2 refers to section 9. There is no section 9 in the Resource Framework, and this should be updated to refer to section 8 – Records.

We support the wording of this section that sets out that biomethane is considered a product when it leaves the site of production, assuming it is destined for the grid or as a fuel, meets the standard and has appropriate records.

4. Input material

We are unsure what is meant by the requirement for waste acceptance in line with the 'industry standard'. The requirements regarding input materials should be in line with permit requirements. It is unclear what industry standard is intended and this either needs further explanation or removal. REA's preference is for removal of 'industry standard' as it may not be applicable to all facilities that could be producing biomethane under this Resource Framework i.e. AD and landfill sites will not have the same 'industry standard'.

5. How to meet the Resource Framework

No comments.

6. Standards and Specifications

There is a requirement for 'in accordance with the Environment Agency guidance for the monitoring of trace components in landfill gas'. Whilst this document is appropriate for biomethane from landfill gas, the requirements for monitoring biogas from AD are set out in the standard rule permits. Standard rule permits reference monitoring standards, methods and limits. This section would be better amended to:

'Techniques used for sampling and analysis should be in accordance with Environment Agency guidance for the monitoring of trace components in landfill gas or monitoring requirements in site permits.'

6.1 - states that 'demonstration that the biomethane produced does not include levels of compounds that are materially different to those set out in 6.2 below'. The limits set out in section 6.2 are maximum limits and therefore this sentence would be better to be revised to say, 'demonstration that the biomethane produced does not include levels of compounds that exceed the maximum of those set out in 6.2 below'.

6.2 - The total sulphur content in the specification set out in 6.2 is lower at 30mg/m^3, than the one specified in the Gas Safety Management Regulations (GSMR) which state

lower than or equal to 50mg/m^3 for gas to be acceptable in the gas grid. Although this is the same figure that was in the Biomethane Quality Protocol, it is not clear why there is a difference between the two and why the FR sets a lower limit than is set out in legislation. REA preference would be for the RF to align with the regulatory requirements unless there is a reason for these to be different.

7. Unused Resource Framework compliant biomethane

The wording in this section around contingency planning doesn't seem a good fit for this section. Should these requirements be in a separate or different sub-heading. The requirements listed are the types of things already required under the environmental permit for a facility. The Resource Framework should focus only on aspects that are not controlled by a permit.

8. Records

There is a formatting error in this section and there needs to be line gap between the bullet point on statement of conformity and 'For continuous supplies:'. This should be a separate section followed by the list of bullet points.

Other Comments

The REA supports including carbon dioxide (CO_2) within the Biomethane RF to enhance resource efficiency and unlock significant economic value. As a byproduct of anaerobic digestion and biomethane upgrading, CO_2 represents a valuable asset that, when captured and purified, can be utilized across various industrial applications.

Forecasts are that demand for Biogenic CO_2 in the next decade will be close to an order of magnitude larger than current industrial markets. As AD is a major potential source of Biogenic CO_2 this will align with future fuel plans including the Governments SAF Mandate. By leveraging CO_2 within the framework, operators can reduce waste and maximise the value of byproducts, fully aligning with circular economy principles.

Provisions for using CO_2 are already outlined in Regulatory Position Statement 255 (RPS255), providing a regulatory foundation that the Biomethane RF could formalise and expand. RPS255's requirements overlap significantly with the Biomethane RF, particularly regarding record-keeping and operational practices, creating a logical pathway for CO_2 integration. This would offer operators greater certainty and long-term planning capabilities.

To incorporate CO_2 effectively, we recommend expanding the scope of the Biomethane RF to grant end-of-waste status for CO_2 that complies with existing RF requirements, meets the British Standard BS 4105 for liquid carbon dioxide used in industrial applications, and satisfies any specific additional customer requirements, such as the International Society of Beverage Technologists (ISBT) or the European Industrial Gases Association (EIGA) standards. This approach parallels that seen with compost and digestate standards, where operators must meet a baseline standard plus any customer-driven specifications. Although the food-grade CO_2 standard (ISBT) is commonly followed due to current distribution network structures, evolving market conditions may eventually support differentiated quality standards.

The REA is open to further dialogue with the Environment Agency (EA) and the British Compressed Gases Association (BCGA) and other trade association to develop practical, flexible guidelines for incorporating CO_2 within the Biomethane RF. This collaborative approach would ensure regulatory alignment and offer a sustainable pathway for the expanded use of CO_2, contributing to resource efficiency across the sector.