Consultation with Oversight Panel – RGGOs for new gases

v1.0

Under the GGCS Scheme Rules the Scheme Administrator, REAL, consults with the Oversight Panel before taking a decision to issuing RGGOs for new types of green gas.

www.greengas.org.uk/governance/scheme-rules

3.3 When considering whether a gas qualifies as a Green Gas, and is eligible to be issued with a RGGO, the Scheme will consult with the Oversight Panel. The Scheme will consider established practice and suitable evidence, including where appropriate the Directives of the European Parliament and Council, and sustainability criteria within government support mechanisms such as the Renewable Heat Incentive (RHI) and the Renewable Transport Fuel Obligation (RTFO).

This consultation will be open until July 7th 2023. There is no formal vote on whether GGCS should proceed to issue RGGOs for these gases, but we will take your views onboard when making our decision.

Gas 1 – Renewable Dimethyl Ether (DME)

Information regarding Renewable DME can be found on the Liquid Gas UK website here.

DME is very similar to propane, being in a liquid state at low pressures, with the potential to be used as a stand-alone fuel or blended with propane and used in home heating and as a transport fuel.

Renewable DME is DME that has been produced with a biomass input. Such biomass goes through a process of gasification or pyrolysis[1].

The gas is then delivered by road tankers to particular customers and there are no proposals to inject it into the gas grid.

This gas is considered a green gas under our Scheme Rules because (subject to the appropriate GHG emissions being calculated) it meets the following criteria:

3.1.1 be a gas produced from a renewable source, that has lower GHG emissions from its production and consumption than an equivalent fossil fuel product; and

[1] What is the difference between pyrolysis and gasification?--Haiqi Biomass Gasification Power Plant (biogasifier.com)

3.1.2 meet the quality requirements of the Distribution Network into which it is being injected. For injection into GDN and NTS these requirements are set out in the Gas Safety (Management) Regulations 1996.

RGGO issued for Renewable DME will be issued only to one producer on a trial basis and those RGGOs will only be transferred to a limited range of trading accounts that have been established with the sole purpose of handling RGGOs representing Renewable and Recycled DME.

Existing accounts in the GGCS Registration Database, where RGGOs representing biomethane are handled, will not accept RGGOs for DME.

Item 2 – Recycled Dimethyl ether (DME)

Information regarding DME can be found on the Liquid gas website here.

DME is very similar to propane, being in a liquid state at low pressures, with the potential to be used as a stand-alone fuel or blended with propane and used in home heating and as a transport fuel.

Recycled DME is DME that has been produced from a fossil fuel-based input which has gone through a process of gasification or pyrolysis[2].

The gas is then delivered by road tankers to particular customers and there are no proposals to inject it into the gas grid.

This is considered to be a Recycled Carbon Fuel (RCF), meaning a fossil carbon input is being recycled into a fuel rather than disposed of in landfill or burnt to generate heat for electricity production.

Recycled DME is not produced from a renewable source and as such is not a Green Gas under the current version of GGCS Scheme Rules. However, the GGCS believes that there are good reasons to issue RGGOs for such a gas *on a trial basis* and that after such a trial the results can be assessed, shared with the oversight panel and changes made to the Scheme Rules as appropriate.

Our reasoning is as follows;

- Our Scheme Rules state that we will "*consider established practice and suitable evidence" including the "sustainability criteria within government support mechanisms…such as the RTFO"* and in 2022 the UK Government ran a consultation on if and how Recycled Carbon Fuels should be supported through the Renewable Transport Fuel Obligation – you can see the details of that consultation here – https://www.gov.uk/government/consultations/supporting-recycled-carbon-fuels-through-the-renewable-transport-fuel-obligation.

- The RTFO consultation sets out the potential greenhouse gas savings from the production and consumption of RCFs, based on a counterfactual scenario where such fuels are being sent for incineration for electricity generation.

[2] What is the difference between pyrolysis and gasification?--Haiqi Biomass Gasification Power Plant (biogasifier.com)

- Our Scheme Rules also state that we will "*consider established practice and suitable evidence" including the "directives of the European Parliament and Council".* The second Renewable Energy Directive referred to the potential for RCFs to be rewarded as a transport fuel and in early 2023 a delegated act was published which established minimum threshold for greenhouse gas savings of RCFs (at least 70%), and outlined the methodology used to calculate emissions savings from their use.[3]

- We believe that future progress towards a more circular economy with higher rates of reuse and recycling will still require the disposal of large amounts of non-reusable or recyclable items and conversion of those wastes in gaseous fuels that can displace direct fossil fuel extraction is a reasonable approach.

- In the future other RCF products and production processes may include carbon capture and storage, making the Greenhouse Gas savings "actual" rather than "counterfactual".

- By carrying out a trial of issuing RGGOs for recycled DME, we can establish the mechanism for assessing its production process and gauge the consumer acceptance of RCF. This trial can then inform an update of the Scheme Rules.

RGGOs issued for recycled DME will only be issued to one producer on a trial basis and those RGGOs will only be transferred to a limited range of trading accounts that have been established with the sole purpose of handling RGGOs representing renewable and recycled DME.

End-use consumers receiving the physical delivery of recycled DME alongside the associated RGGOs will be made fully aware that they are receiving a recycled and not a renewable fuel.

Existing accounts in the GGCS Registration Database where RGGOs representing biomethane are handled will not handle RGGOs for recycled DME.

The Oversight Panel will be fully consulted on any issuing of RGGOs for recycled DME (or any other type of RCF) beyond this trial and an update to the Scheme Rules will be made.

Gas 3 – Renewable Hydrogen

There are many classifications of hydrogen now in use e.g. green, grey, etc. GGCS considers Renewable Hydrogen to be hydrogen produced from renewable inputs, being either:

- where biomass is the feedstock (which could go through an anaerobic digestion process or be gasified); or
- when renewable electricity is used as the source of power in an electrolysis process

Renewable Hydrogen is considered a Green Gas under our existing Scheme Rules because (subject to the appropriate GHG emissions being calculated) it meets the following criteria:

3.1.1 be a gas produced from a renewable source, that has lower GHG emissions from its production and consumption than an equivalent fossil fuel product; and

[3] EUR-Lex - C(2023)1086 - EN - EUR-Lex (europa.eu)

3.1.2 meet the quality requirements of the Distribution Network into which it is being injected. For injection into GDN and NTS these requirements are set out in the Gas Safety (Management) Regulations 1996.

Hydrogen may be injected into the existing gas grid, a dedicated hydrogen grid, or transported by tanker.

If Renewable Hydrogen is injected into the gas grid, then the RGGOs can be allocated to any consumer of gas connected to the same grid.

If Renewable Hydrogen is injected into a dedicated hydrogen grid, then the RGGOs can be allocated to any consumer of gas connected to that grid.

If Renewable Hydrogen is moved via a Distribution Network that does not involve a grid e.g. by road/tanker, then the RGGOs can be allocated to any consumer of who receives gas from that Distribution Network[4]. They may receive the physical Renewable Hydrogen directly from the producer or the delivery may be made according to the principles of mass balance set out in the Renewable Transport Fuel Obligation[5].

Existing accounts in the GGCS Registration Database where RGGOs representing biomethane are handled will not accept RGGOs for renewable hydrogen.

[4] For more information on the rules related to allocating RGGOs, please refer to the Scheme Rules - Governance - Green Gas Certification Scheme

[5] See Section 10 of the RTFO Compliance Guidance