



Meeting with GD4S

Discussion of the White Paper: “Gas grids: a key enabler of decarbonisation”

I. KEY MESSAGES

- The GD4S white paper sets out recommendations for policy changes and programmes in the EU energy acquis in order to boost renewable and low carbon gases and recognise the role gas grids can play in helping distribution of low carbon and renewable gases, thus helping enable meeting EU climate and decarbonisation commitments.
- The recommendations relate e.g. to the review of the EU legislative framework for gas, the recast Renewable Energy Directive, the Energy Efficiency Directive, the TEN-E Regulation, the Alternative Fuel Infrastructure Directive, and proposals to reduce methane emissions and leaks in the natural gas value chain.
- The paper dates from June, before the fit for 55 package. It does not refer to any specific actions in the EU financial acquis, e.g. taxonomy.
- The taxonomy fully recognises the contribution of low carbon gases, for example notably the manufacturing of hydrogen in

line with the EU hydrogen strategy, and the role of gas networks for integrating and distributing low carbon and renewable gases, in supporting EU decarbonisation targets.

II. DEFENSIVES/LINE TO TAKE:

Criteria for hydrogen in the Taxonomy:

- Producing hydrogen from largely decarbonized electricity has the potential to decarbonize many other sectors in the economy and can contribute to constructing the hydrogen value chain across the EU.
- The approach taken for the **manufacture of hydrogen** in the taxonomy climate delegated act reflects the need to promote hydrogen markets in line with the Commission's hydrogen strategy as adopted on 8 July 2020 and relies on a methodology set out in the EU's Renewable Energy Directive recast (RED II).
- The threshold notably requires lifecycle GHG emissions savings of **73,4 % relative to a fossil fuel comparator of 94g CO₂e/MJ** - resulting in **3 tCO₂e/tH₂** for the production of hydrogen. In comparison to the Technical Expert Group on Sustainable Finance (TEG), this threshold has been tightened (the TEG proposed 5.8tCO₂e/tH₂). However, the threshold has been adjusted to grant more flexibility to the markets following the feedback received on the draft delegated act in November and December 2020.
- To note further that the **scope for the hydrogen-related activities in the delegated act has been broadened**: Hydrogen-based synthetic fuels have been added to the activity scope with a 70% emission savings requirement in comparison to the fossil fuel comparator (in alignment with REDII). Furthermore, the manufacturing of the equipment of the use (not only the production) of hydrogen has been included to support and promote the development of hydrogen markets.
- As mentioned before, the threshold for the manufacture of hydrogen draws from the **methodology set out in the Renewable Energy Directive (RED II)**. The reference to this methodology has been introduced to ensure policy coherence and to facilitate the use of the taxonomy, given that the methodology defined in RED II will need to be applied anyway. When designing the 'substantial contribution' and 'do no significant harm' criteria to mitigation, the Commission has built on parameters set out in RED II (the fossil fuel comparator and the emission savings rate) but has set a higher ambition level (73,4% vs. 70% in RED II). The criteria is formulated as technology neutral, not excluding any technology.
- The threshold has been set with the intention that hydrogen produced from electrolysis from renewables (green hydrogen) qualifies under the taxonomy. However, hydrogen produced from methane with carbon capture and storage (blue hydrogen) would also be

covered, provided that the capture of CO₂ is carried out efficiently. Grey hydrogen would not qualify. We believe that the threshold represents the right level of ambition to facilitate the development of hydrogen markets.

- The criteria for the **manufacturing of equipment for the production of hydrogen** cover electrolysis technologies that are used for manufacturing hydrogen that is compliant with the threshold set out for the manufacture of hydrogen in the delegated act. The **manufacture of equipment for the use of hydrogen** has been included in spite of the potential problems to prove which type of hydrogen will be used. However, it is considered an important and necessary step to facilitate the rapid development of hydrogen markets, knowing that incentives for low-carbon hydrogen are set at the production level.
- If **new technologies for the production of hydrogen** (different from the current available ones) will arise in the future, they can be covered under the “manufacture of other low carbon technologies” or under Research, development and innovation, both activities are included in the delegated act. Once such new technologies will be mature enough and available on the market they could be included as separate activities in the future regular revisions of the taxonomy delegated act.

Criteria for transmission and distribution networks in the Taxonomy:

- In addition to producing hydrogen, it is also important to ensure it reaches the users. Therefore, relevant activities are covered by the Taxonomy.
- The Taxonomy includes the:
 - conversion, repurposing or retrofit of gas networks for the transmission and distribution of renewable and low-carbon gases.
 - construction or operation of transmission and distribution pipelines dedicated to the transport of hydrogen or other low-carbon gases.
- In order to substantially contribute to climate change mitigation,
 - the network constructed or operated must be dedicated to hydrogen or other low-carbon gases, or
 - existing natural gas networks must be converted/repurposed to 100% hydrogen, or
 - the retrofit of networks enables the integration of hydrogen and low-carbon gases in the network, including any gas transmission or distribution network activity that enables the increase of the blend of hydrogen or other low carbon gases in the gas system.
- In order to prevent and control pollution, the fans compressors, pumps and other equipment falling under the Ecodesign Directive (Directive 2009/125/EC) must comply with the top class requirements of the energy label and represent the best available technology.

III. BACKGROUND – GD4S RECOMMENDATIONS

1. Policy recommendations to leverage the uses of renewable gases

1.1. Present clear definitions of renewable gases (biomethane, synthetic methane and renewable hydrogen). Definitions should be written in the terminology for all renewable

gases, and a European system of certification based on full life-cycle greenhouse gas emission saving must be created.

1.2. Define a European Union-wide target for renewable gases in the Internal Gas Market Directive or the Renewable Energy Directive. This target should be binding at the EU level, and Member States should have to define their respective objectives in their National Energy & Climate Plans (NECPs) accordingly. Member States will be free to design their objectives, e.g. they could choose a consumption target or an injection to grid target. GD4S believes that a target at the injection level has stronger advantages, valuing the flexibility and storage capabilities of gas grids and improving the measurement of renewable gas volumes.

1.3. Establish a Guarantee of Origin (GO) framework for renewable gases at an EU level, taking account of verifiable land use mitigation measures and of GHG emissions reduction. Such a scheme will stimulate the market across borders, thereby encouraging stakeholders to invest in the sector. The GO must include the GHG emissions reduction of the renewable gas calculated on a life-cycle basis.

1.4. Call on the Joint Research Centre (JRC) of the European Commission to study the potential of renewable gases in Europe. Following numerous studies from diverse industry sectors and research agencies. GD4S believes the JRC should further research this subject and provide baseline results that would serve as a basis for further work and development on renewable gas volume potential at regional levels.

1.5. Update the heating and cooling target in the Renewable Energy Directive. In the RED II, Member States are encouraged to increase the share of renewable energy in the heating and cooling sector. This indicative target must be rewritten to focus on heat in buildings. Similar to the transport target, we call for a sub-target for renewable gases in heating, as gas heating technologies can rapidly decarbonise the sector when fuelled with renewable gases.

1.6. Revise the notion of “efficiency” within the Energy Efficiency, Ecodesign and Energy Performance of Buildings directives to recognise the benefits of hybrid systems. Efficiency should go beyond technologies and grids and look at the overall energy system. This evolution would facilitate the uptake of hybrid heating technologies such as hybrid heat pumps and the efficient transformation of energy systems in a smart integrated manner in terms of energy production, appliances and grids.

1.7. Develop and apply a life-cycle analysis or well-to-wheel methodology, as referenced in Regulation (EU) 2019/1242 to calculate GHG emissions. Emissions can not only be measured at the tailpipe, as doing so is too restrictive and does not take into account for the GHG emissions reduction of renewable gases, fuels that can rapidly decarbonise vehicles. In order to optimise investment decisions, which reduce globally greenhouse gas emissions, application of life-cycle analysis is critical.

1.8. Support both NGVs and bioNGVs in the scope of the upcoming revision of the Alternative Fuel Infrastructure (AFI) Directive. The AFI Directive facilitates investments in (bio)NGV refuelling infrastructures. The European Commission should consider setting targets on the roll-out of alternative fuel infrastructures.

1.9. Create the conditions for preferential tax treatment in the Energy Taxation Directive for (bio)NGVs and fuels listed in the AFI Directive. Today, the Energy Taxation Directive favours diesel mobility despite the EU and Member States’ goals to phase out this fuel and

develop sustainable biofuels. This preferential tax treatment should also apply to renewable gases defined in RED II and used as heating fuels.

1.10. Recognise the use of the Guarantee of Origin (GO) for renewable and decarbonised gases to validate emissions reduction in the Emissions Trading System (ETS). Today, an industrial plant cannot buy GOs and use them as a proof for emissions reductions within the ETS system. This should be modified to accelerate the decarbonisation of the industry. It will also accelerate the development of renewable gases production sites.

1.11. Facilitate the financing of renewable gas projects to highlight the positive externalities, such as their potential to reduce methane emissions. Horizon Europe, the European Regional Development Fund (ERDF) and cohesion funds should include financing opportunities for renewable gases in their programmes.

1.12. Recognise the use of intermediate crops in the Renewable Energy Directive. Intermediate crops present strong benefits to the environment as they act as a carbon sink. They should clearly be mentioned in the Renewable Energy Directive Annexe IX.

1.13. Facilitate the use of all types of biowaste in the Renewable Energy Directive. There is a massive unused potential in feedstocks such as biowaste from companies and cities, and those should be included in the Renewable Energy Directive Annexe IX.

2. Policy recommendations to leverage the uses of gas grids

2.1. Recognise the value provided by gas grids in terms of seasonal flexibility and integration of renewable energies. These advantages should guide technology choices and energy infrastructure development, and, as such, should be emphasised in the Ten-Year Network Development Plan (TYNDP). Gas technologies must be considered because they are part of a value chain capable of addressing energy security issues, while presenting deployable and efficient solutions for decarbonisation.

2.2. Enable grid operators to accept increasing volumes of renewable gas by reviewing the rules regarding injection (including socialisation of the connection costs in the network tariff, and rules governing blending between gases).

2.3. Set-up an EU gas DSO entity. An EU gas DSO entity must be created to make decisions on technical and planning issues linked to the new roles of DSOs, as an enabler of the green transition. It will improve coordination between gas DSOs on various topics, as well as with gas TSOs and electricity DSOs and TSOs.

2.4. Develop a framework for the coordinated planning of energy infrastructure by revising the TYNDP process. The Energy System Integration Strategy recognises that gas networks provide “ample capacities across the EU to integrate renewable and low-carbon gases”. GD4S believes that integrated planning between gas and electricity grids across the transmission and distribution networks is essential to ensuring a least cost energy transition.

2.5. Fund and support sector integration projects by revising the TEN-E Regulation. Funding and supports will be required for key energy conversion projects, such as Power-to-Gas, which can link the gas and electricity systems. Support is also required for projects that allow for bi-directional flows between gas distribution and transmission networks, so as not to limit

gas grids in storing energy from renewable electricity sources, which would otherwise be curtailed.

2.6. Remove regulatory barriers to sector integration. With more dynamic energy flows across networks and across energy systems, unintended consequences such as the double charging of gas and electricity tariffs should be avoided to encourage sector integration.

2.7. Give DSOs the right to invest in sector integration solutions. Gas DSOs should be allowed to invest in infrastructure that enables the integration of gas and electricity networks, particularly in the early stages of development, subject to appropriate criteria (including exit criteria). The involvement of DSOs in energy conversion projects could be aligned with the timelines set out in the EC's Hydrogen Strategy, which aims to establish an open and competitive hydrogen market by 2030.

2.8. Enable a digitalised energy system. The Energy System Integration Strategy previews the development of a "Digitalisation of Energy Action plan by 2021 to develop a competitive market for digital energy services". The smart integration of gas and electricity networks, where appropriate, should be a key focus of this work.

2.9. Include a new category for smart gas grids in the TEN-E Regulation. Today, smart grids are only defined as smart electricity grids despite the decarbonisation and optimisation potentials of gas technologies.

3. Policy recommendations to mitigate methane emissions

3.1. Establish common guidelines for network operators to report on the methane emissions occurring on their networks. A common methodology at the European level will allow collection of accurate and useable data on methane emissions, enabling DSOs to take proactive actions to reduce such emissions.

3.2. Implement consistent emissions mitigation measures by regulatory bodies at the European level, since gas DSOs are regulated entities.

3.3. Recognise and remunerate the costs incurred by gas DSOs at national level in the case of all innovations aimed at improving the monitoring, measuring and verifying of methane emissions.

3.4. Support injection of renewable gases into the gas network, reducing methane emissions in other activities, such as agricultural and waste management, when the entire life-cycle is taken into account. This favours the circular economy and contributes to smart sector integration.