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Eurogas proposals to the draft report of the TEG

Eurogas is the association representing the European gas wholesale, retail and distribution sectors. Founded in 1990, its members are 49 companies and associations from 21 countries.

Eurogas represents the sectors towards the EU institutions and, as such, participates in the Madrid Gas Regulatory Forum, the Gas Coordination Group, the Citizens Energy Forum and other stakeholder groups.

Its members work together, analysing the impact of EU political and legislative initiatives on their business and communicating their findings and suggestions to the EU stakeholders.

The association also provides statistics and forecasts on gas consumption. For this, the association can draw on national data supplied by its member companies and associations.

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Considerations on the Initiatives for Sustainable Finance in relation to the EU taxonomy developed by the "Technical Expert Group on Sustainable Finance"

The development of "sustainable", green or ESG (Environmental, Social and Governance) financial products is increasingly important for utilities and companies operating in the energy sector.

The energy sector is at the forefront of the transition, with substantial technological innovation requested in regulated and non-regulated activities along the entire value chain, thus leading to a greater need for financial resources. The utilities and companies operating in the energy sector have carefully analyzed deliverables of the Technical Expert Group (TEG) on Sustainable Finance with particular attention on the report on how to implement an EU Taxonomy (see Annex 1). Considering the importance of promoting common rules for green finance at European level, it is crucial to clarify some aspects a of the taxonomy report to facilitate applicability in the short term without prejudice to the energy transition.

1. Points for clarification in the TEG proposal

1.1 Importance of supporting and promoting the energy transition. Many countries are still relying on solutions and economy models that still have to or are about to enter into a transition pattern. The reality experienced by businesses and citizens should be held in the utmost consideration, together with the possible risk of failure of the transition strategies in absence of a gradual paths and stepwise approaches supported by adequate legal clarity for the regulatory tools.

The comparability of products and investments associated to "sustainable" activities – central for the Taxonomy exercise - should reflect regional and local differences while taking into consideration the actual contribution of the investments to the different economic activities towards the net-zero emission target by 2050. A static approach that only looks at the emission profile of the proposed solution in absolute terms may impair solutions that would kickstart the transition in many countries and would jeopardize its success from the very beginning, especially in regions with the highest potential for emission reductions.

Relevant sectoral EU legislation already in place, including for CO2 emission limits[1], should be used as much as possible as a reference for a starting point towards the 2050 net-zero.

1.2 The Technology Readiness Level of technologies should also be considered in the decision to qualify these as "sustainable" or not in the taxonomy. **In particular, the Taxonomy should allow certain technologies which can have a positive impact on the energy transition (i.e. enabling activities) to be included.** In particular, in cases where the economic-financial aspect of the local alternatives is not yet ready or fully assessed, or where the technologies are being improved in order to reach lower

[1] See in particular EU Regulation N. 943/2019 on the Internal Market for Electricity https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R0943

consumption or higher rate of readiness with regards to new forms of gases. Only this way will R&I not be stifled in a potentially harmful way and will consideration of factors such as the application on an industrial scale or the suitability of technologies depending on regions be assessed.

1.3 Proposal to assess **the economic activities not individually but as groups of investments that ensure total net-zero emissions**. For example, bio-methane combustion plants with CO2 capture systems generate an overall "negative" contribution to the emissions that could be accounted for in (or transferred to) another joint economic activity, **which alone would not be eligible under the identified emission criteria**.

In conclusion, from the methodological point of view it would be appropriate to further elaborate some general aspects of the Taxonomy to ensure a gradual but viable implementation. This should be in line with the technology neutral approach and would reflect the geographical and social differences, as well as the socio-economic sustainability of the investment choices. A greater involvement of companies and industrial organizations would also be desirable along the process.

SPECIFIC COMMENTS

A) Natural Gas technologies and grids.

a. **Production of electricity from gas combustion**

The European Commission communication of November 2018, on a long-term strategy which puts forward the required elements to achieve the decarbonisation of the European economic system by 2050, considers scenarios of energy consumption that include a natural gas share equal to 5/10% of consumption by 2050 of total energy demand, which varies as a result of the energy scenarios considered, with a constant throughout scenarios: the need for renewable and decarbonised molecules. (page 9 of the document https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0773&from=EN).

The energy scenario proposed by the International Renewable Energy Agency (IRENA) (Global Energy Transformation 2019 Report), in alignment with the EU's climate objective, **provides reduction of all the fossil combustible demand, but with significant variations between crude, coal, and natural gas**. While the demand for coal and oil is expected to decrease substantially (-87% for coal to 2050, and –77% for crude), the demand for natural gas shows a less marked reduction, going from the current 3.752 billion cubic meters per year to 2.250 billion cubic meters a year (-40%). The scenario foresees a 10% share of energy consumption deriving from natural gas by 2050 (compared to 16% in 2016).

These data confirm that natural gas, despite being a fossil fuel, will play a decisive role in the transition phase within a decarbonisation process that can be achieved from a technical and socio-economic point of view.

At present, generation plants that use gas can be ranked amongst the best solutions to provide an efficient decarbonization path in certain regions, without putting at risk the stability and security to the electricity system, and to accompany the decarbonization path with an increasing share of variable/intermittent renewable sources (solar, wind, ...).

Natural gas is a fossil fuel which can provide many benefits in facilitating increased renewable injection for the energy transition particularly when compared with other fossil fuels, notably:

- in its use for transport and mobility as an alternative fuel, in particular for heavy duty vehicles and maritime transport
- in its role of flexible backing to support the transition to renewable energy sources, guaranteeing stability and security thus enabling the very integration of renewable energy in the system.
- Through its use in hybrid heating systems which rely on efficient electric heat pumps and flexible gas condensing boilers. These hybrid solutions help improve affordability of heating, security of supply and sustainability through lowered consumption and increasing decarbonisation of both electricity and gas.

For the transition phase, highly-efficient natural gas units, CHP and associated infrastructures should be seen as making a positive contribution to the sustainability objectives under the taxonomy, especially where such units are needed for system security or where they participate in capacity mechanisms that respect the rules and CO2 thresholds set by the relevant EU legislation[2], because they actually support the transition. For this reason, the threshold of 100gCO2/kWh proposed by the TEG for production of electricity by gas combustion should be phased in later and be pre-empted by a broader set of considerations and additional elements which new investments will have to comply with in the period leading to 2030.

b. Gas transmission and distribution networks

Furthermore, existing gas network are fully capable today to channel green gases produced through the anaerobic digestion of organic waste, namely biomethane, and blends of decarbonized gases up to a certain share of the molecules in the grid. [3]

In this regard, we recall that, according to European legislation, biomethane plays a strategic role in achieving objectives in the field of circular economy and can be directly injected into the grid as methane

[2] Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity EU n. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R0943

[3] Marcogaz work on facilitating the injection of hydrogen in the grid

molecules. By extension, investments to maintain the existing network at the most other efficiency levels, eliminating potential losses from certain older parts of the grid, should be encouraged as a sustainable practice by themselves rather than linking them with a retrofit exercise by default.

Investments to expand or retrofit the gas network should also be encouraged in the following cases:

- When facilitating the transition of Member States and regions relying in lower carbon-intensive systems.
- When connecting hydrogen and other low-carbon gas production sites to the gas grid. There will indeed be a need to expand the gas networks to a certain degree for the connection of new gas feed-in production sites to the grid.
- When ensuring security of supply for gas customers.

For these reasons we believe that the same treatment should be guaranteed for gas and electricity infrastructures. In the document (respectively in sections 22.9 Transmission and distribution of electricity and 22.12 Retrofit of Gas Transmission and Distribution Networks) the gas system is given a marginal and in any case backup role to the electricity system.

In gas, investments are eligible in the sole cases of retrofit, specifically for the integration of hydrogen and CCS systems (not contemplating other renewable gases, such as bio-methane or synthetic methane), and generally excluding the possibility of investments to expand the gas network.

c. Transport – use of gas

Natural gas (and related infrastructure), including in the form of LNG and CNG, can enable multiple decarbonisation options in a cost-efficient way. It is also worth noting here that **Directive 2014/94/EU on the deployment of alternative fuels infrastructure (DAFI),** based on the Communication from the Commission of 24 January 2013 entitled '*Clean Power for Transport: A European alternative fuels strategy*', includes electricity, hydrogen, biofuels, synthetic fuels, natural gas, and liquefied petroleum gas (LPG). These were identified as principal alternative fuels with a potential for oil substitution in the long-term, also in light of their possible simultaneous and combined use by means of, for instance, dual-fuel technology systems. The Directive further encourages Member States to build new refueling infrastructure networks, for electricity, natural gas (liquefied natural gas (LNG), compressed natural gas (CNG)) and hydrogen. By acknowledging that the different stages of development of each fuel technology and related infrastructure, including the maturity of business models for private investors and the availability and end-user acceptance of alternative fuels, should be taken into account, the DAFI supports the achievement of technology

neutrality. **For LNG in particular the Directive sets an enabling framework for a core network of refueling points for LNG at maritime and inland ports to become available at least by the end of 2025 and 2030, respectively.** This timeframe and the relevant investment required – which have already been translated into law by some Member States - should be compatible with the taxonomy.

For the abovementioned reasons, in relation to section 24.4 Infrastructure for low carbon transport (mobility), it is necessary to ensure equal treatment between the electric recharging stations and the distribution stations of CNG / LNG, that are not included in the report, also in light of the abovementioned Directive 2014/94/EU on alternative fuels infrastructure and its objectives to 2020, 2025 and 2030.

B) CO2 threshold for cogeneration of heat/cool and power from gas combustion

We would like to underline the counter-intuitive nature of the thresholds for cogeneration which, by imposing cumulative thresholds, make the compliance with the latter even more complex than for processes which do not seek to recover heat. Many gas cogeneration plants are used for district heating and considered today as a key facilitator in helping the EU to meet the objectives set by the Paris agreement leading to 2050. . However, if taxonomy were to come into force immediately, all existing cogeneration technologies would exceed the limit of 100gCO2e / kWh and be considered ineligible without consideration for their readiness to take in increasing levels of renewable and decarbonised gases. In the current scenario, it would thus make it unrealistic to meet the aforementioned objectives. On this point, furthermore, we reiterate the considerations reported in the "Natural Gas technologies and grids" section relating to the IRENA report "Renewable Energy Prospects for the European Union". CHP that can ensure an emission reduction compared to the average (expressed in %), or that can ensure an improvement in the efficiency profile compared to the average (expressed in %) should be considered eligible.

C) Energy Storage (section 22.10): the same treatment must be ensured for all energy storage technologies, providing the same evaluation criteria identified for the batteries (for example) also for other technologies such as P2G.

D) Electricity, gas, steam and air conditioning supply (section 22): section 22 must be integrated with other technologies, such as heat pumps (section 22.14) and (micro)cogeneration, and extend the relative section to the production of all renewable gases (bio-methane and bio-syngas)

Annex 1

Proposals for changes

Eurogas welcomes the principles enshrined in the sustainable finance initiative and its stated purpose. Furthermore, it would like to restate the commitment of its members to the EU's 2050 target of a carbon neutral economy. We believe that gas in its many forms can contribute to reaching the EU's targets in not only the energy sector but also in transportation, agriculture and industry.

The TEG taxonomy report is a crucial step in enabling a sustainable and conducive financial framework in Europe and Eurogas welcomes and applauds the majority of its proposals.

Other proposals in our view deserve some in depth consideration, and the following proposals are meant to make the taxonomy exercise more robust and viable, for the reasons expressed in the introductory pages.

Eurogas and its members remain available for any further iteration and clarification regarding the above proposals for amendments.

CO2 Threshold and power generation from natural gas	
21.5 Direct CO2 emissions from manufacturing of hydrogen: • **4 tCO2eq/t of Hydrogen through a transition phase gradually reducing over time** to 0.95 tCO2e/t Hydrogen • Electricity use for hydrogen produced by electrolysis is at X (to be defined) MWh/t reducing to 50 MWh/t or lower towards 2050 in line with improvements in the technology readiness level	We believe that the threshold should start at 4 tCO2eq/t of Hydrogen and gradually transition over time to 0.95 tCO2eq/t. It is important that the Taxonomy supports a rapid transition. The threshold should be higher at the start and then be adjusted over time and aligned with 2050 targets. This would allow Member States to build on the existing infrastructure whilst developing hybrid solutions and encouraging a broader range of actors to use these technologies, such as in the industrial sector
(Pag. 232) **22. Electricity, gas, steam and air conditioning supply** **Subjects covered; criteria and thresholds:** An overarching, technology-agnostic emissions threshold of 100g CO2e / KWh is proposed for electricity generation. This threshold will be reduced every five years in line with a trajectory to net-zero CO2e in 2050. For electricity generation we have generally required using an ISO 14044-compliant Life Cycle Emissions (LEC) analysis to prove eligibility – that is that the life cycle impacts for producing one KWh of electricity are below the declining threshold of 100gCO2e. Some technologies, such as solar, wind and existing hydropower (in the EU), are exempt from the requirement for LCEs on the basis of the existing research base on the issue. When considering electricity generation from natural gas**, the fulfilment of a set of requirements would exempt the activity from applying the threshold until 2030 (cumulative):** **- The facility operates at lifecycle emissions within the limits set by Regulation (EU) 2019/943 as of 2020;** **- The facility ensures a reduction (expressed in %, i.e. 10%) of the average direct CO2 emission per kilowatt-hour of electricity produced;** **- The facility is designed to achieve an efficiency profile above 50%;** **- The facility contributes to system adequacy and security of supply in compliance with the requirements of Regulation (EU) 2019/943 on the internal market for electricity.**	For the transition phase, highly-efficient natural gas units, CHP and associated infrastructures should be seen as making a positive contribution to the sustainability objectives under the taxonomy, especially where such units are needed for system security or where they participate in capacity mechanisms that respect the rules and CO2 thresholds set by the relevant EU legislation , because they actually support the transition. For this reason, the threshold of 100gCO2/kWh proposed by the TEG for production of electricity by gas combustion should be phased in later and be pre-empted by a broader set of considerations and additional elements which new investments will have to comply with in the period leading to 2030.

Exemptions are subject to regular review ~~in accordance with the declining threshold~~. However, where the risk of fugitive emissions across the gas supply chain is seen as high, there ~~is~~ **may be** a requirement to provide a full life cycle assessment of fugitive emissions on ongoing basis**.** ~~This assessment should include actual physical measurements, i.e. methane leakage measurements across gas extraction, transport and storage systems~~. **This assessment should be based on best practices combining measurements and calculations across gas extraction, transport and storage systems.** ~~with electricity generation from natural gas~~, Electricity generation from other gaseous fuels (such as hydrogen or renewable gases) would be eligible under the Taxonomy, subject to meeting the declining emissions threshold **or the criterias for exemption until 2030**. (Guidance around LCE methodologies, based on ISO 14025, ISO 14044 and ISO 14067, will be published in November 2019, along with final recommendations to the European Commission.) For activities which go beyond 2050, it must be technically feasible to reach zero emissions. Implications include: • Coal-fired power: unabated coal-fired power generation will not meet the required threshold. Coal-fired power with carbon capture and sequestration may qualify in the short-term, but new coal plants generally have lifetime of 40 years or longer. Under the requirement to reach zero emissions in 2050, coal with CCS would need to demonstrate that it will be able to do this. • Natural gas-fired power: unabated natural gas-fired power generation is not expected to meet the required threshold. Gas-fired power with carbon capture and sequestration may qualify. ~~However, this will be subject to the requirement that fugitive emissions across the gas supply chain need to be measured rather than estimated.~~ A further series of sector-specific thresholds have been articulated, which define the circumstances under which an energy sector activity provides a substantial contribution to climate change mitigation.	Power generation activities in Europe have to be separate from transport and storage as per the requirements of EU law (“unbundling”). Therefore, the issue of fugitive emissions should not be addresses at power generation level (that by the way is covered by the Emission Trading Scheme) for GHG gases. Power generation can use natural gas from different sources in the portfolio, which makes it difficult to perform the actual physical measurement of fugitive emissions. The current taxonomy report does not sufficiently take into account the work that is being done and progress that is being made by the gas industry on the issue of methane emissions. Therefore, this requirement should be subject to cost-benefit analysis, as current methods to quantify methane emissions are a combination of actual measurements and assessments based upon emission factors and throughput rates with mitigation coming from leak detection and repair campaigns implemented along the gas value chain.
(pag. 251) **22.7 Production of Electricity from Gas Combustion** **Facilities operating at life cycle emissions lower than 100gCO2e/kWh, declining to 0gCO2e/kWh by 2050, are eligible.** • This threshold will be reduced every 5 years in line with a net-zero CO2e in 2050 trajectory • Assets and activities must meet the threshold at the	.

point in time when **the investment decision is taken** ~~**taxonomy approval is sought**~~ • For activities which go beyond 2050, it must be technically feasible to reach net-zero emissions **the fulfilment of a set of requirements would exempt the activity from applying the threshold until 2030 (cumulative):** - **The facility operates at lifecycle emissions within the limits set by Regulation (EU) 2019/943 as of 2020;** - **The facility ensures a reduction (expressed in %, i.e. 10%) of the average direct CO2 emission per kilowatt-hour of electricity produced;** - **The facility is designed to achieve an efficiency profile above 50%;** - **The facility contributes to system adequacy and security of supply in compliance with the requirements of Regulation (EU) 2019/943 on the internal market for electricity.**	
(Pag. 275) **22.17 Cogeneration of Heat/cool and Power from Gas Combustion** **Threshold** **Facilities operating at less than 30g CO2e/kWh (th), declining to 0g CO2e/kWh (th) by 2050, are eligible** • This threshold will be reduced every 5 years in line with a net-zero CO2e in 2050 trajectory • Assets and activities must meet the threshold at the point in time when **the investment decision is taken** ~~taxonomy approval is sought~~ • For activities which go beyond 2050, it must be technically feasible to reach net-zero emissions **the fulfilment of a set of requirements would exempt the activity from applying the threshold until 2030 (cumulative):** - **The facility operates at lifecycle emissions within the limits set by Regulation (EU) 2019/943 as of 2020;** - **The facility ensures a reduction (expressed in %, i.e. 10%) of the average direct CO2 emission per kilowatt-hour of electricity produced;** - **The facility is designed to achieve an efficiency profile above 50%;** - **The facility contributes to system adequacy and security of supply in compliance with the requirements of**	We would like to underline the counter-intuitive nature of the thresholds for cogeneration which, by imposing cumulative thresholds, make the compliance with the latter even more complex than for processes which do not seek to recover heat. Many gas cogeneration plants are used for district heating and considered today as a key facilitator in helping the EU to meet the objectives set by the Paris agreement leading to 2050. . However, if taxonomy were to come into force immediately, all existing cogeneration technologies would exceed the limit of 100gCO2e / kWh and be considered ineligible without consideration for their readiness to take in increasing levels of renewable and decarbonised gases. In the current scenario, it would thus make it unrealistic to meet the aforementioned objectives

Regulation (EU) 2019/943 on the internal market for electricity.	

Infrastructure	
(pag. 264) **22.12 Gas Transmission and Distribution Networks** Mitigation criteria Gas transmission and distribution networks whose main purpose is the integration of hydrogen and other **renewable or** low-carbon gases are eligible: • Any gas transmission or distribution network investment which enables the network to increase the blend of hydrogen in the gas system is eligible • The repair of existing gas pipelines for the **detection or** reduction of methane leakage is eligible**, including** if the pipelines are hydrogen-ready Gas network expansion is ~~**not**~~ **only** eligible**:** **- in connection with an EU integrated National Energy and Climate Plan for the achievement of a national decarbonization strategy to 2030,** **- for the development of Projects of Common Interest (PCI) under the EU program Connecting Europe Facility,** **- for infrastructure developed under Directive 2014/94/EU on alternative fuels infrastructure.** **- for the connection to new sources of low-carbon, decarbonised and renewable gas, or the adaptation of existing infrastructure towards the use of a blend of low-carbon, decarbonised and renewable gases.** **- to ensure security of supply for citizens** **- for installing equipment to increase the controllability and observability of the gas network and enable the development and integration of renewable energy sources, thus including:** • **Sensors and measurement tools (including gas quality sensors to cope with fluctuating decentralised injection of renewable and decarbonised molecules)**	The exclusion of new gas infrastructure from the taxonomy report as it stands presents the energy industry with a counter-intuitive framework. This exclusion risks carrying over to activities that present real steps in the direction of Europe's 2050 targets at a cost-effective price. For example it might result in the building of decentralised biomethane production units being considered eligible, while their grid connections measuring only a few hundred meters being considered ineligible. Or, in a time where gas infrastructure is being repurposed to carry hydrogen across borders, the taxonomy might consider the building of connections to final customers to be ineligible.

• **Communication and control (including advanced software and control rooms, automation of substations or feeders, and voltage control capabilities to adapt to more decentralised renewable infeed),** Retrofit of gas networks whose main purpose is the integration of captured CO2 is eligible, if the operation of the pipeline meets the criteria outlined for the transportation of captured CO2.	
(pag. 333) Mitigation criteria **24.3 Public Transport** **Threshold** • Zero **and low** direct emissions land transport activities (e.g. light rail transit, metro, tram, trolleybus, bus**es using alternative fuels under Directive 2014/94/EU** and rail) are eligible.	Natural gas, biomethane and synthetic methane produce virtually no particulate matter (PM) and have low emission levels of nitrogen oxides (NOx), making them ideal fuels for extensive use in urban areas. Methane as a vehicle fuel emits up to 95% less PM and up to 70% less NOx compared with the very strict European emission standards for new heavy-duty vehicles (Euro VI) and light-duty vehicles (Euro 6) using petrol or diesel. Exhaust gases from natural gas engines are also free of other harmful and carcinogenic pollutants.
(pag. 336) **24.4 Infrastructure for low carbon transport** **Description** Infrastructure for low carbon transport – land transport including NACE categories: • Construction of roads and motorways • Construction of railways and underground railways • Construction of bridges and tunnels • **Construction of core network of refuelling points at maritime and inland ports** • **Retrofitting of vessels to run on LNG or BioLNG.** The construction and operation of transport infrastructure is eligible in the following cases: 1. Infrastructure that is required for zero direct emissions transport (e.g. electric charging points, **dual-fuel technology systems, alternative fuels and** hydrogen **infrastructures and** fuelling stations or electric highways). 2. Infrastructure and equipment for active mobility (walking and cycling)	Directive 2014/94/EU requires member States to set an enabling for alternative fuels and refueling infrastructure to become available at least by the end of 2025 and 2030, respectively. Alternative fuels under this Directive include electricity, hydrogen, biofuels, synthetic fuels, natural gas (including LNG and CNG), and liquefied petroleum gas (LPG). These were identified as principal alternative fuels with a potential for long-term oil substitution, also in light of their possible simultaneous and combined use by means of, for instance, dual-fuel technology systems. By acknowledging that the different stages of development of each fuel technology and related infrastructure, including the maturity of business models for private investors and the availability and end-user acceptance of alternative

3. Infrastructure that is predominantly used for low-carbon transport if the fleet that uses the infrastructure meets the thresholds for direct emissions as defined in the relevant activity (the biofuels criteria does not apply here as it is not possible to monitor). 4. Non-electrified rail infrastructure with an existing plan for electrification or use of alternatively powered trains. For all cases: • Only infrastructure that is fundamental to the operation of the transport service is eligible. • Infrastructure that is dedicated to the transport of fossil fuels or blended fossil fuels is not eligible	fuels, should be taken into account, with the aim of achieving technology neutrality. Alternative fuels emit considerably less PM and NOx compared to conventional fuels and can provide significant emissions reductions in a trajectory to zero carbon to 2050.

Storage	
(pag. 259) **22.10 Storage of Energy** **Description** **Construction and operation** of facilities that **enable the storage of** ~~**store**~~ electricity**, alternative fuels** and/or renewable energy, and return it at a later time, in the form of electricity or other energy vectors • This does not include Demand Side Management (load shedding and load shifting)	the same treatment must be ensured for all energy storage technologies, providing the same evaluation criteria identified for the batteries (for example) also for other technologies such as P2G.