ANNEX

Biomethane: an essential part of circular cities and regions in Europe

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The European Commission will table in summer its package called Fit for 55 which shall align the EU policies from climate and energy to land use and taxation to ensure that the Union is on track to reach greenhouse gas emissions reduction of at least 55% by 2030.

With regard to the transport sector, the only sector not able to achieve emissions reductions so far, the following revisions will have a big impact on future fuels and type of vehicles:

- **Revision of the Renewable Energy Directive (EU 2018/2001)**: the target of the share of renewable energy in the final transport consumption by 2030 will be likely increased from 14% to 24% in line with the European Commission's Climate Target Plan. This target is technology-neutral and in principle supports the production of all renewable fuels equally. However, electricity does not need to comply with any sustainability criteria (land use, biodiversity, manufacturing process) while biomethane is subject to strict criteria which creates an uneven playing field.

- **Revision of the Alternative Fuels Infrastructure Directive (2014/94/EU**): a technology-neutral common framework of measures for deployment of alternative fuels infrastructure in the EU is included in the current Directive. Given the current market development context – automotive manufacturers investing heavily on electric vehicles as a consequence of the design of EU's CO2 standards for light-duty vehicles, and some Member States' political decisions to stop the sales of conventional vehicles – there is a risk that also this Directive will focus merely on supporting the roll-out of electrification, electricity grid integration, smart charging, etc. Even though biomethane can profit from the existing CNG and LNG infrastructure, it is vital to have a more comprehensive coverage of filling stations – both public and municipal owned - in all Member States and a good geographical distribution of filling stations. It is important to have them along highways but also in sparsely populated regions in order to make it possible for all to have access to low carbon mobility.

- **CO2 standards for cars and vans (Regulation (EU) 2019/631)**: the regulation that introduced in 2019 the concept of zero emission vehicles, based on tailpipe emissions, is under revision to ensure a clear pathway from 2025 towards zero-emission transport. The regulation has proven to be an effective policy tool to direct investments of automotive manufacturers to electric cars and vans but emissions from road transport are not projected to be on a decreasing trajectory. It is important that all emissions across the life-cycle of fuels and vehicles are taken into account in the revision in order to support all sustainable fuels with zero or even negative carbon footprint over the life-cycle[1], and allow more flexibility in terms of fuel portfolio. Green gas and green electricity can complement each other and should be both deployed. The current tailpipe approach

[1] JRC Publications Repository - JEC Well-To-Wheels report v5 (europa.eu)

prohibits the uptake of sustainable fuels produced for example from circular city waste handling, ideal for local transport uses like in utility vans, ignoring thus the efforts of the EU to move towards more circular economies. The approach will thus need to shift from tailpipe to life-cycle or at least well-to-wheel emissions.

The risk is that these revisions may lead to a situation where full electrification of the transport sector is promoted and biomethane, the fuel that has the lowest carbon footprint, is affordable and that brings along various positive externalities, like local green jobs, will be phased out. Relying on electricity only presents major drawbacks:

- Electricity production is, to a large extent, still fossil based and all projections show that this will still be the case in the coming next years. The choice of 100% electrification will thus not result in decreased CO2 emissions by 2030.
- A too high dependence on a single technology and supply sources creates high risks: need to produce and recycle an enormous quantity of batteries, this without full clarity on its impact on environment, costs and European industry.
- The current CO2 emission standards force car manufacturers to focus only on electric vehicles, which puts in danger the efforts of various Member States, regions, municipalities and cities to reduce their transport emissions by advanced biofuels.
- Many local jobs, related to internal combustion engines (ICE), could be lost affecting possibly various sectors: vehicle maintenance, filling station, spare parts, vehicles manufacturers and subcontractors. Furthermore, not all local sites have manpower to maintain electric fleets. In order to avoid technical or economic challenges, it is better not to put all eggs in one basket.

It is also important to remember that the Clean Vehicles Directive ((EU) 2019/1161) does promote both clean and zero-emission vehicles. 50% of the minimum procurement targets can be fulfilled by gas buses while the other half shall be electric. Thus, electric and gas vehicles are complementary and can be deployed where they fit the local conditions best: e.g. electric buses in the city centres and gas buses in suburbs. Both solutions help municipalities to fight climate change and air pollution.