

Manifesto



Gas Distribution Networks:

Key enablers for a
decarbonised EU economy

Maintaining affordability,
resilience and energy
independence



GD4S members, as operators of gas grids across the European Union, are key energy infrastructure operators and are committed to building a sustainable EU economy today, which will be carbon-neutral by 2050.

GD4S supports Europe's decarbonisation ambitions, in ensuring that the transition towards carbon-neutrality is economically sustainable, affordable for all consumers and maintains energy security of supply.

GD4S members contribute to the decarbonisation of economies across the EU by making the necessary investments to ensure that gas grids are ready to transport clean energy sources, such as renewable gases.

Today, gas grids do much more than simply connecting up supply, storage and demand; they are the backbone of the EU's energy system, delivering efficiency, reliability and flexibility. In the future, gas grids will continue to play a crucial role in a fully integrated and clean European energy system, and they can support the EU in delivering its objectives of decarbonisation, energy affordability, and energy security.

As gas distribution system operators (DSOs), we are committed to playing our role and will work with all our stakeholders, customers, suppliers and public authorities to maximise the benefits brought by our important assets.



Who we are



10 major European Gas distribution system operators from 8 EU Member states, leading at national level, serving over 35.5 million customers in Europe, operating 480,000 km of network and representing **35% of the EU's gas market.**



Responsible for **operating, maintaining and developing gas distribution networks** for the cost-effective, reliable and safe distribution of natural and renewable networked gases to households and industries.



How gas grids enable the achievement of EU and national decarbonisation commitments?



Gas distribution networks are flexible and can transport different gases, from different production and storage sources through to end-users.

Gas distribution networks can transport biomethane (with no changes needed in the infrastructure) and up to 20% hydrogen (blended with natural gas or biomethane). In addition, gas distribution networks are ready to convert or be repurposed, quickly and with limited investments, to transport pure hydrogen.



Gas distribution networks are enabling the upscaling of renewable gases.

The proximity to the gas distribution network is a key economic factor enabling local production, either from biological feedstock for biomethane or from renewable electricity for green hydrogen. Local production coupled with local consumption will help to drive social acceptance of renewable gas production, which is key for the successful deployment of all renewable technologies.



Gas distribution networks provide energy storage capacity at a cost-effective price.

The increasing penetration of intermittent electricity sources and uses requires vast storage capacity, which can be provided by gas networks and be utilised to bridge the potential gaps between supply and demand. An existing and extensive European gas network can withstand large fluctuations in energy demand throughout the year, at local, national and continental level. This flexibility can be achieved at the production level, by means of power to gas and gas to power devices, and at the consumers' level thanks to hybrid solutions such as hybrid heat pumps or cogeneration.



Gas distribution networks enable the optimisation of the electricity transmission and distribution systems.

Leveraging existing gas infrastructure to distribute renewable and decarbonised gases will significantly reduce the substantial costs associated with the reinforcement of electricity grids (€584 billion in investments are necessary according to the European Commission) to cope with peak demand scenarios. This will have a positive impact on the affordability of the energy transition for every European citizen and industry.



In the building sector, coupling between the gas and electricity will maximise the use of renewable energy sources,

allowing greater penetration of intermittent renewables such as wind and solar and ensuring security of supply and the overall efficiency and resilience of the energy system. The use of flexibility in the grids contributes to the development of an integrated energy system. The digitalisation of infrastructure and end-user appliances will also optimize the management of energy flows at the point of consumption. This is key for example, to supporting the decarbonisation of seasonal heating demand in buildings, that can be easily and cost-effectively optimised by encouraging the adoption of hybrid heating technologies. When Heat Pump, even hybrids, are not technically or economically feasible, efficient boilers using renewable gas, coupled with building renovation are cost-effective solutions ensuring that no-one is left behind.



Gas distribution networks contribute to the decarbonisation of industry and transport sectors.

Molecules are not universally replaceable by alternative decarbonisation vectors like electricity. Molecules are essential to produce high temperature heat, required in industrial processes or as fuel in the transport sector. The production of renewable gases and the utilisation and further development of gas distribution networks is therefore essential to achieve the EU's decarbonisation ambitions for these sectors.



Gas distribution networks are resilient to climate change.

Gas distribution networks, being located below the ground, ensure a reliable and efficient way to store and deliver energy at a time of increasing extreme weather conditions, whose magnitude and frequency have intensified due to climate change.

Gas Distributors for Sustainability (GD4S) welcomes that the regulatory framework resulting from the EU's Green Deal and RePowerEU Plan recognises the important role that renewable gases will play in the energy transition, notably by setting an EU-wide biomethane production target of 35 bcm by 2030, by supporting the development of the market for renewable gases with the Hydrogen and Decarbonised Gas Market Package and by enabling the use of biomethane to decarbonise Europe's hard-to-abate buildings sector.

As a new legislative term with a renewed College of Commissioners and European Parliament will start following the European elections in June 2024, the focus should now be geared towards the achievement of the Green Deal's multiple objectives and the implementation of adequate supporting measures and regulations (both at EU and national level) to unlock the potential of gas distribution networks and renewable gases. Promoting the development of renewable gases will be key to delivering the 90% GHG emissions reduction target by 2040 proposed by the European Commission.

Our commitments to contribute to the implementation of the Green Deal

- ✔ We commit to facilitate the production of renewable gases and to foster their wider use, by supporting biomethane producers; by cooperating with local authorities and policy makers regarding the planning of new biomethane projects and by standardising renewable gas connections and further exploring opportunities to reduce renewable gas connection costs.

- ✔ We commit to playing our part, driving integrated network planning, supporting sector coupling between gas and electricity networks and a more integrated energy system. We support a 'technology neutral' and integrated energy system approach, where all renewable technologies will be required to achieve our common ambitions.

- ✔ We commit to reducing the carbon footprint of our activities by decreasing whole life-cycle emissions and by improving energy efficiency within our organisations and networks. We commit to proactively reducing methane emissions as we continuously monitor and enhance our networks.



Policy recommendations

- 1 Support the implementation of targets for renewable gases. Member States should have to define their respective renewable gas objectives and actions and provide a clear roadmap for their implementation in their updated National Energy & Climate Plans (NECPs).** The Commission should encourage Member States to conduct an extensive and detailed mapping of biomethane's production potential and of the existing energy infrastructure available for its injection into the distribution networks.

- 2 Develop harmonised support mechanisms to help achieve the ambition for renewable gases, for example by facilitating the financing of renewable gas projects, by providing operational support to developers or by fostering the technical cooperation between policy makers, industry and other stakeholders, on the model of the Biomethane Industrial Partnership (BIP).** Best practices from Member States with more advanced renewable gas markets should be adopted. This would include support for developers with connection costs, obligation rates, capital supports e.g. grants for anaerobic digestion (AD) infrastructure and operational supports for AD feedstock e.g. feed in tariffs or Contracts for Difference. Financial supports for renewable gases should mirror the supports provided to the renewable electricity sector across the EU.

- 3 Develop a framework for the coordinated planning of energy infrastructure.** The EU should take advantage of the synergies between the different energy vectors and infrastructure. Enhancing and taking advantage of such synergies at all levels (energy production, infrastructure, and uses) will be crucial to meeting the EU's climate and energy security ambitions. The integration of gas and electricity networks will help ensure a least cost energy transition with least disruption to end users through the optimisation of locally and regionally integrated production and consumption, in addition to providing security of supply and flexibility. Behind the meter, sector coupling will provide benefits to the building owner and tenants and should be considered in the local Heating and Cooling plans, along with the implementation of the Renovation Wave.

- 4 Avoid adopting a technology biased approach or targeting one-size-fits-all solutions to specific sectors.** All technology options should be treated on an equal basis and evaluated in terms of their decarbonisation potential and their direct and indirect contribution to the system cost-efficiency and resilience, so that renewable gases and their infrastructure can accelerate the energy transition. The EU should implement the "energy efficiency first principle" by conducting proper assessments of the wider benefits from the societal perspective of the different solutions and technologies, also considering the investment in electricity and gas networks required to facilitate their deployment and integration into energy systems. For example, biomethane is not only contributing to renewable energy and decarbonisation targets, but is also bringing benefits in terms of organic waste processing in a circular economy approach, sustainable agricultural practices, diversifying farm incomes, enhancing energy security and flexibility of the energy system.

- 5 Promote cooperation between farmers and gas distribution operators to overcome financial hurdles, technical constraints, or the insufficient production potential of individual producers.** For example, the EU should encourage Member States to develop specific support schemes and provide technical assistance to farmers interested in investing in biomethane production but lacking the necessary technical expertise and financial resources.



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