



PRESS RELEASE

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Public thematic report

SUPPORTING THE DEVELOPMENT OF BIOGAS

At a time when France has set itself the target of becoming fossil natural gas-free by 2050, biogas represents a major lever for this transition. What's more, the crisis in energy prices between 2021 and 2023 has highlighted the benefits of biogas for the security of energy supply. Biogas is a gaseous mixture composed essentially of methane and carbon dioxide produced through methanisation (fermentation of organic matter and waste). It is used to produce electricity, heat and, when cleaned, biomethane, which is injected into the natural gas network. Finally, in addition to biogas, methanisation produces a material, the digestate, which can be used as an agricultural fertiliser and replace mineral fertilisers produced using fossil fuels. The public policies pursued to date have enabled the development of this renewable energy, with the help of substantial public funding. At the end of 2023, France had 1,911 methanisation units, mainly small or medium-sized and agricultural, delivering a total energy output of almost 12 TWh of gas and electricity (excluding heat production). France has set itself the target of quadrupling biogas production by 2030 (50 TWh), according to the forthcoming multiannual energy planning programme. In view of this ambition, public policy to support biogas now faces a number of challenges: controlling public spending and consumer prices, guaranteeing the availability of the biomass needed to produce biogas and ensuring that the value generated by production is shared in a balanced way with the agricultural sector.

At the crossroads of energy, agricultural and waste management policies: strong growth in biogas production, but insufficiently supported development targets for the future

Biogas production helps to meet a number of objectives: decarbonising energy production, the agro-ecological transition and improving waste management. Production is based mainly on methanisation, and the sector benefits from a proactive support policy that is now more geared towards biomethane production (injection) rather than electricity or heat production (cogeneration). The production of injected biomethane alone amounted to 9.1 TWh in 2023 (+25 % compared with 2022). It represents 2.5 % of the gas consumed in France. The positive carbon balance of methanisation is now the subject of a broad scientific consensus, and the factors likely to degrade this balance are well identified.

The evolution of the medium-term objectives between 2011 and 2024 is not very clear and has been adapted to budgetary constraints. In the longer term, the development of biogas is part of France's strategy to completely decarbonise gas consumption by 2050. The Court considers that the biogas production targets do not take sufficient account of the consequences of the future reduction in natural gas consumption (effects on the management of gas networks, on the management of energy consumption peaks). In the Court's view, the work on forecasting the energy mix should involve gas and electricity network operators to a greater extent in defining production targets. What's more, growth in production means we need to be sure of the availability of biomass (organic matter and waste), and supply tensions could arise as early as 2030.

Public support mechanisms that have favoured agricultural methanisation at a high cost and new mechanisms likely to pass on the additional cost of production to the consumer

The Court questions the efficiency of the financial support provided for the development of the sector in relation to the production costs of this energy. The support is based primarily on purchase obligation contracts, which provide support for suppliers purchasing biogas from producers. These contracts had a budgetary cost of €2.6 billion between 2011 and 2022, and the duration of these contracts (15 or 20 years) will require an additional outlay of between €12.7 billion and €16.2 billion for biomethane and between €2.2 billion and €3.9 billion for electricity production for contracts signed up to the beginning of 2023. Between now and 2028, around €7 billion will have to be added to these costs for the planned new biomethane injection facilities alone. Investment grants from *Ademe* and the *regions* (€0.5 billion from 2019 to 2023) and tax exemptions for agricultural methanisation round out this support.

The Court notes that support measures are poorly adapted to the heterogeneity of production costs inherent in the very diverse characteristics of facilities. As a result, the Court observed production units that were excessively profitable, particularly those that had benefited from purchase contracts signed before 2020. The Court also considers that continued support for the installation of electricity production units should be discussed, taking into account alternative forms of renewable electricity production and other ways of decarbonising the agricultural sector. From 2026, a new tool will be added to the support measures: biogas production certificates. While it has the advantage of not mobilising new public funds, it will mean that the consumer will have to bear the additional cost of production. The Court regrets that a robust assessment of the impact of this system on gas prices was not carried out prior to its deployment.

An effective contribution from the biogas support policy to objectives other than just energy production

On average, the Court found that farms involved in methanisation increased their gross operating surplus by around 20% compared with similar farms not involved in the process. If the growth in biogas production were to result in the development of large-scale non-agricultural biogas plants, it would be necessary to ensure that value was shared between these plants and the farmers supplying the biomass.

The development of methanisation also contributes to the waste treatment policy. The regulatory framework is complex, but it ensures that this method of waste treatment is preserved, while guaranteeing the health and environmental safety of the digestate produced and spread on agricultural land. In the specific case of bio-waste, its methanisation remains limited due to the low collection rate and the cost of methanisation.

Research into the impact of methanisation on farming practices has not revealed any systematic negative effects. However, the research does agree on the importance of monitoring the possible impact of the development of intermediate crops for energy purposes, which represent the main source of biomass for methanisation in the long term.

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