

Rule Out Biomethane for Home Heating

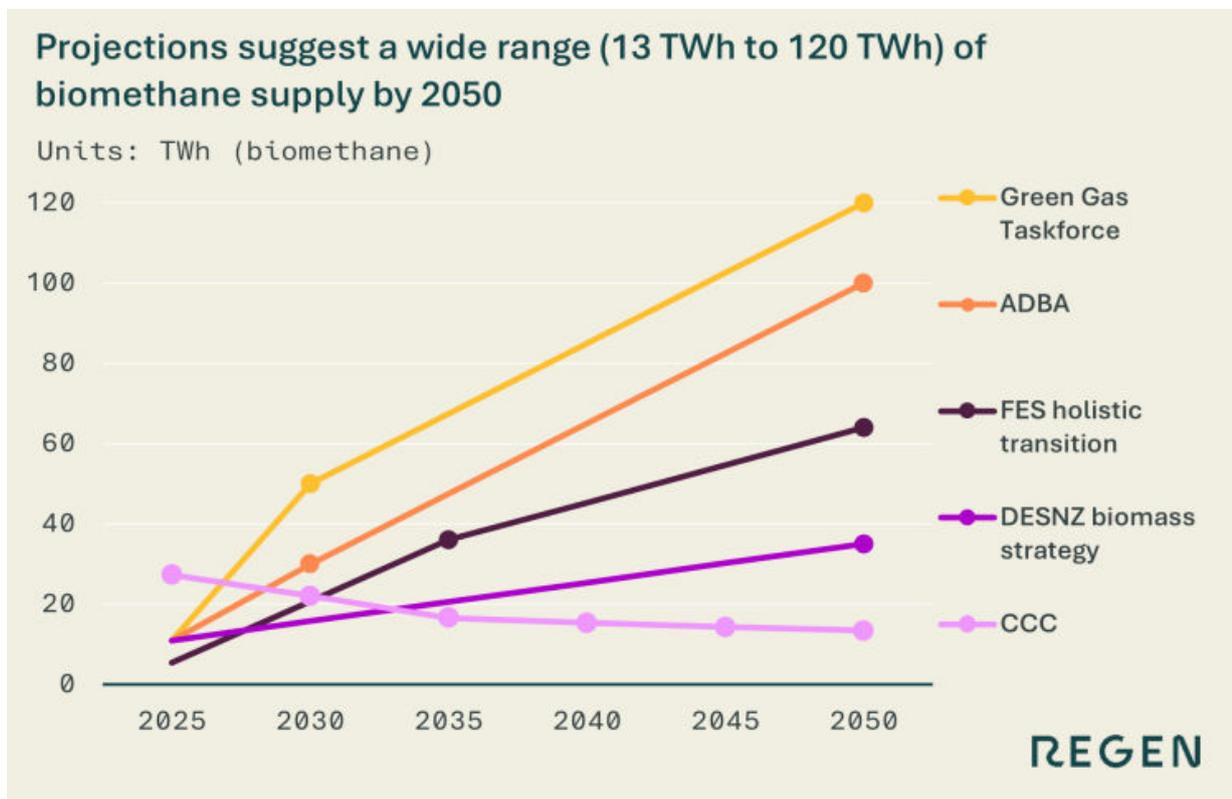
The Government needs to rule out Biomethane as an option for home heating:

- **Lack of supply** – Credible scenarios indicate that biomethane could only meet 2 to 18% of current gas demand by 2050. Therefore, it should be prioritised for high value end uses, such as flexible power generation and high heat industrial processes.
- **Certainty for the gas grid** - Ruling out biomethane for home heating can allow the Government to consider the impact this will have on the future gas grid, including plans for a coordinated gas grid decommissioning.
- **Certainty for electric heating** – Electrification is the only viable way to decarbonise home heating at scale. Confusion will delay the shift to electrified heating.

There is uncertainty surrounding biomethane supply

A [report from Regen](#), commissioned by The MCS Foundation, finds that the highest credible projection is 18% of the UK's current gas demand by 2050. This figure could only be achieved under the most optimistic scenarios, in which all UK-based feedstocks are converted to biomethane.

Figure 1 – Biomethane supply projections up to 2050 as reviewed by [Regen](#).



Environmental concerns

- Biomethane is currently being injected into the gas grid and blended with natural gas. For a typical gas-grid connected home, it is currently impossible for a ‘Biomethane boiler’ to run without the support of fossil fuels.
- Studies show that some biomethane feedstocks do not always meet environmental standards and can have higher whole-cycle emissions than fossil methane.
- The most environmentally friendly biomethane feedstocks, such as sewage and food waste, are unlikely to grow at scale – with food waste potentially decreasing in availability over time.
- As electricity production decarbonises, electrified home heating can be completely carbon free.

Biomethane could lead to higher costs

- Due to its limited availability, using biomethane for home heating would significantly increase standing charge costs to the limited number of consumers still connected to the grid. These gas consumers will face higher distribution charges as gas volumes fall, disproportionately affecting the fuel-poor.
- The cost of production of biomethane has historically exceeded the price of fossil methane – meaning it’ll require further subsidy if it needs to be scaled.

Where should Biomethane be used?

- Biomethane will play a crucial role in the energy transition. However, even the high-end forecasts in Figure 1 would imply that there will not be enough biomethane for it to be used as a ubiquitous fuel in heating, industry and power generation like fossil gas is today. As a result, there is likely to be **significant competition for biomethane across different end-uses**.
- Given the scarce resources biomethane should be prioritised for high value end uses, such as flexible power generation and high heat industrial processes.

Political Context

- Government subsidies, such as the Boiler Upgrade Scheme, are limited to decarbonised technologies, like heat pumps. These incentives drive Government ambitions to fully decarbonise the grid and reflect the expected reduction in grid carbon intensity over time.
- Government must introduce a framework for biomethane that prioritises high value end uses, such as high-temperature industrial processes and non-road transport and rule out biomethane for home heating.
- The 2023 UK Government [Biomass strategy](#) says: *“The use of sustainable biomass must be prioritised in sectors that offer the greatest opportunity to reduce emissions and where there are fewest options to decarbonise through alternative low-carbon technologies.”*

Further Information

[Making the most of Biomethane](#) – a report by Regen commissioned by The MCS Foundation

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