

DECARBONISING EUROPE'S MOST POLLUTING SECTORS: a monumental challenge

In 2022, the EU emitted a total of 2.73bn tonnes of CO₂ into the atmosphere¹. The majority of these emissions come from buildings, transport and industry. The EU has set itself the target to reach net-zero emissions by 2050.

The scale of the challenge is enormous.



Buildings are responsible for more than 36% of the EU's greenhouse gas emissions and 40% of the EU's final energy consumption².



The EU's transport sector is responsible for about 25% of the EU's greenhouse gas emissions³.

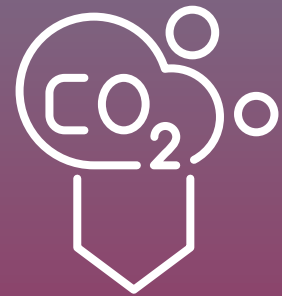


Emissions from the EU's manufacturing sector are estimated to be around 22% of total greenhouse gas emissions⁴.

ADDRESSING THE CHALLENGE: ensuring a just transition

Substantial changes to the EU's energy mix will be required to achieve the EU's ambition to decarbonise its entire economy by 2050.

To be successful, the EU must call on all available energy sources that are secure, cost-effective, and lower-carbon. Liquid gases can provide consumers of energy with a viable alternative to fossil fuels across all of the EU economy's most polluting sectors.



THE KEY BENEFITS OF LIQUID GASES



Provide energy to all European citizens, including in off-grid rural areas.



Can lower particulate matter, CO₂ and NO_x emissions today.



A reliable and secure energy source for Europe, thanks to its diversified supply chain.

1 <https://www.statista.com/statistics/450017/co2-emissions-europe-eurasia/#:~:text=The%20European%20Union%20produced%20approximately,at%203.99%20billion%20metric%20tons>.

2 <https://www.consilium.europa.eu/en/infographics/fit-for-55-making-buildings-in-the-eu-greener/>

3 <https://www.eea.europa.eu/en/topics/in-depth/transport-and-mobility>

4 https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/greenhouse-gas-emissions-manufacturing-what-difference-across-countries-2023-09-29_en

THE JOURNEY TO NET-ZERO: THE ROLE FOR LIQUID GASES



7 million tonnes of liquid gases are used to heat EU off-grid households

Liquid gases work seamlessly alongside other technologies in hybrid heating systems.

Less polluting than wood, coal or oil, without the renovation requirements of switching to renewables.

8.5 million vehicles in the EU are powered by Autogas

Over the last 5 years, Autogas was on average 64% the cost of Euro 95.

Autogas lowers NO_x emissions by 62% and particulate matter emissions by 90% compared to petrol, on a well-to-wheel basis

Liquid gases are used in over 1000 applications, including in a wide variety of industrial processes and services

Liquid gases emit negligible NO_x, SO_x and particulate matter emissions.

Notably used in space, process and water heating, metal processing, food production, petrochemical production, and industrial ovens.

2050

ALL LIQUID GASES BECOME FULLY RENEWABLE

Renewable fuels dropped in to make net-zero gas boilers

Renewable liquid gases dropped in to make net-zero Autogas

Renewable liquid gases dropped in to make net-zero industrial processes

WHAT ARE RENEWABLE GASES?

Renewable liquid gases, such as renewable propane, renewable butane and renewable and recycled carbon DME, are drop-in solutions that can be produced from a wide range of sustainable feedstocks such as plant and animal waste materials, municipal waste, vegetable oils and biogas. They can be used in existing liquid gas infrastructure and appliances as is.