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The future of European gas: How buyers' needs will shape the market

The European energy crisis has disrupted the trajectory of gas demand. Now, there is an opportunity for suppliers to partner with buyers and offer evolving energy solutions.

by Alessandro Agosta, Gillian Boccara, and Nicholas Browne

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Since late 2021, reductions in Russian pipeline gas flows to Europe have resulted in supply-demand uncertainty and price volatility.[1] In this context, Europe has come to shape global gas markets, with European hub prices setting global LNG spot prices.[2]

The region has responded to the crisis with a significant increase in LNG regasification capacity and some long-term contracting activity, but these interventions have not been sufficient to close the uncontracted gap.[3] There remains substantial uncertainty as to how the European gas market will develop and how it may further impact global markets.

To shed light on this situation, we surveyed more than 70 European gas buyers to gauge their responses (see sidebar, "About the survey"). The survey results reveal respondents' expectations of future gas demand, commitments to decarbonization, preferred future partners, and risk exposure and management.

In this article, we take a closer look at trends in European gas-buyer responses to the energy crisis and outline emerging opportunities for suppliers to anticipate and respond to buyer expectations within the evolving market.

Energy efficiency likely to drive down gas demand

Since the start of the current energy crisis, Europe's industrial gas demand has decreased, and demand is set to drop even further. Facing increased prices and insecure supply, two-thirds of surveyed gas buyers have reduced their gas usage since the start of the crisis. In its immediate aftermath, buyers increased their energy efficiencies through a combination of efficiency measures (such as waste heat recovery, self-production, and electrification) but also reduced production to lower gas demand (particularly in heavier industries).

Buyers across Europe expect this decline to continue and even intensify. More than three-quarters of buyers expect to reduce their gas usage over the next few years (Exhibit 1). Around half of the buyers surveyed expect to reduce their gas usage by less than 10 percent in the next two years (from mid-2022), while around 40 percent expect to reduce by more than 10 percent (on average, by 25 percent) over the next five. It is

About the survey

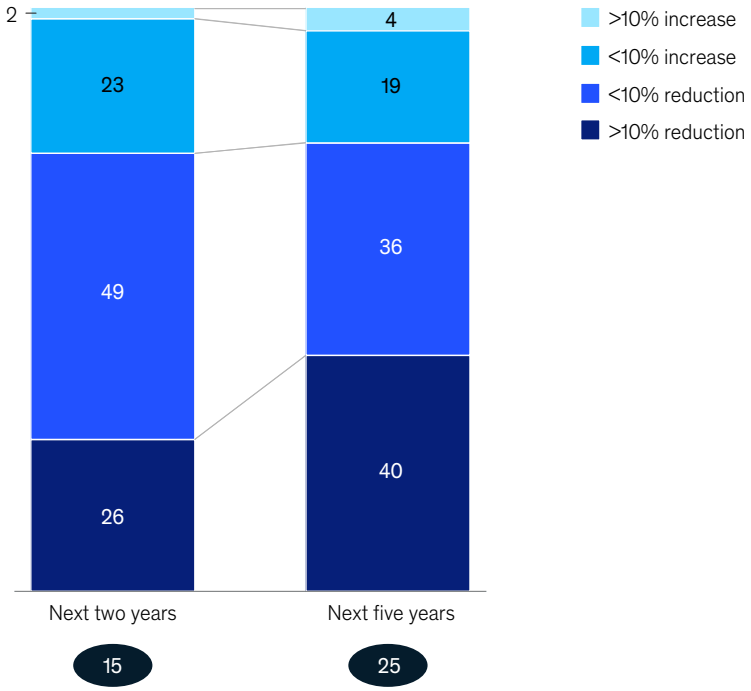
The 2022 Energy Insights European Gas Buyers Survey was conducted in December 2022. The survey included 73 respondents from 15 European countries, representing experts with relevant experience in gas procurement, origination, strategy, and trading. Respondents included buyers from heavy industry, light industry, and industries using gas as feedstock, with strong representation in each of these three segments. The survey, designed to highlight "top of mind" natural gas topics, consisted of 35 questions that probed what drove buyers' decisions, including demand drivers, risk management, supplier preferences, new energy procurement, and decarbonization targets.

[1] "Infographic—A market mechanism to limit excessive gas price spikes," Council of the European Union, February 15, 2023.
[2] *Gas Market Report, Q4—2022*, International Energy Agency, October 2022.
[3] Alessandro Agosta, Nicholas Browne, Giovanni Bruni, and Nicole Tan, "2022 LNG Buyer Survey: Adapting to an uncertain future," McKinsey, November 15, 2022; LNG Map 2022, Gas Infrastructure Europe, November 2022.

Exhibit 1

More than 75 percent of gas buyers expect to reduce their gas usage over the next two and five years with the reduction increasing over time.

Expected gas demand change by volume over the next two and five years,[1] % of responses



Note: Figures may not sum to 100%, because of rounding.
[1]Buyers were asked: *In the next two or five years, how do you expect your gas procurement volumes to change compared to the past 12 months? By how much (% of volume)?*
Source: McKinsey Energy Insights European Gas Buyers Survey 2022

expected that demand reduction will be driven largely by increased energy efficiency, followed by fuel switching (Exhibit 2). Both heavy and light industries expect to implement energy-efficiency measures to make them more resilient to future shocks. Bearish gas-intensive industries (that use gas as feedstock) do not expect to implement efficiencies to the same degree. Rather, they anticipate reduced downstream demand for their products, and consequently declining gas demand.

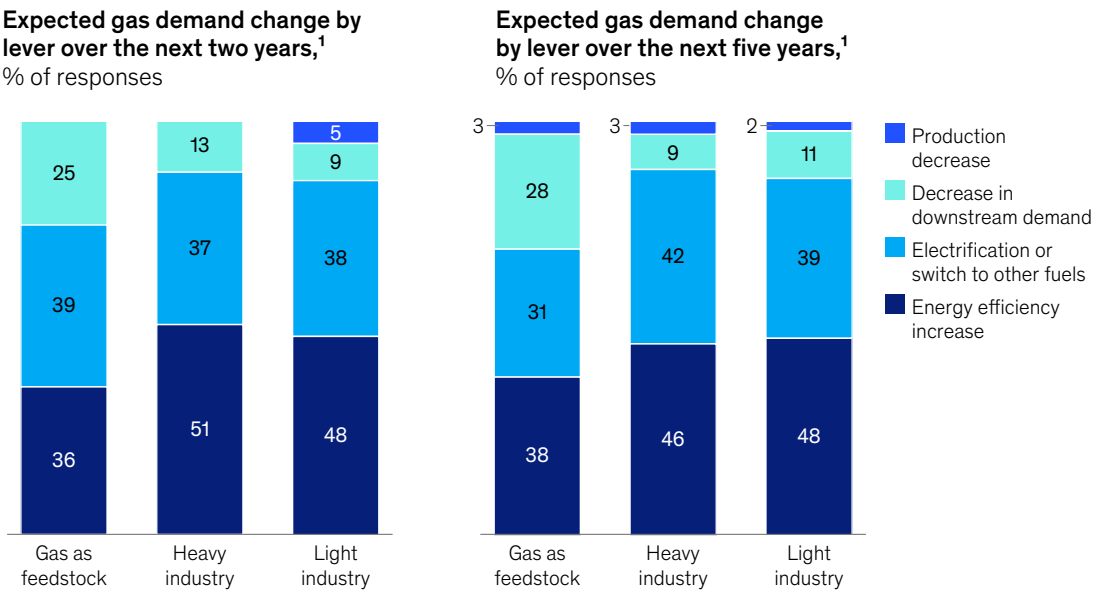
Buyers are lagging on decarbonization

Some parts of the European energy market have responded to tight market conditions and high prices by turning to coal in the short term.[4] However, gas buyers are committed to decarbonization, with aggressive near-term targets. More than 90 percent of survey respondents aim to have a quarter of their energy portfolio reach net zero by 2030 and half by 2040. Industries relying on natural gas as feedstock generally have slightly later targets.

[4] "The world's coal consumption is set to reach a new high in 2022 as the energy crisis shakes markets," International Energy Agency, December 16, 2022.

Exhibit 2

Buyers expect their reduced gas demand to be driven mainly by energy efficiency and fuel switching.



Note: Figures may not sum to 100%, because of rounding.
[1]Buyers were asked: *What will be the cause of the increase or decrease in your gas demand in the next two and five years?*
Source: McKinsey Energy Insights European Gas Buyers Survey 2022

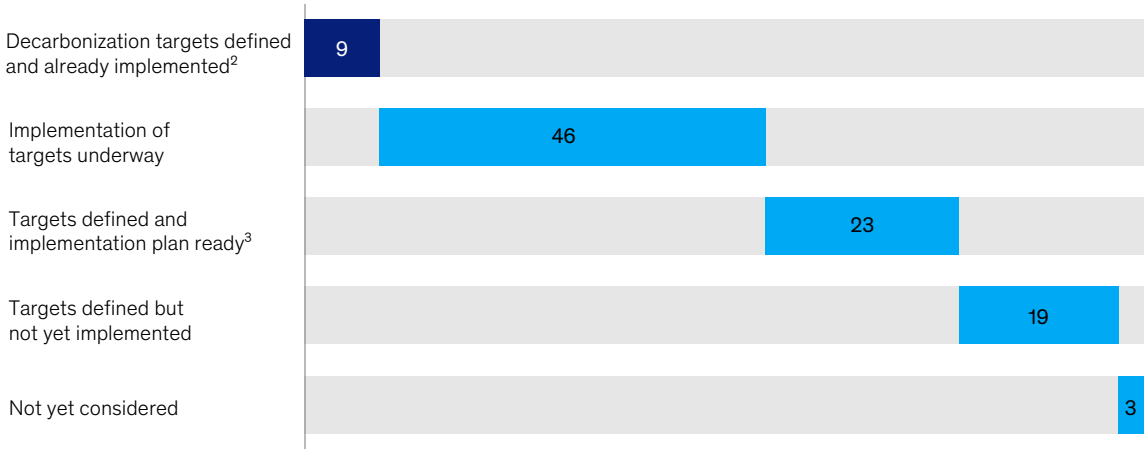
Despite these ambitious goals, fewer than 10 percent of buyers have fully defined and carried out measures to deliver their decarbonization targets. While 46 percent are in the process of implementation, another 42 percent with defined targets have either not yet started executing their plans or are still finalizing them (Exhibit 3). For many buyers, the energy crisis may have forced a pause in plans as they scrambled to ensure their gas supply was uninterrupted. Now, with the corporate target date of 2030 approaching, we may see a renewed focus on decarbonization.

Gas buyers have developed a broad set of decarbonization strategies. Around 70 percent see potential for greater energy efficiency, 52 percent are planning to electrify, and almost a third put store in offsets. Of buyers choosing one or more of these options, most plan to begin adoption within the next three years. In the longer term, three in ten buyers intend to utilize carbon capture, with the time frame for implementation being upwards of three to five years.

Exhibit 3

91 percent of buyers have not yet fully implemented their decarbonization strategies.

Decarbonization strategies progress,[1] % of responses



[1]Buyers were asked: *How developed is your decarbonization strategy?*
[2]For example, carbon pricing and carbon reduction targets.
[3]For example, internal milestones and targets per unit set.
Source: McKinsey Energy Insights European Gas Buyers Survey 2022

Green hydrogen and biogas are preferred alternatives to gas

When considering alternatives to current gas supplies, green hydrogen and biogas (or biomethane) were the most popular choices, each named by six in ten respondents (Exhibit 4). These preferences were driven largely by light and heavy industry buyers.

Overall, 27 percent of buyers expressed an interest in certified lower-carbon natural gas. Although carbon-neutral LNG cargoes utilizing offsets have largely disappeared since 2022, this finding suggests there may be latent demand for such cargoes. A switch to blue hydrogen would be an option for 23 percent of respondents, predominantly those in industries using gas as feedstock.

The survey also showed a difference in timing expectations, with more than 60 percent of buyers expecting to procure biogas, lower-carbon natural gas, or biomass in the next three years. In contrast, fewer than 20 percent of respondents expect green hydrogen to be available at affordable prices and sufficient volumes in the next three years.

Risk exposure increases after energy crisis

The European energy crisis has exposed gas buyers to elevated risk. They have lost leverage in negotiations with their gas suppliers, resulting in reduced contract flexibility (for 36 percent of respondents), experienced more stringent payment terms and reduced levels of service (24 percent), been exposed to additional costs (18 percent), or shorter contracts (13 percent).

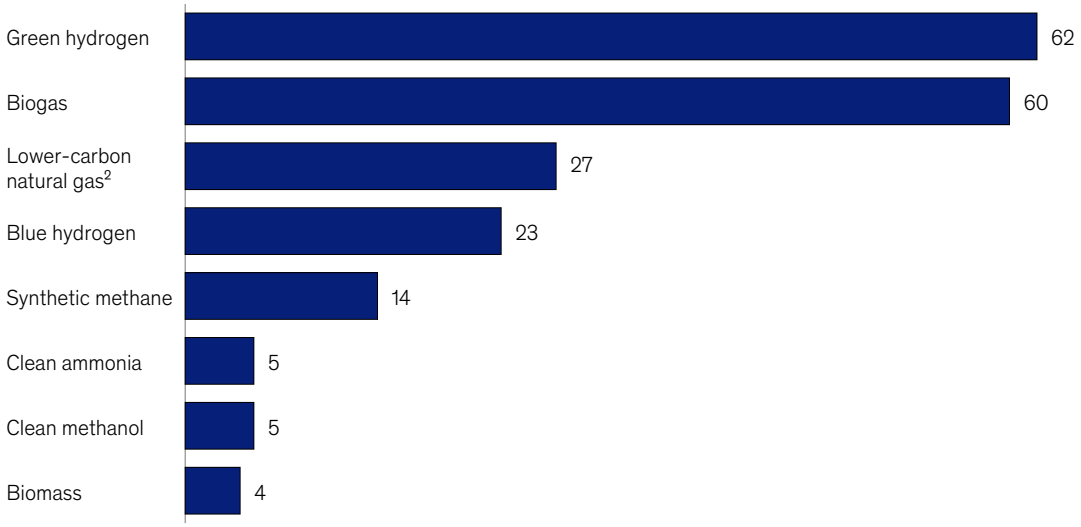
While 90 percent of buyers have adopted some form of hedging strategy, for many this is ad hoc rather than systematic. Most hedge less than half of their portfolio, which is at least in part related to market volatility: nearly half of the respondents said that volatility has prompted decision-making delays and uncertainty.

Further, one-fifth reported difficulties with liquidity and credit lines, and around 15 percent reported inability to execute hedges or lack of internal risk-management capabilities. This suggests that many buyers could scale up their risk-management requirements and functions.

Exhibit 4

Green hydrogen and biogas are the preferred options to replace gas.

Preferred fuels to replace natural gas by industry,[1] % of responses



[1]Buyers were asked: *Which options do you prefer to use to replace natural gas?*
[2]For example, through certification.
Source: McKinsey Energy Insights European Gas Buyers Survey 2022

Gas and LNG suppliers can partner with buyers on energy transition

To meet buyers' ambitious energy targets, additional decarbonization mechanisms are needed—including use of alternative fuels and reduced carbon-intensity gas. Here, partnerships with integrated-energy suppliers are key: over three-quarters of buyers are in favor of using them for multiple energy solutions.

Demand for new energy solutions may well outstrip available supply. Given that few market mechanisms currently operate in this sphere, buyers' access will depend on relationships with suppliers.

This creates opportunities for suppliers to partner with buyers to understand their immediate and longer-term requirements, provide a clear timeline for supply alternatives, and thereby accelerate the implementation of energy-transition strategies. Over the past 18 months, large international oil and gas companies—like Shell, BP, and TotalEnergies—have been active in the M&A space to grow their positions in biogas and biomethane supply.[5] Suppliers can also act to meet buyer demand for certified, reduced carbon natural gas. Longer-term, supply availability and infrastructure bottlenecks are key buyer concerns when considering alternatives to natural gas. Applying the expertise of LNG players in large scale project development to gas alternatives can help provide the security of supply that buyers need. Additionally, LNG and infrastructure players can utilize existing physical infrastructure to also include landing locations and market access for commodities such as clean ammonia. Finally, there is also a role for integrated

[5] "Shell closes $2bn acquisition of Danish firm Nature Energy Biogas," Offshore Technology, February 21, 2023; "bp completes acquisition of Archaea Energy," BP, December 28, 2022; "Poland: TotalEnergies invests in renewable energies with biogas and solar projects," TotalEnergies, March 6, 2023.

energy players to work with buyers to manage or partner in the build-out of their risk-management capabilities.

European gas buyers have borne the brunt of a severe energy crisis that is reshaping their gas use and may accelerate changes in their overall energy procurement strategies. There are clear opportunities for gas and LNG suppliers to partner with buyers by developing cross-energy offerings. A five-to-ten-year strategy could enable gas suppliers to be proactive in understanding, anticipating, and responding to these evolving requirements, thereby accelerating energy transition implementation while ensuring long-term partnerships.

Alessandro Agosta is a senior partner in McKinsey's Milan office, **Gillian Boccara is** an associate partner in the London office, and **Nicholas Browne** is a solution manager in the Dublin office.

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