Joint Gas Purchasing in Europe: How Can It Change Market Competitive Forces?

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Summary

The European Union (EU) has adopted joint gas purchasing to mitigate the risk of security of supply, lower gas prices and volatility exacerbated by the Russia-Ukraine conflict. This paper aims to investigate the implications of this mechanism for market competitive forces to obtain lower prices. The application of Porter’s Five Forces framework shows that assessing the forces shaping the European gas market structure (i.e., entry barriers, the power of suppliers and buyers, the threat of substitutes, and the intensity of rivalry) is critical in appreciating the potential implications of joint gas purchasing.

The European gas market is still largely affected by forces that enable sellers to obtain high prices, particularly the high power of suppliers, the low power of buyers, and the moderate intensity of the rivalry between suppliers. The joint purchasing mechanism would reduce the power of suppliers and increase competition between them by attracting new and additional supplies and offering sales opportunities through demand aggregation. However, this effect will largely depend on the response of suppliers, their contracting approaches, and the volume of gas purchased through the mechanism, given its voluntary nature.

The joint purchasing mechanism would improve the market power of buyers but only to the extent to which buyers are willing to cooperate amid their perceptions of the complexity of mechanism implementation, its impact on their gas operations and existing contracts, and compliance with the rules of competition.

In general, the mechanism can affect various market forces to obtain lower gas prices, but doing so will depend on how the mechanism is designed, the complexity of its implementation, the concrete volumes that can be aggregated and purchased through it, and the behaviors of both buyers and suppliers.

Introduction

In December 2022, joint gas purchasing was adopted within the framework of the European Union (EU) regulation on enhancing solidarity through better coordination of gas purchases (European Commission 2022a). Such purchasing is part of a series of measures initiated by the EU to deal with the implications of the Russia-Ukraine conflict for the security of supply and gas prices (European Commission 2022b, 2022c). The key objectives of this instrument are as follows:

• To improve member states’ buying conditions through gas demand pooling, which can contribute to obtain lower prices than individual purchasing;

• To support EU countries in preparing for the winter season and meeting their storage obligations in the context of tight markets;
Joint Gas Purchasing in Europe: How Can It Change Market Competitive Forces?

- To reduce the risk of buyers outbidding each other on the global gas market, pushing prices upward; and
- To ensure for buyers equal access to new and additional gas sources.

This commentary scrutinizes the potential implications of joint gas purchasing for market forces by considering not only the buying conditions of buyers but also other factors that shape the European gas market structure and affect prices. These factors are analyzed based on Porter’s Five Forces framework, which argues that the market structure and the level of prices and benefits that suppliers can reap are shaped by five competitive forces: i) market barriers for new entrants; ii) the power of suppliers; iii) the power of buyers; iv) the threat of substitutes and v) the intensity of the rivalry between existing competitors (Porter 2008).

Understanding the implications of joint gas purchasing in Europe is important since it is being applied in a region with a growing influence on global gas price dynamics. Indeed, Europe is increasingly competing for global liquefied natural gas (LNG) supply. Moreover, the mechanism might be extended to the trade in hydrogen and ammonia, affecting potential players in this market.

How Does Joint Gas Purchasing Work?

There are two main steps through which the proposed mechanism is implemented (Figure 1). First, gas demand is aggregated from buyers in the EU and Energy Community countries (e.g., Albania, Ukraine) through a service provider contracted by the European Commission. This demand is matched with offers from suppliers (excluding Russia) responding to gas procurement tenders organized by the service provider. In January 2023, the EU contracted PRISMA, a company operating an online platform for capacity trading, as a service provider.

Second, gas buyers conclude purchasing contracts, individually or in a coordinated manner, with the suppliers having submitted their offers to match the aggregated demand. PRISMA has established an “AggregateEU platform” that supports demand aggregation and the matching of demand and supply. Negotiating and contracting with suppliers are carried out separately outside the platform (European Commission 2022a, 2022c).

Buyers can form consortiums to purchase gas or contract the service of a third-party company. This company can either negotiate and purchase gas for the group of buyers (central buyer scheme) or provide assistance with logistics services such as transporting gas and reserving LNG slots at import terminals (agent on behalf scheme) (European Commission, 2022d).
Joint Gas Purchasing in Europe: How Can It Change Market Competitive Forces?

Gas demand aggregation is mandatory for member states to meet at least 15% of their storage filling targets. However, participation in demand aggregation beyond that target and in gas purchasing is voluntary (European Commission 2022a).

**Figure 1.** Demand aggregation and joint gas purchasing.

I. Service provider for demand aggregation

GAS DEMAND ESTIMATES BY COMPANIES (EU + ENERGY COMMUNITY)

- Aggregate demand
- Identify appropriate volumes for tenders

II. Contracts between buyers & suppliers including consortia

SUPPLIERS (PIPELINES GAS + LNG, excluding Russia)

Source: European Commission 2022d.

**Porter’s Five Forces Framework**

Porter’s Five Forces framework has been largely applied to assess the competitive environment of a specific industry and evaluate the threats and opportunities for a player in the market, including in the oil and gas business (Ali et al. 2017; Yonna, and Yisheng 2014; Hokroh 2014). The framework is used to assess how a policy instrument, namely, joint gas purchasing, can impact the forces shaping the competitive environment and affect prices in the gas industry.

Porter identified several drivers that determine the intensity of the five forces and their potential effect on the market structure (see Table 1). For instance, high entry barriers might be driven by the large size of incumbents and their possibility of leveraging economies of scale, the significance of demand-side benefits such as established networks, the high cost of switching to new competitors, and the high amount of capital needed to develop products and supply them competitively to the market.

The power of buyers refers to the ability of customers to bargain and exert pressure on suppliers to lower prices or appeal for higher-quality products and services. High bargaining power depends on different factors, including a high level of concentration of buyers compared to suppliers, a large amount of volume that buyers can purchase, a low cost of switching among industry competitors, and a high sensitivity to prices. Indeed, the
more buyers are price sensitive, the more they deploy actions to improve their bargaining leverage.

The intensity of the rivalry between existing suppliers refers to the extent to which market incumbents can pressure their rivals in terms of pricing, service quality, and innovation. This intensity is high in the case of numerous suppliers, having balanced sizes and powers, selling undifferentiated products, intervening in a mature market with slow growth, and experiencing high fixed costs and significant exit barriers.

Table 1. Various determinants affecting the intensity of Porter’s Five Forces (general framework).

<table>
<thead>
<tr>
<th>Porter’s forces</th>
<th>Main drivers for each force</th>
<th>Effect of the driver on each force</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Entry barriers</td>
<td>• Size of incumbents/economies of scale</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Demand-side benefits (e.g., established networks)</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Cost of switching to new competitors</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Capital required to develop products and supply them to the market</td>
<td>(+)</td>
</tr>
<tr>
<td>II. Power of suppliers</td>
<td>• Level of concentration of suppliers compared to buyers</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Dependence on the market suppliers are serving</td>
<td>(-)</td>
</tr>
<tr>
<td></td>
<td>• Cost of switching between suppliers</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Possibility to vertically integrate the downstream market</td>
<td>(+)</td>
</tr>
<tr>
<td>III. Power of buyers</td>
<td>• Level of concentration of buyers compared to suppliers</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Significance of the volumes that they purchase</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Cost of switching among industry competitors</td>
<td>(-)</td>
</tr>
<tr>
<td></td>
<td>• Level of sensitivity to prices</td>
<td>(+)</td>
</tr>
<tr>
<td>IV. Threat of substitutes</td>
<td>• Price of the product (object of interest)</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Cost of switching to a substitute (a product performing similar functions)</td>
<td>(-)</td>
</tr>
<tr>
<td></td>
<td>• Substitute’s performance in achieving the required functions</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Existence of alternatives other than products performing similar functions (e.g., demand saving)</td>
<td>(+)</td>
</tr>
<tr>
<td>V. Intensity of the rivalry between incumbents</td>
<td>• Number of supplier/size of suppliers</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Product differentiation</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Market growth</td>
<td>(-)</td>
</tr>
<tr>
<td></td>
<td>• Cost of switching between suppliers</td>
<td>(-)</td>
</tr>
<tr>
<td></td>
<td>• Fixed costs</td>
<td>(+)</td>
</tr>
<tr>
<td></td>
<td>• Exit barriers</td>
<td>(+)</td>
</tr>
</tbody>
</table>

(+)(-) contributes to increasing (decreasing) the force. For example, the large size of incumbents and economies of scale contribute to high entry barriers.

Sources: Porter (2008); Dobbs (2014).
Analyzing the European Gas Market’s Competitive Forces

This section applies the Porter framework to the gas supply market in Europe. The market of interest is the wholesale supply of natural gas originating from third-party countries. This market involves gas suppliers delivering gas through pipelines or LNG to different buyers, including gas resellers, industrial consumers, or power utilities.

Entry barriers: moderate, reduced by policies and the loss of Russian gas but still maintained by the high cost of switching to alternative suppliers and the use of long-term contracts

For the gas supply to Europe, the entry barriers used to be very high in the past, due to the dominance of large suppliers, benefiting from large economies of scale, connected to the market with massive pipeline infrastructures and linked to consumers with long-term purchase agreements. The fact that gas supply chain development is a capital-intensive business has further contributed to raising the entry barriers to the market.

During the last two decades, Europe has deployed several policies to reduce the entry barriers for new gas suppliers. The gas liberalization process, which started at the end of the 1990s, has contributed to opening the market mainly by allowing access to gas infrastructures, establishing gas market hubs that have encouraged trading and supported greater liquidity, dismantling the monopoly of gas buyers, and questioning the role of long-term contracts and destination clauses with traditional gas suppliers (International Energy Agency 2019; European Parliament 2023). Europe also adopted a gas supply diversification strategy that aimed to incentivize the emergence of new supply corridors and push LNG import infrastructure, notably through funding support (European Commission 2023).

These European policies have contributed to attracting new entrants to the market, specifically LNG suppliers selling gas on a flexible spot basis.

The disruption in gas supply from Russia has contributed to further reducing the entry barriers for new and additional supply sources since it has driven the removal of large contractual volumes committed by buyers and has incentivized them to seek alternatives.

One indicator of the increased flexibility in gas markets is the share of uncontracted import volumes (volumes not associated with firm medium- or long-term contracts and purchased on a spot/short-term basis), which reached almost 30% in 2021 (both LNG and pipelines).

The disruption in gas supply from Russia has contributed to further reducing the entry barriers for new and additional supply sources since it has driven the removal of large contractual volumes committed by buyers and has incentivized them to seek alternatives. In 2022, the uncontracted volumes represented approximately 50% of the European gas procurement, and this number is expected to reach 55% with the supplementary Russian gas reduction anticipated in 2023. However, this share will depend on the contracting activity of European gas buyers.
Despite all the developments noted above, which point toward reducing market barriers, two main impediments still matter in the market:

- The first is the cost for buyers of switching from existing suppliers to new sources, including LNG. Specifically, this cost involves developing new infrastructures, reserving capacities (e.g., slots at LNG terminals), establishing new relationships with suppliers, and potentially purchasing gas at higher prices, particularly if the buyer has to compete over scarce gas supply at the global level. Some buyers can be reluctant to move from traditional contractual suppliers (including Russian suppliers) to avoid incurring these additional costs (Kurmayer 2023).

- The second is the continued importance of firm long-term contracts for some potential new entrants to ensure visibility on demand and the profitability of their capital-intensive investments. Contracts might set entry barriers in two ways: i) They affect the decision of a potential entrant with a long-term contract appetite to access the market or not, and ii) they lock in a supplier and buyer for a certain period, limiting demand for other potential suppliers.

- **The power of suppliers: high, underpinned by the concentration of sellers, tensions over supply, and the flexibility to divert gas from European markets**

For a specific market, the high power of suppliers can be reflected in different aspects covering a high level of concentration of suppliers.
Despite an increase in European gas suppliers, a major share of imports is still sourced from a few of them compared to buyers, suppliers’ nondependence on the market they are serving, the high cost of switching between suppliers, and the possibility they might have to vertically integrate the downstream market (Porter 2008).

The factors mentioned above are well present in the European gas market. Despite an increase in European gas suppliers, a major share of imports is still sourced from a few of them, particularly government-controlled companies and major US exporters. Several factors contribute to this concentration, including the high cost of developing gas supply chains, the still significant control of major gas-producing countries over their resources and traded volumes, and the high cost that buyers incur in switching from traditional gas suppliers.

As outlined in Figure 3, the top five gas-producing countries (i.e., Russia, Algeria, Norway, Qatar, and Nigeria) represented almost 90% of European gas imports in 2021 and 75% in 2022. Eliminating Russian gas might exacerbate the tensions over supply for Europe, reinforcing the seller-market status and maintaining the significant power of gas sellers.

Another factor that supports the power of gas suppliers is that they are less reliant on the European market to monetize their gas. LNG suppliers can easily divert their flexible volumes to other markets. Traditional pipeline suppliers, such as Algeria, can leverage their LNG export capacities to direct gas to more attractive markets. Moreover, the cost of switching
In the European gas industry, buyers are much less concentrated than suppliers, especially after the liberalization reforms dismantling large European buyers and reducing their negotiating power. In 2021, the estimated number of companies bringing gas to Europe reached more than 510 companies, increasing from 340 companies in 2013 (Figure 4, left). Interestingly, this number has particularly risen in Eastern European countries (Hungary, Romania, Czechia, and Latvia), which rely heavily on Russian gas.

Buyer fragmentation is also reflected in the reduced market shares of the largest traditional buyers in different European markets (Figure 4, right). For instance, the market share of the largest incumbent in Italy decreased from 53% in 2013 to 48% in 2021, while this share shrunk from 50% to 34% in Spain and from 50% to 38% in Hungary. The major gas buyers in Portugal, Finland, and Greece transitioned from a quasi-monopoly to a market share of below 60% in their respective markets in less than a decade.

**Figure 4.** Number of companies bringing gas to Europe (left); share of the largest traditional buyer (right).

Source: Eurostat.

Another driver contributing to the lower bargaining power of buyers is the cost of switching to new suppliers. Gas buyers often experience a high cost of changing their traditional suppliers due to the need to build gas infrastructures and establish new relationships or contractual commitments (or buying expensive gas on spot markets).
The large sensitivity to gas prices has incentivized buyers to take actions to improve their bargaining leverage, such as leveraging competition between suppliers or investing in upstream assets to have some control over their supply. Although these actions can give market power to some large buyers, this outcome remains dependent on the status of the market (seller vs. buyer market), the availability of gas supply, the ability of buyers to invest in capital-intensive gas assets and the upstream policy in gas-producing countries.

- **The threat of substitutes: moderate to High, increased by the uptake of renewables and energy efficiency but attenuated by the still important role of gas as a clean and flexible option**

The threat of substituting gas heavily depends on the gas-consuming sector. This threat is particularly high in power generation, notably with the high gas prices observed on the market since 2021 driving higher oil, coal, and renewables consumption (Figure 5).

Renewables have experienced significant progress, pushed by technological advancement and decarbonization policies. As outlined in Figure 5, the large penetration of renewables severely reduced gas for power consumption between 2011 and 2014, before gas rebounded after 2015, helped by an increase in electricity demand and reduced coal utilization.

Nuclear energy has experienced a revival in Europe to an extent, but its threat to natural gas remains limited and contained to some countries, such as France. The age of nuclear fleets and cost overruns for new projects continue to challenge this option and reduce its risk of overtaking gas. Notably, gas played a central role in providing backup during nuclear outages observed recently in France due to technical issues. For coal, despite the recent progress made by this source at the expense of gas, its threat remains limited due to the incompatibility of this option with European climate policies. Several countries have decided to phase out coal over the next decade.

In the industrial sector, natural gas still has a critical role to play, with a 32% share of total consumed energy in 2021 in the EU (Eurostat 2023). Although electrification can be deployed in this sector, pushed by policy support and companies' actions to reduce their emissions, the extent of it remains limited by difficulties in electrifying high-grade temperature processes. In the residential sector, solar panels and electric heat pumps will displace gas utilization in this sector. They can move this demand to power generation to the extent to which renewables are used to generate electricity.

Gas substitutes need to be considered more broadly than energy products that perform functions similar to gas. Indeed, energy efficiency improvement is a serious substitute for gas and is set to exert significant pressure on gas consumption.

Overall, the threat of substitutes has substantially increased, particularly in the context of the high gas prices experienced in Europe. This threat is mainly driven by renewables penetration and energy efficiency.
improvements. Nevertheless, this threat is attenuated by the role of gas as the cleanest hydrocarbon in supporting an anticipated decline in carbon-intensive coal, in dealing with nuclear outages and the lack of replacement of aging nuclear fleets, and in providing backup for the intermittency of renewables.

- The intensity of the rivalry among existing suppliers: moderate, affected by the concentration of suppliers, tensions over supply, and important gas import requirements

Despite liberalization and an increasing number of players in the European gas market, several drivers are still contributing to limiting the intensity of the competition between sellers. The first is the limited number of suppliers from gas-producing countries, with a few national companies leading the market (e.g., Equinor, Sonatrach, NNPC, and Qatar Energy). Often, these companies sell volumes under firm contractual commitments, backed by diplomatic relationships. However, these companies are also increasingly involved in spot transactions, notably through their own trading arms or through cooperation with companies trading their gas. The US gas supply is driven by large companies (e.g., Cheniere, ExxonMobil, and Next Decade) that have the capability to build capital-intensive LNG supply chains.

Tight international market conditions also contribute to reducing the intensity of competition. Indeed, although the European market is mature

Figure 5. Power generation from different sources in Europe (TWh).

Source: BP Statistical Review 2022 (Europe excl. Turkey and the U.K.)
Joint Gas Purchasing in Europe: How Can It Change Market Competitive Forces?

The gas supply market structure in Europe shows a dominance of the forces that enable sellers to obtain high prices. These forces include the high power of suppliers exacerbated by market tensions after the Russian gas disruptions, the low power of buyers due to fragmentation and the moderate intensity of the rivalry between suppliers. The latter is affected by the substantial market share of large suppliers and the important gas requirements for Europe amid tight global market conditions.

The significant decrease in entry barriers, pushed by policies and the removal of large contracted Russian volumes, together with an increase in the threat of substitutes, mainly renewables and energy efficiency, plays a role in attenuating these dominant forces. However, the cost of switching to new alternative supplies and the role of long-term contracts remain impediments to market access. The threat of substitutes is also mitigated by the key role of gas as a clean and flexible option in dealing with the coal environmental drawbacks, nuclear outages, and the intermittency of renewables.

How Can the Joint Gas Purchasing Mechanism Shift the Competitive Forces in the Gas Market?

The joint purchasing mechanism can have either upside or downside effects on the five forces driving the European gas market structure. This particularly depends on different aspects, such as the design of the mechanism and the behaviors of buyers and sellers, as outlined in the following sections.

Entry barriers

The joint gas purchasing mechanism can further reduce market barriers, including the cost of switching to new supply sources. Indeed, through the “AggregateEU platform,” buyers can lessen their burdens to search and establish relationships with gas suppliers, they can benefit from coordination between buyers to leverage synergies in grouping their volumes and using infrastructures, and they can also avoid overbidding other European buyers, which might drive prices upward. Small buyers can benefit from this system by accessing supply through demand pooling.

On the other hand, several aspects can play against reducing market barriers. First, joint purchasing can contribute to lowering the general number of buyers available for suppliers (due to the grouping of buyers).
It also creates complexity in allocating gas between buyers and in concretely implementing the mechanism, specifically in a context where gas contracting between suppliers and buyers is realized outside the mechanism. It is likely that establishing separate purchase contracts outside the mechanism, with sensitive commercial elements, will affect the ability of companies to cooperate and act together (Energy Intelligence 2023).

Suppliers’ misunderstanding of the mechanism can prevent them from using it, particularly in a context where joint gas purchasing is proposed on a voluntary basis. In addition, the mechanism creates some legal challenges for companies due to compliance with the European rules of competition. These challenges can discourage companies from participating in the mechanism. Joint purchasing might affect the functioning of gas hubs in Europe with the risk of displacing the trade from these hubs, reducing their number of transactions and liquidity. Indeed, market intervention might weaken price signals and distort competitive market functioning (Boltz et al. 2022; Eurogas 2022).

**The power of suppliers**

Joint gas purchasing can affect two main sources of suppliers’ market power: i) concentration and ii) the possibility of suppliers directing volumes away from Europe. Indeed, the concentration of sellers can be reduced since the mechanism might support attracting new and additional supply to the market, notably through demand aggregation and by reducing certain barriers to entry (e.g., the cost of switching for buyers). In addition, demand aggregation offers visibility on demand and sales opportunities for existing suppliers that might reduce their incentives to direct volumes to markets other than Europe.

Nevertheless, the previous effects will depend on the extent to which suppliers accept reduced market power that will affect their revenues. The joint gas purchasing mechanism can trigger a response from existing suppliers to preserve their market power. They can avoid participating in demand aggregation and accelerate their contracting activities outside the platform. They can also choose to withdraw or direct volumes away from Europe to supply other markets in the context of tight market conditions. It is not ruled out that the coordination of buyers in gas purchases will drive coordination between suppliers in gas sales.

**The power of buyers**

Affecting the power of buyers is the core objective of joint gas purchasing. The latter might substantially contribute to increasing the bargaining leverage of buyers by reducing their concentration through grouping and by enabling them to increase the gas volumes that they can purchase collectively. These aspects add to the possibilities to improve buyers’ access to different suppliers, which can bid through the “AggregateEU platform.”
On the other hand, the reactions of buyers and suppliers to the mechanism can have some negative effects on buyers’ bargaining leverage. Buyers, including the largest buyers, can limit their demand pooling to the minimum required and not engage in collective purchases, which remain voluntary. The reasons are the complexity of mechanism implementation; the issues of compliance with the rules of competition; the risk of losing control over their contracts and disclosing sensitive elements to potential competitors; the overlap with legacy contracts; the need to have control over their supply in tight market conditions; and the difficulties in managing, through the mechanism, the operational complexity of gas operations and flexibility in balancing supply and demand (Boltz et al. 2022; Barnes 2022; Eurogas 2022). The lack of participation and cooperation between buyers might limit the mechanism’s effectiveness.

Furthermore, the possible responses of gas suppliers to keep their market power (see previous section) can contribute to downsizing the bargaining leverage of buyers.

The threat of substitutes

The joint purchasing mechanism can reduce the attractiveness of gas substitutes in different ways. First, it can exert downward pressure on gas prices, mainly by leveraging demand pooling and competition between suppliers. It also contributes to reducing volatility and spikes in gas prices since a significant portion of purchases under the mechanism is targeted to meet gas storage filling obligations, which play a role in smoothing volatility. Finally, the mechanism contributes to clearly identifying and highlighting gas demand stemming from different buyers and improving their confidence in collectively securing supply.

On the other hand, it is worth mentioning that the implementation of the joint purchasing mechanism has some opposite effects, encouraging substitutions. For instance, it can attract LNG supply from suppliers with a larger carbon intensity, increasing the carbon footprint of European countries and incentivizing them to shift away from gas. Additionally, it is not ruled out that the group of gas buyers will increase their market power and will not pass through price reductions to end-use customers, encouraging them to use substitutes.

The intensity of rivalry

The joint purchasing mechanism can support increased competition between suppliers by reducing market barriers and attracting new and additional supplies to the market to replace Russian gas. The market power that buyers can gain due to their collective buying of larger volumes will exert pressure on sellers to reduce their prices to take or maintain their market shares in European markets.

Nevertheless, the intensity of rivalry largely depends on the volume that can be purchased on the platform. Thus far, EU member states’ mandatory
part of demand aggregation is 15% of their storage filling targets, equivalent to 13.5 bcm, which is less than 5% of total EU imported volumes. However, this amount can be substantially higher given the gap left by the Russian gas disruption.

Other factors play against increasing rivalry between competitors. They mainly relate to suppliers’ responses to the mechanism, their engagement in selling gas via the platform, and the possibility of coordinating their actions and bidding offers in the context of tight market conditions. The tight market conditions and the possibility of directing large volumes to other buyers will substantially limit the competition pressure on suppliers and preserve significant market power in their hands.

Conclusion

The application of Porter's Five Force framework showed that the assessment of the various forces shaping the European gas market structure is critical in appreciating the potential implications of the joint gas purchasing mechanism. Although the mechanism’s core objective is to enhance the power of buyers through demand pooling and joint gas purchasing, its success will depend on how it will influence other market forces in Porter’s framework.

The market is still largely affected by the forces that enable sellers to obtain high prices, particularly the high power of suppliers, the low power of buyers, and the moderate intensity of the rivalry between suppliers. The power of suppliers is underpinned by their concentration and the flexibility they have to divert gas from European markets in the context of tight market conditions.

The joint purchasing mechanism can contribute to reducing the power of suppliers and increasing the competition between them by attracting new and additional supplies and offering sales opportunities through demand aggregation. This can be particularly beneficial for new US LNG suppliers. However, this effect will largely depend on the response of existing suppliers, their contracting approaches and the volume of gas purchased through the mechanism, given its voluntary nature.

The joint purchasing mechanism will improve the market power of buyers but to the extent to which these buyers are willing to cooperate amid their perceptions of the complexity of mechanism implementation, its impact on their gas operations, the risk of disclosing sensitive commercial elements and the compliance with the rules of competition. Suppliers’ response is also critical and can limit the power of buyers.

The joint purchasing mechanism will reduce the attractiveness of gas substitutes by exerting downward pressure on gas prices and volatility. However, this effect will be opposed by the risk of attracting gas with a higher carbon intensity (e.g., shale-based US LNG) and less compatibility with climate objectives. It will also be affected by the risk of raising the power of buyers in the downstream market and giving them the possibility to pass through high prices to end-use consumers.
In general, the mechanism can affect the various market forces to obtain lower gas prices, but this will depend on how the mechanism is designed, the complexity of its implementation, the concrete volumes that can be aggregated and purchased through it, and the behaviors of both buyers and suppliers.

References


Joint Gas Purchasing in Europe: How Can It Change Market Competitive Forces?
About the Project

“The Future of Hydrocarbons in a Carbon-Managed World” project aims to estimate the consequences of international carbon regulations for hydrocarbon markets. Conventional hydrocarbon producers are starting to respond to regulations with carbon-neutral versions of their products. Currently, the market for carbon-neutral liquefied natural gas is more developed than the market for carbon-neutral oil. This project focuses on accumulating existing experiences in the delivery of carbon-neutral hydrocarbon products. It also analyzes the likely transformation of market fundamentals due to increasing carbon neutrality requirements. Finally, it aims to propose a pathway to help Saudi Arabia maintain its competitiveness in the evolving hydrocarbon market.
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