

## **Has the European Natural Gas Crisis Ended?**

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In Paris on May 25, the Center on Global Energy Policy at the U.S. Columbia University School of International and Public Affairs sponsored an international conference titled "Natural Gas Roundtable: Looking beyond the Crisis and toward Decarbonizing the Gas Industry." Some 40 people participated in the conference, including government officials, business leaders and experts. Most of them physically attended the online and on-site hybrid meeting. They vigorously discussed issues indicated by the title. In the following, I would like to discuss this report's title, "Has the European Natural Gas Crisis Ended?," which represented the most impressive issue for me at the conference.

Since 2022, the European natural gas market has taken an unprecedentedly dramatic twist. The Dutch title transfer price, TTF, known as the leading European benchmark price for gas, ranged from \$20 per million British thermal units to \$30/MMBtu in early 2022, falling back from higher levels in late 2021. In response to Russia's invasion of Ukraine and a U.S. embargo on Russian energy imports, the price shot up above \$70/MMBtu on March 7, hitting the first peak. Later, however, the price peaked as market players found out that the United States had not imported Russian gas or liquefied natural gas. The price still stayed as high as \$30-50/MMBtu until late March.

As the gas market calmed down from April, the TTF price stayed around \$30/MMBtu. From mid-June, however, the price turned upward as concern about a tighter supply-demand balance resurged on a decline in Russian pipeline gas supply to Europe. Concern about winter gas shortages grew as a substantial fall in Russian pipeline gas supply to Europe, and sabotage at the Nord Stream pipeline resulted in market perception of a very severe gas market outlook for the winter in Europe. The European gas crisis reached a climax as the benchmark European gas price soared close to \$100/MMBtu in late August.

The abnormal price spike and underlying concern about gas shortages led to desperate efforts to address the potential shortages. Thorough energy-saving or gas-saving measures were taken, while high gas prices forced plants to cut or suspend production. Gas consumption declined substantially. Coal-fired power plants were tapped even at the risk of increasing CO<sub>2</sub> emissions. Renewable energy promotion was accelerated. The effective utilization of nuclear energy was also promoted, as symbolized by Germany's decision to postpone the closure of a nuclear power station.

As non-Russian gas supply was urgently required to meet gas demand, European countries raced to additionally procure massive volumes of LNG. U.S. LNG supply, known for its expansion and destination flexibility, rapidly increased in Europe, making the region the biggest buyer of U.S. LNG. Such desperate efforts were combined with a warmer-than-normal 2022-2023 winter season to increase European natural gas inventories and prevent winter gas shortages. In such supply-demand environment, European gas prices followed a downward trend. After temporary resurgences, the TTF price slipped below \$30/MMBtu in December and below \$20/MMBtu in January 2023. Continuing a

downward trend, the price fell from the \$15-20/MMBtu range to the \$10-15/MMBtu range before slipping below \$10/MMBtu to a two-year low of less than \$9/MMBtu on May 25.

Given such market conditions, the discussions at the Paris conference apparently indicate that gas market participants seemed to dominantly believe that the European gas crisis ended thanks to European efforts and that Europe should be confident of its successful efforts. I felt that Europe's natural gas perception transitioned from a strong sense of crisis and desperation seen in the second half of last year to a sense of relief and confidence.

At the same time, however, other market participants apparently remained doubtful or wary of whether the crisis had gone. I do not view their doubt or wariness as groundless but believe that any excessive optimism cannot be warranted. Gas prices have declined substantially, with the abnormally high prices becoming a thing of the past. European natural gas inventories are sufficient. However, prices reflect the current supply and demand perceptions and forecasts, and they could change easily and rapidly on an about-face in the supply and demand environment. Inventory levels may turn around if the next winter is colder than normal. In responding to a winter gas demand rise, Europe can no longer depend on Russia, which had been the most important gas supply source with flexibility for the region.

Given that last year's gas consumption decline was attributable to extremely high prices and a decrease in industrial operations, the price fall can be expected to trigger growth in demand. On the supply side, it is important that LNG supply growth will be limited until 2025 or later. The Institute of Energy Economics, Japan, forecasts that the global LNG supply-demand balance in 2023 and 2024 will be tighter than in 2022. Unexpected interruptions to LNG or natural gas supply, which have come in the past several years, may occur.

Another destabilization factor is China's LNG demand trend. In 2022, China's LNG imports decreased 20% from the previous year due to an economic slowdown under the COVID-19 pandemic and high LNG prices. After replacing Japan as the world's largest LNG importer in 2021, China dramatically reduced LNG imports. Without the drop in China's LNG imports, the European gas supply-demand balance could have been even tighter, with price hikes being even steeper. Whether and how China's LNG imports would increase may have a great impact on the market supply-demand balance and competition for LNG procurement. In fact, the future Chinese economy and LNG demand are uncertain and difficult to forecast. The impact of a substantial increase in China's LNG imports may be enormous.

The spread of renewable energy as a substitute for natural gas will contribute to reducing gas demand. As renewable energy expands its share of the power mix, however, the impact of renewable energy's supply intermittency problem will become greater and lead to additional gas demand. Given such potential, it is a matter of concern to me that Europe has become confident of its initiatives that prevented last winter's crisis. Europe might have grown confident that it can rapidly increase LNG procurement from the international market as necessary. Under such confidence, a drive for decarbonization could become stronger than that for stable energy supply. In such a case, Europe may become negative about investment in the gas sector and give greater priority to short-term procurement than to long-term contracts. In the LNG market, the role of portfolio players who launch LNG projects while satisfying short-term needs may become important. At the same time, great price and supply-demand fluctuations may occur more easily. In this way, I feel that the European natural gas market is plagued with various uncertainties and challenges. No optimism can be warranted about the European market.