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Where will Europe get its gas from in 2023?

At the beginning of 2022, if someone had told you that European¹ pipeline gas imports from Russia would decline by 55 per cent or some 83 bcm and that not only would gas supply to buildings be maintained in the depths of winter, but there would be record gas storage injections, you would have questioned their analytical capability and probably their sanity. While that is precisely what happened, Europe was very lucky in that the weather in 2022 was extremely warm at the beginning and end of the year, significantly reducing heating demand for gas, and the region also managed to increase its LNG imports by some 63 bcm over 2021, a rise of over 60 per cent. The very high prices also significantly reduced gas demand in industry and probably also affected household behaviour to limit energy consumption as winter approached. The rise in LNG imports reflected not only a rebound in global LNG supply of some 28 bcm (6 per cent), after the issues and constraints in 2021, but also diversions of cargoes away from other markets, especially China, where LNG imports were down by some 21.5 bcm, wiping out almost all growth since 2019.

Europe's overall 2022 balance saw the decline in pipe imports from Russia by 83 bcm being more than offset by a 74 bcm demand reduction, increased LNG imports of some 63 bcm, plus a slight increase in production and net pipeline imports from other sources which were higher by some 5 bcm. This additional 'supply' of around 59 bcm enabled net storage injections of 32 bcm in 2022, compared to a net withdrawal of 22 bcm in 2021.²

Turning to 2023, we are already looking at a year-on-year reduction in pipe imports from Russia of around 40 bcm, assuming that flows continue at current rates via Ukraine and Turkstream. Even including flows to Turkey, pipe imports from Russia will be down to roughly 45 bcm,³ against 168 bcm in 2021. However, if gas demand were to remain at the same level in 2023 as in 2022 (although this assumes another very warm year and no rebound in industrial gas demand) and the level of production, net pipeline imports (other than from Russia), and LNG imports were unchanged, then the reduction in pipe imports from Russia could be met by net withdrawals from storage of some 10 bcm (compared to the net injection of 32 bcm in 2022, so a net change of around 40bcm), as shown below.

The net withdrawals from storage could be reduced by additional LNG imports, especially into Germany, with the new LNG import terminals coming onstream in 2023. The growth in overall LNG supply looks reasonably robust in 2023 with prospective growth of just under 30 bcm, although there are very few new export terminals coming onstream this year. The growth mostly comes from technical issues being resolved at projects in

¹ Europe includes the EU27 plus the UK, Norway, Switzerland, Serbia, Bosnia-Herzegovina, North Macedonia, Albania, and Turkey.

² The additional supply (based on changes in flows between 2022 and 2021) is 59 bcm (74 bcm lower demand plus 63 bcm more LNG, 5 bcm more production and other pipeline imports minus 83 bcm loss of Russian pipe import) which accounts broadly for the change in the net storage injections/withdrawals of 54 bcm (32 bcm net injection in 2022 minus the 22 bcm of net withdrawals in 2021).

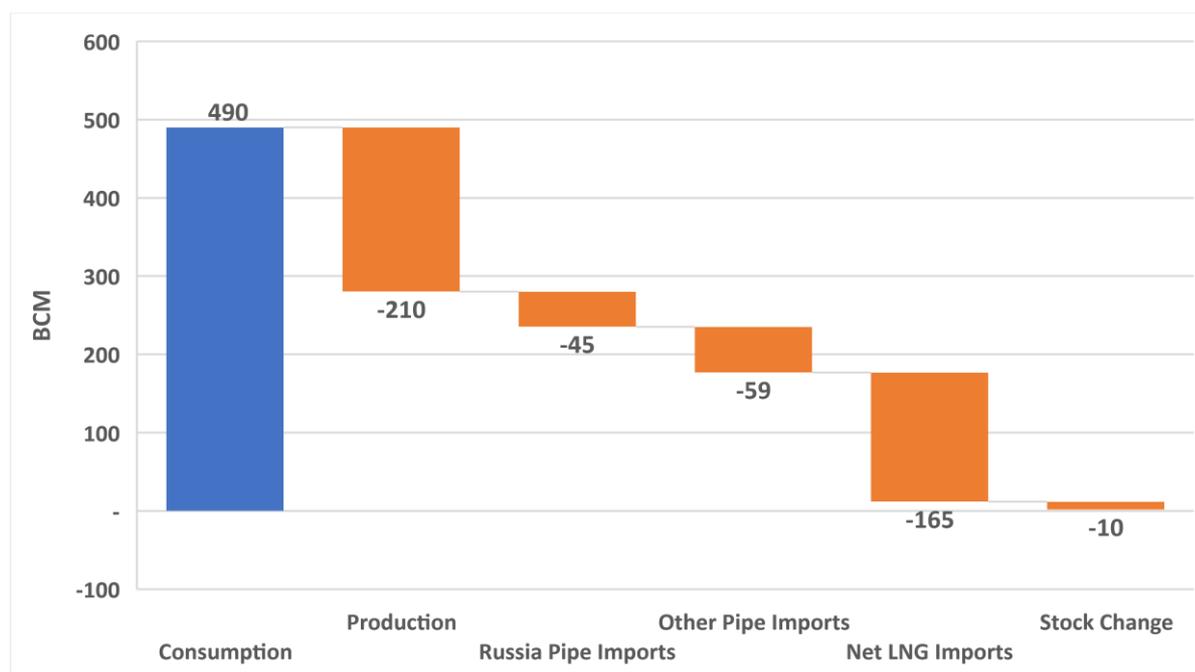
³ Around 20 bcm to Turkey and 25 bcm to the EU and Balkans.

Norway, Malaysia, and the US (Freeport), additional feedgas in Trinidad and Nigeria, and the ramp up of volumes from projects which started up in 2022, such as Calcasieu Pass in the US and Coral FLNG in Mozambique.

Europe might be expected to be able to get at least half the 30 bcm rise in LNG supply, which would eliminate the need for net storage withdrawals in 2023. However, LNG imports seem likely to bounce back in the rest of the world. China is likely to see some recovery in LNG imports even as domestic production and pipeline imports are likely to meet much of the incremental demand. The emerging southeast Asian markets are also growing. Any recovery in the very price sensitive markets of India, Pakistan, and Bangladesh may depend on LNG spot price levels in 2023.

Figure 4: Europe Balance 2023

BLUE demand is met by ORANGE supply



Source: IEA, ENTSOG, KPLER data, NexantECA WGM, OIES estimates

There are, however, some dangers to this potentially benign outlook for Europe, which has assumed that the other key parameters in terms of supply and demand in Europe in 2023 remain the same as in 2022, plus a rising global LNG supply. The IEA, in a recent note,⁴ suggested that European gas demand could be higher by some 20 bcm as a result of slightly colder 2023 weather and avoiding production curtailments in energy-intensive industries. In addition, there remains a strong possibility that flows of Russian pipeline gas through Ukraine could be completely cut off as the war continues and if President Putin decides to tighten the energy screw even further. At current rates – around 40 mmmcmd – the full year flows of gas along the Ukraine route would be some 14.5 bcm. A shutdown for half the year would increase Europe’s need by some 7 bcm. This could also lead to Ukraine and Moldova requiring more imports from the EU, adding more supply requirements.

If Europe were to need another 30 bcm in supply in 2023, compared to the initial relatively benign outlook, significant pressure would be placed on the LNG market and the level of global prices. LNG volumes to the more price sensitive Asian markets would be particularly at risk. Ultimately, Europe could be faced with an inability to refill storage during the summer and/or more curtailments of industrial gas demand, if LNG could not be diverted from other markets. As a result, although the outlook for 2023 appears more positive than many might have thought even three months ago, the risks of a supply shortage and higher prices cannot be discounted and the key parameters will need to be carefully monitored throughout the year.

Mike Fulwood (<mailto:mike.fulwood@oxfordenergy.org>)

⁴ How to Avoid Gas Shortage in the European Union in 2023. IEA, Paris, December 2022