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With Russian Gas Off the Table, EU Relies on LNG to Secure Supply as Renewables Ramp Up

Stratas Advisors

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Following the invasion of Ukraine, the EU is facing growing pressure to break away from Russian energy imports. The EU imports about 85% of its domestic gas consumption, of which around 40% is supplied by Russia alone. Russia also accounts for over 25% and over 45% of the EU's oil and coal imports, respectively. To respond to rising energy prices, on 8 March 2022 the European Commission presented the REPowerEU plan outlining measures to drastically reduce reliance on Russian imports, including through the diversification of gas supplies, the speed-up of renewable gas production, and the replacement of gas in heating and power generation.

Full implementation of the Commission's Fit for 55 (FF55) proposals released in July 2021 are estimated to be capable of reducing the EU's annual gas consumption by 25-30% by 2030 (about -100 bcm). Adding up to the several measures proposed under the package, the REPowerEU plan would strengthen the EU's reduction efforts by reaching saving levels of -155 bcm by 2030, of which around two-thirds would be achieved in 2022 alone.

Pushing away from fossil gas, significant savings are also expected from advanced biomethane and renewable hydrogen, with the Commission planning to boost domestic biomethane production to 35bcm by 2030 – doubling the capacity targeted under the FF55 package. For its part, the Commission's plan targets an additional domestic renewable hydrogen production of 5 Mt to the 5.6 Mt of the FF55 which, complemented with another 10 Mt in imports, would allow for savings of up to 55 bcm by 2030.

Stronger energy efficiency measures, combined with a more rapid deployment of heat pumps and an accelerated expansion of solar and wind energy, are set to further contribute to a decreased reliance on Russian gas, potentially saving over 35 bcm in 2022 and 70 bcm in 2030. Under the Commission's plan, simplified and faster permitting processes will allow for a faster expansion of renewable power and hydrogen-based solutions, further supported by an Innovation Fund which would potentially include an EU-wide scheme for carbon contracts for difference.

Source: Stratas Advisors, 2022

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In 2022 alone, the Commission's proposed actions would prompt immediate reductions in the range of -26%, to see final gas consumption dropping by over -35% against Stratas Advisors' base-case scenario in 2030. Following the implementation of the measures, Russia would lose around 20% of its market share compared to pre-conflict levels – a reduction of -64.6% against 2021.

While accelerating investment in clean technologies and efficiency will remain at the heart of the solution, it is unrealistic to believe that a rapid deployment of renewable energy alone will be able to fill in the gaps in imported gas demand in the short term. The main near-term option would involve a switch back to coal, which would however postpone the phase-out plans of many European countries and significantly hamper emissions reduction efforts at EU level. Existing infrastructure would allow for the partial displacement of Russian imports through supply diversification, but this is not without challenges as supply of LNG and non-Russian pipeline capacity are by themselves already limited.

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