

European Dependence on Russian Gas – The Example of Nord Stream 2

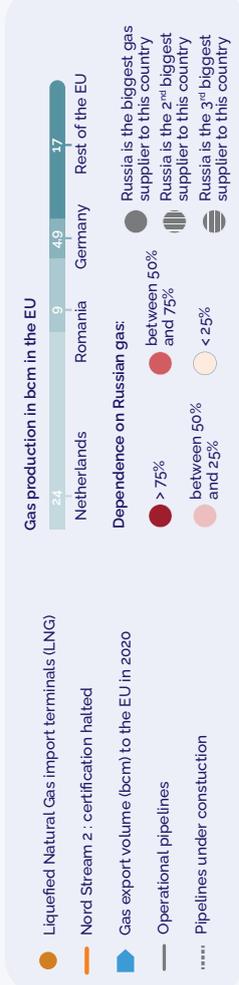
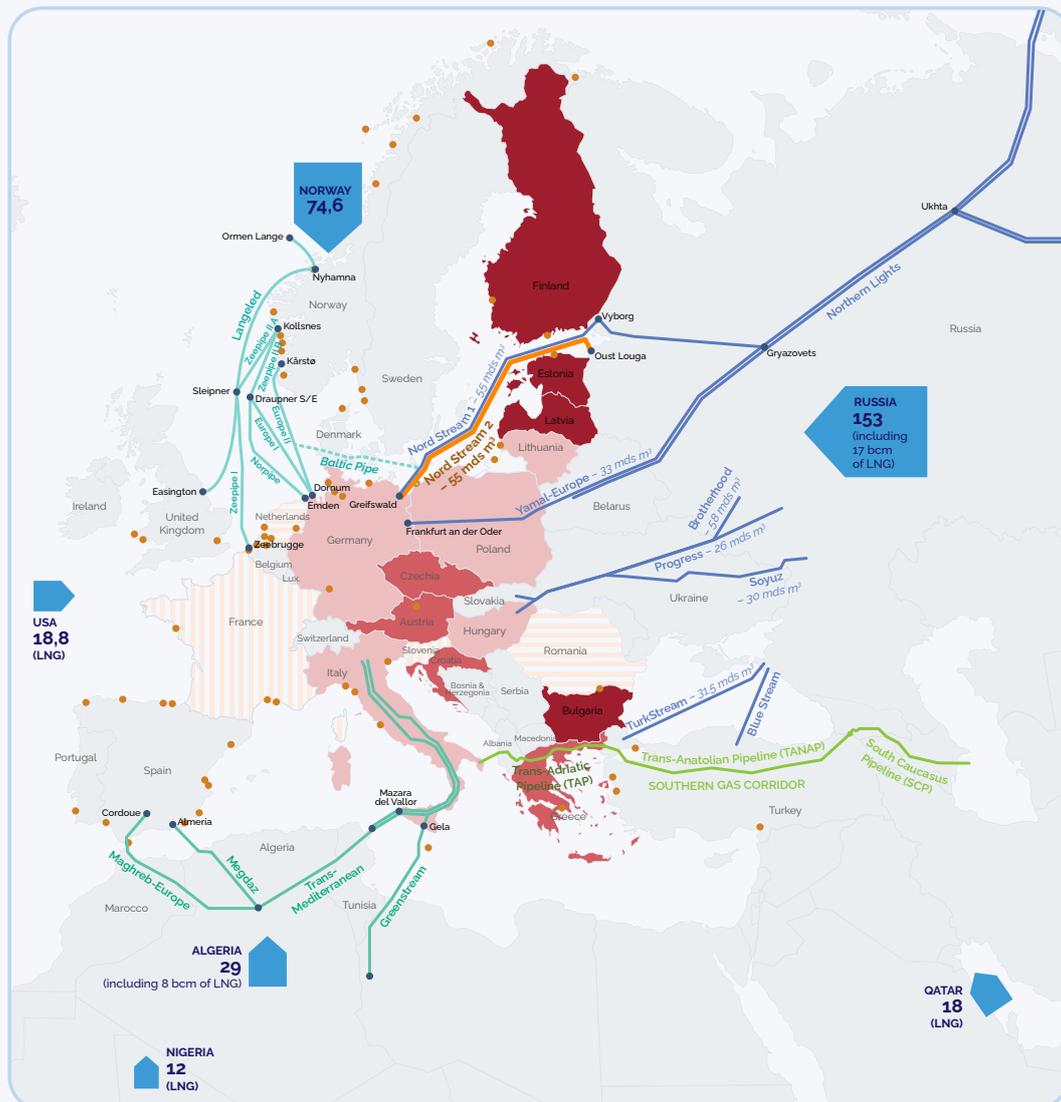
In 2020, about one fifth of the energy consumed in the European Union (EU) came from fossil gas. Due to the lack of sufficient reserves on European territory, more than 85% of the gas consumed in the EU is imported from outside the Union. Russian gas alone makes up more than 40% of the imports.



Gas pipelines – Russian geopolitical weapons that upholds the EU's energy dependence

Nord Stream 2 is a 1230km long gas pipeline that links Russia to Germany via the Baltic Sea through the same route as its predecessor **Nord Stream 1**. The construction started in 2018 and the pipeline stood ready in September 2021, amounting to a cost around 10 billion euros. Nord Stream is operated by Nord Stream AG, based in Switzerland, and mainly owned by Russian state-owned Gazprom. Five European energy companies also participate and provide financial support: Engie (France), OMV (Austria), Shell (Anglo-Dutch), Uniper (Germany) and Wintershall Dea (Germany).

The commissioning of the new pipeline would allow for 55Bcm of gas per year to be transported, which would complete Russia's attempt to bypass Ukraine. The capacity of **Nord Stream 2** together with **Nord Stream 1** and **Turk Stream** would guarantee an annual Russian export capacity that would meet European needs, without having to pass by Ukraine and pay transit fees (~ 2 billion €/year).



From a "gas shock" to an energy price crisis

The suspension of the Nord Stream 2 certification process that was announced by the German government on the 22nd February 2022 needs to be seen in the light of the high gas prices in Europe.

The gas shock that Europe has found itself in for the past nine months has resulted in an on average threefold increase in the price of gas on the European market and can best be described as the consequence of a "perfect storm"¹.

The evolution of gas prices on the European wholesale market (TTF) in €/MWh



Source: Jacques Delors Institute, based on data from Energymarketprice and ICE.

This increase has led to a surge in energy prices. In response to this energy price crisis, EU Member States have taken emergency measures to protect its consumers.

In the event of a prolonged interruption of Russian gas supply, not all Member States will find themselves in the same situation². The 13 countries that have Russia as their main gas supplier will be more vulnerable.



In 2010 and 2017, the EU adopted concrete measures to ensure genuine solidarity between Member States. For example, two-way flows on gas pipelines, demand-side load-management and mutual assistance in case of supply interruptions from foreign countries such as Russia.



Recommendations

To protect themselves from rising energy prices and geopolitical pressure from Vladimir Putin, Europe must quickly reduce its dependence on fossil gases. This can for example be done by:



- **Launching a renovation wave of buildings to reduce heating needs.** This can be done through increased public and private investment in renovation, as well as the adoption of EU minimum energy performance standards for buildings.³
- **Accelerating the deployment of renewable energies,** including those that produce heat (heat pumps, solar water heaters etc.). Each Member State should establish a renewable energy strategy and include it in its national energy-climate plan objectives.



- **Developing green hydrogen (produced with renewable electricity) to replace grey hydrogen (produced with gas).** The current review of the EU Gas and Hydrogen Market Directive is an opportunity to speed up this substitution process.
- **Stepping up the deployment and purchase of renewable electricity by the industry** through the conclusion of long-term *Power Purchase Agreements* under the EU Renewable Energy Directive.



- **Not including gas in the European Taxonomy on Sustainable Finance** so that gas production cannot benefit from financing by private investors.
- **Introducing a mandatory 90% gas storage threshold by October 1st**⁴ for all Member States, as part of the revision of the EU Gas Regulation.

¹ A perfect storm can be defined as "an accumulation of disparate events, none of which in itself presents a major problem, but whose concurrence creates a systemic risk". Nguyen, P.-V. & Pellerin-Carlin, T. 2021. *The European Energy Price Spike: Overcoming the Fossil Fuel Crisis*. Policy Brief, Jacques Delors Institute, October 2021.
² Source: European Union Agency for Cooperation of Energy Regulators
³ Defard, C. 2021. *Addressing the climate and social emergencies with minimum energy performance standards*. Policy Paper, Jacques Delors Institute, November 2021.
⁴ Bros, T. & Vinois, J.-A. 2021. *High energy prices, Russia fights back?* Policy Paper, Institut Jacques Delors, November 2021.