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# The Hormuz Shock: EU's Gas Security and Decarbonization Fragility

The February 2026 conflict in the Persian Gulf and the partial closure of the Strait of Hormuz sent European gas prices sharply higher, reviving questions about Europe's energy vulnerability. While the EU successfully reduced its reliance on Russian gas after 2022, it has traded one dependency for another: globally traded LNG exposed to fragile shipping routes. We argue that dependence is not only a concern for energy security; it also creates decarbonization fragility — the risk that reliance on imported fossil fuels undermines the clean energy transition itself. Price spikes push producers toward coal, raise emissions, and give politicians reasons to delay climate action. The solution to both problems is the same: faster deployment of domestic clean energy, better electricity grids, and a coordinated EU industrial strategy. Reducing fossil-fuel demand at home is not only a climate goal — it is the most durable foundation for Europe's energy security.

On 28 February 2026, US–Israeli strikes on Iran triggered a direct military conflict across the Persian Gulf. Iran moved to shut the Strait of Hormuz, a chokepoint for roughly one-fifth of global oil and gas trade (US EIA, 2025), while attacks on Qatar’s Ras Laffan complex resulted in force majeure, removing approximately one-sixth of global LNG supply from the market. Energy markets reacted immediately. European gas prices rose sharply: the TTF benchmark jumped from around €32/MWh in late February to above €50/MWh by mid-March, while Brent crude approached \$100 per barrel.

While most attention has focused on the impact on the oil market (see, e.g., Gars, Spiro, and Wachtmeister, 2026), the shock has also revived another crucial question in European energy policy: dependence on imported fossil gas. This brief examines what the Hormuz shock means for Europe’s gas market, focusing on its implications for supply security and the political momentum of the green transition.

## How the 2022 Crisis Redefined EU Gas Security

Natural gas has long been central to Europe’s energy system, heating around 30% of EU households, supporting energy-intensive industries, and providing the flexible generation needed to balance renewables. But this economic importance also came with strategic risk - EU gas imports were dominated by a single supplier, Russia, which by 2021 accounted for around 45% of EU gas imports (IEA, 2022). After the invasion of Ukraine, that dependence turned into a major vulnerability. Russian pipeline gas flows to Europe fell by more than half in 2022, while the TTF gas

price rose above €300/MWh in August 2022. The shock forced governments to spend over €680 bln to protect households and firms, and exposed the weakness of Europe’s industrial model.

Yet the crisis triggered a rapid policy shift. The EU responded with storage obligations, demand reduction, supply diversification, and REPowerEU, reframing clean energy and efficiency as tools of security as well as climate policy; the 2030 renewable target rose from 32% to (at least) 42.5% (EC, 2023).

The results were significant: storage reached 99% in the fall of 2023, demand fell by 18% by 2024, Russian gas imports dropped from 150 bcm in 2021 to about 40 bcm in 2025, with a full ban due in 2027 (Bruegel 2022 a, b), and EU gas imports became more diversified (see Figure 1). Between 2022 and 2025, Europe added around 250 GW of renewables (IEA, 2026), raising their share in electricity generation from 37% to 44%. The 2022 crisis had, paradoxically, done more to accelerate Europe’s green transition than a decade of climate negotiations.

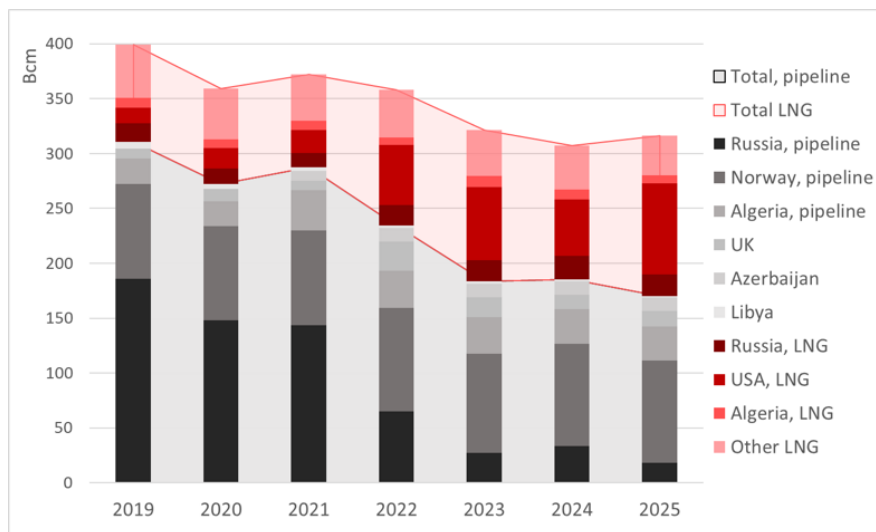
## The Hormuz Shock: Familiar Pattern, New Vulnerabilities

Given the lessons the EU learned from 2022, should we expect a similar “greening” in response to the Hormuz disruption?

There are clear parallels between the current shock and the 2022 crisis. In both cases, a sudden geopolitical disruption removed a major source of gas supply, pushed European buyers onto the spot LNG market, and drove TTF prices sharply higher. In both cases, uncoordinated competition among member states for scarce supply risked amplifying the price spike.



Figure 1: Composition of EU natural gas imports in 2019-2025.



Source: Own graph based on data from Bruegel Dataset (2022a).

The differences, however, are equally important. In 2022, oil prices remained relatively contained, allowing some industrial sectors to switch away from gas. Today, with Brent above \$100 per barrel, that option offers little relief. In 2022, weak Asian LNG demand, particularly from China, gave Europe room to attract cargoes at a premium. Today, Asian buyers are facing the same supply shock and competing for the same LNG volumes. Europe has also lost the limited buffer that Russian pipeline gas still provided in 2022: that supply has now largely disappeared and will soon be fully banned.

At the same time, the EU is better prepared than it was four years ago. Gas demand is already around 17% lower, regasification capacity has expanded over 50 bcm, reverse-flow interconnections have improved access across the bloc, and the institutional crisis-response framework has already been tested.

Most importantly, the supply directly at risk is much smaller than in 2022. Qatari LNG exposed to the current disruption accounts for no more than 6% of EU gas imports, far below the scale of the 2022 shock (EC, 2025a and ACER, 2024).

The global LNG market has also changed significantly since 2022. Then, Europe’s additional LNG needs hit an already tight global market: EU LNG imports rose by 64 bcm in 2022, while global incremental LNG supply was only 25 bcm. Regasification bottlenecks in Europe compounded the problem. Today, by contrast, the market is entering a major new wave of liquefaction capacity, while the EU has expanded regasification capacity by at least 50 bcm/year since mid-2022, easing the infrastructure constraints seen during the crisis. Any disruption to Qatari LNG would therefore likely create a more manageable, though still important, market squeeze than in 2022 (ACER (2024) and IEA (2025)

That said, the main vulnerability has not vanished; it has changed form. Roughly one-fifth of global trade passes annually through the Strait of Hormuz. A disruption there tightens the LNG market globally, especially in Asia, and because cargoes are traded internationally, price pressure is rapidly transmitted to Europe. That is, in replacing Russian pipeline gas with globally traded LNG, the EU reduced dependence on a single



supplier but increased its exposure to geopolitical shocks affecting maritime trade. Europe is therefore more diversified than in 2022, but also more vulnerable to disruptions in strategic chokepoints far beyond its borders.

The Hormuz crisis thus reveals a deeper structural vulnerability in Europe's post-2022 energy system — what we refer to as *decarbonization fragility*. The more the EU relies on LNG to secure its energy transition, the more its climate pathway becomes exposed to geopolitical shocks in global fossil-fuel supply routes.

## The Environmental and Political Risks of Decarbonization Fragility

The Hormuz shock highlights that Europe's new gas security model also carries environmental risks. As energy security increasingly depends on globally traded LNG moving through fragile maritime routes, disruptions can drive not only higher prices but also higher emissions.

First, the shock is likely to increase the carbon intensity of the EU gas supply. Facing a gas shortage, the EU may respond by replacing lost gas volumes with new, more emissions-intensive gas sources. In 2022, Russian pipeline gas was partly substituted with more emissions-intensive LNG (Campa, Paltseva and Vlessing, 2023). In the current context, the marginal supplier is likely to be the United States, whose LNG has a significantly higher lifecycle carbon footprint than Qatari LNG (Rystad 2026). (This shift may also raise renewed concerns about the concentration of supply, given that US LNG already accounted for 55% of EU LNG imports in the first half of 2025, EU (2025b)).

Second, higher gas prices can trigger substitution toward more polluting fuels. In 2022, this mainly involved switching from gas to oil products. Today, with Brent above \$100 per barrel, oil is less competitive, increasing the likelihood of gas-to-coal switching in sectors unable to reduce demand quickly enough. Given that coal is significantly more carbon-intensive than natural gas, such a substitution would result in a substantial increase in emissions.

While these effects may in principle be temporary, the Hormuz shock occurs in a European political and economic context that makes them harder to reverse. Climate policy momentum in Europe was already weakening, with growing corporate caution and increasingly more firms **scaling back or withdrawing net-zero commitments** (Guardian, 2025).

By intensifying energy price pressures and supply uncertainty, the shock risks tilting policy priorities away from the energy transition. In a more unstable geopolitical environment, industrial competitiveness is increasingly treated as a component of Europe's defense strategy, essential for economic resilience and strategic autonomy. At the same time, rising defense spending is placing additional strain on public finances. Together, these pressures shift political focus toward securing affordable energy for industry and maintaining economic strength, potentially at the expense of long-term decarbonisation.

This is the political dimension of decarbonization fragility. When industrial policy prioritizes energy affordability and security, external shocks are more likely to reinforce fossil-fuel dependence than to accelerate the move away from it.



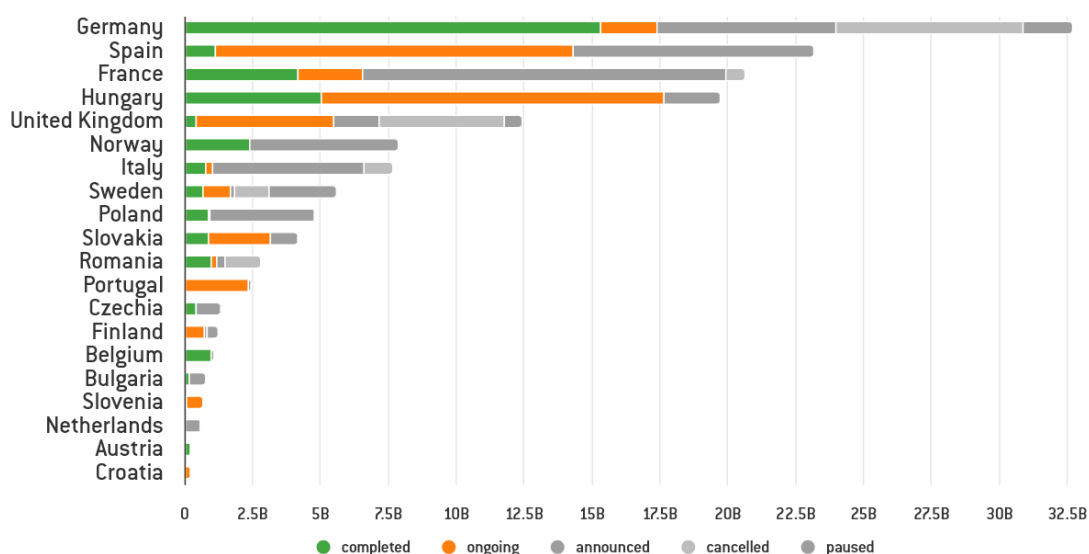
## The Green Transition IS Energy Security

The central lesson of both the 2022 energy crisis and the Hormuz shock is clear: energy (in)security and decarbonization fragility are closely intertwined. As long as the transition still relies on imported fossil fuels, external shocks affect more than energy supply and prices. They may also weaken the political and economic conditions on which decarbonization depends by undermining industrial competitiveness, increasing fiscal pressure, and shifting policy attention toward short-term crisis management. Fossil-fuel dependence therefore undermines not only Europe’s energy system, but also its transition pathway.

The answer is therefore not to slow the transition, but to accelerate and broaden it. A rapid transition to solar and wind alone is, of course, unrealistic, given their intermittency and the scale of

investment required. Therefore, the transition must become broader in scope. The EU is already giving greater prominence to other net-zero technologies linked to security of supply and industrial resilience, including nuclear and small modular reactors. However, the expansion of domestic low-carbon capacity remains slowed by permitting bottlenecks, grid constraints, and insufficient investment in system flexibility. Moreover, as Figure 2 illustrates, it is largely uneven across the EU, which, *per se*, may undermine collective action and negatively affect EU energy security (Le Coq and Paltseva, 2022). Further, progress on reducing supply chain dependencies has been limited. The EU continues to rely heavily on imports for critical raw materials, clean-tech components, and key segments of manufacturing value chains, exposing the transition to new geopolitical risks. Reducing structural exposure to external shocks will require not only faster deployment but a more coordinated industrial strategy.

Figure 2. Battery, electric vehicle and solar manufacturing investments by status since 2019



Source: Bruegel Clean Tech Tracker, <https://european-clean-tech-tracker.bruegel.org/investments/destination?sinceYear=2019>.



Lasting resilience will not come from shifting between external dependencies, but from reducing them. Expanding domestic low-carbon capacity simultaneously lowers emissions and limits exposure to external shocks. Cutting fossil-fuel demand is therefore not only a climate objective, but the most durable form of energy security.

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Her research interests include Political Economics, Industrial Organization, and Energy and Resource Economics.

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