

Improving economic policy



ENERGY OUTLOOK

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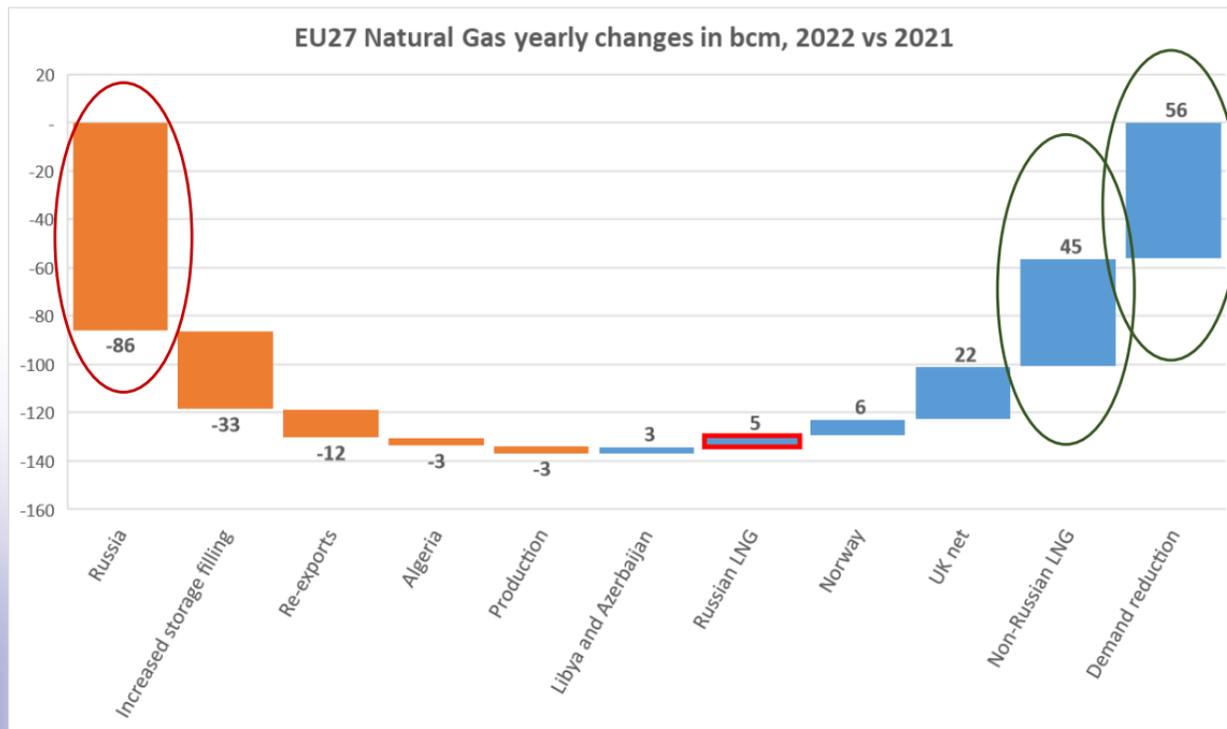
What were the major energy changes in Europe in the past year, what lies ahead?



- Natural gas
- Electricity
- Net Zero Industry Act

Natural Gas

How did we survive the Russian shock?

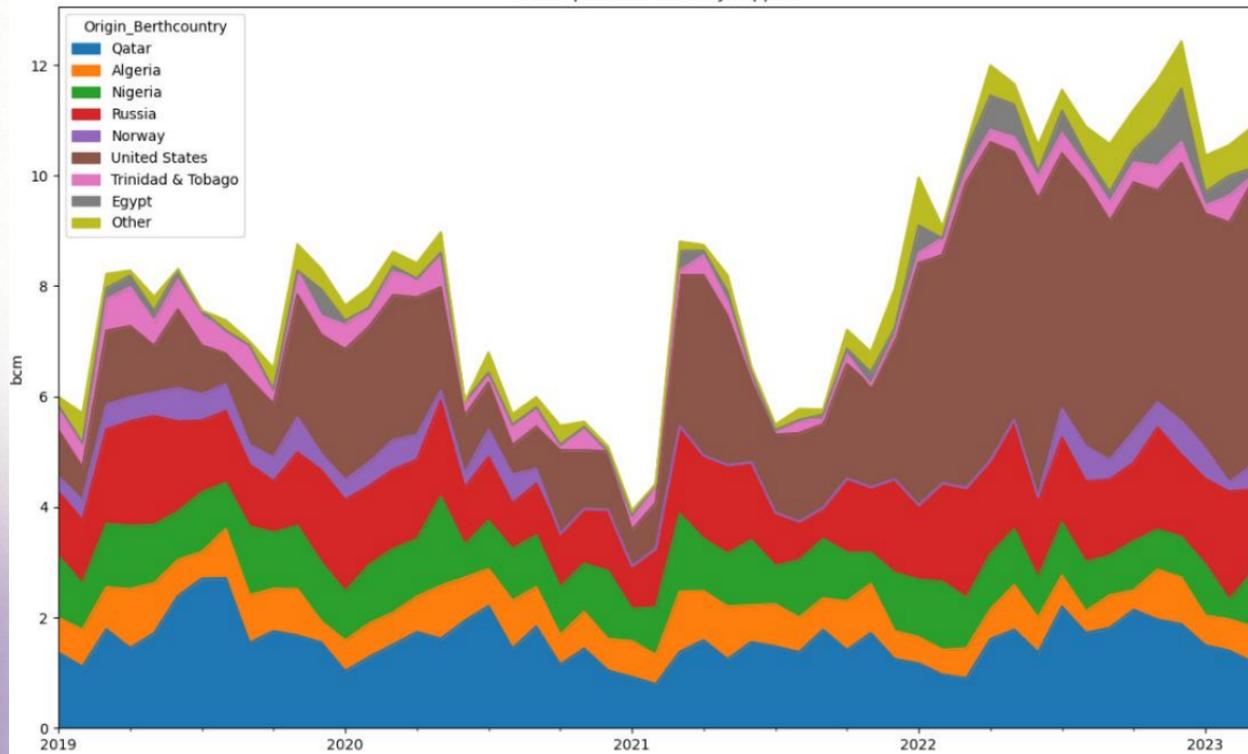


- The EU survived the cut of Russian flows through
- LNG (mostly from the US)
- Demand reduction

LNG



LNG imports in the EU by supplier

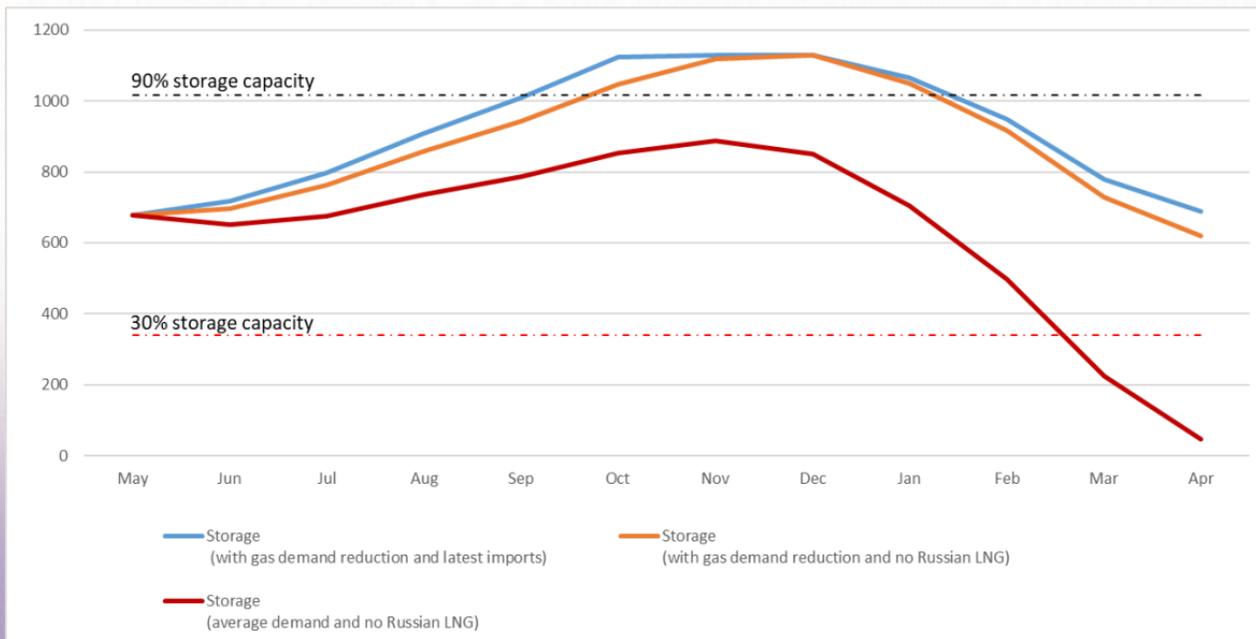


In the first year after the invasion of Ukraine, the EU imported 12 billion EUR worth of Russian LNG. Estimates suggest that unless there is decisive change from the current situation, the EU will send another 9 billion EUR to Russia in the second year

Can the EU manage without Russian LNG?



EU 25 Gas storage evolution with and without Russian LNG



- The EU would survive an outright ban on Russian LNG also throughout winter 2023/2024
- Demand reduction remains fundamental
- The ban would be challenging – but not insurmountable – for the Iberian peninsula

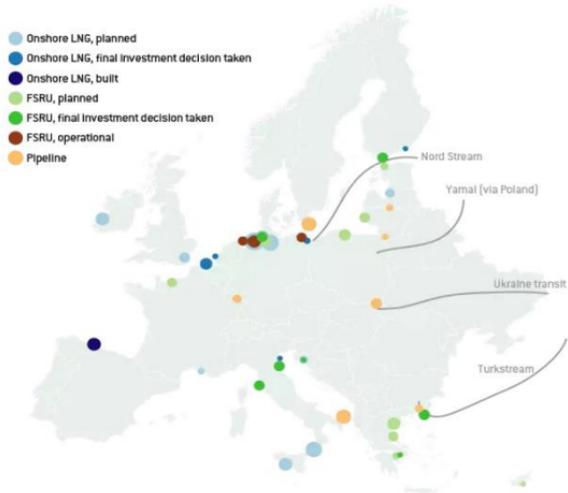
Gas import strategy is risky

Some onshore terminals might not be needed

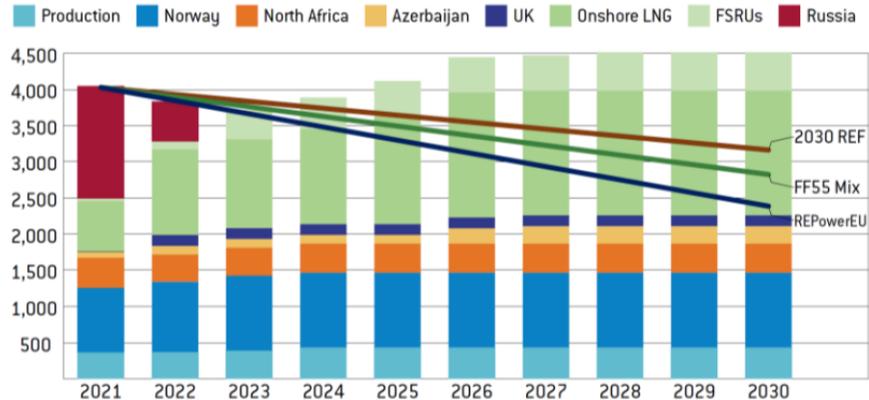


- Current approach is to “last out” until the tankers arrive, but gas will be more expensive
- Intermediary product or final product trade? - And we risk killing the global climate agenda

Figure 3: New gas infrastructure, September 2021 to October 2022



Source: Bruegel. Note: FID = final investment decision.

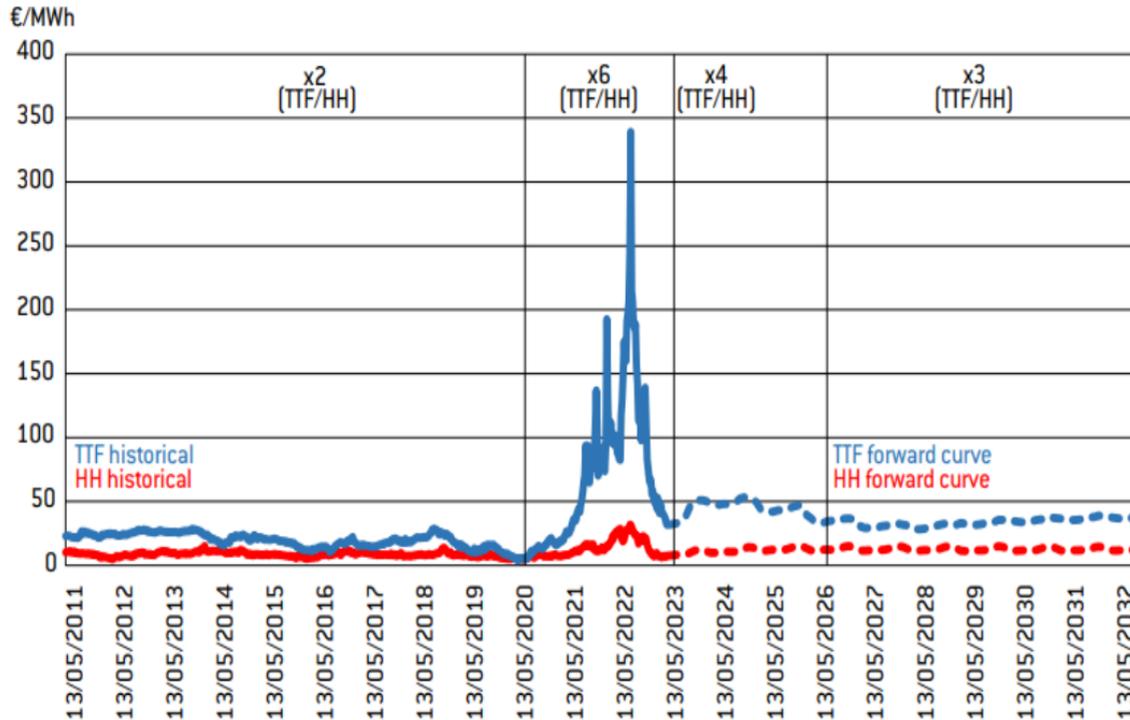


Source: Bruegel's *A grand bargain to steer through the European Union's energy crisis*

Source: Bruegel's *National energy policy responses to the energy crisis*

Natural gas prices

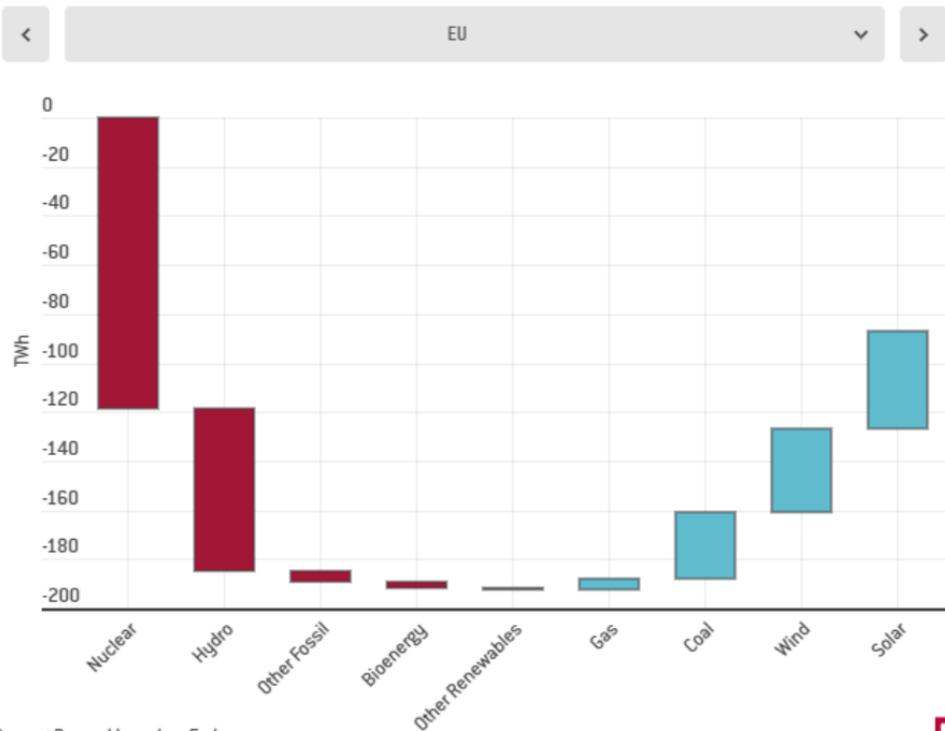
The historic competitive disadvantage got worse, by much



- In the past 18 months natural gas (and electricity) became much more expensive in Europe
- Markets expect EU gas prices to stay at 3 to 4 times US gas prices

The electricity mix changed

EU 's change in electricity mix, 2022 vs 2021, TWh



Source: Bruegel based on Ember

- Half of the French nuclear fleet was down for maintenance
- Droughts lowered hydropower in Italy, Spain and France
- Coal, wind and solar helped

The deployment of renewables and clean technologies speeded-up



The IEA forecast for res growth in the EU has been revised upward significantly (by 30%) from last year's report, led by Germany (50% higher) and Spain (60% higher).

EU-27 Imports of Solar PV Panels from China



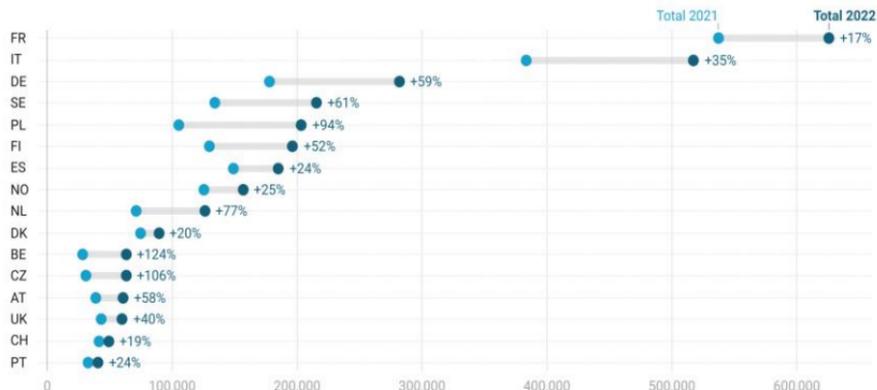
Source: Eurostat (DS-018995)

In June 2022 China made 90% of all EU PV panels imports from abroad



European heat pump markets 2021 and 2022

Change of total sales of heat pumps (heating and sanitary hot water) by size of market.



Source: stats.ehpa.org • Created with Datawrapper

North Sea Summit: blowing in the wind?



North Sea Summit on 24 April, in Ostend

→ aim to collectively reach 120 GW of offshore wind capacity by 2030 and 300 GW by 2050

→ vs the current 15 GW of installed offshore wind capacity



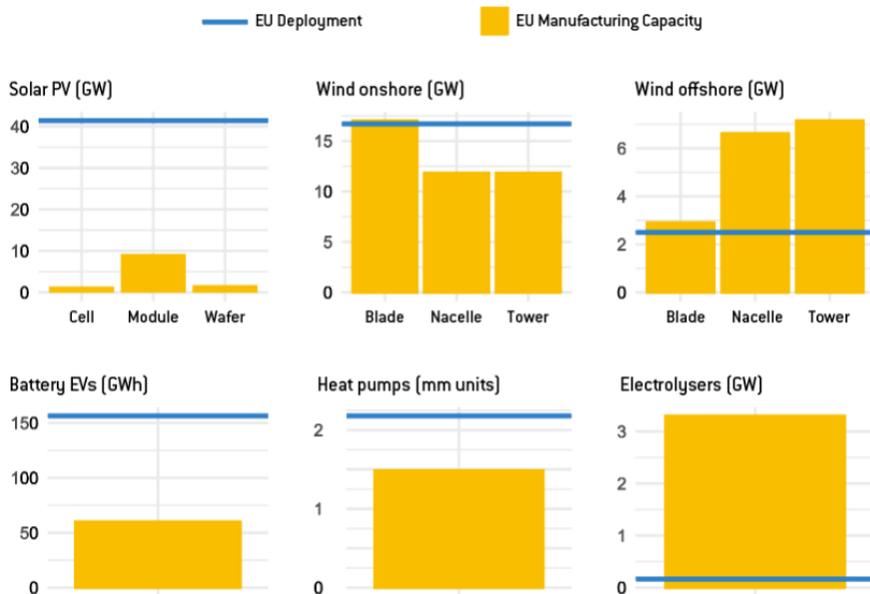
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Issues:

- permitting periods
- high inflation in input costs
- soaring interest rates
- underdeveloped electricity grid
- Vessels availability by 2025 → Foundation Installation Vessels (FIV), Wind Turbine Installation Vessels (WTIV) and Cable Laying Vessels (CLV)

The Net Zero Industry Act

Figure 2: Europe cleantech manufacturing capacities and domestic deployment levels in selected technologies, 2021-2022

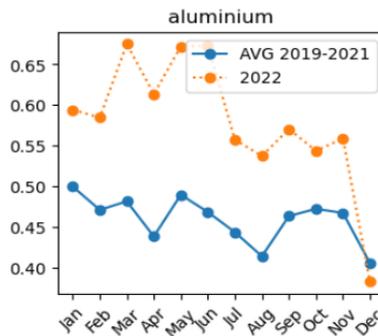
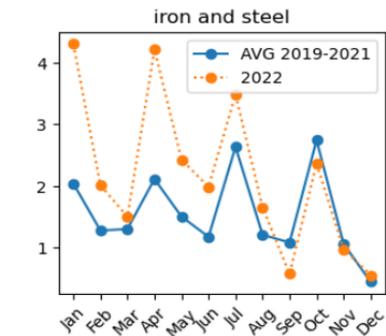
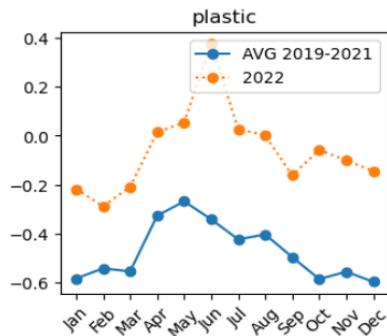
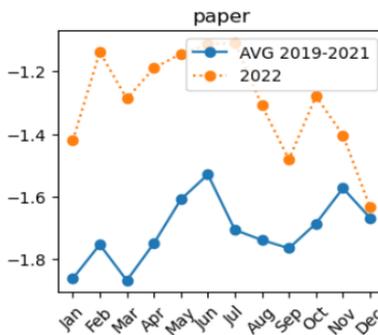
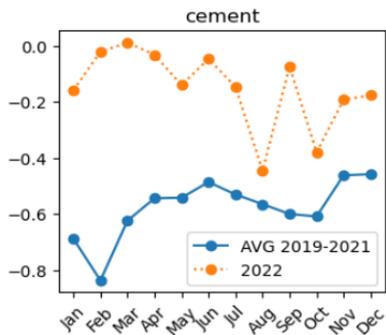
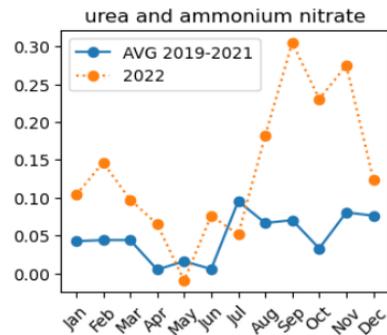


Source: Bruegel. Notes: Import/Export capacities are not illustrated. For an overview of the methodology, please refer to Table 1 in the Annex.

- Adopting a one-size-fits-all 40% target gives a sense of direction to companies, but
- may be very difficult to achieve in the solar industry
- too conservative for batteries.

Implied imports of energy

EU Net imports in mm tons



1) Net-imports drastically increased for all the selected energy-intensive products.

2) Even if net imports increased, the EU is still a net exporter of cement, paper and (in the last months of 2022) plastic.

3) The net imports of urea and ammonium nitrate (used in agriculture as fertilisers) skyrocketed in summer 2022 (we estimated that this reduced EU gas demand by about 3 bcm – or 12% of the whole chemical sector natural gas demand).

Thank you!

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