



Energy production

How to reduce Europe's dependency ?

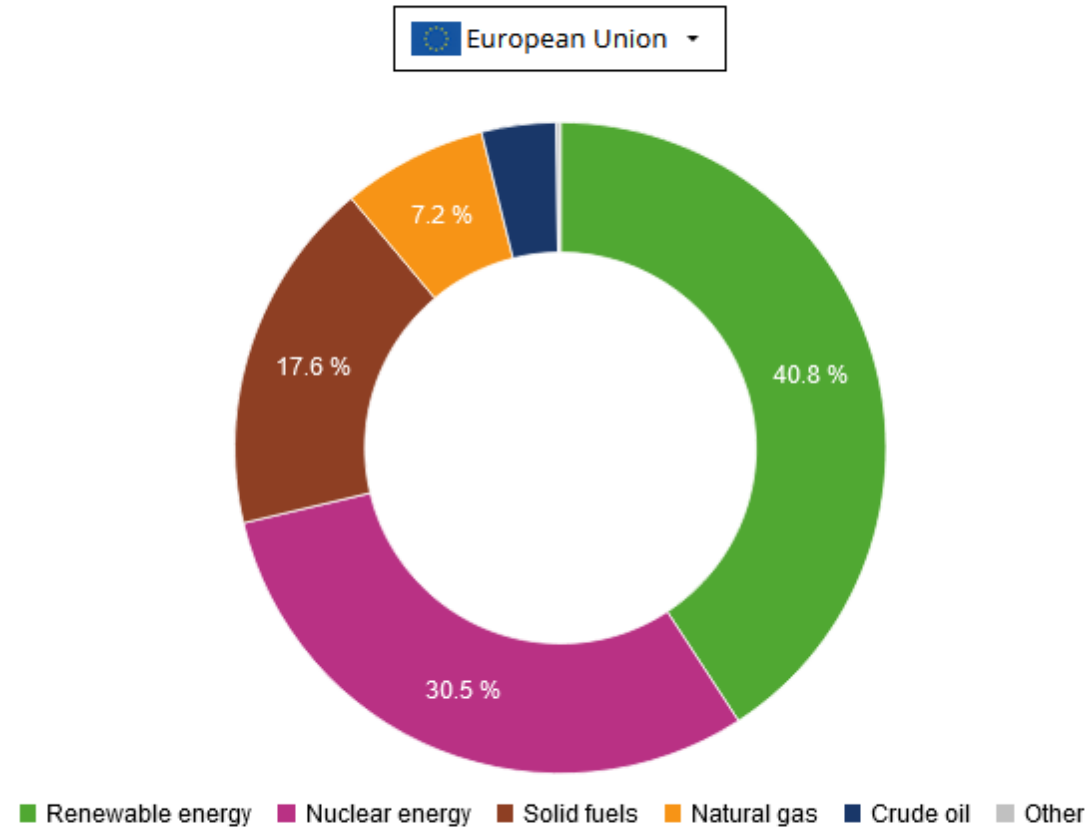
French-German Energy Forum – 24.11.22

Outline

- 1. Where we stand** : the energy price crisis unveils EU energy vulnerability
- 2. Solutions to strengthen our energy independence** : phasing-out fossil fuels with renewables, efficiency and sufficiency deployment

Oil and gas : a small share (11%) of our domestic energy production mix

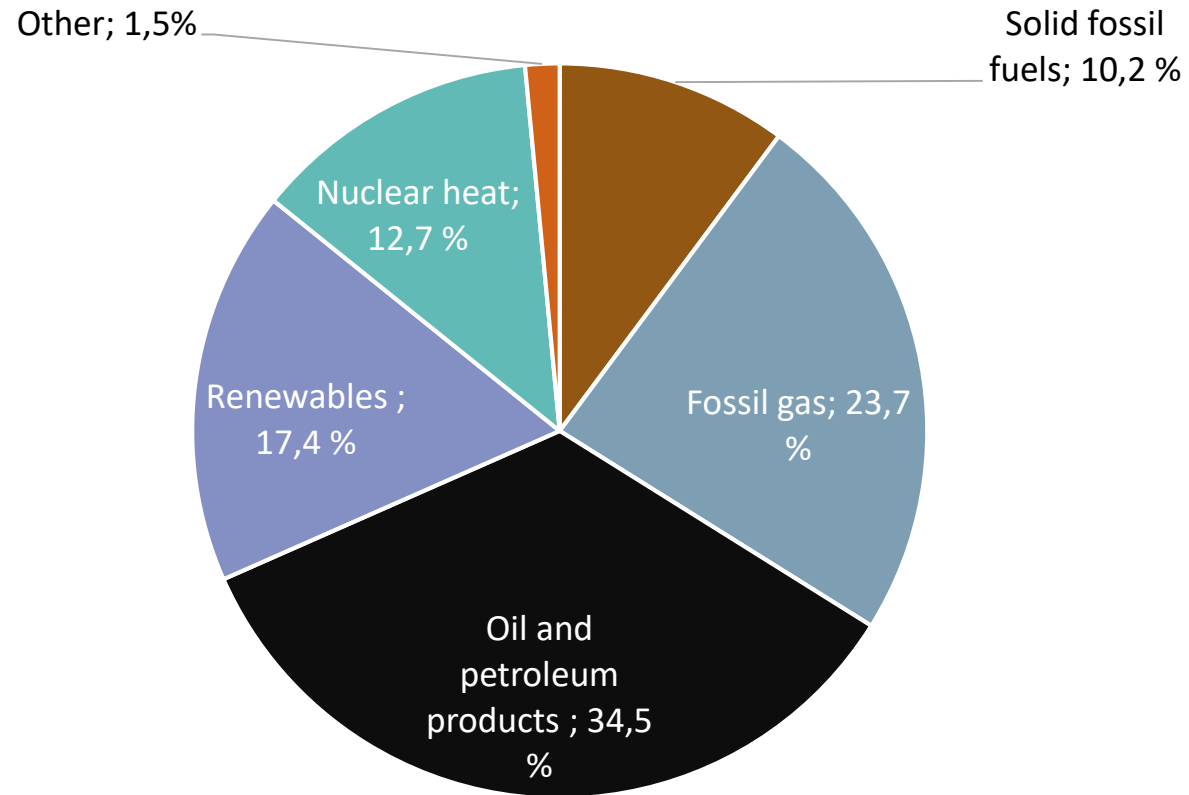
Primary energy production by source, 2020
(in %)



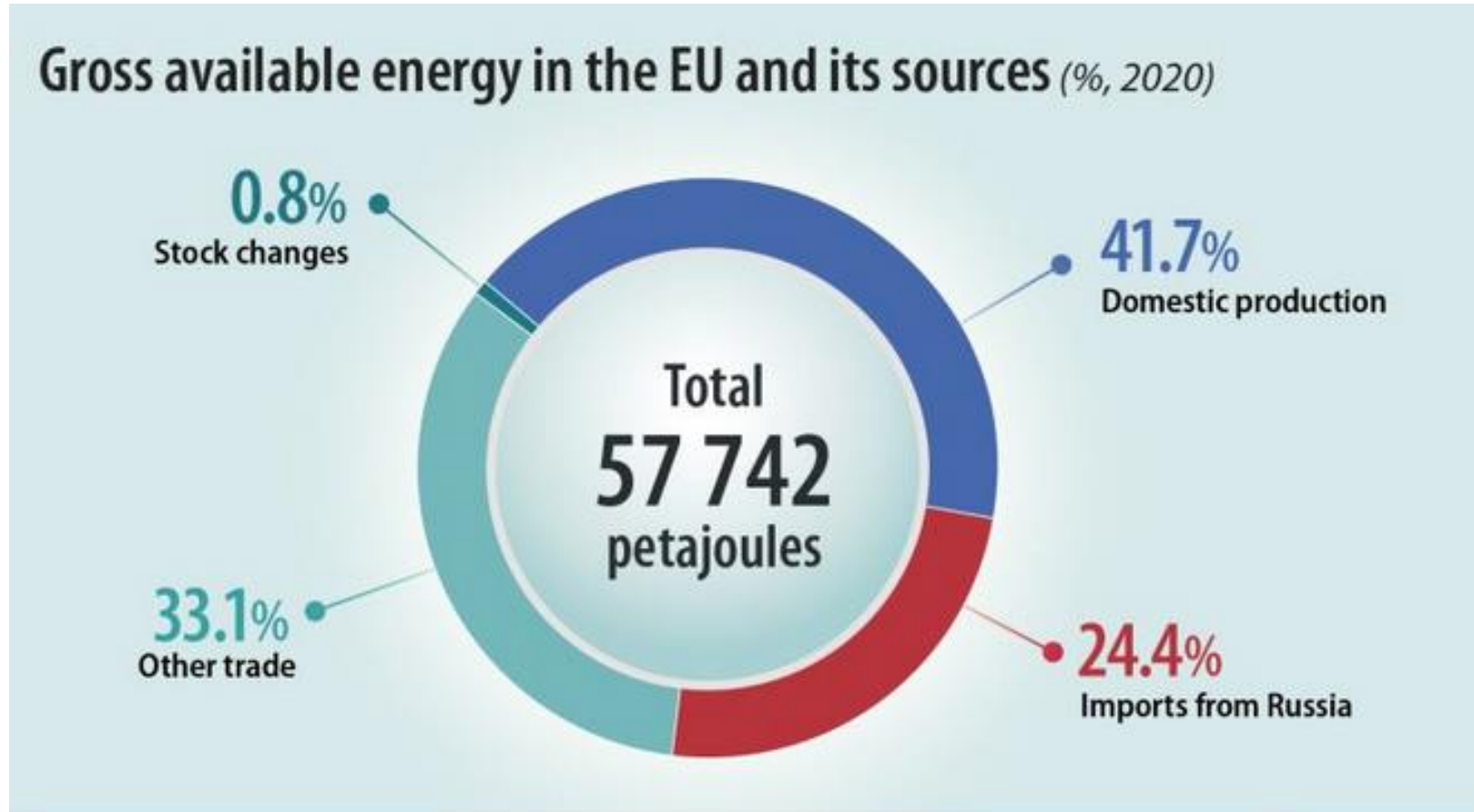
Source: Eurostat - [access to dataset](#)

... but 60% of our energy mix

EU27 energy mix in 2020

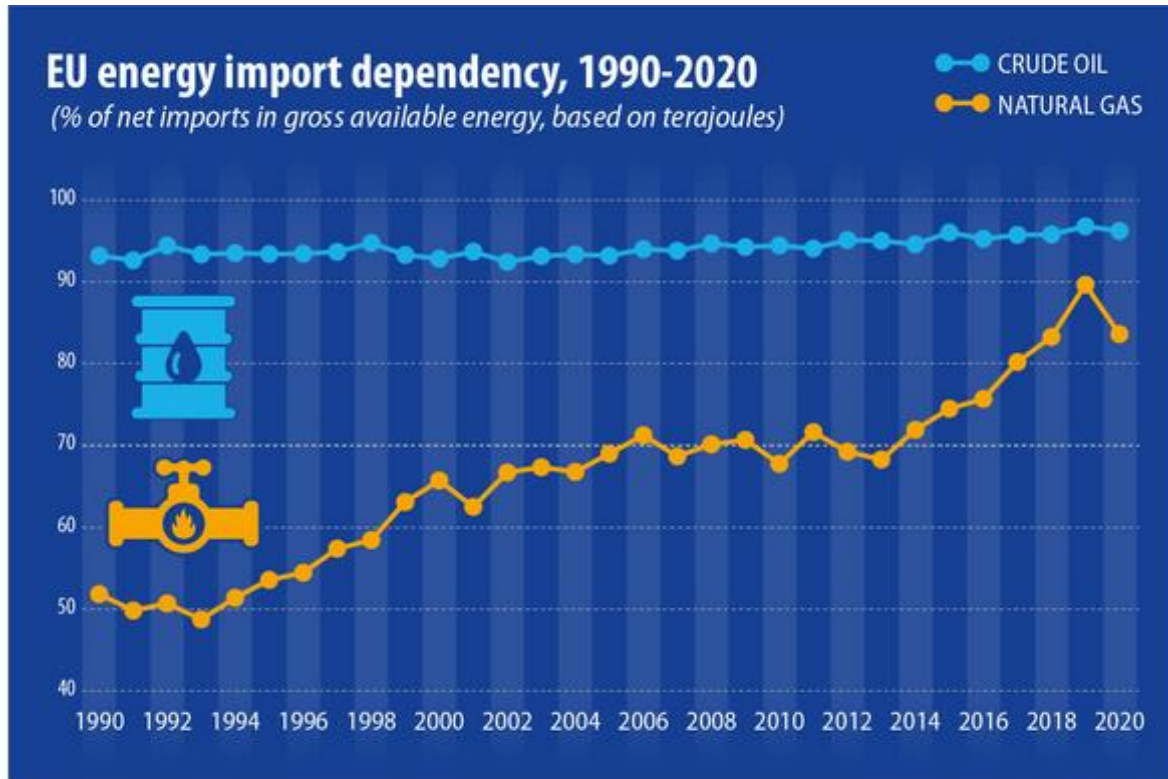


The EU imports close to 60% of its energy supply



ec.europa.eu/eurostat

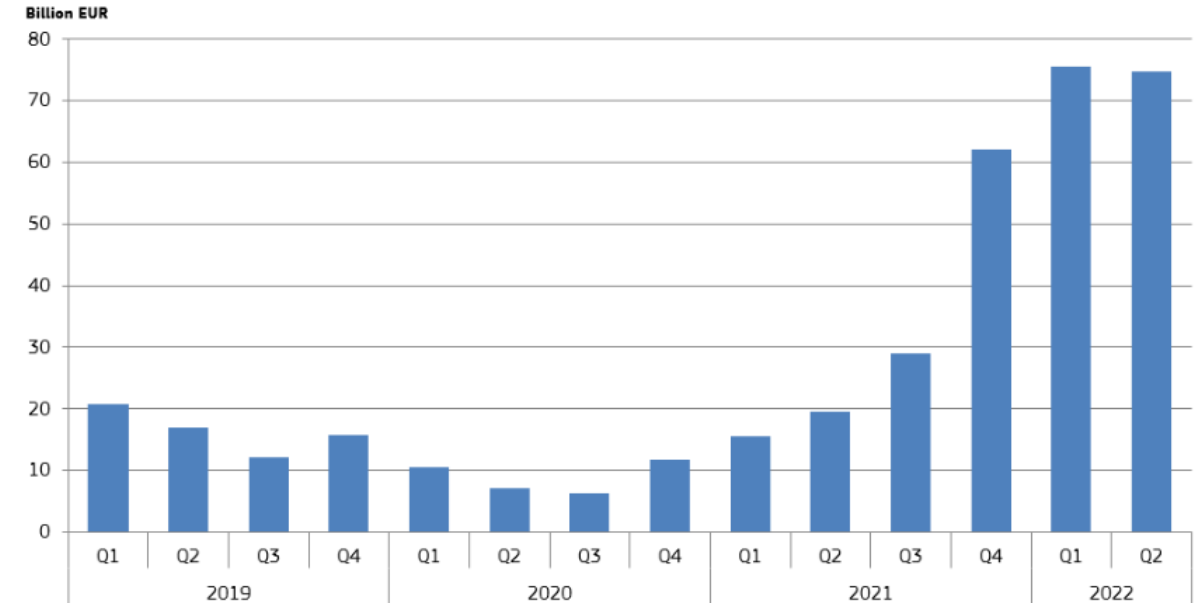
A costly oil and gas demand dependency



#EUIndustryDays

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Figure 11 – Estimated quarterly extra-EU gas import bill, in billions of euros

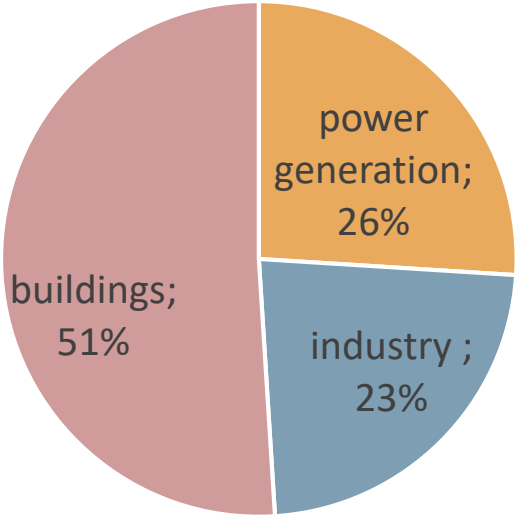


Source: ENTSO-G, Eurostat and own data calculations for the EU weighted average of import gas prices

Export dependency = exposure of our economy and key sectors to high fluctuations in fossil fuels traded in global markets.

High gas prices led to demand reduction accross sectors

Gas consumption by sector in the EU



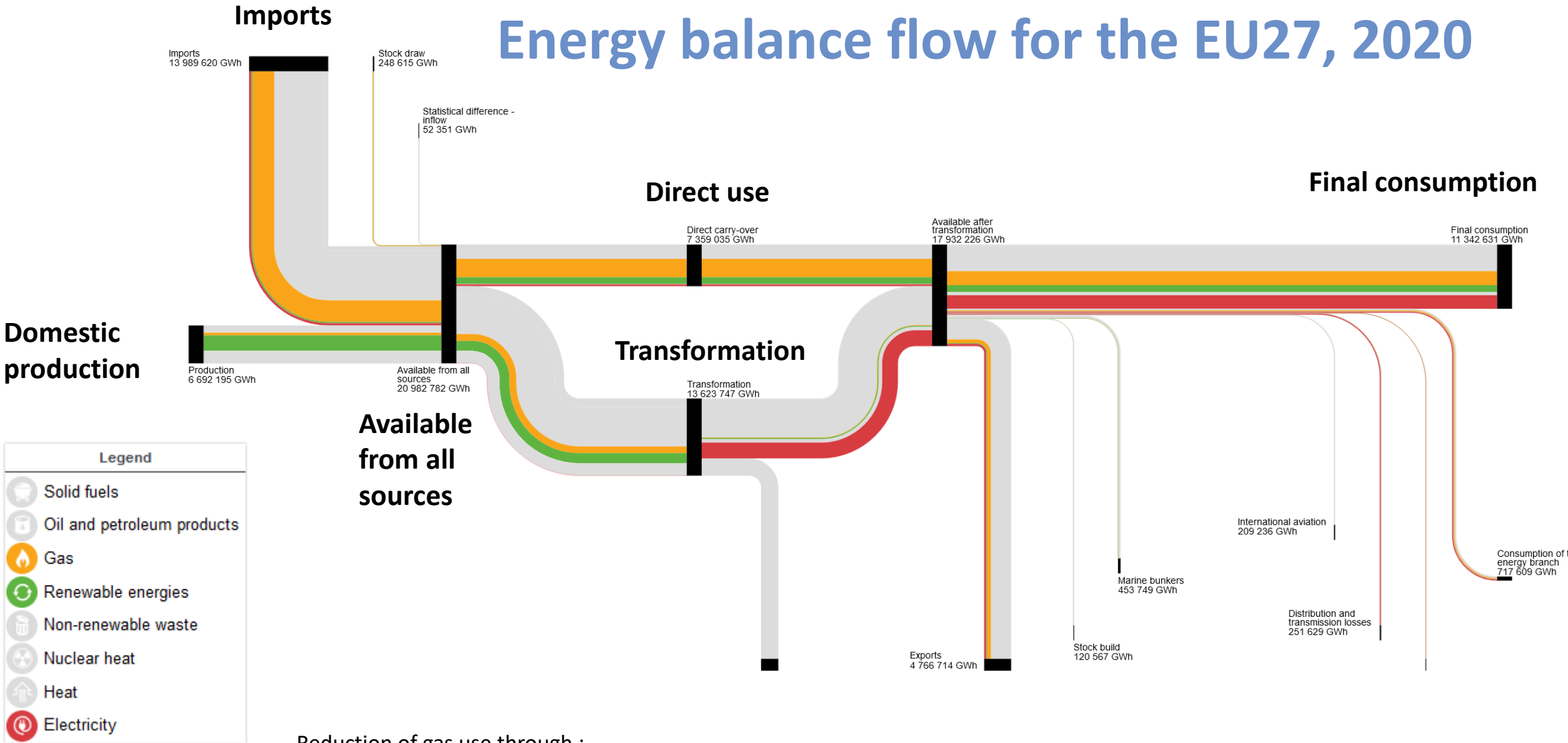
Source : EC 2021

Figure 2: Sectoral demand reductions year-to-date (YTD) and October 2022 compared to average 2019-21



Source : [Bruegel 2022](#)

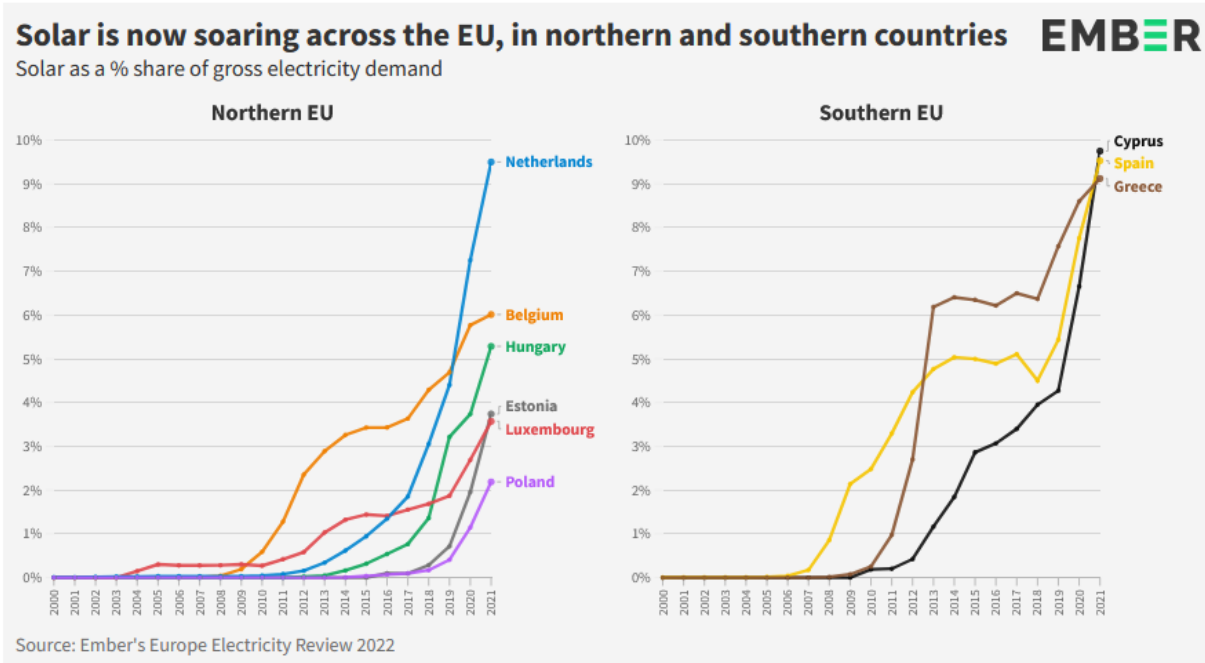
Energy balance flow for the EU27, 2020



Reduction of gas use through :

- **greener and more local supply** : increased renewable deployment and electrification
- **lower demand** : efficiency and sufficiency will be critical levers towards a 100% renewable system

Green and local : accelerate renewable deployment to phase-out fossil gas



Source : [EMBER 2022](#)

NEWS

Europe to rollout nearly 40GW of solar PV by end of 2022 in record year for deployment

By [Sean Rai-Roche](#)

July 21, 2022

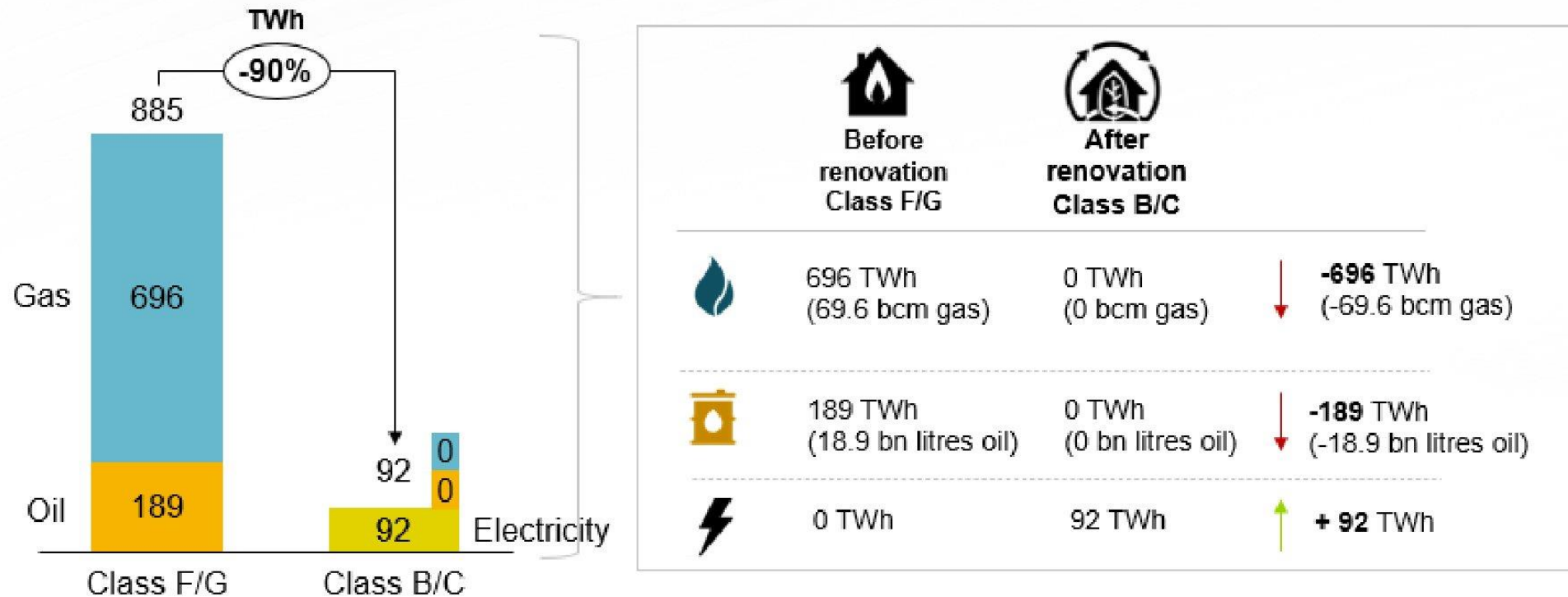
[Modules](#), [Policy](#), [Projects](#)

[Europe](#)

=> vs. 27 GW in 2021. Source : [PV Tech](#)

- The share of renewables in the electricity mix is expected to grow from 37% in 2021 to 69% in 2030 ([State of the Energy Union 2022](#)).
- Possible bottlenecks : network and raw materials.

Energy savings in oil and gas consumption by 2030 after renovation of the F and G classes buildings to B/C level (in TWh)



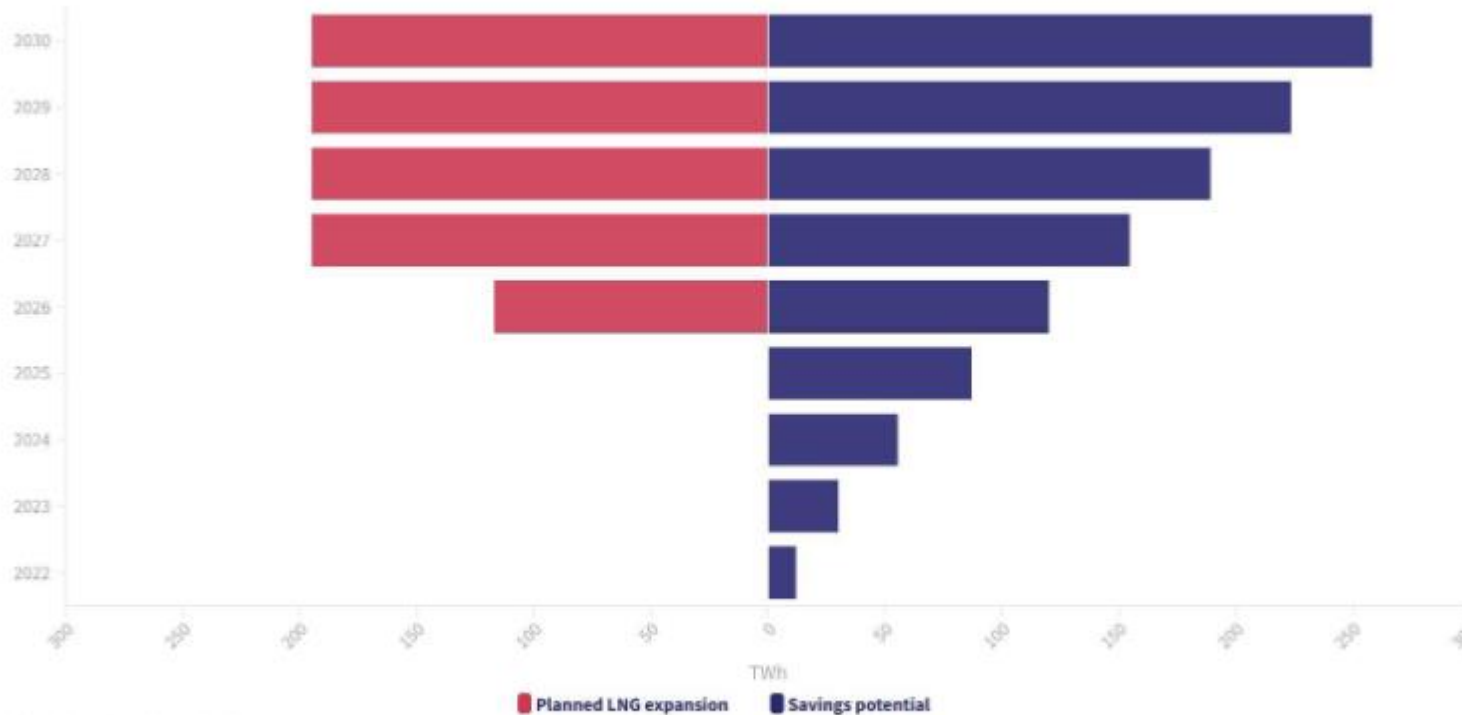
Sources: Guidehouse 2022 (own calculations)

Deep renovation of F and G class buildings to B/C class in the EU by 2030 could save 71bcm (45% of pre-war gas imports from Russia).

Source : [Guidehouse 2022](#)

Savings potential in buildings exceed planned LNG expansion in Germany

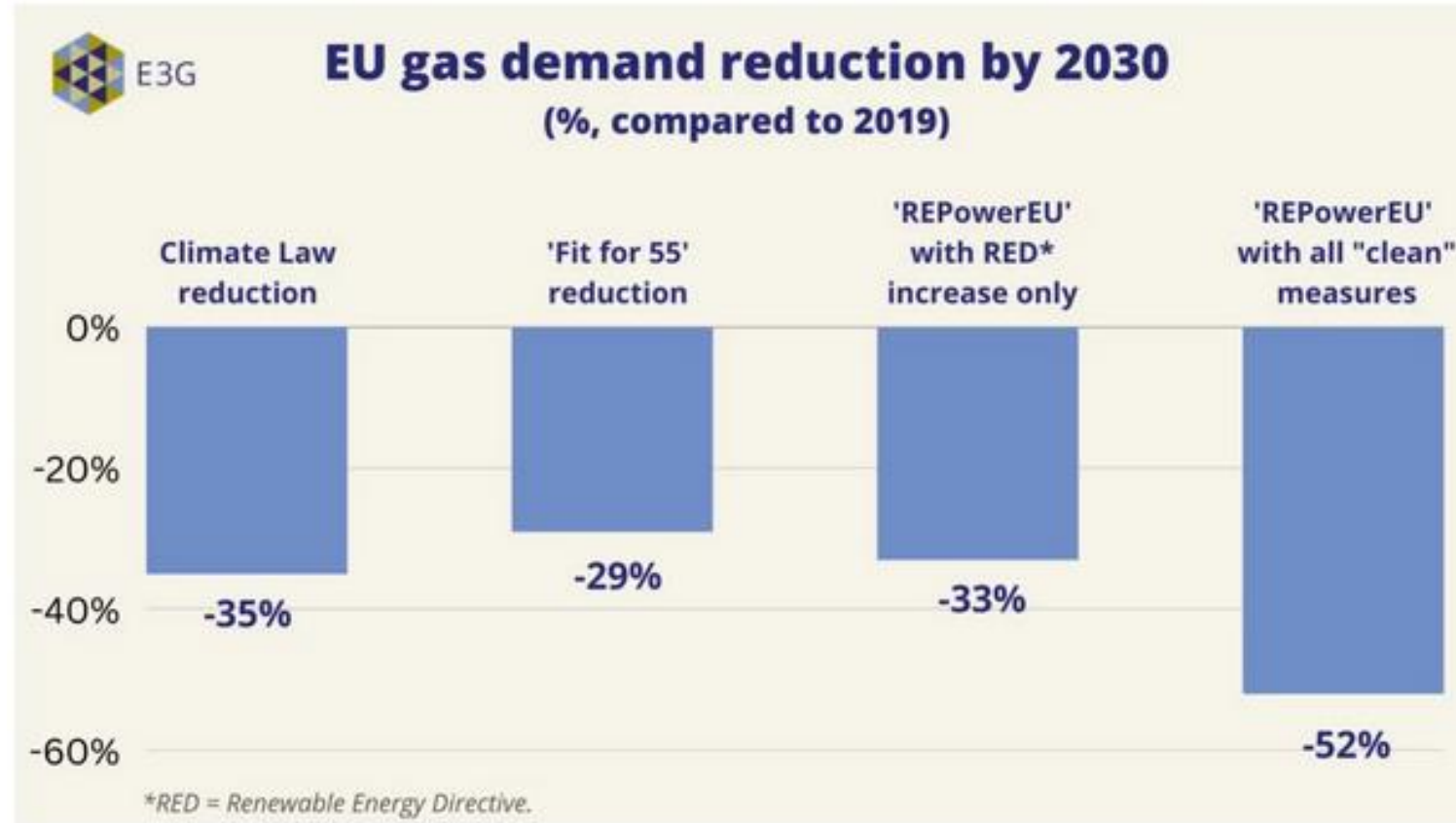
Savings potential in German buildings and planned LNG import* capacity per year



*land-based LNG terminals

Read: Until 2026 the yearly fossil gas consumption in the German buildings sector can be reduced by 120 TWh. These savings are more than what is planned as LNG import capacity that would be ready by 2026.

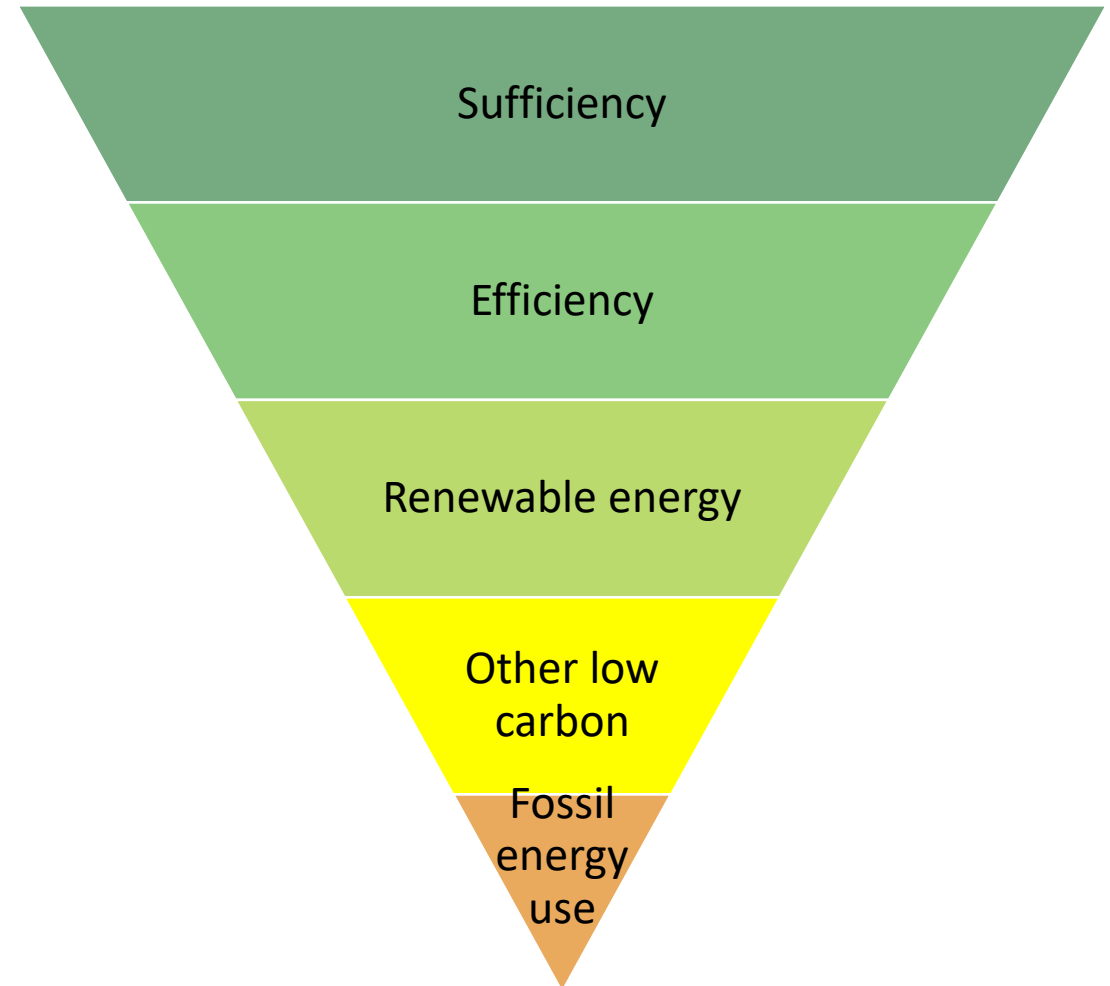
An EU Green Deal for reduced energy dependence



Source : [E3G 2022](#)

What should policy-makers do ?

- **Mainstream sufficiency** at national and local levels (Setsuden example), support new social norms and enabling infrastructures
- Apply the **energy efficiency first principle**
- **Lift regulatory barriers and create market certainty** with ambitious regulations : adopt an ambitious Fit for 55 package (RED, EED, EPBD)
- **Fill the financing gap** with appropriate green financing (renovation loan, R&D, subsidies for industry decarbonisation)
- **Favor a just transition :**
 - SCF could support renewable deployment in buildings as well as deep renovations for the most vulnerables
 - Support citizen renewable energy projects



Thank you

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