

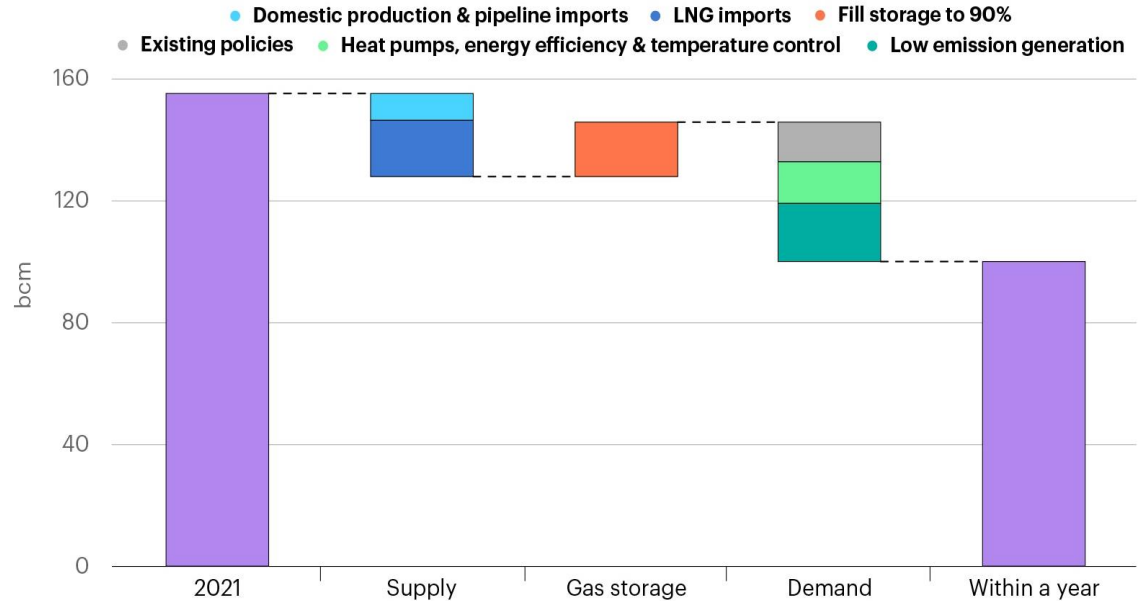
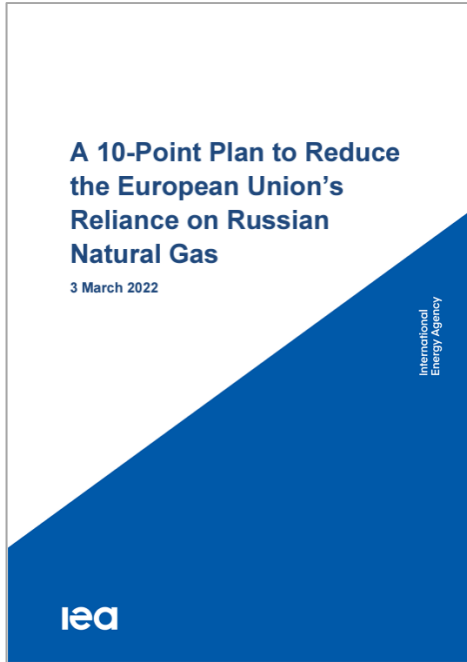


Decoupling from Russian gas - a starting point for an accelerated shift to heating based on renewable energy?

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OECD Berlin on Zoom 07.06.2022

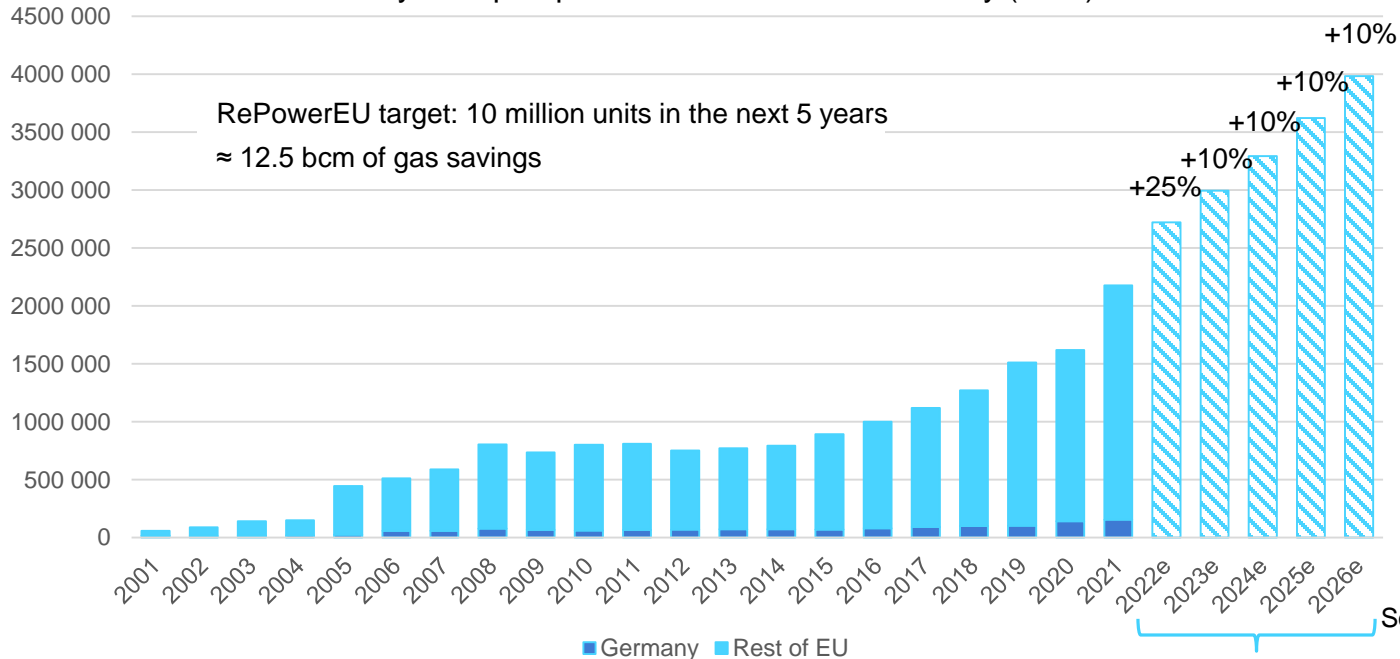
The IEA 10-Point Plan to Reduce the EU's Reliance on Russian Gas



Doubling the 2020 EU heat pump installation rates would save additional 2 bcm of gas in the first year

Heat pump market is growing

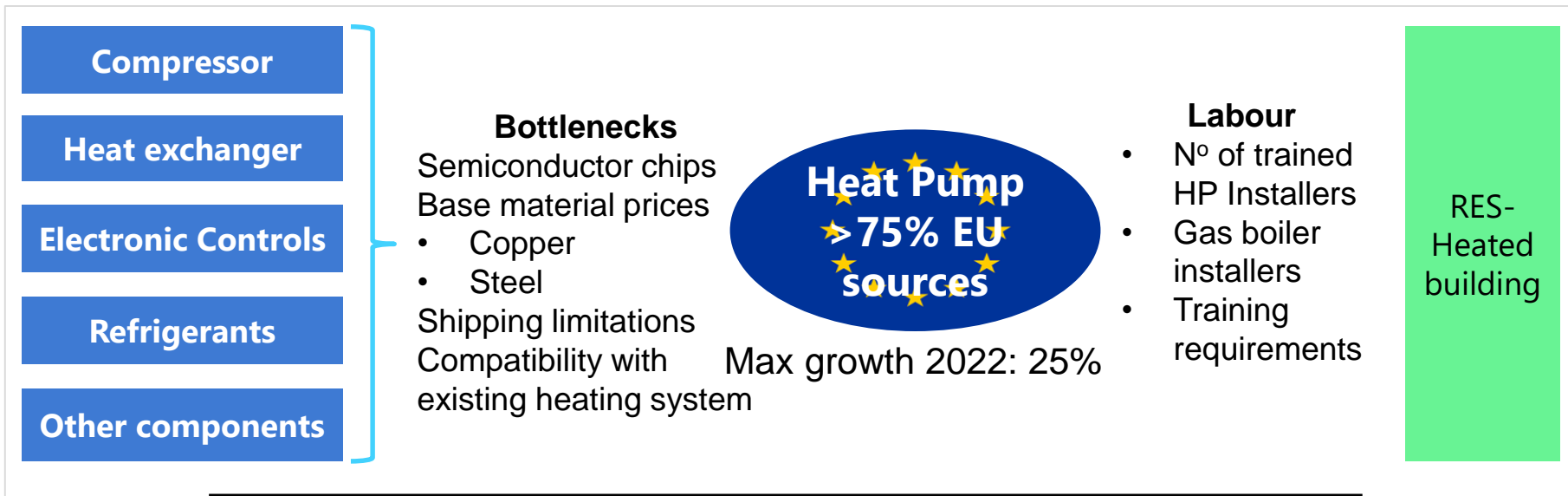
Yearly heat pump sales in the EU and Germany (units)



Source: ehpa, bwp

16 million units
≈ 20 bcm of gas savings

Heat pump sales have risen steadily over the last decade and accelerated more in the last years. Germany accounting for about 9% of EU market. With new policies, increase expected



Imports

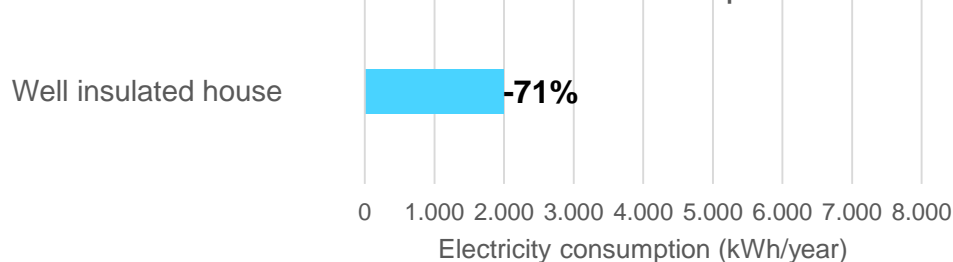


Joint Statement of the White House and the EU Commission (25.03.2022)

Energy Security Task Force to collaborate on Clean Energy Technologies incl. Heat Pumps.

- Market leader in AC reverse cycle heat pumps
- Production expansion for heat pumps exports possible
- Current expected growth to 2 Million annual units in 2026.

COP 2.5 Air-source Heat Pump



Source: Kingspan

Heat pumps in “leaky” buildings need to be oversized.

They increase strain on electricity infrastructure during peak heating periods. Less efficient in production, cost and maintenance.

Mineral wool

More regional supply chain

Fossil fuel derived

More international supply chain

Composites

Large material volume

International Trade limited

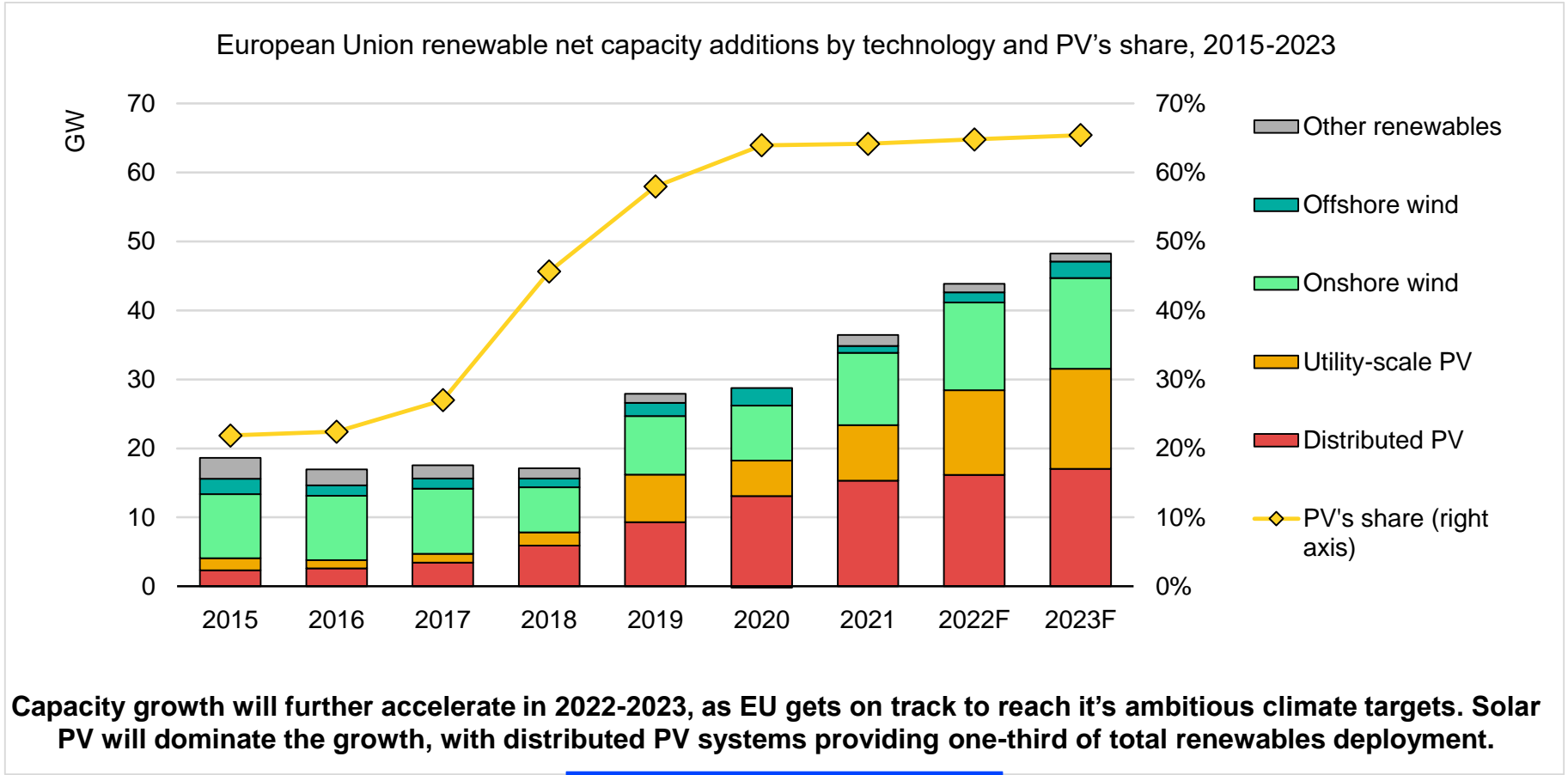
- + Few limitations from trade shortages
- Limited supply increase through imports

Risks

One large Russian producer
Polish plant supplies Europe
Value chain parts in Russia and Ukraine

And labour shortages!

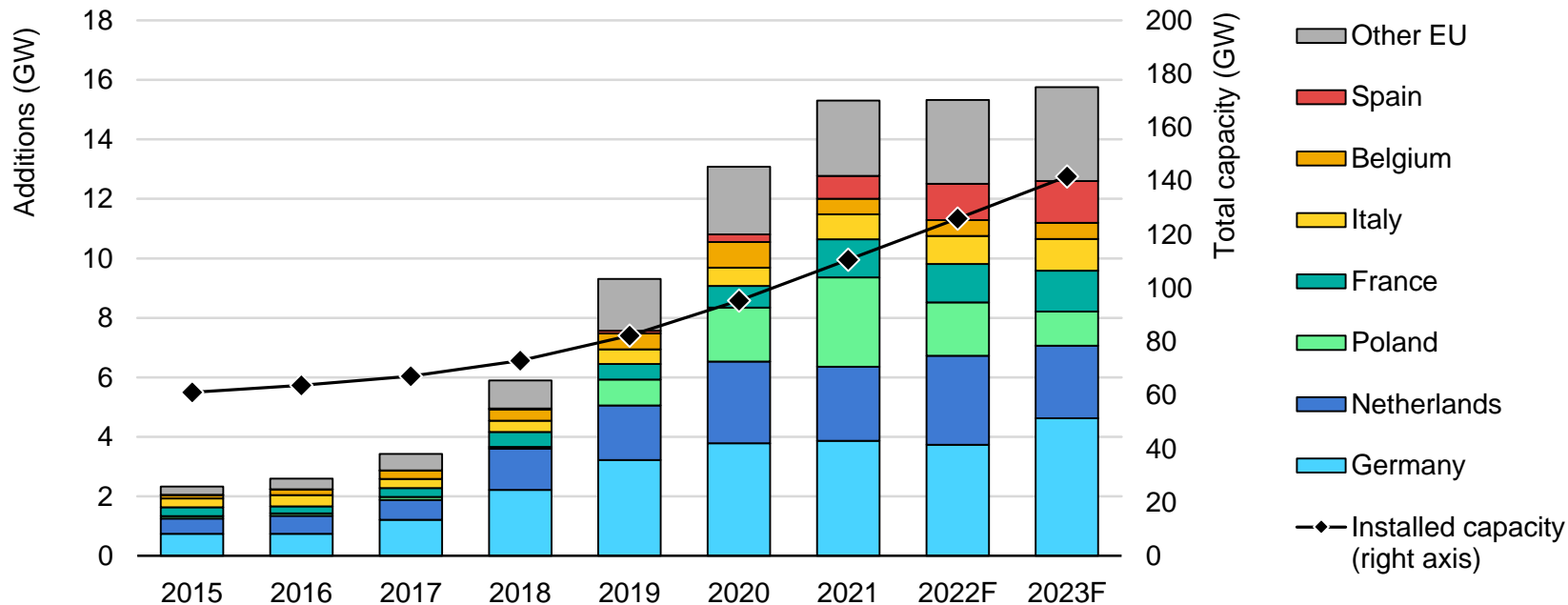
EU renewables reached record capacity additions in 2021



Capacity growth will further accelerate in 2022-2023, as EU gets on track to reach its ambitious climate targets. Solar PV will dominate the growth, with distributed PV systems providing one-third of total renewables deployment.

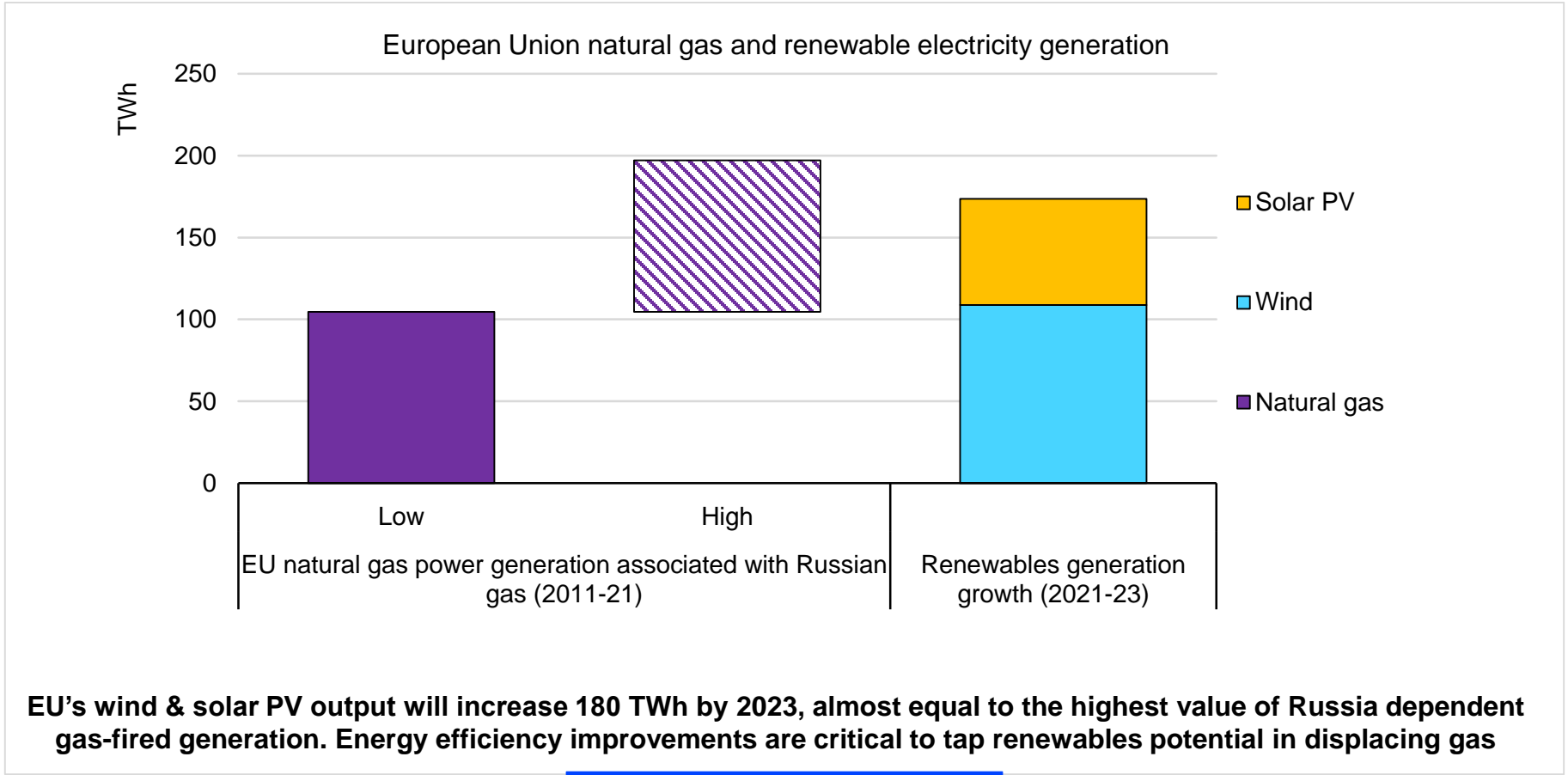
More policy support is needed to maintain distributed PV growth

European Union distributed PV net capacity additions by country, 2015-2023



EU added 15 GW of distributed PV in 2021, the highest since 2011 and surpassed 100 GW of installed capacity. However, deployment in 2022-2023 is expected to stagnate without increased policy support.

Wind & PV has the potential to reduce EU's dependence on Russian gas



- Electrification of heat has great potential for substitution of fossil fuels in domestic heat uses – recognized in recent REPowerEU plan
- Must be done in full coordination with building energy efficiency measures to avoid oversizing or integrating redundant technologies
- Policy can support market uptake by facilitating imports of high efficiency equipment and installer training
- Renewable electricity deployment strongly accelerating in Europe but increased policy support needed to sustain distributed PV beyond 2023
- Other direct renewable heat uses to be considered, in particular large-scale applications combined with district heating