

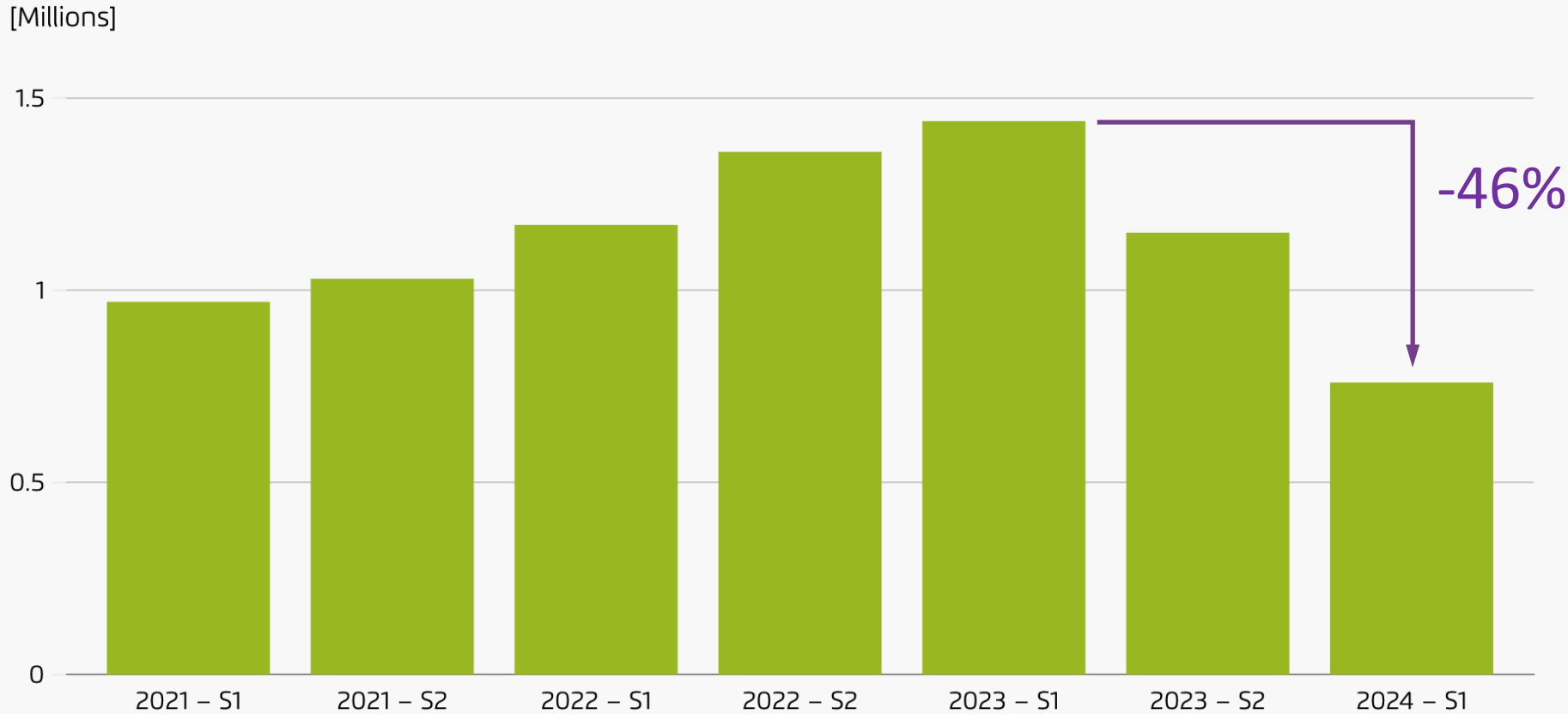
# Boosting the clean heat market

A policy for guiding the transition  
of the EU heating industry

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5 February 2025

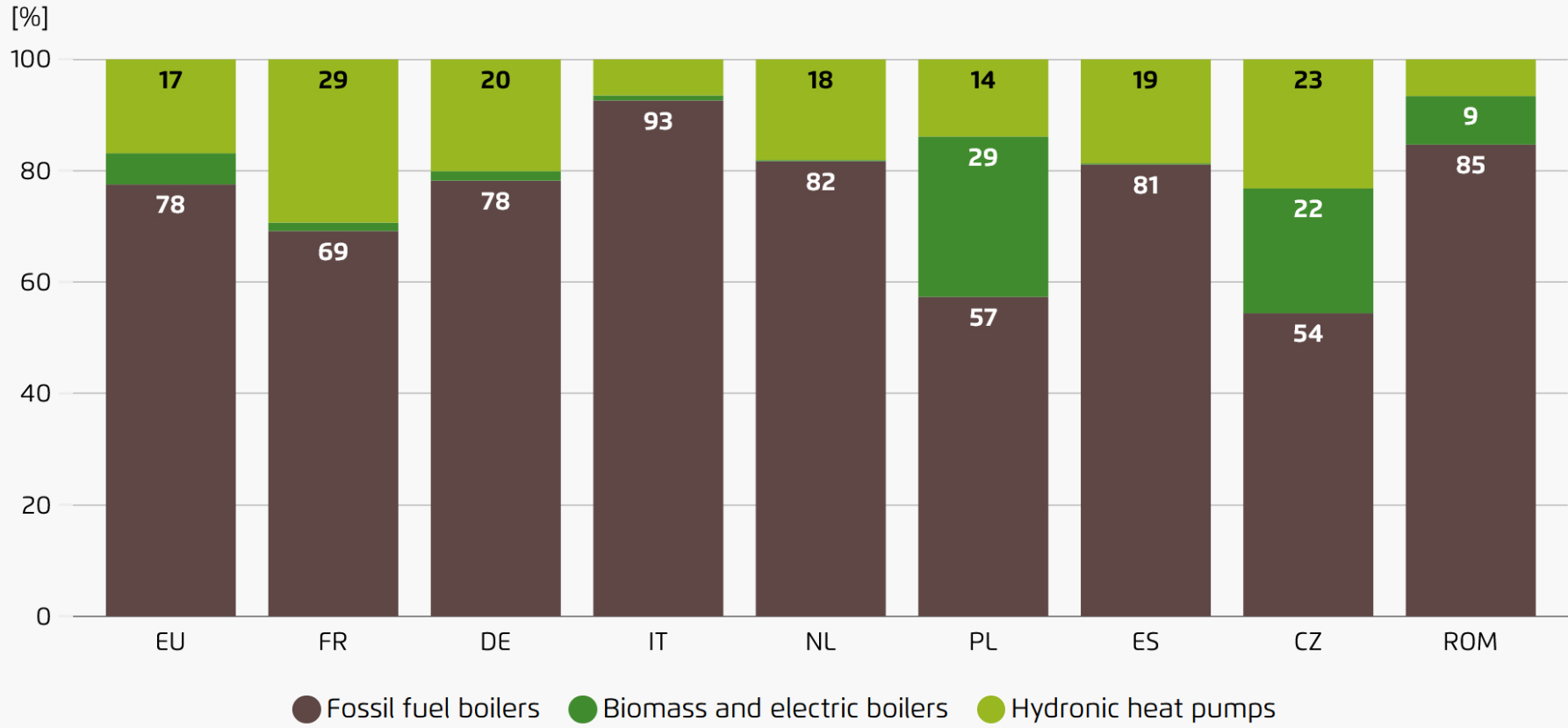
# After soaring heat pump deployment during the energy crisis, sales of clean heating appliances have returned to 2021 levels.

Heat pump deployment by semester for key European heating markets



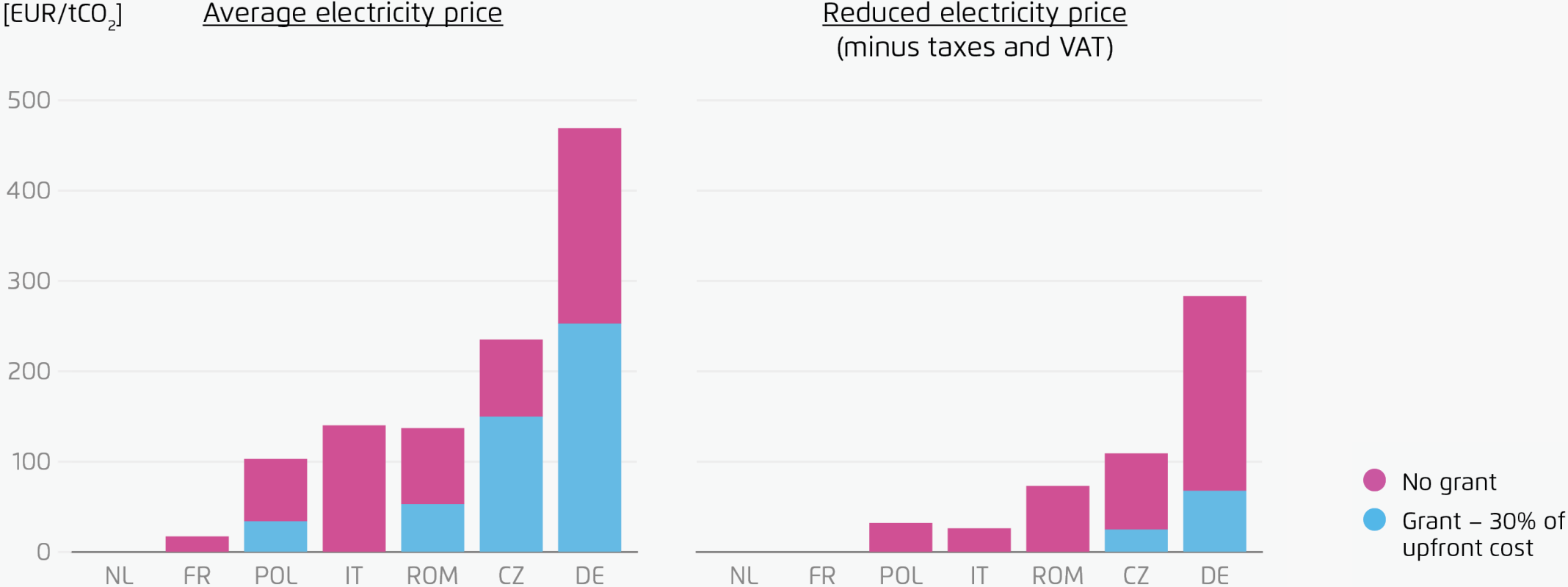
# Fossil fuel boilers continue to dominate the EU heating market.

Market share of heating appliance sales by technology in different member states








# Carbon pricing and existing demand-side policies are facing increasing political and fiscal constraints.

Additional carbon price needed for a heat pump investment to break even in ten years (December 2024)



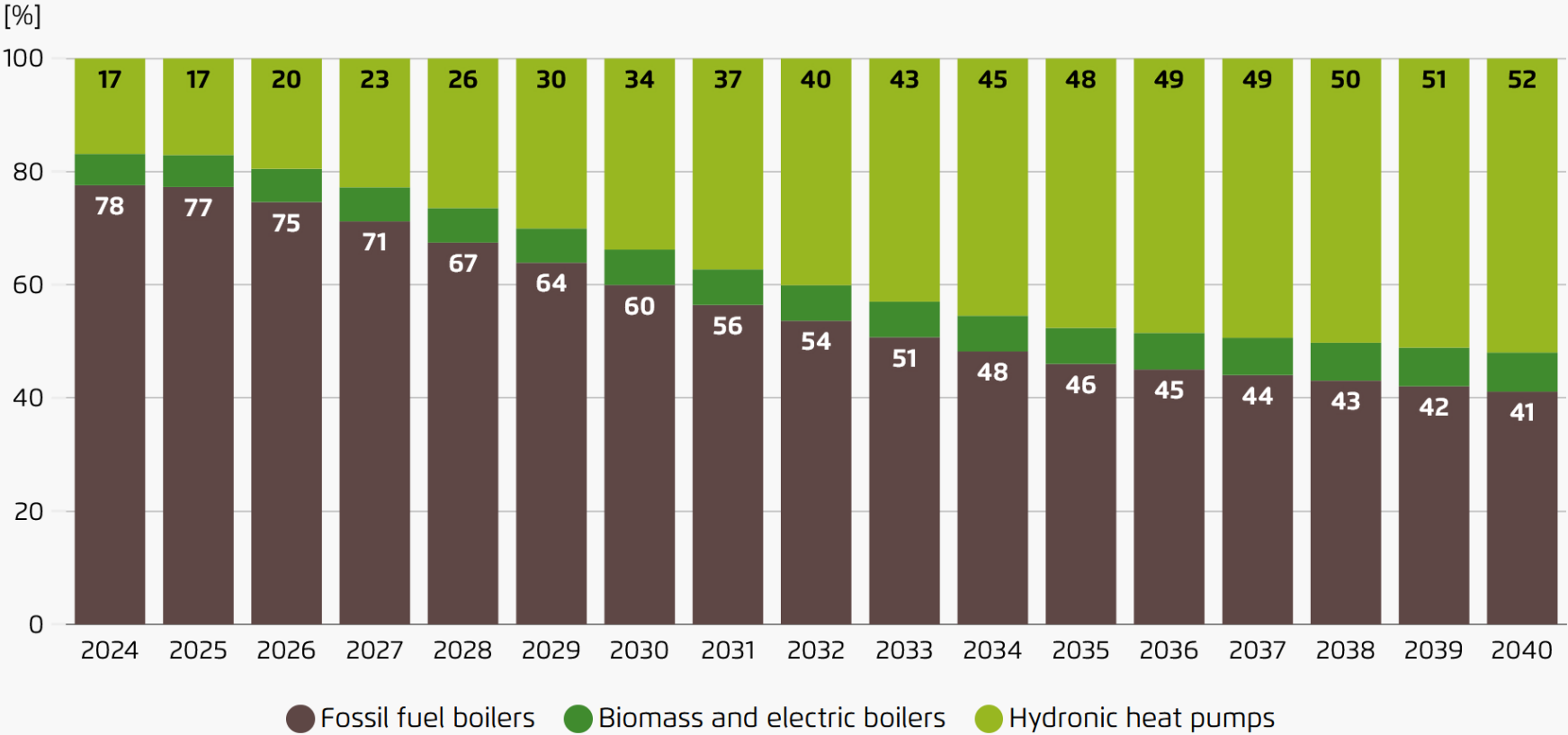
4 | Agora Energiewende (2025) based on LCP Delta (2025) and HEPI (2025). Note: The reduced electricity price is calculated as the average electricity price minus VAT and taxes, based on an assumed emissions factor of 0.2 kg/kWh for gas.

# Regulatory setbacks have significantly weakened the policy signal for the bulk of boiler sales in existing buildings.

	Initial proposal	Outcome
	Minimum efficiency requirements for central space heating appliances under Ecodesign to 115% from 2029 – <i>de facto ban on stand-alone fossil fuel boilers</i>	✗
	Minimum renewables requirement of 65% for all installations from 2024 onwards – <i>de facto ban on stand-alone fossil fuel boilers</i>	65% requirement for <i>new buildings</i> from 2024, for existing buildings from 2026/2028
	Ban on gas boiler installations from 2026	✗
	Hybrid heat pump requirement from 2026 – <i>de facto ban on stand-alone fossil fuel boilers</i>	✗
	Mandatory replacement of all fossil fuel boilers by 2040, ban on installations in new buildings	Ban on installations in <i>new buildings</i>

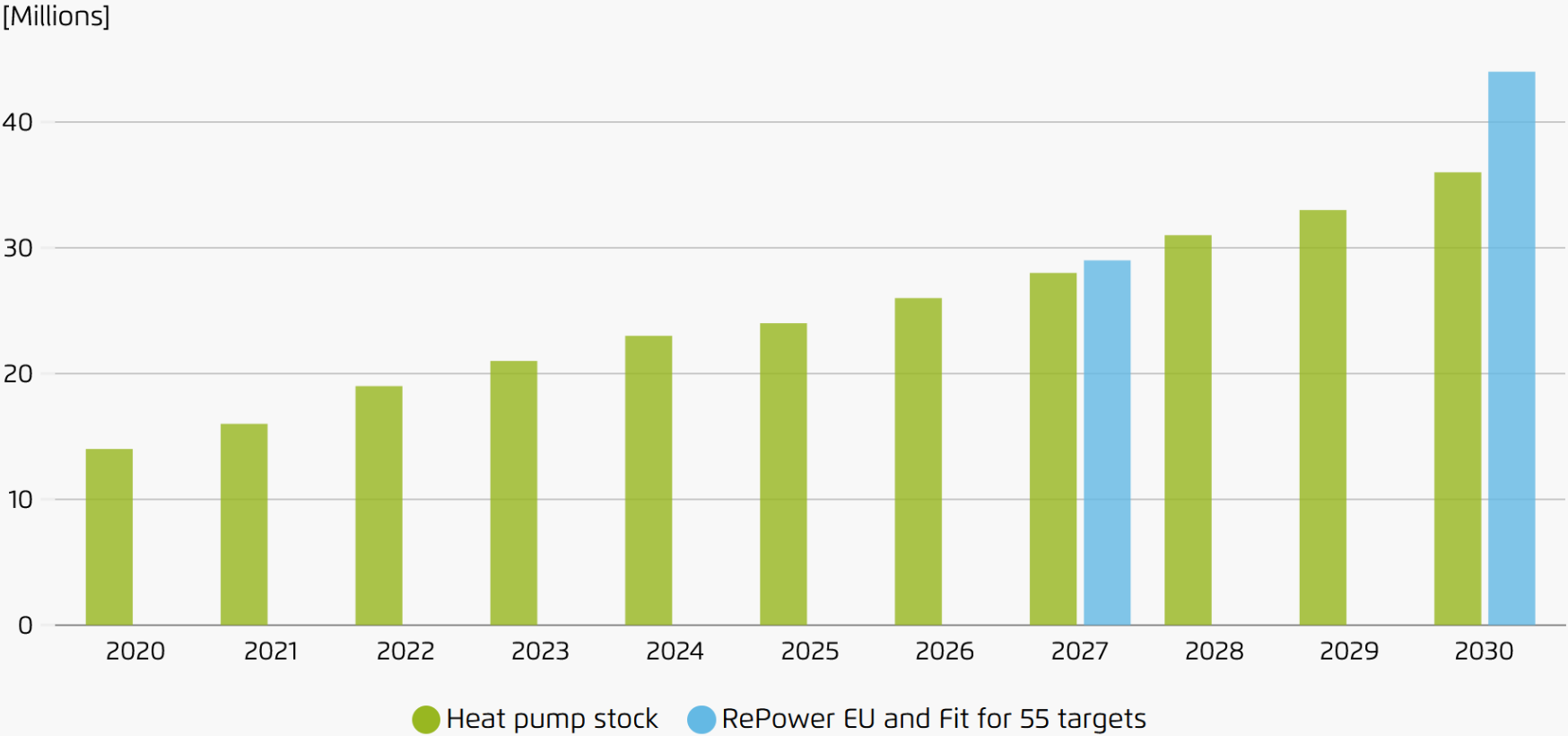
# Without a strong policy signal, fossil gas boilers are set to dominate well into the 2030s, putting the EU's climate & energy goals at risk, while undermining the competitiveness of its cleantech manufacturing sector.

Projection of EU heating appliance sales by technology until 2040



# Risk #1: The EU is projected to fall far short of its heat pump targets.

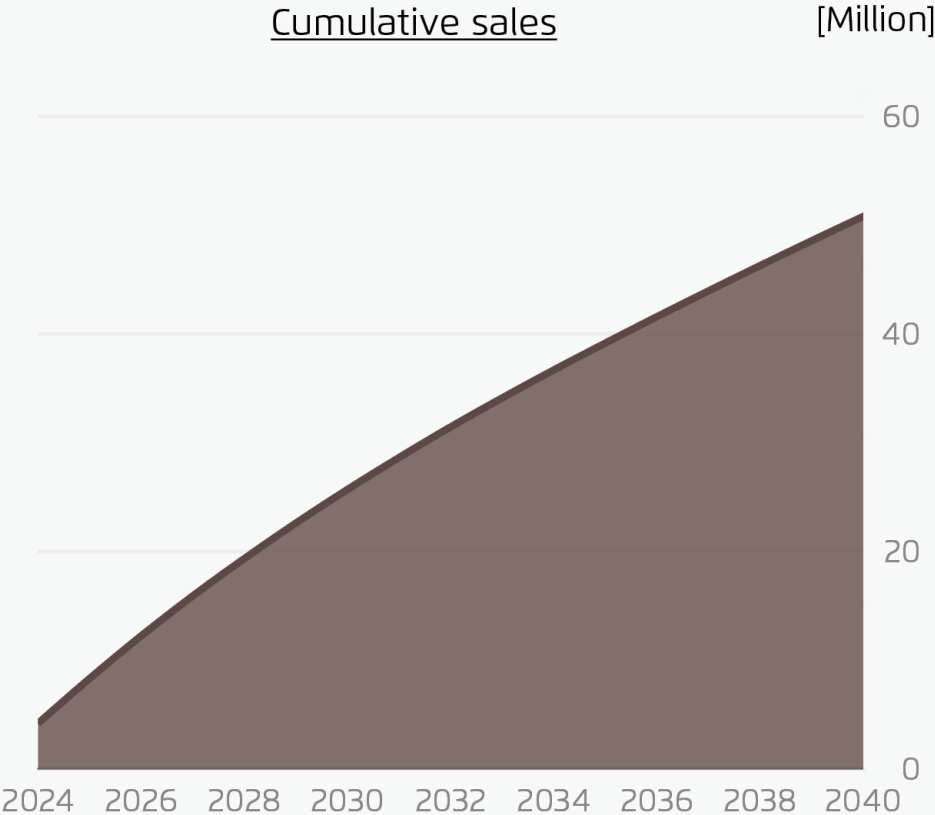
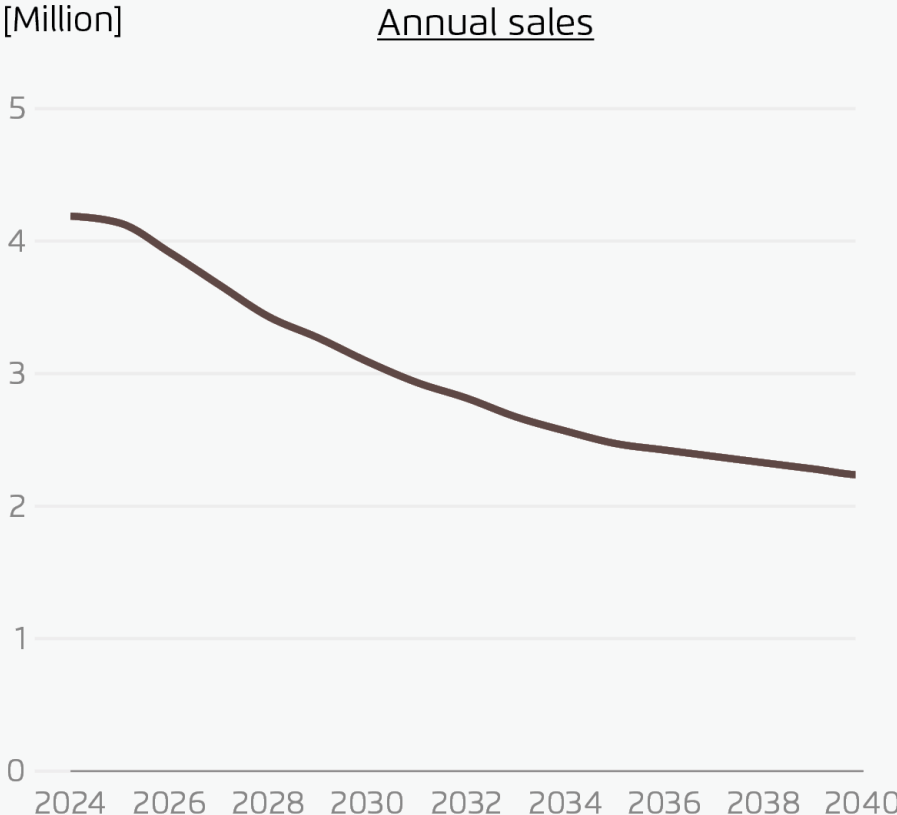
Projected stock of heat pumps\* and EU targets



7 | Agora Energiewende (2025) based on EHPA (2021) and LCP Delta (2025). \* refers to the total stock of heat pumps, including air-to-air heat pumps used for heating

# Risk #2: We estimate that 50 million boilers will be installed cumulatively by 2040, locking in fossil fuel dependency for decades to come.

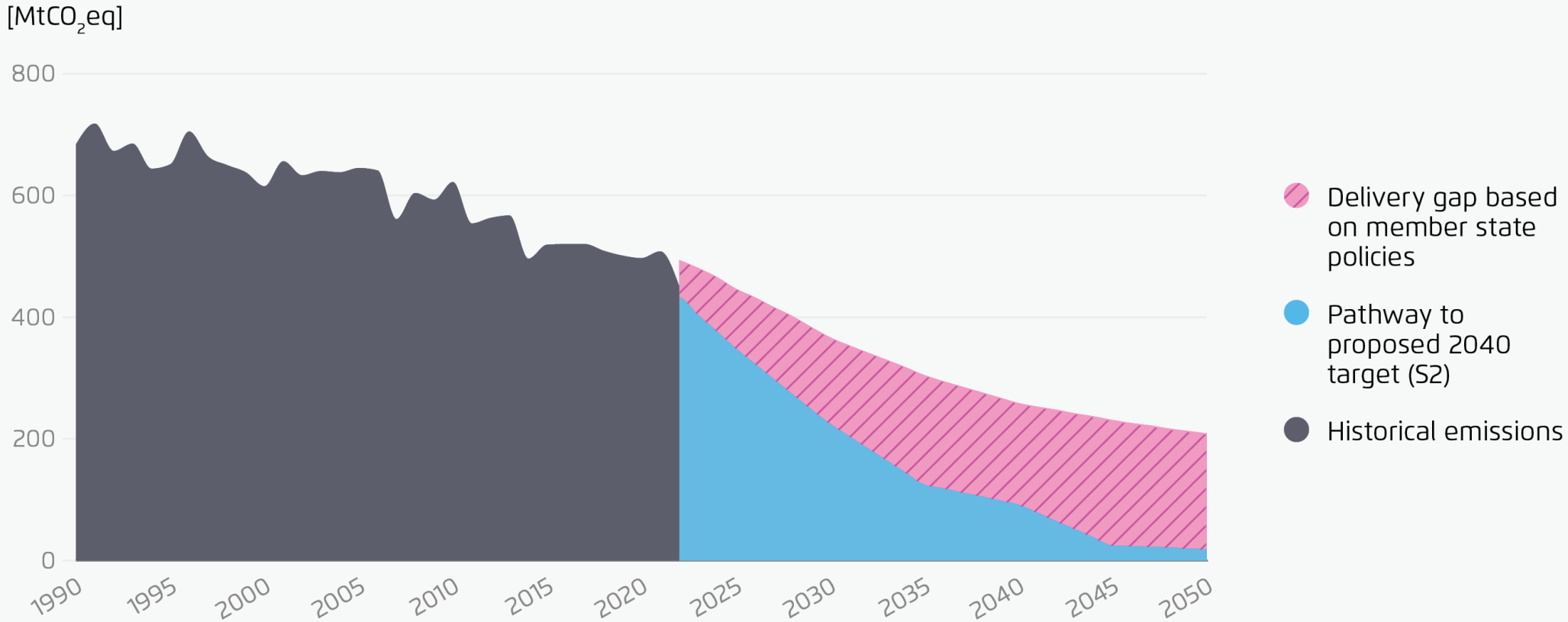
Projected sales of fossil fuel boilers





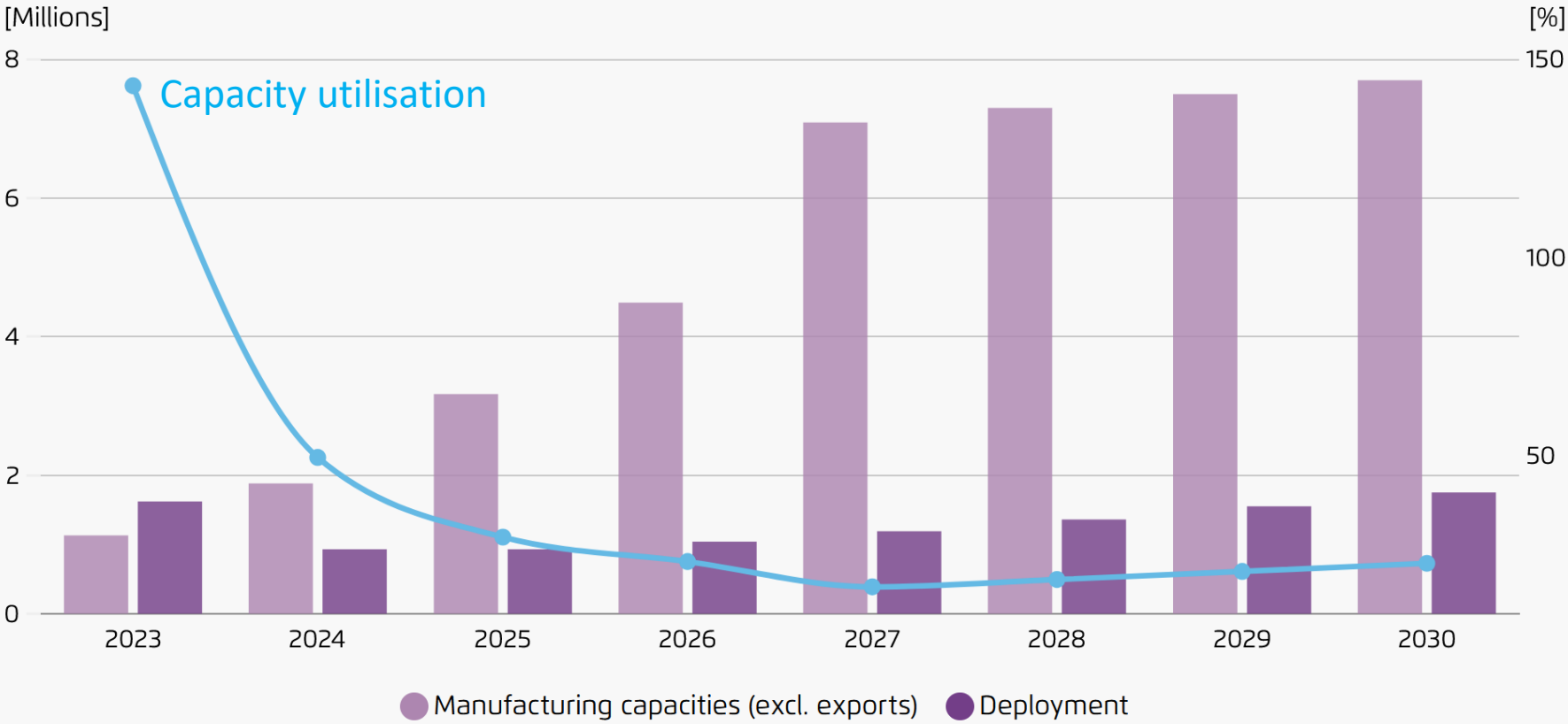
# Risk #3: The building sector is becoming a major liability for the EU's overall climate target achievement.

Historical and projected emissions for the EU buildings sector



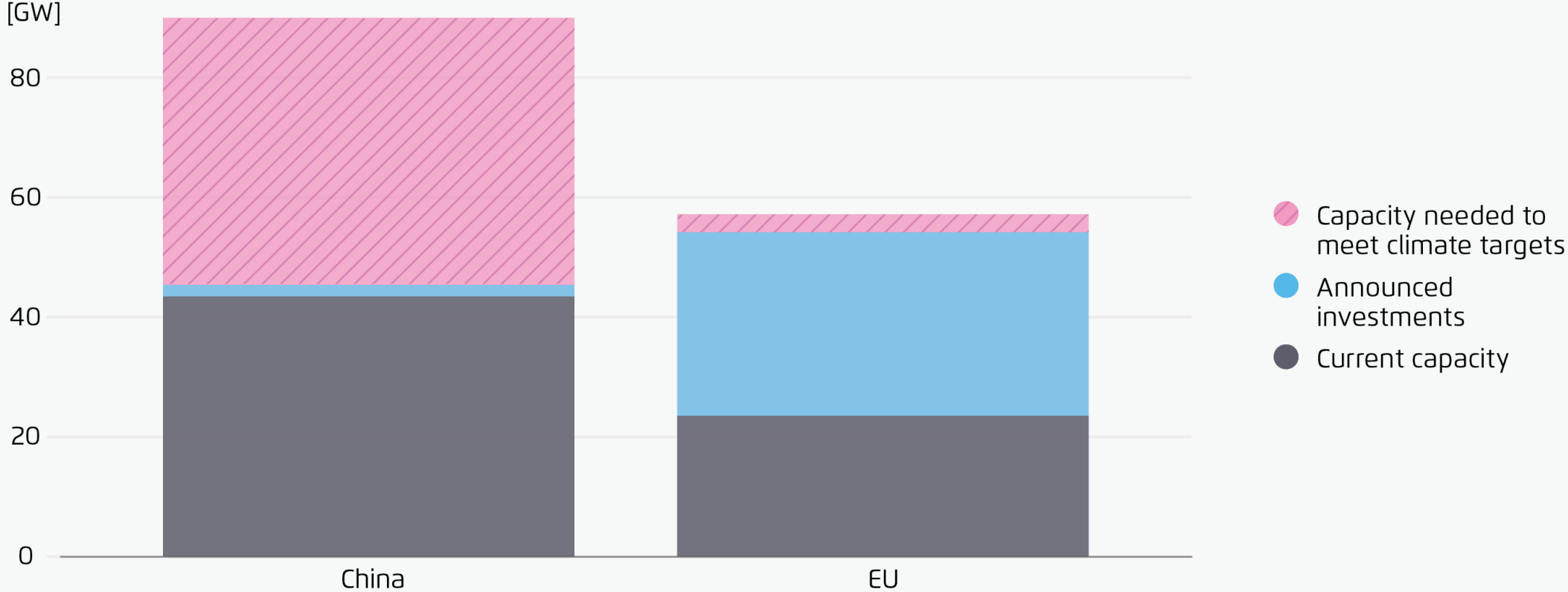
# Risk # 4: Projected market developments are challenging the viability of heat pump investments announced during the energy crisis.

Projected manufacturing capacities and projected deployment for hydronic heat pumps



# Risk # 5: Delayed action opens the door for non-European competitors to dominate in clean technologies.

Current and projected manufacturing capacities for heat pumps in the EU and China



# In this context, our project aimed to explore innovative approaches to advance the heating transition.

**Project aim:** to assess the political and technical feasibility of introducing a new market-based policy instrument for the EU heating sector.

**Inspired by:** UK Clean Heat Market Mechanism and EU CO2 standards for cars.

## The project was accompanied by:

- **Extensive stakeholder consultation** and a Stakeholder Sounding Board (three meetings)
  - Participants from heating industry, civil society, DG ENER, and national governments
  - Continuous bilateral exchanges with manufacturers by LCP Delta
- **Extensive supporting research** conducted by LCP Delta (UK-based market consultancy specialized on heating market)
  - Market analysis
  - Instrument Design
  - Impact Assessment

# Imprint

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