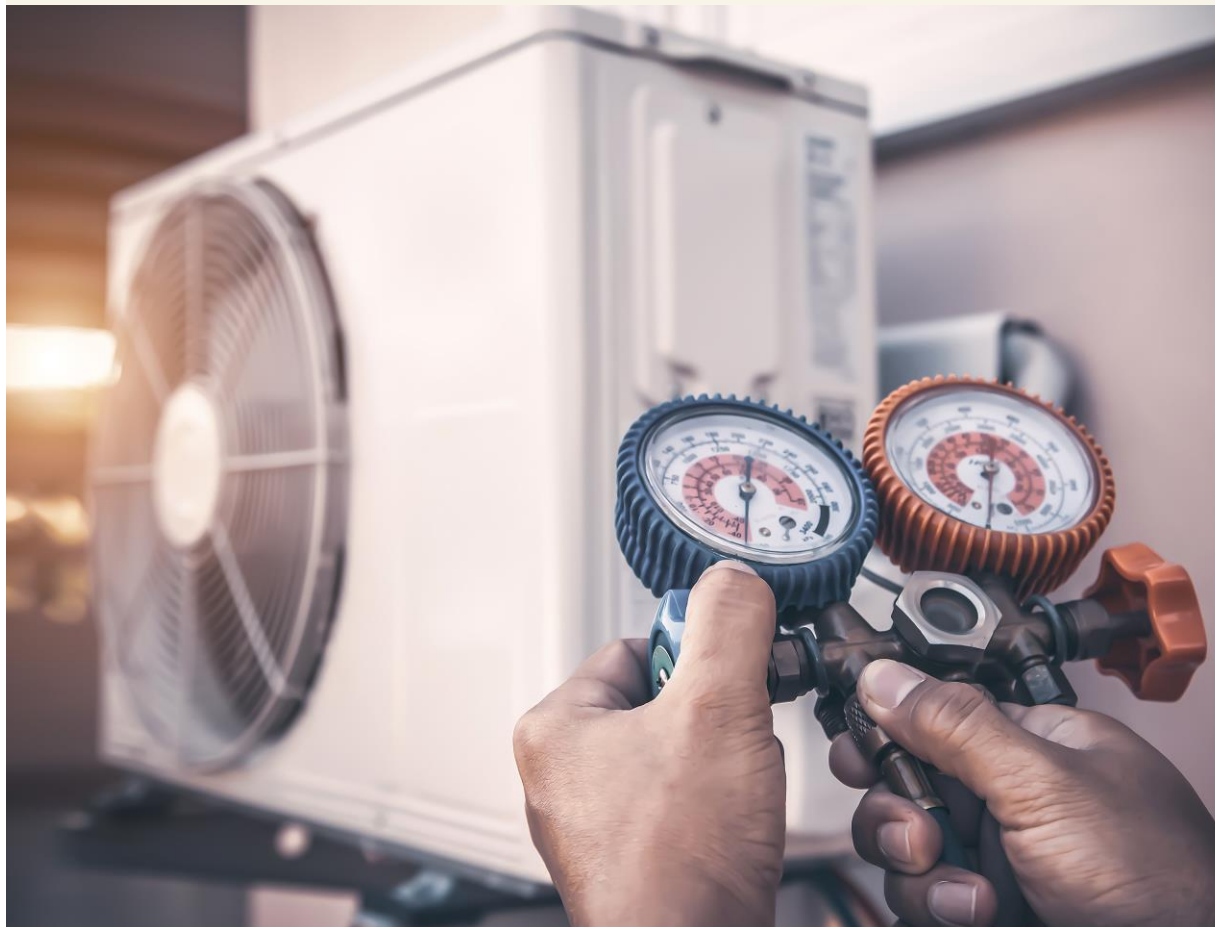


Summary October 2022

AFFORDABLE HEAT WITHOUT LNG HOW RENEWABLE HEAT CAN SAVE BILLIONS WHILE PROTECTING THE CLIMATE

**MATHIAS KOCH, KAMILA GODZINSKA, BRICK MEDAK,
LISA FISCHER, RONAN PALMER, RAPHAEL HANOTEAUX**



Summary and key recommendations

Even beyond the current crisis, fossil gas will be significantly more expensive in Germany than in previous years. Germany will face additional costs of €120–200 billion by the end of the decade. To avoid paying these high costs, a step-change in reducing gas use is needed. Germany should fully exploit the savings potential in its building sector. Around 40% more gas can be saved until 2030 than under current plans. The high savings potential calls into question whether Germany needs new gas import infrastructure.

This study forecasts future fossil gas costs for Germany and shows how large amounts of fossil gas can be saved in coming years to avoid high gas costs. Germany will have to pay significantly more for its fossil gas imports as Russian supplies cease. The world market for fossil gas will remain tight until 2030. As a result, the European wholesale market price (TTF) will remain high, leading to high import costs for German imports of both Norwegian gas and liquefied natural gas (LNG).

Table 1: Historical and expected import costs for fossil gas in Germany

	Historical 2010–2019	Base scenario 2023–2030	Risk scenario 2023–2030
Annual total import costs	€18.5 bn	€33.7 bn	€43.4 bn
Increase	—	82%	135%

Chart 1: historical and expected import costs for fossil gas to Germany (base scenario)

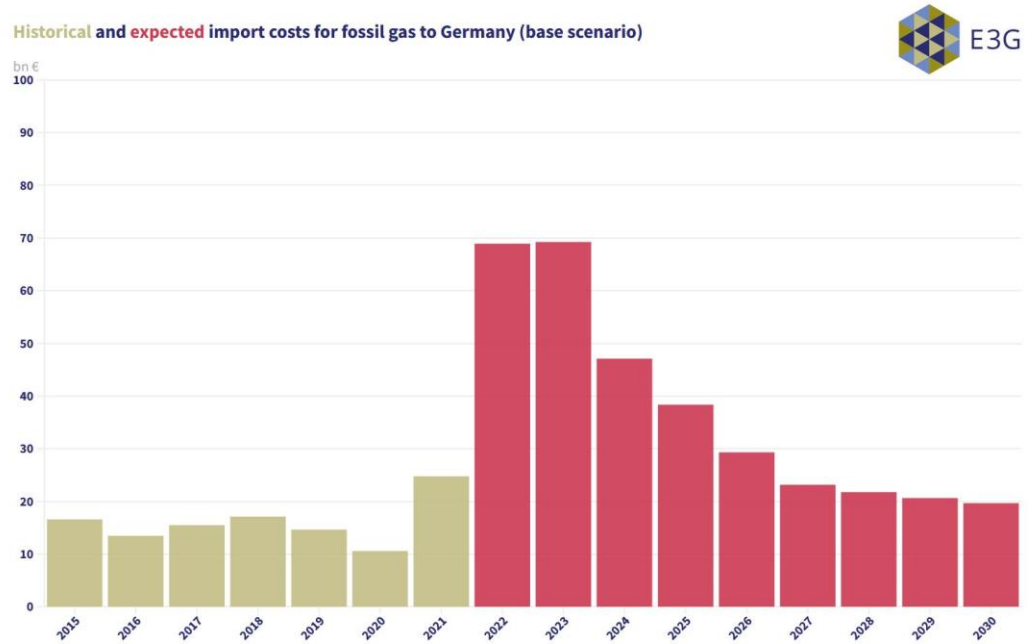
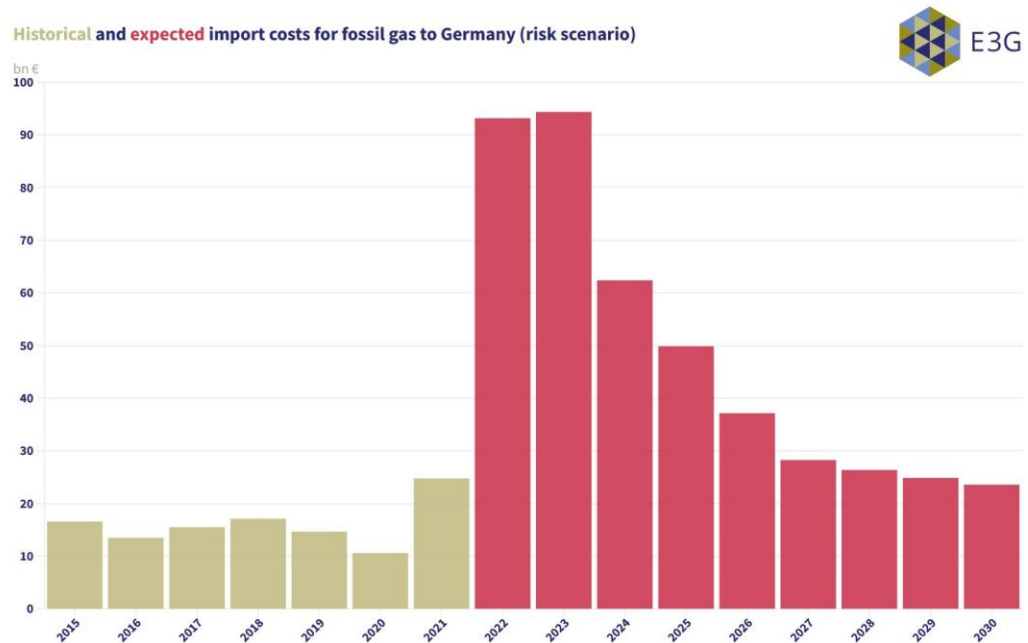


Chart 2: Historical and expected import costs for fossil gas to Germany (risk scenario)



The cumulative additional costs amount to €120–200 billion by 2030. These high import costs will be passed on by the gas importers to households and

businesses. For German consumers, gas prices are expected to almost double for the rest of the decade.

Table II: Annual gas costs for a four-person household (20,000 kWh)

	2010–2019	2023–2030
Yearly gas bill for families	€1370	€2620
Increase	—	91%

Permanently subsidising these high fossil gas prices would be disastrous in both ecological and economic terms. The sustainable solution is to reduce gas use. Without rapidly cutting its gas use, Germany will not only pay astronomical gas bills, but also the horrendous costs of the worsening climate crisis.

Germany needs a “renewable heat program” to make full use of the huge savings potential in its building sector. It should aim to install 1 million heat pumps and renovate 4% of building stock per year from 2025 onwards. Stimulating the necessary investments and making them economically viable will require government funding of €20 billion per year.

Chart 3: Expected fossil gas consumption in Germany’s buildings.

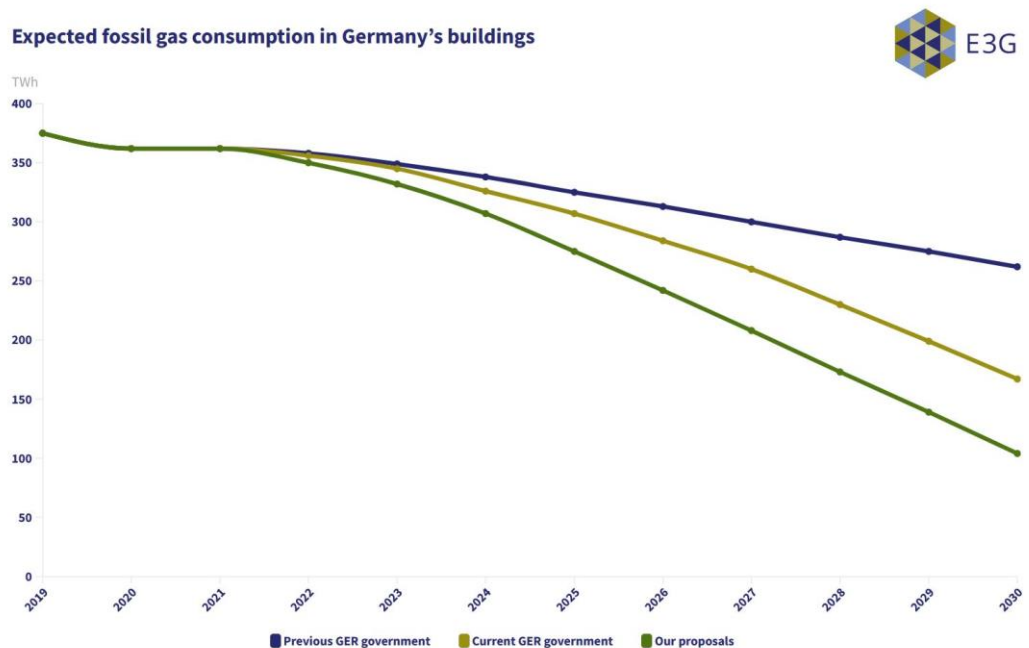


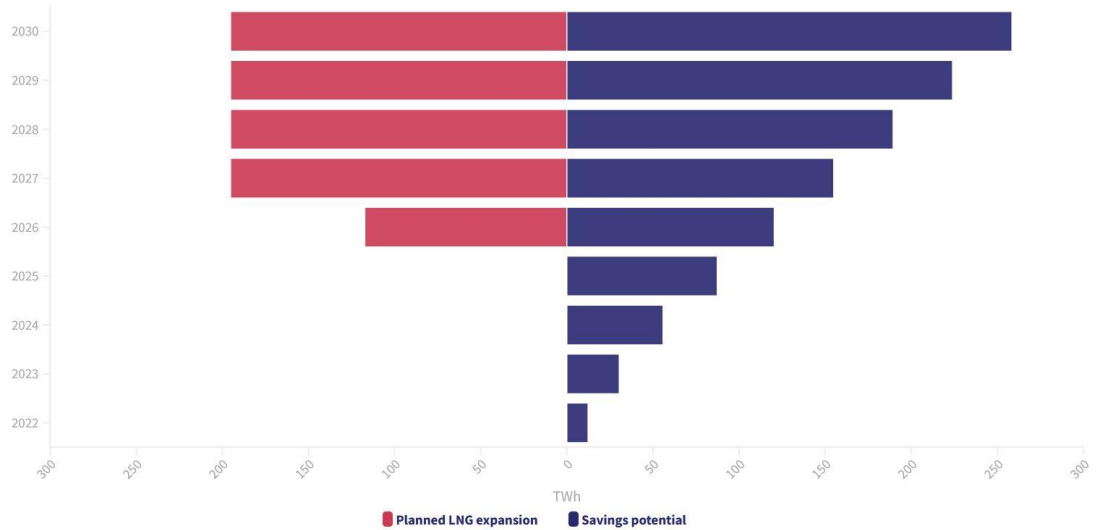
Table III: Gas savings in the building sector up to 2030 (each compared with previous government)

	Current GER government	Possible savings
Cumulative savings until 2030	470 TWh	810 TWh
Savings as a percentage	16%	28%

With political support from the German government, German energy importers are planning to build new gas import infrastructure and enter new long-term gas contracts. Both would tie Germany to the volatile and expensive world market for fossil gas for decades to come. However, new permanent LNG terminals will not come online before 2026 and will therefore do nothing to overcome the current shortages. Gas savings in the buildings sector could already exceed the terminals' planned import capacity by the earliest date at which they could become operational. Instead of promoting unneeded terminals, policy efforts should focus on bringing forward the necessary gas use reductions, thereby accelerating the energy transition and protecting German gas users from high prices.

Chart 4: savings potential in German buildings and planned LNG import* capacity per year.

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.

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Table IV: Annual savings potential (vs. 2021) and potential new import capacity

	Savings potential in the buildings sector	Import capacity of planned LNG terminals
2026	120 TWh	117 TWh
2030	258 TWh	195 TWh



Credits

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- **The Wuppertal Institut,**
- **Neon Neue Energieökonomik.**

The original report in German language is available **here**.