



Öko-Institut e.V.
Institut für angewandte Ökologie
Institute for Applied Ecology

Heat Planning and Gas Distribution – Where are the disconnects

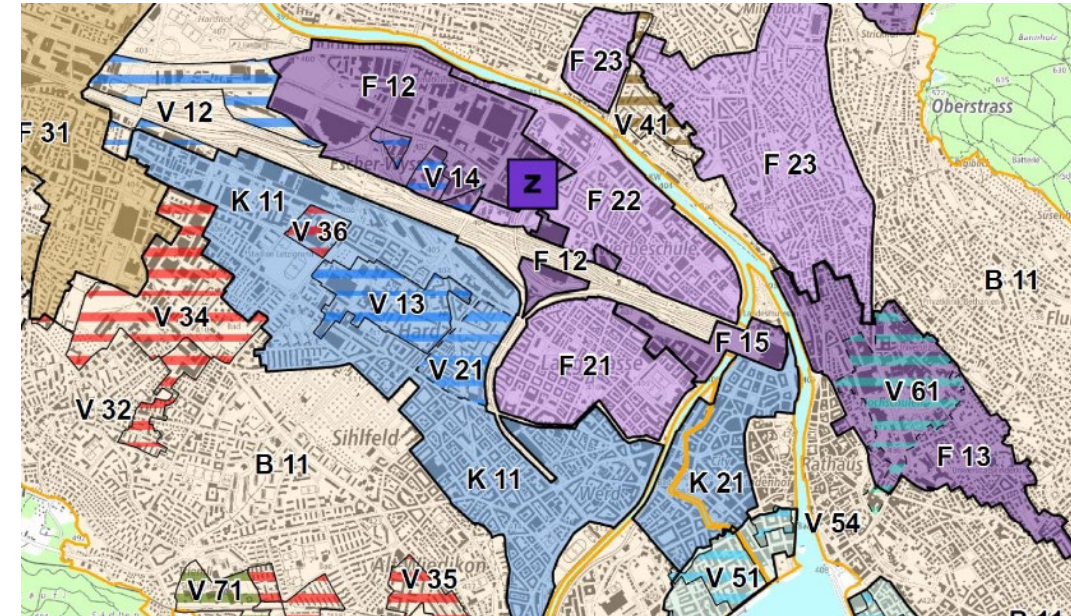
Case study Germany

Gas Grid Decommissioning Workshop

Veit Bürger | Freiburg | 23/01/2024

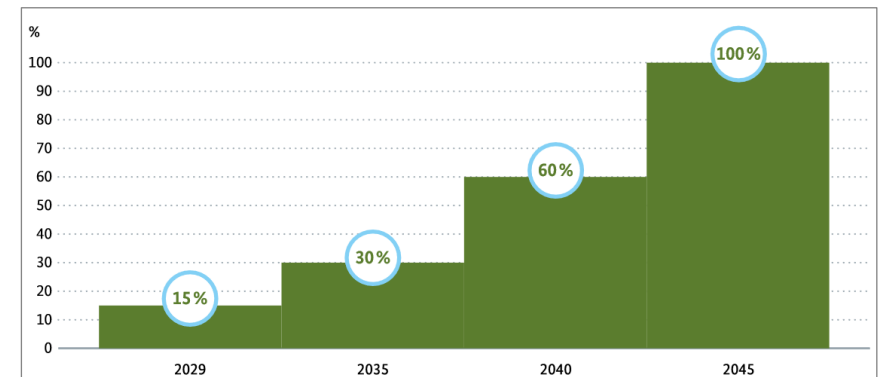
Heat planning in Germany – Heat Planning Act (WPG)

- New WPG requires alle municipalities to develop a heat plan (climate neutral heat supply by 2045)
- Deadlines: Municipalities > 100,000 inhabitants: mid 2026; all others mid-2028
- Heat plans must be approved by the municipal councils
- Core element: municipality divides its area into “prospective heat supply areas”
(categories: district heating areas, H₂ grid areas, areas for decentralized heat supply, areas for which the future priority supply still needs to be assessed)
- Criteria: economic viability, security of supply, implementation risks, cumulative GHG emissions
- Municipalities have option (but are not obliged) to designate certain areas as DH or H₂ expansion areas. H₂-areas: building owners may continue to install gas boilers (if H₂ ready) -> link to boiler regulation



Gas boiler regulation – 65% renewable requirement

- Amended Building Energy Act (GEG) requires that in existing buildings every newly installed heating system must use at least 65% RES or unavoidable waste heat from mid-2026/2028 (heat plan)
- Broad range of options: heat pumps (monoenergetic or hybrid), district heating, solar collectors, solid and gaseous biomass, green/blue H₂
- Further use of gaseous fuels (natural gas, biomethane, H₂)
 ↔ link to heat planning:
 - Homeowners may continue to install gas boilers until the deadlines for heat planning 2026/2028 (however being subject to a quota for climate-friendly fuels 2029: 15%; 2035: 30%, 2040: 60%, 2045: 100%)
 - Once heat plan is available, homeowners can continue to install gas boilers if they are H₂-ready + building is located in an area that has been explicitly designated as a H₂ expansion area by the municipality as part of its heat plan (condition: DSO has to submit a binding roadmap showing how the affected grid area will be completely converted to H₂ by 2045 at the latest -> gas grid transformation plan)



Risks and firewalls (against too much natural gas/H₂)

Risks

- Until a heat plan is presented: early replacement of existing gas boiler by new gas boiler to avoid renewables
- Municipalities give in to pressure from the gas industry (gas suppliers + grid operators), which experience has shown to play a strong role in the development of the heat plan (know-how)
- Pressure from building owners to designate H₂-areas (which would allow them to continue installing gas boilers)
- Hope of actors unwilling to comply that a future government will weaken the 65% requirement

Firewalls/Safeguards

- Installation of gas boilers before heat plan is presented: Increasing quota for climate-friendly fuels
- Designation of hydrogen areas: Gas network transformation plans must be approved by the regulator (BNetzA)
- If the gas grid operator does not manage to convert the gas distribution grid to H₂ on time, Building Energy Act (65% requirement) allows homeowners to make recourse claims
- Ban of using natural gas for heating as of 2025 (Building Energy Act)

Regulatory gaps regarding the decommissioning of (parts of) the gas grid

Network development

Expansion requirements at the distribution grid level, incl. gas demand for heating systems, (partly) are based on the demand forecasts of the distribution grid operators.

Network regulation

Consumers entitled to be connected to the gas distribution grid, unless there are technical or economic reasons to refuse the connection; no right to disconnect last remaining consumers.

Grid charges

No rules on the distribution of grid charges in the event of a sharp drop in gas sales (with a focus on protecting vulnerable customers).

Depreciation

Distribution grid operators are permitted to depreciate new infrastructure investments until 2045. However, investments made in the past are still subject to a depreciation period of 45 to 55 years (which could result in stranded assets if the grid is shut down prematurely).

Concessions

Concessions are re-awarded after a maximum of 20 years. There are no rules in the event that no company applies for the new concession.

Thank you for your attention!

Do you have any questions?

