

German Policy/Rules for Cost Efficient Retrofitting

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Policy

German Energy Concept, Sept. 2010

- 2050 Ecological neutral building stock
(very low energy demand
covered by renewable energy)
- 2020
...2050 Road map for existing buildings

Rules I

- Energieeinsparverordnung für Gebäude EnEV2009
(Energy Saving Code for Buildings)

Rules II

Changes, Additions, Fit Out of Buildings

- Maximum energy demand ≤ 140 % of that for new buildings
- Changes, i.e. more than 10% of the building envelope
- Additional spaces of 15 ... 50 m²

Rules III

Boiler Replacement

- Oil/gas fired boilers installed before October 1st, 1978
- Systems 4 ... 400 kW
- Not applicable for low-temperature/condensing boilers

Rules IV

Insulation of Pipework

- Pipework in unheated spaces
- Pipework in reach

Rules V

Insulation of Ceilings

- Ceiling above highest floor
- Spaces with design temperatures $\geq 19^{\circ}\text{C}$
- Required $u \leq 0.24 \text{ W}/(\text{m}^2 \times \text{K})$

Rules VI

Applicability

- All buildings
apartment buildings > 2 apartments
- Small apartment buildings, one apartment housing the
owner, when tenant changes, within 2 years

Efficiency

Not Applicable

- The cost is not paid back from the energy cost savings within a reasonable period of time
- What is reasonable?
Current court decisions : app. 10 years

Conclusions

- Demanding political goal
- Limited enforced rules
- Difficulty with the efficiency

Thank you for your attention

Questions ?