



Federal Ministry
for Economic Affairs
and Energy

Legal Framework and support schemes for renewable heat

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I. Legal Framework

Laid down in the **Buildings Energy Act (GEG)**:

- all applicable energy efficiency standards for all types of buildings
- use of RES for heating and cooling of buildings.

It merges several former legislative acts:

- **The Energy Saving Ordinance (EnEV)** - based on the **Energy Conservation Act (EnEG)** : energy efficiency standards for all types of buildings
- **Renewable Energies Heat Act (EEWärmeG)** : obligation for use of RES

→ A **unified set of rules** for energy efficiency and the use of renewables in the buildings sector.

Renewable Energies in the Buildings Energy Act:

Obligation to use renewable energies in

- **new buildings**, and
- in the case of **public sector buildings** also when carrying out **major renovations** (Major renovation = A boiler is exchanged and at least 20 % of building envelope refurbished, within 2 years)
- It is a **key component** in the system of promoting renewable energies.
- respects the principle of **economic viability** – as laid down in the coalition treaty of the governing parties.

Buildings Energy Act Scope

- For buildings with usable space of **more than 50 m²**.
- **Target group:**
 - all owners of newly erected buildings – both public and private
 - Owners of existing public buildings

Buildings Energy Act

Options for owners

- A certain **minimum proportion** of all the heating/cooling requirements must be generated from renewable energy.
 - **solar energy (solar thermal or photovoltaic):** at least **15%**
 - **gaseous biomass:** at least **30%** if in CHP installation, at least **50%** if in condensing boiler
 - **solid or liquid biomass, geothermal energy or ambient heat:** at least **50%.**

Reason: different investment and fuel costs, different technical feasibility

Buildings Energy Act

Substitute Measures (1)

- If owners do not wish to use any renewable energy, they can choose between various **substitute measures**.
- **Option 1:** The requirement is met if the energy requirement for heating/cooling is covered by
 - **waste heat** or **combined heat and power (CHP)** installations (min. 50 %),
 - **fuel cell heating (min. 40%)** or
 - **district heating/cooling (min. 50%).**

Buildings Energy Act Substitute Measures (2)

Preconditions to be met by the district heating/cooling:

The total heat/cold distributed via the system must derive alternatively

- to a large extent from renewables,
- to at least 50% from waste heat
- to at least 50% from CHP or
- to at least 50% from a combination of these measures.

Buildings Energy Act

Substitute Measures (3)

- **Option 2, Alternatively** to RES use: building has a significantly higher standard of efficiency.
- Various **combinations** of renewable and substitute measures can be deployed.
- **Aim:** tailored, low-cost solutions for owners
- **Reminder:** Public sector buildings - duty to use a proportion of renewable energy when **existing public buildings** are **thoroughly renovated**.

Outlook

The Federal Government wants to make Germany's building stock virtually climate-neutral by 2050, but the discussion about reaching this goal earlier is ongoing.

This discussion as well as the newly revised EPBD and RED will play into a review of our legal standards.

II. Support Schemes

1. Market Incentive Programme/ Federal Funding Scheme für energy-efficient Buildings
2. Funding scheme for District Heating (Wärmenetzsysteme 4.0)

Market Incentive Programme/ Federal Funding Scheme für energy-efficient Buildings

- Main objective: modernizing **existing buildings**
- For **new buildings**: funding only available when owners do more than is required by the Buildings Energy Act; extra incentives when share of RE heating >55%
- encourages private individuals, NGO's, companies and municipalities to invest in sustainable heating technology and to use renewable energy
- Funding pot of over € 8.5 Bn. per year (2020) for renewable energies and energy efficiency in buildings
- Since January 2020: additional exchange bonus for oil-fired boilers - grant of up to 45% of the investment costs if an old oil-fuelled boiler is replaced with a new, energy-efficient and climate-friendly boiler that incorporates RE

Heating Networks 4.0

- Since July 2017: Systemic funding for heating infrastructure of the 4th generation (mostly newly built networks)
 - 4th generation heating networks:
 - high shares of renewables: at least 50% RES or waste heat
 - efficient use of waste heat and
 - a considerably lower temperature level compared with traditional heating networks.
- minimises losses, enhances efficiency and facilitates the transition towards the use of renewable energy in the fields of local and district heating. By combining the use of heat pumps and seasonal large-scale heat accumulators, these systems can create additional flexibility for the electricity market.

Heating Networks 4.0 / Fed. Funding für efficient DH

- from Q.3/2021: additional government programme for **the transformation of existing heating grids** mainly based on fossil fuels into climate-neutral infrastructures.
- Programme Heating Network 4.0 to be merged into new programme.
- Funding for planning costs, investments and operating costs → contributes to creating a **level-playing field for renewable energies** in district heating.
- **Aims:**
 - climate-friendly transformation of urban district heating and
 - Limiting the increase of heating cost for consumers



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Thanks a lot!