

# German Act on the Promotion of Renewable Energies in the Heat Sector (EEWärmeG)

## Summary

The Act on the Promotion of Renewable Energies in the Heat Sector (EEWärmeG) is valid in Germany since 2009. The act introduces the obligation for new buildings to use renewable energies for domestic hot water and space heating. Alternatively the heat demand has to go by 15 % under the limit of EnEV (Act on energy savings). When solar thermal energy is used, it has to cover at least 15 % of heat supply. Other renewable energy sources like biomass and geothermal are also possible as well as the connection to district heating with a minimum share of renewable energies or CHP.



## Ordinance Facts

<b>Ordinance title</b>	Act on the Promotion of Renewable Energies in the Heat Sector (EEWärmeG)
<b>Type of ordinance</b>	renewable heat law
<b>Starting date</b>	1. January 2009
<b>Duration</b>	unlimited
<b>Geographical area</b>	Germany
<b>No. of inhabitants</b>	80 Mio, 365.000 km <sup>2</sup>
<b>Scope</b>	new-build residential and non-residential buildings; there are exclusions for some non-residential buildings
<b>Technology priorities</b>	solar thermal, biomass, geothermal, use of waste heat, heat from CHP
<b>Size of the solar heating system required</b>	In case of solar thermal it has to cover at least 15 % of heat energy demand. The following shall apply: <ul style="list-style-type: none"> <li>- in residential buildings with a maximum of two dwellings, solar collectors with an aperture area of at least 0.04 square metres per square metre of effective area are installed</li> <li>- in residential buildings with more than two dwellings, solar collectors with an aperture area of at least 0.03 square metres per square metre of effective area are installed</li> </ul>
<b>Alternative measures</b>	<ul style="list-style-type: none"> <li>- Use of solid biomass, geothermal energy or waste heat: meet min. 50 % of heat energy demand</li> <li>- Use of liquid biomass: meet min. 30 % of heat energy demand</li> <li>- Alternatively passive measures (15 % under the limit of EnEV) by improved isolation</li> <li>- Connection to district heating grid, which is partly supplied by renewable energies or CHP (combined heat and power generation).</li> </ul> <p>Also combination of different technologies is allowed. Exemptions are possible for conservation purposes or economical hardship.</p>
<b>Executing authority</b>	According to the Regional (Länder) regulations.

<b>Execution mechanism</b>	Not regulated by the law.
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## Development and Implementation

<b>Background</b>	Heat supply in Germany depends at more than 75 % from imported fossil fuel and gas. This results in economical risks, political dependence and emission of greenhouse gases.
<b>Objectives</b>	<ul style="list-style-type: none"> <li>- Increase share of renewable energies in heating from 6 % (2008) to 14 %(2020)</li> <li>- reduction of emissions in heat generation</li> <li>- Lowering of political dependence</li> <li>- Minimisation of economical risks by possible rises in fuel costs</li> </ul>
<b>Process</b>	The federal parliament Bundestag decided on the 'Integrated Energy- and Climate-Protection-Programme' of the federal government on 6 June 2008. The EEWärmeG is an important part of this program.
<b>Timing</b>	No information available.
<b>Quality schemes product</b>	Solar Keymark
<b>Quality schemes installation</b>	Not in the law. The federal support program 'Marktanreizprogramm' (MAP) has an innovation bonus which requires heat system simulation, hydraulics plan and system description for proof of cost effectiveness
<b>Quality schemes other</b>	Minimum performance factors for heat pumps; Quality- and sustainability requirements for use of biomass
<b>Flanking measures</b>	The law regulates funding and the funding amount until 2012. The MAP of the federal government was widened. E.g. funding of installation of solar thermal collectors at 45-210 € per m <sup>2</sup> collector area or partly a credit at favourable conditions and 30 % repayment funding.
<b>Supervision</b>	House owners have to proof the use of renewable energies within three months after starting up of the heat system. The responsible regional governments have to apply random tests and are granted respective rights.
<b>Sanctioning fees</b>	yes, up to 50.000 €
<b>Costs for implementing</b>	Investment costs, as the law also applies for new public buildings. Process costs for the Länder for application of the law. Costs for exemption of the law have to be borne by house owners. Federal funding (incentive scheme): 500 million € p.a. (2009-2012)

## Monitoring and Results

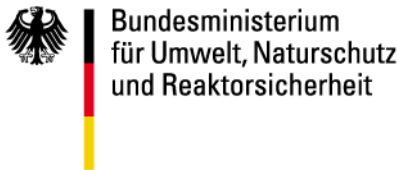
<b>Monitoring</b>	The federal government has to submit a report of results to the Bundestag until 31 december 2011. Thereafter a report needs to be submitted every four years.
<b>Quantitative results</b>	not yet available
<b>Costs borne by the enduser</b>	Till 2020: according to estimations of federal environmental ministry (BMU) investment of 44 bn € (35 bn € for private buildings, 9 bn € for commercial buildings). Estimated netto costs of 12 bn € due to estimated savings of 31 bn € in operating costs.
<b>Effects on other sectors</b>	Labour market: rise in employment from 235.000 to 300.000 employees (2007-2020, estimations of research institutions)
<b>Communication</b>	The EEWärmeG was spread by PR measures, internet homepages of the BMU and within the climate protection program of BMU.
<b>Future outlook</b>	not yet available

**Lessons Learned**

<b>Barriers faced and overcome</b>	not yet available
<b>Success factors</b>	Before starting the legislation all possible measures like funding programs and regional laws were evaluated by BMU and discussed with associations and enterprises. The intention was to reach the highest proliferation possible of renewable energies in the heat sector.
<b>Potential for improvement</b>	not yet available
<b>Recommendations</b>	not yet available
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