
Number	GOV5
Indicator name	The share of residential buildings in a given energy standard according to the heat demand for heating
Area	G
Indicator definition	The proportion of buildings meeting the defined standards in category 0 and 1 (see description of building category) of the total number of buildings
Indicator unit	%
Key words	Renovation of buildings, need for heat for heating, residential buildings

Reason for tracking and usability

The quality of buildings and their energy intensity are key for our society, as the construction sector is responsible for 30–40% of total energy consumption and more than 55% of final electricity consumption.

Buildings are classified into 4 categories (renovated, partially and minimally renovated and not renovated) based on the need for heat for heating

Category 0: renovated building with heat demand for heating around 50 kWh / m²a

Category 1: partially renovated building with heat demand for heating approx. 70 kWh / m²a

Category 2: minimally renovated building with heat demand for heating approx. 90 kWh / m²a

Category 3: non-renovated building with heat demand for heating approx. 120 kWh / m²a

Detailed description of building categories: -

Category 0: renovated building with heat demand for heating around 50 kWh / m²a

The restored building has the entire thermal protection of the perimeter cladding with insulation thickness of at least 10 cm. The roof has completed insulation in thicknesses of at least 20 cm. The balcony boards are insulated. The building has windows replaced with windows with a plastic frame (possibly other) and with insulating double glazing or triple glazing in the range of about 90%.

Category 1: partially renovated building with heat demand for heating around 70 kWh / m²a

The partially renovated building has been renovated to the extent required legislative requirements. The facade of the perimeter cladding has added insulation in thicknesses of 4 –8 cm. The roof has completed insulation in a thickness of about 20 cm. Balcony boards are usually not insulated. The building has exchanged windows for windows with a plastic frame (or other) and

insulating double glazing in the range of 50 – 90%.

Category 2: minimally renovated building with heat demand for heating around 90 kWh / m²a.

The minimally renovated building is in a condition e.g. with repaired roof resp. with addition thermal insulation thickness of approx. 20 cm, or with an insulated facade from the north side, resp. so insulation of gable walls. The building has windows replaced with windows with a plastic frame (possibly other) and with insulating double glazing in the range of less than 50%.

Category 3: non-renovated building with heat demand for heating around 120 kWh / m²a

	<p>The non-renovated building is in its original condition, without insulation of the outer perimeter walls, insulation of the roof, or it has replaced the windows with plastic (or other) with insulation double glazing to the extent of less than 30 %. This also includes buildings on which repairs have been carried out system failures, repairing cracks in the facade of the building, removal of leaks roofs without additional insulation.</p>
<p>Completeness, representativeness, validity</p>	<p>A prerequisite for completeness and representativeness is a detailed analysis of the condition of all residential buildings in the entire administrative area.</p> <p>A prerequisite for sufficient validity is a good knowledge of the actual state of the building stock. All data must be current, based on the actual state, respectively on the relevant energy performance certificates of buildings.</p> <p>This indicator has limitations, especially problematic data acquisition, which can be replaced by field research and subsequent data retrieval.</p>
<p>Description of data processing</p>	<p>Data acquisition and processing is based on the evaluation of the state of renovation of apartment buildings and their classification into categories 0-3.</p>
<p>Data source</p>	<p>The data sources are the departments of municipalities (mainly the spatial planning departments), the Building Authority.</p>
<p>Tracking frequency</p>	<p>1 x 2 years (or according to the frequency of Klimasken monitoring)</p>
<p>Urban influence</p>	<p>The indicator applies to all residential buildings. The city / city district / municipality can influence the area of building renovation by applying appropriate regulations of spatial development and construction, both with the help of financial instruments (grant programs) and awareness-raising or consulting activities.</p>
<p>Presentation method</p>	<p>The results will be presented in a single KLIMASKEN framework on a five-step scale according to specified intervals.</p>
<p>Responsibility</p>	<p>Processor KLIMASKEN, city, city district, municipality</p>