B-EMI12

HEAT CONSUMPTION IN BUILDING

Number	B-EMI12
Indicator name	Heat consumption in building
Area	M
Indicator definition	The indicator is evaluating the total consumption for heating, which is produced from local energy source. Heat consumption is then converted to the corresponding greenhouse gas emissions, that includes the energy consumption for heating in the building. It is necessary to determine the heat source, resp. to use the national heat production factor (if known). Heat sources should be divided according to the types of fossil fuels and non-fossil energy sources for heating. Fossil heat sources, which are included in the calculation tool are as follow: • natural gas, • electricity (normal mix) • coal (black and brown), • fuel oil, fuel oil. Non-fossil sources: • biofuels, biogas, bio waste, solar heat production, environmental energy (heat pumps), cogeneration, event. a combination of these resources, • electricity ("green" electricity from RES=renewable energy sources) Combination of these resources: • mix of fossil and non-fossil district heat sources
Indicator unit	kg CO2e/obyv.
Key words	Energy, heat, heating
Reason for tracking and usability	Heat consumption belongs to the most significant part of the total greenhouse gas emissions in relation to the buildings. From the point of view of mitigation, this is a key indicator. In the case of individually heated dwellings within an apartment building, it is necessary to determine the heat sources and estimate or measure the total heat consumption for the entire apartment building. The usability and influence of the indicator are high because each operator or owner of the building has an impact on the local heat source in the building.

Completeness, representativeness, validity	This indicator is sufficiently representative in the case, that is possible to obtain data within the building on the predominant heat source (type of fuel, technology used), which are used for heat supply of the relevant building. It is also appropriate to collect data about the total energy consumption for heating for the whole resitendial building.
Description of data processing	In the first step, it is necessary to obtain the relevant invoice for heat billing or another source of information on heat consumption in the building. There is a need to collect data on annual energy consumption in MWh or other units that might be obtained from the invoice or a similar source. The next step is to determine the heat source or its combination. The consumption of fuels and energy for heat production is then recalculated according to the corresponding emission factors for greenhouse gas emissions and these are further expressed per capita – it means in relation to one inhabitant of the building.
Data source	The primary source of data is the manager/operator, owner, or administrator of the building. Another source of data is represented by the heat producers/distributors for a given building.
Tracking frequency	Once a year, or once every 2 years.
Urban influence	The city/city district/municipality and the organizations managed by it can directly influence the heat consumption only in their buildings and the buildings of the contributory organizations. In the case of other heat sources (e.g. individual heating points) they have only an indirect effect, e.g. the possibility of acting on citizens or offering a contribution/subsidy for the replacement of the boiler.
Presentation method	The results will be presented in a uniform Klimasken framework on a five-point scale according to specified intervals (kg CO2e/inhabitant). A: 0–600; B: 301–1 200; C:1 201–1 800; D:1 801–2 400; E: 2 401 and more
Responsibility	Owner, building manager