MIT1

CONSUMPTION OF DISTRICT HEAT

Number	MIT1
Indicator name	Consumption of district heat
Area	M
Indicator definition	The indicator monitors the total consumption of district heat within the administrative territory of the city/city district/municipality, regardless of the place and source of heat production. Heat consumption is then converted to the corresponding greenhouse gas emissions. It includes consumption in the households, public buildings, enterprises and services sectors (small customers, medium and large customers). It is necessary to identify heat sources; resp. use the national heat production factor. Heat sources should be divided according to the types of fossil fuels and non–fossil heat sources. Fossil heat sources included in the calculation tool: natural gas, coal (black and brown), fuel oil. Non–fossil sources: biofuels, biogas, biowaste, solar heat production, environmental energy (heat pumps), cogeneration, or combination of these resources.
Indicator unit	kg CO_2e/pers.
Key words	Energy, heat
Reason for tracking and usability	Heat consumption makes up a significant part of the total greenhouse gas emissions from the city/city district/municipality, about 50–60 % of the total emissions under current conditions in the Czech Republic and Slovakia. From the point of view of mitigation, it is a key indicator and it is necessary to determine the heat sources (share of individual heat sources) and the sectoral composition of heat consumption (households, the public sphere, companies).
Completeness, representativeness, validity	The indicator is sufficiently representative when the data on the predominant heat source (type of fuel, technology used) used within the central heat supply system can be obtained within the city/city district/municipality. Furthermore, it is necessary to collect data on the share of resources within individual heating points. The validity of the indicator decreases if the heat source is not known and the universal values of the emission factor for heat production in the given country are used.

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Description of data processing	In the first step, it is necessary to identify and address the sources and distributors of heat that is consumed in the city/city district/municipality and obtain data on the consumption of individual fossil and non-fossil heat sources for a given calendar year. It does not matter whether the heat source is located in the city/city district/municipality or outside them, the heat consumption in the city/city district/municipality is important. Subsequently, the data processing branches according to the success of this step:

1) It is possible to find the specific emission factor of district heat and consumption (MIT1_3)
In this case, check the box either "without cogeneration" or "with cogeneration", and enter the obtained emission factor in the first field, select its unit and then enter the heat consumption. Note: the district heat emission factor corresponds to values between O (biomass) and 135 kg CO2e / GJ (coal).

2) It is not possible to find a specific emission factor for district heating, but we know the predominant source of heating.
In this case, check the "I do not know" box, enter the consumption and, in addition to selecting the unit, also select the predominant heating source (natural gas, coal, biomass, fuel oil and mix).

3) It was only possible to obtain information that the source has or does not have cogeneration
In this case, check the box either "without cogeneration" or "with cogeneration" and enter the heat consumption in GJ in the second field (the unit converter is here: https://www.tzb–info.cz/tabulky–a–vypocty/49– converter–units). The average value 85 for normal heat production is taken into account in the calculation.

The consumption of fuels and energy for heat production is then converted within the instrument according to general emission factors into the corresponding greenhouse gas emissions and these are related to one inhabitant of the city/city district/municipality.

Data source	The primary source of data is the heat producers/distributors for the given city/district/municipality. Secondary sources are energy concepts of municipalities or regions, census data and other data on energy.

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Tracking frequency	Once a year, or once every 2 years
Urban influence	The city/city district/municipality and the organizations managed by them can directly influence the heat consumption in their facilities. If they have a property or other connection to the heat producer, they can act to change the energy sources used and increase efficiency. 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 CO_2e / inhabitant)
Responsibility	Processor KLIMASKEN, city, city district, municipality