

Number	EMI2
Indicator name	Electricity consumption
Area	M
Indicator definition	Total electricity consumption within the administrative territory of the city/city district/municipality, regardless of the place of production. Consumption is then converted to the corresponding greenhouse gas emissions. Includes consumption in the household, public buildings, business and services sectors (retail, medium and large).
Indicator unit	kg CO ₂ e/pers.
Key words	Energy, electricity
Reason for tracking and usability	The production (and thus consumption) of electricity, especially from fossil fuels, is a significant source of greenhouse gas emissions. The share of total GHG emissions related to cities/city district/municipalities is around 20 %. The size of emissions will affect the way electricity is produced in a given country (energy mix). The reason for monitoring is the mentioned weight of the indicator on total emissions and the relatively simple possibility of obtaining data for the whole city/city district/municipality. It is also possible to obtain a sectoral structure of electricity consumption (households, the public sector, small and large enterprises).
Completeness, representativeness, validity	The indicator sufficiently represents the observed phenomenon. If it is possible to collect data for all sectors in the city/city district/municipality (households, public sphere, businesses), it is also complete. The validity is reduced by the fact that the national energy mix and the corresponding emission factor are used for the determined emissions from electricity consumption. Therefore, it does not reflect the share of individual sources of electricity that is consumed in the city/city district/municipality (market-based emission factor for electricity). These data at the level of the city/city district/municipality cannot be obtained, they can only be found at the level of the building. The validity of the indicator is further reduced if it is not possible to obtain information directly from distributors, but other, more general data sources are used (energy concept, energy regulatory authority, regional level, etc.).

Description of data processing

The total electricity consumption in the city/city district/municipality is the sum of the consumption of small and large customers for a given calendar year. Data on electricity consumption per city/city district/municipality must be obtained centrally from the distribution company (see data sources). The values in MWh within the instrument are converted according to the relevant emission factor for electricity in the given state (location-based) to the corresponding greenhouse gas emissions and these are related to one inhabitant of the city/city district/municipality.

Data source

The only source of data for this indicator is the relevant distribution company. If it is not possible to obtain data on electricity consumption for a city/city district/municipality, it is possible to recalculate it to the number of inhabitants of the city/city district/municipality from regional data. These are published by the Energy Regulatory Office (ERO). However, this procedure significantly reduces the accuracy of the calculation and the specificity of the city/city district/municipality.

Tracking frequency

Once a year, or once every 2 years

Urban influence

The city/ district/municipality and the organizations managed by them can directly influence the consumption of electricity in their facilities and on their property. They can install their own low-carbon renewable energy sources on their assets and can implement cost-saving measures and support the development of electromobility infrastructure. In the case of other sectors (households, businesses), they have only an indirect impact on electricity consumption and sources.

Presentation method

The results will be presented in a single KLIMASKEN framework on a five-step scale according to specified intervals.

Responsibility

Klimasken processor, city/city district/municipality, heat distributors
