GOV16

PRODUCTION OF ENERGY FROM RENEWABLE SOURCES WITHIN THE ADMINISTRATIVE TERRITORY OF THE CITY / CITY-DISTRICT / MUNICIPALITY.

Number	GOV16
Indicator name	Production of energy from renewable sources within the administrative territory of the city / city-district / municipality.
Area	G
Indicator definition	The indicator addresses the energy production within the administrative territory of the city/city district/municipality. It monitors the share of renewable sources in the total energy production within the administrative territory of the city / city district / municipality. These are the following renewable energy sources - solar energy, hydropower, wind energy, ambient energy (geothermal energy) and biofuels. The indicator includes all energy production in the city/city district/municipality, regardless of the source operator (public and private energy sources).
Indicator unit	MWh/obyvatele
Key words	Energy, renewable sources, mitigation
Reason for tracking and usability	Reducing greenhouse gas emissions is one of the key goals of cities and municipalities in the field of sustainable development and climate protection. The Europe-wide (later global) Covenant of Mayors initiative is also working towards this goal. The signatories - local authorities of the pact - declare the goal of reducing CO2 emissions by at least 40% by 2030, mainly due to energy savings and the use of local renewable resources. The signatories are also committed to increasing their resilience to the effects of climate change. The indicator provides an overall picture of energy production in the city/city district/municipality in terms of energy production from renewable, i.e. low carbon resources. These sources are: solar energy, hydropower, wind energy, environmental energy (geothermal energy) and biofuels. The increasing share of energy production from these sources will lead to a decreasing carbon intensity of the economy and a mitigation effect on climate change.

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Completeness, representativeness, validity	The indicator includes all sources in the territory of the city / city district / municipality, it is therefore sufficiently representative. It does not include the energy consumption side (e.g. consumption of electricity produced from RES-renewable energy sources). It also does not address where the energy that was produced from RES in the territory of the city/city district/municipality (either within the city / city district / municipality, or beyond their borders) is consumed. The validity of the indicator may be reduced by the fact that it is not possible to obtain relevant data from all, especially small energy producers (e.g. households operating a biomass boiler). Then it is necessary to obtain data indirectly - for example, from statistical data or a sample survey of residents and companies. The indicator does not provide an overall picture of energy consumption in the city/city district/municipality. To do this, it is necessary to process a comprehensive analysis - the energy balance of the city/city district/municipality.
Description of data processing	The numerator of the indicator is the total production of energy from renewable sources within the administrative territory of the city/city district/municipality. These are the following renewable energy sources - solar energy, hydropower, wind energy, environmental energy (geothermal energy) and biofuels. The denominator of the indicator is the total energy produced within the administrative territory of the city/city district/municipality, regardless of its origin (renewable and non-renewable). The indicator can be additionally used to determine greenhouse gas emissions from the territory of the city /city district/municipality (MIT part - Production of greenhouse gases and its reduction - emissions).
Data source	Energy source operators, distributors, statistical office data.
Tracking frequency	For the purposes of the Klimasken tool, a periodicity of 2-3 years is possible to capture the longer-term trend of the indicator.
Urban influence	The city/city district/municipality influences the indicator only to a small extent - in terms of its own production of renewable energy (e.g. PV panels on its office buildings, heating the office with a biomass boiler or operation of a biogas plant). The further impact is only indirect and depends on the specific investments of private investors (or the state) in renewable energy sources.
Presentation method	Table value, graph of indicator development over time.

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Responsibility

The results will be presented in a uniform Klimasken framework on a five-point scale according to the set intervals.