ENERGY

DISTRICT HEATING AND COOLING SYSTEMS

METHODOLOGICAL NOTES

The study of district heating and cooling systems is carried out from 2016 in accordance with the requirement of Article 24 (6) of DIRECTIVE 2012/27/EU on energy efficiency (EED - Energy Efficiency Directive). For the purposes of the study, the existing definition in Article 2 (19) of DIRECTIVE 2010/31/EU on the energy performance of buildings (EPBD) is applied: 'district heating' or 'district cooling' means the distribution of thermal energy in the form of steam, hot water or chilled liquids, from a central source of production through a network to multiple buildings or industrial sites, for the use of space or process heating or cooling.
Data is collected from enterprises with primary activity production and sale of heat, observing the following criteria:
- The production is in another building than the one where the heat is consumed,
- Sales are made for multiple buildings or industrial sites owned by at least two different customers.

The following cases are excluded:

- A heat plant selling heat to different customers within one building is not considered as a district heating network.
- Hospitals or Universities with multiple buildings where heat is used in multiple buildings but there is only one customer is not considered a district heating network.
- An industrial site selling heat to its own multiple buildings/installations/processes is not considered as a district heating network.
- An industrial site selling heat to more than one building/installations/processes of one other customer is not considered as a district heating network.

There are no district cooling systems in the country, data are published only for district heating systems.

Indicators observed:

Installed net heat capacity in MWh is the net capacity of the heat exchanger located at the point of transmission of heat from the installation to the district heating network.

The net heat generation in TJ is the amount of hot water and/or steam produced by the plant, supplied to the district heating network. The share of the produced heat consumed locally in the plant is excluded.

Effective and ineffective district heating networks - the networks meeting the efficiency criterion are district heating systems, which use at least 50% renewable energy, 50%, waste heat, 75% combined heat or 50% of a combination of such energy and heat. Networks that do not meet these criteria are ineffective. The following indicators characterize them:

- *Heat delivered to central heating customers in TJ* - represents the amount of thermal energy in the form of hot water and/or steam delivered to customers and measured at the transmission point, disaggregated by sector:
  - Heat supplied to the industrial sector,
  - Heat supplied to enterprises from the transport, agriculture/forestry, fishing sectors,
  - Heat supplied to enterprises from the services sector,
  - Heat delivered to household customers.
- *Number of district heating networks*
- *Length of the district heating networks in km* – the sum of the length of the pipes through which the heat is supplied, designed to take the maximum heat flow.
- *Number of customers*
- *Losses of the district heating networks* – calculated as a difference between the heat delivered to the network and the heat delivered to the customers.