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Energy Efficiency Directive  
(EED)

February 2024

## Recast of the Energy Efficiency Directive



### Key measures for the geothermal sector

## The Targets

The update of the Energy Efficiency Directive (EED), which was initially introduced in 2012, was adopted in September 2023. It sets a binding target for the reduction of overall energy consumption of 11,7% in 2030 for Member States. The amending Regulation EU/2023/955 entered into force on 10 October 2023.

## Local authority mandate on RES H&C planning (Article 25)

Local authorities of municipalities with 45 000 and more inhabitants will be required to prepare plans for heating and cooling networks. This is a key market driver for geothermal, especially for heat networks.

## Efficiency criteria for heating and cooling systems (Article 26)

The EED provides a definition of efficiency for an efficient district heating and cooling system. It is based on new criteria, including the percentages of renewable energy, waste heat, and high-efficiency cogeneration used over various timeframes with the requirements increasing from 50% renewables until 2027 to 100% by 2050. Specific targets for renewable energy, waste heat, and high-efficiency cogeneration in district heating and cooling (DHC) systems are also set while an alternative definition based on CO<sub>2</sub> emissions per kWh of heat produced is provided as well.

Furthermore, all DHC systems, whether newly or refurbished until 2030, should not use fossil fuels, except natural gas.



## Key measures for the geothermal sector

To ensure a fully decarbonised district heating and cooling supply by 2050, the definition of efficient district heating and cooling was revised and the minimum requirements are gradually changed to allow for a progressive integration of renewable energy, especially geothermal, and waste heat and cold in the system.

District heating investments are planned over a long period of time. It is crucial to already provide clear and strong signals to operators and investors to plan their transition.

New measures for cogeneration are that the support to new high-efficiency cogeneration units using fossil gas and connected to district heating in current definition of efficient district heating and cooling systems will only be possible until 2030.

Geothermal can supply both power and heat in a combined heat & power plants.

The revised directive introduces an obligation for the monitoring of the energy performance of data centres. An EU-level database will collect and publish data, which is relevant for the energy performance and water footprint of data centres with a significant energy consumption.

Geothermal offers solutions to data centres with:

- Active cooling
- Free cooling
- Heating supply
- Hot water supply
- Underground thermal storage of waste heat
- Electricity base load supply