

## EEW4 External Event Report

**Title of the event:** *Circular solutions and energy efficiency narratives in district heating in Central and Eastern Europe*

**Date & location:** 16<sup>th</sup> May 2022, 13:30-16:00 / on Zoom

**Organiser(s):** Energy Cities – in cooperation with the FlexHeat Project

**Summary of the event** This webinar – embedded in a hybrid event, organised in cooperation with the FlexHeat project - was aiming to discuss potentials for EE modernisation and circular solutions for district heating in Central and Eastern Europe. Involving some of the key district heating operators in CEEC and targeting municipalities considering also modernisation of their DH networks; this event was also discussing (changing) narratives for district heating in the current geopolitical – economical context.

**Objective & main programme point** Objective of the session was to debate different modernisation strategies for district heating (DH) in Central and Eastern Europe along with the supportive narratives. DH company Fotav, Croatian agencies, EIHP and REGEA shared their views along with Bucharest’s energy agency, AEEPM.

**Conclusions** ENERGY SECURITY / INDEPENDENCE as (the) major driver for modernisation – is now a matter of survival for DH companies. Indeed, dependence on gas with rising prices – in parallel with regulated consumer prices caused bankruptcy in some CEEC district heating companies. TIME factor poses concerns – as in any EE investments it is important to take time for the cautious preparation and realisation; ‘now, we are almost in winter and we don’t have the time’ (referring to the planned EU embargo on Russian oil & gas). DATA is key; their availability and quality contributes faster decision making; appropriate mapping is a key tool for prioritisation of investments. Largest potential for EE is still on the demand (secondary) side; BUILDINGS refurbishment connected to DH can reach up to 60% savings  
Personal contacts and demonstration of visible, key benefits of EE helps to make the business case and realise investments.



“The project EEW4 has received funding from the European Union Horizon 2020 research and innovation programme under grant agreement No 847153”

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**AGENDA:**

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***Circular solutions and energy efficiency narratives in district heating  
in Central and Eastern Europe***

Date & Time: 16<sup>th</sup> May 2022, 13:30-16:00

on Zoom: <https://us06web.zoom.us/j/82857698786>

**Outline**

This webinar and hybrid workshop, in cooperation with the FlexHeat project aims at exploring and promoting supportive narratives and successful strategies of energy efficiency in district heating in Central and Eastern Europe. Indeed, in the context of rising energy prices and unstable supplies; district heating offers a great alternative not only for decarbonising our energy systems. Energy efficiency and the integration of waste heat and renewables in these traditionally widespread systems throughout Central and Eastern Europe provides for a more affordable and secure heating and cooling alternative for the region; yet faces many challenges in the current geopolitical-economical context.

Besides sharing good practices and supporting narratives for energy efficiency in CEEC, this webinar aims at discussing case studies and narratives developed by the [Energy Efficiency Watch project](#) that monitors the implementation of energy efficiency policies in the EU27 and develops supporting narratives for the local energy transition.

**13:30 – 13:45** Kristina Dely, Energy Cities, Energy Efficiency Watch project – Setting the scene

**13:45 - 15:30** Sharing experience in Central and Eastern European experience

- Ilja Drmač, Energy Institute Hrvoje Požar (HR) - Waste heat utilisation & mapping in district heating
- Tomislav Novosel, REGEA (HR) - District heating (consumption) map in Zagreb and Osij
- Ion Dogeanu, Bucharest, Sector 1 AEEP (RO) – Large scale energy efficiency refurbishment in Bucharest's building stock, financed by ELENA
- Balázs Némethi, FŐTÁV, Budapest (HU) - Modernisation efforts and energy efficiency achievements in the district heating system of Budapest

**15:30 – 16:00** Discussion: District heating energy efficiency narratives in Central-Eastern Europe

Moderator: Kristina Dely, Energy Efficiency Watch 4 project, Energy Cities

*"So-called "narratives" combine several arguments and are supported by a larger number of actors. The objective of developing and spreading such narratives is often to gain wider support for a political movement, a policy or even a change in society, such as the energy transition policies. Often, these narrative are "stories" which combine facts and the ability to trigger emotions.*



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PICTURES



EU27: Key input factors for narrative development (survey, 2020)

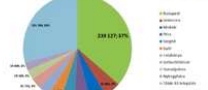
| Topic                             | Importance in the public debate (ranking) | Topics linked to energy efficiency (ranking) | Positively discussed | Negatively discussed | Actor group                    | Influence on policies (ranking) | Supportive of energy transition | Opinion not known | Opposed to energy transition |
|-----------------------------------|---|--|----------------------|----------------------|--------------------------------|---------------------------------|---------------------------------|-------------------|------------------------------|
| Jobs                              | 1   | 8  | 72 %                 | 28 %                 | Associations of large industry | 1                               | 47 %                            | 13 %              | 40 %                         |
| Industrial competitiveness        | 2   | 2  | 83 %                 | 17 %                 | Trade Unions                   | 2                               | 37 %                            | 40 %              | 23 %                         |
| Modernisation / Investments       | 3   | 1  | 44 %                 | 56 %                 | Chambers of Commerce           | 3                               | 52 %                            | 28 %              | 20 %                         |
| Heating / Heating costs           | 4   | 3  |                      |                      | Tabloid press                  |                                 |                                 |                   |                              |
| Air quality                       | 5   | 4  |                      |                      | Farmers' organisations         | 4                               |                                 |                   |                              |
| Independence from other countries | 6   | 5  |                      |                      | NGOs                           | 5                               |                                 |                   |                              |
| Rural development                 | 7   | 7  |                      |                      | Churches                       | 6                               |                                 |                   |                              |




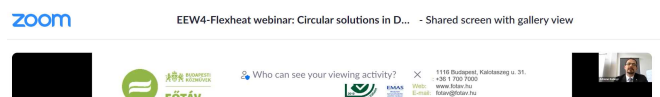
**Budapest district heating in numbers**

- in 19 districts of the Capital (23 all)
  - 245.000 „residential” clients (240.000 flats, 5 th. public, 300 garages)
  - 1.800 non resid. clients ügyfél
  - 37 million m<sup>3</sup> heated room space
  - 580 km of track pipeline (1,3 km for cooling)
  - 4.169 pcs. of substations (3.515 pcs own; 2.881 pcs in SCADA) + 503 pcs flat equipment
  - 2.150 MW installed heat capacity in 24 sources (600 MW owned by FŐTÁV);
    - 1.200 MW heating + DHW heat load
    - 12 MW cooling heat load
    - 650/943 MW cogenerated/whole electric capacity
    - 1,5-1,8 TWh/a cogenerated electricity
    - 11-12 PJ/a heat fed in network
      - 92% based on natural gas, 8% MSW (2021)
      - 11% own production, 89% purchased heat
      - 70,5%-a high efficiency CHP
      - 28-30 GWh/a electricity consumption
      - 300 tns m<sup>3</sup>a feed water
  - The share of the Budapest DH in the Hungarian primary energy balance is 2%.

**FŐTÁV is the „flagship” of the Hungarian DH sector**



**Separated DH systems, Not totally „DH-free” downtown**

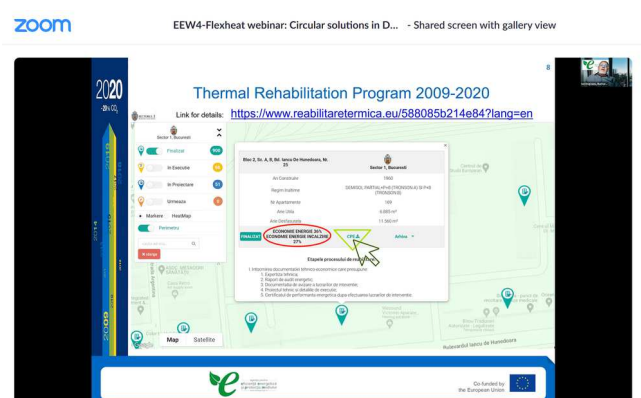
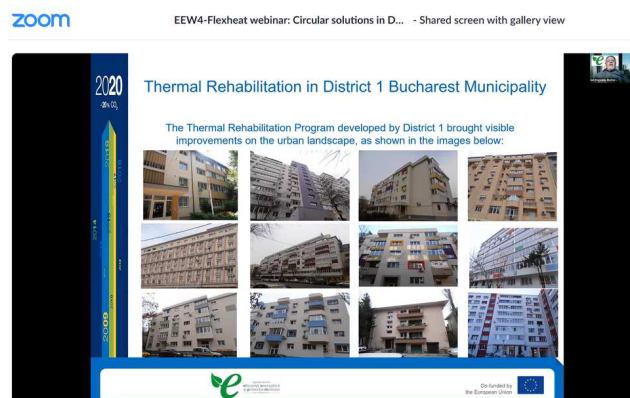
**Waste Incineration Plant's (HUHA) role in Budapest DH**

**Before 2015**

- 400.000 tons/y household waste incineration
- 170 GWh/y electricity production and 140 GWh/y (max. 30-35 MW) heat production.
- Low (about 30%) energy efficiency
- The cheapest source of heat in Budapest (13 €/MWh vs purchased heat approx. 35 €/MWh average)
- The only non-gas-based heat source in the capital's district heating portfolio

**Limitations of increasing heat output of HUHA**

- Long-term contract with Budapest Power Plant Ltd. – Újpest power plant (with „Take or Pay” construction)
- Heating market is limited because of the island heat area
- Technical limits (heat transfer station, power line and circulating capacity, return flow supply)



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