

Awareness rising: Energy from Waste or Energy from the Sun?

Subject:	Best practice framework
Description:	Awareness rising: Energy from Waste or Energy from the Sun?
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Summary description of the instrument

Region: Sofia, Bulgaria

Partners involved: Institute for Zero Energy Buildings

Short description of the measure: Awareness rising: Energy from Waste or Energy from the Sun?

Initial situation

"Toplofikacia Sofia" EAD is the biggest municipal public DH in Bulgaria, having total supply to 438 000 households and sharing more than 71% of total domestic heat.

On May 17, 2018 at the regular meeting of the Sofia municipality council, a decision was taken for the assumption of long-term municipal debt for the implementation of the project "Construction of a cogeneration plant in Sofia with utilization of RDF waste" amounting to BGN 135 000 000 – loan from European investment bank (EIB). The project will be implemented by "Toplofikacia Sofia" EAD.

According to the environmental impact assessment of the project the "Construction of a cogeneration plant in Sofia with RDF waste utilization", which will be financed with the said loan, the plant will generate 12,8 tons of fine particulate matter (PM) per year.

At the same time current status of most polluted cities in EU of Sofia is at the bottom....

The proposal of IZEB as being part of the SDH2PM consortium to Sofia Municipality is to share some of the abovementioned investments in solar alternative with zero PM emissions.

Objectives

The main objective is to raise the stakeholders awareness and to attract the attention from the Municipality stakeholders on SDH technology and its commercial and environmental aspects and benefits.

Using capacity building actions and feasibility studies the interested supporters will be prepared and motivated with basic knowledge for a future implementation of SDH in the region.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691624

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Debate of using solar heat in the Sofia Municipality Parliament does not still exists. The key role of Sofia Municipality Parliament as head of the public company "Toplofikacia Sofia" EAD is crucial. Promoting of the SDH technology and its ecological and economical aspects to a bigger group of councillors will make possible break through in a future debate for transition of "Toplofikacia Sofia" EAD to renewables including solar heat.

Measures and actions

1. Official letter to the Sofia municipality and "Toplofikacia Sofia" EAD: suggesting the 67M euro that the municipality plans to pour in "Energy from Waste" plant should be better invested in SDH (12.03.2018).
2. Press release: SDH – an Opportunity to Save our Cities from the Air Pollution (12.03.2018) – fits a moment of mass protest against air pollution in Sofia
3. Meeting and presentation in front of deputy mayor of Sofia Municipality Teodora Polimerova.

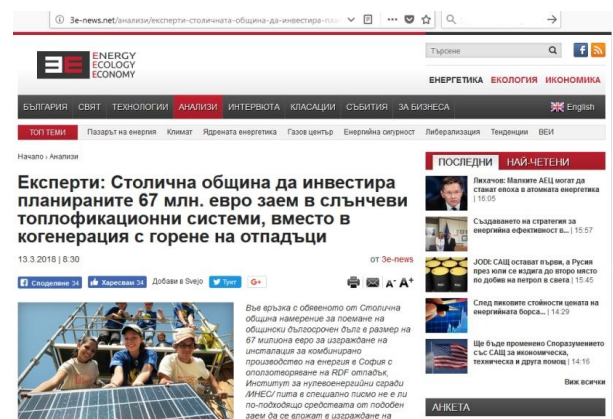
Barriers and opportunities

Barriers

- Lack of knowledge of the technical aspects for SDH and its potential among engineers and consultants, working in "Toplofikacia Sofia" EAD
- Negative attitude of key experts based on old conceptions for usage of high temperature solar heat in DH production, where costs are not feasible for commercial application.
- Lack of influential local producer of industrial solar collectors who can lobby for large solar heat implementation.

Opportunities

- Rise of the gas prices – from October 2018 more than 11% rise of heat prices in Sofia and expected other 7% for 2019.
- Friendly and supportive councillor from Green Party in the Sofia Municipality Parliament
- Increase influential young experts in the Sofia Municipality administration opened for more sustainable and progressive development of the municipal infrastructure



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Results



- **an invitation** was received by the “Climate and Energy” Directorate at the Sofia Municipality for broader presentation of the SDH technology and best practices.
- following that presentation, an **educational seminar** was held together with Sofia Municipality on the best practices from the European SDH experience (04/07/2018)
- Invitation from the deputy mayor of Sofia Municipality to submit project proposal for pilot plant
- Reply letter received from the general manager of "Toplofikacia Sofia" EAD (22/05/2018). The letter expresses doubts of feasible application of SDH unless it is sponsored from EU research programs. The state is based on old researches from Sofia Technical University, where high temperature solar heat is used DH production, and where costs are not feasible for commercial application

Lessons learned

The promoted SDH technology is still exotic in the professional fields. Key role in breakthrough for SDH initiative in the municipal owned DH will have recognized and credible experts, professors from universities and chief engineers, working in the local DH.

A sponsored pilot plant will easily convince the councillors to take the risk and invest in unknown DH technology.



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