Upgrade the District Heating System Tuzla in Bosnia and Herzegovina

INVOlVMENT OF STAKEHOLDERS

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General Recommendations on setting up a local working group (LWG)

• UPGRADE DH project (Upgrading the performance of district heating networks in Europe) - WP 3 – Task 3.1 / D 3.1. gives the recommendations.

• For the success of an upgrading process of a DH system, it is important that all stakeholders are involved from the beginning of the process, to ensure acceptance of the future project, but also institutional and technical support in all phases of the development of an upgrade DH project.
Should a LWG be set up as a new one ‘from scratch’ or should an already existing one be used?

• This depends on the specific situation in particular case.
• At places were e.g. advisory or working groups on DH issues already exist, these groups can be used and new members can be added.
• Subgroups can be selected for addressing more specific issues, e.g. heat suppliers and developers for addressing market needs or energy agencies for developing promotion and advisory activities.
• In places were no similar groups exist so far, the working group has to be set up from scratch.
• especially in smaller countries, use synergies with groups from other regions or acting on national level might help.
Who should be invited in LWG and why?

Relevant stakeholders that could be invited for participation are the following:

• Supply and demand side heat suppliers, DH grid operators, energy cooperatives, energy initiatives, municipalities, housing associations, building owners and end users.

• Practical supporting actors: planners, city planners, experts in heat planning, banks, financers, energy agencies and R&D organizations.

• Political supporting actors: politicians, parliamentarians, authorities, local policy makers such as city and administration and associations of above mentioned stakeholders.

In general it is important to cover the whole value chain of heat generation, heat distribution and heat use.
What are the main achievements/recommendations?

• Cooperation and discussion between different authorities involved in DH upgrading issues.
• Increase of market activities and new projects.
• Political will to support the development of upgrading DH.
• Profiting from the interaction with the other regions; although the situation and experiences in the regions are different these can be useful. Some topics can also be developed in cooperation.
• Benefiting from the advice from expert partners from abroad.
• A pool of experts and market stakeholders covering a broad field of DH upgrading issues is a very efficient and flexible structure for implementing a working group as well as the corresponding activities.
• Creation of a new regional network of stakeholders involved in upgrading DH.
• Workshops and training courses on DH upgrading issues.
220 MWt instantaneous power

310 GWht primary heat energy demand with annual 20 GWht tendency increase

1977 construction year, gradually expanded and substantially upgraded in the past 15 years

23,200 users (cca. 90% flats, other 10% commercials)

10 km primary pipeline (DN600-DN250) length

170 km secondary network length

1,732,660 m² total heating area

1,021 heat substations

80% + consumers in Tuzla City are connected to the DH

145/75 °C designed temperature regime at -17°C outdoor air temperature and steady fluid flow
CHP Tuzla, owned by EPBiH Power utility, Distribution utility, owned by City of Tuzla
Stakeholders involved

➢ EPBiH/Development dept. (3 members)
➢ EPBiH/CHP Tuzla (2 members)
➢ Distribution utility company (4 members)
➢ City council (1 member)
➢ Consumers associations (1 member)
➢ Buildings managers (1 member)

- Thermal engineers' association in Bosnia and Herzegovina (1 member)

LOCAL WORKING GROUP
Core working group identified:
EPBiH Power utility/CHP Tuzla + Distribution utility

ASSOCIATED MEMBER
LAW ON THERMAL ENERGY – DRAFT
Communication with supply/demand suppliers, representatives from the City council, consumers associations and buildings managers

- Initial meeting of the core Local working group: 25th of May 2018 ✔
- Kick-off meeting of the Local working group: 27th of September 2018 ✔
- Third meeting of the Local working group: 6th of November 2018 ✔
- Fourth meeting of the Local working group: 13th of December 2018 ✔
- Fifth meeting of the Local working group: 28th of February 2019 ✔
- Sixth meeting of the LWG with the Management of EPBiH Power utility: 06th of September 2019 ✔
- Several meetings held between the core LWG members while communication is on weekly basis ✔
Benefiting from the advice from expert partners from abroad

AGFW Experts stay in Tuzla, 15-19 April 2019

Internal meetings of the Local working group DH Tuzla and experts from AGFW with the aim of solving hydraulic issues in the heat distribution system and improvements of energy efficiency on side of heat production (Pump stations, heat stations, solar thermal collectors...) -
Benefiting from the advice from expert partners from abroad

Tuzla DH Core LWG visit to OPTIT, Bologna, 06-07 February, 2020

Finalization of optimization the CHP Tuzla cogeneration units operation as function of profiting from sale of electricity and heat as well as energy primary savings/CO2 cut. Selection of Thermal storage capacity to be integrated into system of CHP Tuzla.
Profiting from the interaction with the other regions - use synergies with groups from other regions -

Visit of the Tuzla DH Core LWG to Zagreb (Croatia), Feb 05th, 2020
Meeting with Uni Zagreb group and joint visit to CHP Zagreb East, Thermal storage
Main outcomes from the LWG meetings

• Discussion and preliminary identification of possible upgrading opportunities in the thermal energy generation, thermal energy distribution and at the consumption side.

• Identification of possible measures, prioritizing and final selection of the measures: Optimization of CHP operation, Thermal storage integration, Solar thermal, Biomass co-firing, Resolving hydraulic issue, Thermostatic valves and new billing system.

• The support of City representatives is very important, they understand the issues and they are also trying to find legal mechanisms in order to overcome certain problems. There are already giving subsidies for connecting new users to a district heating system.

• Representatives of management of EPBiH support all activities within Upgrade DH project and encourage the LWG to elaborate all identified measures and forward them to the management of EPBiH, after WP4 and WP5 are finished, a prioritized list of projects to be involved in short-term and mid-term investment plan of EPBiH.
Additional outcomes from the LWG meetings

- Public call of City Tuzla for co-financing energy efficiency measures in buildings, 2019.
- Public call of City Tuzla for financing installation of 2 MWt of heat pumps in periphery area of the city, 2019.
THANK YOU FOR YOUR ATTENTION!

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