

Regional Forum for National Designated Entities

**Region: Eastern Europe and Middle East
Yerevan, Armenia**

Experience-sharing on Technical Assistance

Example: Bosnia and Herzegovina

B&H, country facts

- Region: Southern Europe/Western Balkans
- Country income: Upper-middle-income economies
- UNFCCC Annex 1 status: Non Annex 1 Party to the Convention, B&H ratified UNFCCC in 2000
- NDE: Goran Trbic, Faculty of Sciences, University of Banja Luka
- DNA established responsible for CDM and NAMA's
- INC, SNC prepared and submitted
- FBUR, Low Emission Development Strategy prepared and adopted
- TNC and TNA under preparation (to be finalized by end of 2015)
- Energy strategy under adoption

Technical request to CTCN

- “Rehabilitation and Modernization of district heating system of Banja Luka- focus on energy efficiency”
- Sub-national/City project
- Mitigation of CC, energy sector

Short overview of the request submitted

- Several feasibility studies for municipal DH have been drafted in recent years in the country, predominantly focusing on possibilities for fuel conversion from mazut (fuel oil) to biomass/wood chips
- Lack of comprehensive feasibility studies taking into consideration cost benefit analysis options of economic, social and environmental impacts

Short overview of the request submitted

- The second largest DH system in BiH
- Significant energy losses during transmission and end-use
- Financial losses for 2014 were approximately 10 million KM (5 million euros) as revenue was only 25 million KM compared to costs of 35 million KM
- Modernising the district heating network would reduce fuel consumption by 27%, approximately – 4,500 tons of crude oil which corresponds to 50,293.88 MWh of thermal energy - reducing emissions by 20,000tCO₂ annually and saving the municipality 4.5 million euros per year
- Insulation of existing buildings is possible to achieve savings of energy consumption of 36,000 MWh and emission reduction of 14,400 tCO₂

Short overview of the request submitted

- The technical assistance of the CTCN in order to prepare a comprehensive Feasibility Study for rehabilitating and modernizing its district heating
- The short-term recommendations could include: specific high-priority pipe replacement, meters in houses and fuel switching
- The Feasibility Study will target a reduction of energy costs, heat losses, improved building efficiency (insulation and heat meters), fuel switching to environmentally friendly sources, and other operational improvements

Short overview of the request submitted

- In the **medium term**, CTCN's assistance will contribute to the following:
 - Ensure the continuation of Banja Luka's DH system, a system which provides the city with the highest potential for energy efficiency improvements and renewable heating and will be critical to the city's continued efforts to reduce fuel poverty.
 - Reduction in the use and procurement cost of crude oil for Banja Luka's DH system helping the city reduce losses and retaining wealth in the local economy encouraging local job development.
 - The replacement of 10% of the city's DH distributional network.
 - The mainstreaming of insulation techniques and the subsequent reduction (estimated at up to 40%) of the building stock's energy usage
 - The development of a new energy tariff system at municipal level to improve efficiency, protect fuel poor and ensure business model is sustainable and attractive to the private sector.
 - Subject to feasibility results (i.e. business plan) and thus availability of funds, the installation of heat meters in residential and commercial buildings.
 - Reduce fuel consumption by up to 27% in the medium-term saving 4.5 million euros a year in crude oil expenditure and saving 20,000tCO₂ annually.
- In the **long term**, CTCN's assistance will contribute to the following:
 - Diversification of energy sources (from crude oil to biomass and/or geothermal) and the development of co-generation DH plants leading to emission reductions of up to 80,000tCO₂ per year.
 - A reduction in overall energy requirements and associated GHG emissions stemming from the city's space and water heating operations.
 - The establishment of Banja Luka as a forerunner for further DH energy efficiency initiatives across BiH.
- Decoupling of local heat market from international fossil fuel markets increasing local wealth retention, jobs and the financial stability of the DH system.

Experience on the identification and preparation of the request

- A delegation from the city of Banja Luka participated in a joint UNEP-IFC workshop, “Private Sector Participation in District Heating,” in Tallin Estonia, on April 27 2015– meeting with the UNEP delegation to discuss the opportunities.
- Several meetings follow-up meetings were held between the city, UNEP (DTIE, Regional and Country offices)
- A delegation to UNEP Paris on Thursday May 21, 2015 organised by the UNEP Country office, where the CTCN team presented the opportunities offered by CTCN to access technical assistance of the highest quality and to remove barriers to technical transfer.
- Thereafter the City of Banja Luka was in touch with the Country NDE to discuss the proposal.
- Proposal prepared by City of Banja Luka with assistance of local UNEP office

Experience related to CTCN management

- Submitted in August 2015
- Eligible by CTCN, team of experts for response in forming process
- Follow up meetings

Thank you for your attention!