

**Regional Forum for National Designated
Entities, May-June 2017**

**Region: Eastern Europe and Middle East
Tbilisi, Georgia**

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, NDC prepared and submitted
- FBUR, Low Emission Development Strategy prepared and adopted
- TNC adopted and under submission
- NAMA's under preparation
- 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

- 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

Experience related to CTCN management

- Submitted in August 2015
- Eligible by CTCN, team of experts for response formed
- Response plan prepared
- the CTCN contracted experts from the UNEP-led *Global District Energy in Cities Initiative*, to conduct a city-wide analysis to assess the district heating network status and energy efficiency, building efficiency, the appropriateness of current heat production sources and the financial situation including current tariff levels and customer connection rates

Technical assistance results

- The experts, in collaboration with national counterparts, developed the assessment, including a Priority Investment Program which addresses the identified issues by proposing fuel switch from Heavy Fuel Oil (HFO) to biomass, renewable, locally available and cheaper fuel;
- modernization and rehabilitation of the existing HFO boilers to cut costs of fuel and electricity; rehabilitation and priority replacements in the distribution network to cut heat and water losses; and switching to consumption based metering and billing for improved quality of services and customer confidence.
- The measures proposed in the assessment are aimed at improving the service level and decreasing district heating costs in order to improve the competitiveness of district heating in relation to alternative heating sources.
- The measures have been designed taking into account technical, financial and environmental considerations, in order to secure an environmentally, technically and financially sustainable of the district heating system.
- This rapid assessment and priority investment plan that has been approved by the city of Banja Luka, and is now being used as the basis for development in the city, and has gained approval at multiple levels of governance.
- Furthermore, the assessment has attracted interest from the European Bank EBRD for Reconstruction and Development (EBRD) in to provide providing an investment package of several million euros (42) for new biomass boilers, network upgrades, and other efficiency measures.

Addendum to the Response Plan

- Developed at end of 2016 in order to conduct a number of supplementary activities, in addition to those conducted under the original response plan.
- The CTCN is providing technical assistance to conduct a feasibility study for the City of Banja Luka and the utility Company that will be used to appraise the Project and facilitate decisions on the prospective financing.

Addendum to the Response Plan-activities

- Confirm availability of sustainable biomass supplies
- Provide a contract template for delivery of biomass between the utility Company
- Define the long term strategy for the district heating sector in the city
- Develop a long-term strategic investment programme
- Identify and assess a detailed Priority Investment Programme (PIP), suitable for implementation over the next 3 years to be partially financed by the EBRD loan
- Review and comment on appropriateness of the new tariff model
- Prepare a procurement and implementation strategy including detailed plans for the contracting, financing and implementation of the investments
- Identify energy efficiency measures for the district heating
- Identify, assess and elaborate local legal requirements for obtaining necessary approvals for project implementation
- Produce calculation on the EBRD's standard measuring indicators and SRI impact indicators

Addendum to the Response Plan

- Signed in January 2017
- Ongoing implementation
- Plan approved by the Mayor and the city assembly
- New district heating company to be established with biomass boilers
- Financial agreement signed for covering costs

Thank you for your attention!