



Bosnia & Herzegovina

Applicant: City of Banja Luka
National Designated Entity: Faculty of Sciences, University of Banja Luka
Duration: 4 months
Status: Completed
Budget: 90,000 USD



Modernization of Banja Luka's district heating system

CONNECTING COUNTRIES TO CLIMATE TECHNOLOGY SOLUTIONS

The Climate Technology Centre and Network promotes the transfer of climate technologies at the request of developing countries for energy efficient, low-carbon and climate resilient development.

By connecting stakeholders with technology experts from around the world, the CTCN delivers customized capacity building and technical assistance aligned with national climate objectives.

CHALLENGE

The district heating system in Banja Luka, which relies on the use of high cost crude oil, experiences significant energy loss during transmission and end-use. This causes the city to incur unsustainable debt, while also producing unnecessarily high amounts of green house gas emissions.

CTCN ASSISTANCE

The CTCN developed an operational and investment strategy for the district heating system's improved sustainability, including:

- construction of new biomass boilers to reduce heavy fuel oil consumption and generate heat with sustainable biomass (cheaper, renewable, and locally available)
- rehabilitation and replacement of key components in the distribution network to cut heat and water losses and reduce electricity consumption; and
- switching to consumption based metering and billing for improved quality of services and customer confidence.

IMPACT

The proposed CTCN strategy attracted interest from the European Bank for Reconstruction and Development (EBRD) in providing an investment package of 15 million euros for new biomass boilers, network upgrades, and other efficiency measures.



THIS PROJECT ADVANCES

Bosnia-Herzegovina's Determined Contribution to:

- introduce renewable energy sources in the existing district heating systems and to construct new district heating systems fuelled by renewable energy sources.

SUSTAINABLE DEVELOPMENT GOALS



What is climate technology?

Any equipment, technique, practical knowledge or skills needed to reduce greenhouse gas emissions and/or adapt to climate change. This includes modern and traditional technologies

THE STORY

By leveraging a relatively small CTCN technical assistance investment, the city of Banja Luka gained a strategy for significantly upgrading its district heating as well as financing to implement the proposed changes.

The European Bank for Reconstruction and Development (EBRD) €15 million agreement includes investments in the modernisation of the heating infrastructure and the partial write-off of existing debts, the city government said in a statement.

When completed, modernisation of the district heating system could reduce fuel consumption by 27%, equal to approximately 4,500 tonnes of crude oil. This would reduce emissions by 20,000 tonnes of carbon dioxide each year and €4.5 million in fuel savings for the city. Configuring the district heating system to be fully renewable has the potential to save over 50,000\teCO2per year.

Development and use of domestic energy resources such as biomass will bring additional economic and employment benefits for the local community.

Learn more about CTCN technology transfer

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The CTCN is the operational arm of the UNFCCC's Technology Mechanism and is hosted by the United Nations Environment Programme (UNEP) and the United Nations Industrial Development Organization (UNIDO).

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