

Kolasin Biomass District Heating System

Project Financing

KFW External Grant	€ 6,000,000
WBIF Grant	WB6-MNE-ENE-05 € 330,000
Total	€ 6,330,000
Total Grants	€ 330,000
Total Loans	€ 0

Project Description

Kolasin Municipality (population 9,900) lies in the mountainous area of Montenegro's Gora National Park, one of Europe's largest virgin forests. Well connected to national road and rail transport routes and not far from the international airport in Podgorica, Kolasin is one of the major mountain tourist attractions in Montenegro. The town experiences severe winters that require an eight-month heating season. Residents and industries use wood, oil, coal, and electricity for heating. At the moment there are ten large heating boilers using oil and coal as their main energy source that service the needs of the hotels, schools, hospital and a number of municipal buildings. Most private houses use firewood for domestic heating and electricity to heat water.

The uncontrolled burning of moist wood and the use of heating oil and coal endanger the environment as their combustion results in significant quantities of CO₂ (estimated at approximately 1,000 tonnes per annum) and other harmful gases (NO_x) along with micro-particles. This WBIF has provided technical assistance grant to cover the cost of a detailed feasibility study, including preliminary design for a new, centralized district heating system based on biomass.

The technical assistance team ([Infrastructure Project Facility 3](#)) has recommended two equal-sized boilers of 8 MW each and a distribution network in the central area of the town. The study conclusions have also indicated the need for a further grant for the investment works (approximately 50% total costs) as the project would not otherwise be financially viable. A project brief has been prepared to assist the beneficiary/partner with the identification of further financing.

Results and Benefits

- savings up to 40% could be achieved by largest consumers (more than 70% of consumption goes to large consumers) such as hotels (Lipka, Bjanka, Brile), public companies, hospital and all other consumers who currently use oil as fuel for heating
- significant improvement in the quality of life
- initiate an economic impulse for the whole region and create new vacancies
- the use of biomass (wood chips) in the heating system will offer an additional opportunity to the numerous local owners of wood processing plants for income through the delivery of wood for use in the heating plant
- a good deal of individual wood-burning furnaces could be eliminated, which would prevent emissions caused by uncontrolled combustion of moist wood and lead to a significant improvement of air quality (

- **Countries:** Montenegro
- **Code:** PRJ-MNE-ENE-004
- **Sector:** Energy
- **Lead IFI:** KFW
- **Status:** Completed
- **Beneficiary:** Municipality of Kolasin

Related Documents

- [WBIF School Renovation Project in North Macedonia](#)