

Challenge

This Serbian producer of electrical energy wanted to expand its capacity and understood the importance and benefits of using hydropower potential. Hydropower does not produce greenhouse gas emissions, contributes to sustainable development, represents a clean energy source, and generates revenues.

Solution

The project sponsor decided to invest in construction of a 474 kW small hydropower plant in the mountainous area of eastern Serbia. Produced electricity is sold to the grid at feed-in tariffs. The investment covered the following equipment and related labor:

- Francis turbine
- synchronous generator, transformers and others accessories
- construction of water intake
- construction of a power house
- construction of a penstock

Energy Production – 1,822 MWh

The E3 International engineers calculated that the investment in this small hydro power plant would result in a renewable energy production of 1,822 MWh per year, generating over EUR 151,000 of revenue per year.



Implemented through the EU/EBRD WeBSEFF program

Company

Country	Serbia
Sector / Asset type	Commercial (power)
Project type	RE
Main business activity	Production of electricity

Project Facts and Benefits

Investment value	EUR 771,100
Loan amount	EUR 550,000
Energy production	1,822 MWh/yr
Decrease of CO ₂ emissions	1,067 tonnes/yr
Equivalent cars removed	230
Equivalent trees planted	17,640
Annual revenues	EUR 151,070/yr
Payback period	5.1 years
ROI	20%