

LTD “Bakuri” – Electric Power Generation

LTD “Bakuri” is a group with various business activities, including electric power generation in its Machakhela hydro-power plant (HPP). The hydropower plant, located in a 31,497 m² plot of land, including 306.56 m² for the HPP building, was re-commissioned in 1995. The company now invested in the replacement of soviet era hydraulic units against modern units with crossflow turbines, a brushless, self-excited synchronous horizontal generator with accessories and improvements in the bearing housing. With the investment, financed with a EU4Business-EBRD Credit Line loan, the maximum output of the turbine and generator is now 2,175kW, and 2,025kW respectively and also the ‘stability’ of power generation was improved. The new design of the bearing housing prevents water leakage into bearings and water contact with lubricants, which significantly reduces any harmful environmental impact. Additional benefits include the efficient use of water resource available for power generation and improvement of working conditions (reduced maintenance needs, lower noise and vibration). After project verification, the company received 15% of the loan amount as a grant cashback, funded under the EU4Business initiative of the European Union.

Invested in:

- Procurement and installation of the new hydraulic unit with crossflow turbines



Photograph 4: Power unit - generator

Invested Volume:

- Loan Amount: EUR 821,000
- Grant Amount (15%): EUR 123,150



Photograph 14: New step-up transformer and fire protection

EU Directives met:

- Directive 2014/35/EU of the European Parliament and of The Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits
- Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)
- Directive 2009/28/EC on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.