

AD-HOC TECHNICAL ASSISTANCE PROJECT

AHEF No. UA 37

Project Title

Technical audit at small HPPs of the Foreign Economic Association Novosvit and proposals for financing rehabilitation

Country (s) Ukraine

Timescale for implementation September 2010 – April 2011

Beneficiary(s)

Foreign Economical Association "Novosvit", Vinnitsa, Ukraine

Main and specific objectives

The **main objectives** of this project were (1) to support the process of small hydropower plant rehabilitation in Ukraine (2) to allow better daily load leveling in the energy system of Ukraine and (3) to show other HPP operators by demonstration how to improve their plants.

The **specific objectives** of the project were: (1) To identify improvement opportunities in the operation of three HPPs: (2) to clearly define the feasibility of improvements of 3 HPPs in bankable terms (3) to propose potential financing schemes for feasible improvements (4) to show the Novosvit Association and other interested parties the way to improving all of their HPPs by following SEMISE's methodology and the first three examples (5) to provide others in the Partner Country, e.g., the Ukrainian Ministry of Fuel & Energy, with a methodology for energy audits in existing small hydropower plants (6) To speed up the Novosvit Association's reconstruction and modernization programme.

Results achieved

During the course of the project the SEMISE experts were successful in assisting the Beneficiary in identifying the best technical options for improvement of the running of the three HPPs and to show how the operation could become bankable. The project was a very good example of how SEMISE and Beneficiary experts worked together to meet the main and specific objectives of the project. Disseminated properly in writing and by means of small workshops the results of the project will have substantial interest to many other operators of small HPP in the NIS countries because they face a similar situation with regard to HPP as the Ukraine has.

Useful information/ relevant documents

Depending on the site, recommendations included new impellers, new controls, replacement turbine-gensets, additional turbine-gensets and new lubrication pumps.

Total internal rates of return (IRR) for recommended investments at each of the three sites were 38%, 52% and 25%.

SEMISE published a methodology for doing energy audits at SHPPs, which the Ukraine MFE requested. The methodology may be used by operators to benefit any SHPP in any Partner Country.

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Information about the project may be obtained from the general manager of the Beneficiary, Mr. Serhiy Oehovych Kulmatytskyi, e-mail: uekvin1@sovamua.com or from the SEMISE office in Kiev.