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Plausibility Check of the Project Design for the Hydropower

Power Plant Khobi 2 (40 MW) and other sites, Georgia

(Programme for the Promotion of Renewable Energies II)

The Bank of Georgia has concluded an agreement with KfW aiming to contribute towards the promotion of renewable energies in Georgia by enhancing access to loans for Private Entrepreneurs investing in hydropower plants. The consultancy assists in project preparation in terms of feasibility studies, bankable documents, loan applications and further steps until implementation. Skat is responsible for the hydrological part.



Country:

Georgia

Project Period:

June 2015

Services Provided:

Assessment, Monitoring & Evaluation

- Hydrological assessment on the basis of available data including examination of possible impacts of climate change on hydrology and resulting energy production

Name of Staff involved and functions performed:

[Dr. Hedi Feibel](#), hydropower expert and hydrologist

Name of Partner Organisation(s):

GfA Consulting Group (Skat Consulting Ltd. as subcontractor)

Description of the Project:

In-depth hydrological analysis based on available hydrological data & studies, own comprehensive data evaluation, including duration curves, residual flow, flood flow analysis, assessment of climate change impact and sediment transport.

Assessment of the quality of the database and of the method to transfer data from the gauging station to the intake location (regression analyses), estimation of the error risk in forecasting the producible energy (trend analysis and statistical test), evaluation of the applied method to establish flow duration curves and own calculation of median flow duration curve and probable fluctuations (risk assessment); assessment of the estimation of sediment transport; assessment of method and value of environmental flow; assessment of the determination of the extreme runoff values (floods of different annuities); formulation of respective recommendations.

Results: reliable hydrological study with risk assessment and determination of residual flow as a sound basis for the planning and detailed design of the 40 MW hydropower system of Kobi 2 / Georgia