Design Review Hydropower Plant
Pump as Turbine (PaT) technology

Services rendered

Design Review

Detailed Design

Preparation of Tender Documents

Template of an Intake Structure

The Project:
The Consultant's services consisted in reviewing the final design and tender documents for the construction of a a first hydro-electric power plant.
The selected location is the Rusumo river with the power house being close to the road to Kigali. The hydropower plant head is about 77 m between the Intake of and the Powerhouse. The power house is an On- and Off- grid solution that will promote rural electrification in Rwanda. The project is based on KSB's turn-key concept of small hydro power plant with its “Pump as Turbine (PaT)” technology ranging from 30kW to 750 kW.

Duration

08/2016 - 06/2017

Total Project Value

118.712 €

Consulting Value

5.578 €

Contractual Form

Service contract

Tasks performed:
The main scope of services consisted in verifying the concept and in reviewing and updating the preliminary design and tender documents.
This served to increase the quality of the tender documents before launching the request for proposals for the contract for the civil works of the hydro power plant. The civil work has three main parts, which are:
• intake
• penstock
• powerhouse
• temporary bridge

Key Figures

Pump as Turbine (PaT) technology ranging from 30kW to 750 kW.

Country

Rwanda

Source of Funding

KSB AG
67206 Frankenthal

Client

KSB AG
67206 Frankenthal