

TECHNICAL DOCUMENTATION FOR THE WATER ADMINISTRATION PERMIT REGARDING THE DEVELOPMENT OF (1)- SMALL HYDROPOWER STATIONS ON TIMIȘ RIVER BETWEEN 550 AND 408 mSL AND (2)- SMALL HYDROPOWER STATION ON TEREGOVA RIVER BETWEEN 560 AND 450 mSL; BENEFICIARY SC SIBER ENERGIA SRL TIMIȘOARA

Goal of the project

Documentation accomplished according to Bill of Water no.107/1996 and Standard Technical Documentation required for issuing a Water Administration Permit, organized by MMP Decree no.799/2011, MMGA Decree no.661/2006, Government Ordinance no.151/2005, Government Ordinance no.152/2005 and the Bill no.84/2006.

The mentioned documentation aims to obtain the Water Administration Permit for developing a group of two SHP stations on Timiș River – arrangement sector between 550 and 408 mSL and one SHP station on Teregova River respectively – arrangement sector between 560 and 450 mSL, both in Caras-Severin County.

Short description of the project

Based on specific hydrological and morphological data supplied by the beneficiary and also considering the imposed spread limitation, the project studies the possibility of fitting some SHP stations on Timiș and Teregova Rivers.

Thus, the hydropower scheme on Timiș River would be of large and medium head derivation type, running by partially catchment of natural flow. The water development would be on two steps having the exclusive goal of power gaining: SHPS 1 – sector length of about 2860m between 550mSL ÷ 458mSL; SHPS 2 – sector length of about 2260m between 458mSL ÷ 409mSL.

The hydropower development designed to be accomplished on Teregova River would present one step with a headrace of about 3500m in length between 560mSL ÷ 450mSL.

Project implemented by

SC SIBER ENERGIA SRL, 7th Victoriei Square, 300030 Timișoara, ROMÂNIA.

Main activities

- The power stations fitment in the general arrangement - management scheme of the river basin, the working correlation, a locating study and the cooperation possibilities with respect to other hydrotechnical and sanitary works in the area;
- The establishment of importance class, of dimensioning and checking approaching probabilities respectively for the different elements, taking into consideration the flood protection with respect to the downstream socio-economical objects' importance;
- The study of hydropower potential gaining: options, estimated capacities, yearly average power production, specific hydropower parameters and markers;
- A view on the influence of the foreseen works upon the water courses and the specific objects in the area.

Results

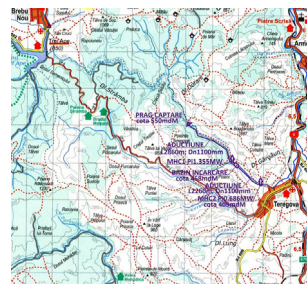
Accomplishment possibility for the following small hydropower stations:

SHPS 1 Timiș: minimum flow 0.39m³/s, average flow 1.19m³/s, installed discharge 2.08m³/s, 550mSL catchment, 458mSL machine, 1100mm diameter / 2860m length headrace, 1355kW installed power;

SHPS 2 Timiș: minimum flow 0.39m³/s, average flow 1.28m³/s, installed discharge 2.08m³/s, 458mSL catchment, 409mSL machine, 1100mm diameter / 2260m length headrace, 702kW installed power;

SHPS Teregova: minimum flow 0.118m³/s, average flow 0.591m³/s, installed discharge 1.418m³/s, 560mSL catchment, 450mSL machine, 800mm diameter / 3500m length headrace, 1007kW installed power;

Specific parameters defining the main elements composing the three SHPS are also established.



Implementation period

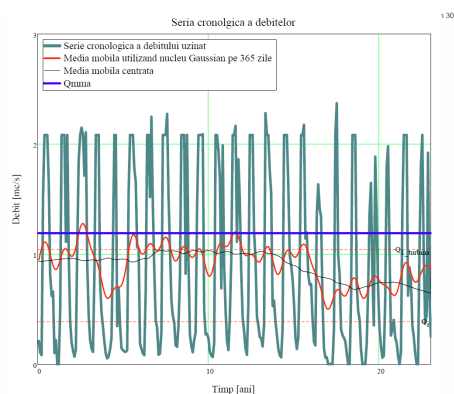
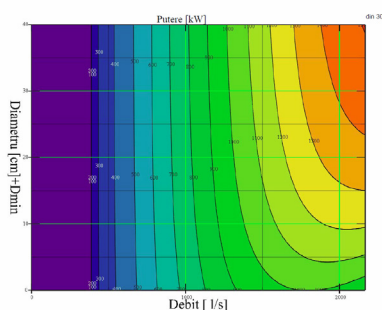
January - October, 2013.

Applicability and transferability of the results

In case of getting the Water Administration Permit, the study beneficiary looks to proceed for the accomplishment of the technical design and implementation details in order to perform the renewable energy investment and consequently to reach for the green certificates traded on the specific market.

Fields of interest

- Renewable energy;
- small hydropower;
- water management;
- environment protection.



Research Centre

Research Centre for Environmental Science and Engineering

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Research team

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