

## MINI HYDROPOWER PLANT - SEVILLA, BOHOL

The Sevilla hydropower plant is a run-off-river mini hydropower plant on the Loboc River, on Bohol Island, in the central part of the Philippine Archipelago. The plant is located in a well-known tourist area near the Chocolate Hills and a natural reserve of tarsiers, about 5 km upstream from the town of Loboc, where riverview cruises take place. Construction of the plant, including electro-mechanical equipment, was financed from the World Bank (WB) loan budget provided for renewable energy development in the Philippines. The local administrator of the budget was the Development Bank of the Philippines (DBP). The developer-loan purchaser and now the operator of the plant is Bohol Electric Cooperative I (BOHECO I).



The original design was improved by the consortium of CREA Hydro&Energy members during a tendering procedure that allowed better hydraulic parameters to be obtained. The final winning design reached 1,729 kW of the maximal output and the Czech consortium led by Strojirny Brno was awarded the contract for the detail design, manufacturing, supply and installation of electro-mechanical equipment. The equipment

comprises two vertical Kaplan turbines, two vertical synchronous generators, hydraulic governors, electronic control systems, electrical output including transformers, intake gates, stop logs, overhead bridge crane and auxiliary equipment.



Philippines

Bohol



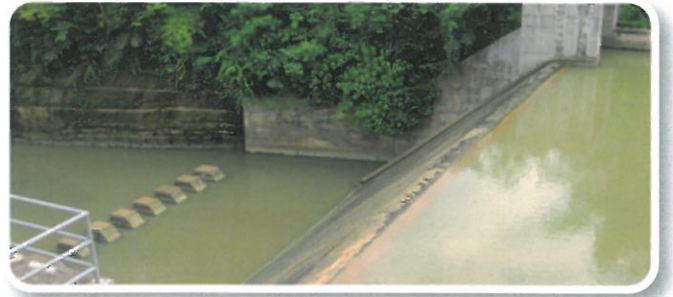
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## HYDROPOWER PLANT PARAMETERS:

Design head	10 m
Maximal discharge	15,4 m <sup>3</sup> .s <sup>-1</sup>
Maximal turbine output	1,729 kW
Nominal speed	300 min <sup>-1</sup>
Runaway speed	750 rpm
Runner diameter	1,570 mm
Number of blades	4
Installed suction head	-1 m
Max. hydraulic axial thrust	725 kN
Generator voltage	6600 V
Frequency	60 Hz



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