



This Italian project has two VLH DN 5000 turbines installed in a by-pass channel that was constructed parallel to the river and perpendicular to an existing weir.

SOLA DOVARESE HPP CASE STUDY	VLH	DN 5000 (x2)
	NET HEAD	3.2 m (10.5 ft)
	NOMINAL FLOW	23.5 m³/s (830 cfs)
	NOMINAL OUTPUT VLH (at grid level)	500 kW (x2)
	AVG ANNUAL PRODUCTION	5.6 GWh/year equivalent to 1 M €/year
	OVERALL INVESTMENT COST	5.4 M € for the complete HPP
	SIMPLE PAYBACK	5.5 years
	COMMISSIONED	December 2012



General view of the site after construction of the HPP (artist view)







Section View of the Complete HPP with VLH DN 5000 Upstream Gates for sand transport protection and maintenance and provision for future trash rack cleane

THE PROJECT

The complete scheme includes upstream gates (flap gate type) for protection against floods and maintenance of the **VLH**, an allowance for trash rack cleaners if operational experience indicates they are required in the future and 2 **VLH DN 5000** turbines with bottom sluicing gates.

The civil works at this project had to be designed to allow the passage of considerable amounts of bed load. The design solution involved the installation of a sluice gate system immediately below the **VLH** but integrated with the supporting structure as shown in the Photos below.







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