

# Powerd Up with HOBAS®

A constantly growing demand for electricity combined with ecological awareness opens big business opportunities especially in the sector of renewable energy production. Austria, with its mountainous areas and numerous streams lends itself to the establishment of hydro power stations. These have an especially low CO<sup>2</sup> output compared to many other types of power plants and therefore help retard the greenhouse effect.



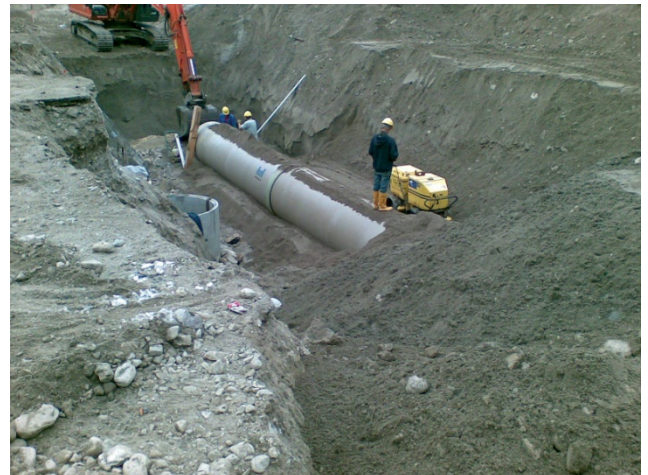
A national law on green electricity aims to raise the production of renewable energy from 64 % to 78.1 %. In addition to this, there is a request to reduce Europe's increased dependence on energy imports and to focus on environmental protection.

Due to these conditions HOBAS Pipes Austria established itself as competent supplier of pressure pipes for power plants over the last few decades. A total of 181 pressure lines for small hydro power plants have been installed since 1979.

One of the most important projects in Austria is the eco-power plant Schwarzach in East Tirol. This power station, with a turbine output of 9.9 MW, has an average working capacity of 59 GW per year. A 4 km DN 1600, PN 10 - PN 16 HOBAS CC-GRP Pressure Line was installed for this project and the plant went into operation in January 2007.

Another noteworthy hydro project that was recently realized with HOBAS CC-GRP Pressure Pipe Systems is the small-scale power plant at the Loibl Stream in Carinthia, on the border to Slovenia. The plant is run by a group of 8 different entrepreneurs including the planner and turbine manufacturer. It consists of a timber intake structure, a 2080 m HOBAS Pressure Line DN 1400, SN 5000, PN 2 to PN 8 and the powerhouse with a tail water channel. The gross head is 39 m, the average flow amounts to 2.3 m<sup>3</sup> per

second. The plant has a capacity of 740 KW and an average of approximately 3.5 GW can be generated per year.



The CC-GRP Pressure Pipe Line was installed by open cut in the embankment of the Loibl Stream, which had to be cleared before construction works could be started. An installation rate of 6 pipes (36 m) per day was calculated due to difficult site conditions. However, well scheduled construction works, on time deliveries, a well trained construction team, and the extensive project support by the HOBAS Team more than doubled the rate to 14 pipes (84 m) per day. This is an outstanding performance under given conditions - the construction company could finalize the project ahead of schedule.

Overview	
Year of Construction	2007
Length of installed Pipes	2080 m
Pressure Class	PN 2 to PN 8
Diameter	DN 1400
Application	Pressure pipe
Installation Method	open cut
Client	Loiblkraft GmbH
Contractor	AG RIEGLER BAU GmbH
Advantages	Short installation time, low weight, short delivery times, corrosion resistance