

BOLLFILTER FOR RAW WATER PROTECT TURBINE

Glendoe Hydro Power Scheme in Scotland

Two Self-Cleaning Backflushing BOLLFILTER Automatics have been installed at the Glendoe Hydro Power Scheme – the flagship project of Scottish & Southern Energy (SSE).

Currently Scotland's largest civil engineering project and the first large scale conventional hydroelectric power station to be built there for 50 years, the Glendoe Hydro Power Scheme is designed to generate up to 100MW of clean, green energy. Set in the mountainside beside Loch Ness, the Scheme features a reservoir formed by a 905m long dam on the River Tarff, an underground cavern housing the power station and an extensive network of tunnels. The tunnels channel water from the reservoir to the 'Powerhouse' and then into Loch Ness. Glendoe will be the UK's most efficient hydroelectric scheme thanks to the height drop between reservoir and turbine.

The Powerhouse cavern, which has been created deep underground is 38m long, 18m wide and 32m high. It contains the turbine, which is turned by the force of water flowing through the tunnels, and generator.

In order to protect the power generation plant, a plant protection system has been installed by Weir Services. This incorporates a BOLLFILTER Automatic water system to remove potentially damaging particulates from the raw river water. The system operates continually (one filter duty/one standby), with a pre-set back-flushing programme to ensure efficient filtration without the need for regular cleaning or maintenance.

Client	Scottish & Southern Energy (SSE)
Contractor	Weir Engineering Services
System	2x BOLLFILTERs Automatic Type 6.18 DN200/250 Flow Rate: 90 l/s Filtration Level: 300 microns with wedge wire filter elements. Operating Pressure: 2.5 bar



TOP. Glendoe site under construction (taken by Scotavia Images).
CENTRE. BOLLFILTER Automatic Type 6.18
BOTTOM. The interior of the Powerhouse cavern during construction of the turbine hall.



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