

## PROTECTION OF THE LINTH-LIMMERN POWER STATION

THE HYDRO POWER STATION IS LOCATED IN KANTON GLARUS, SWITZERLAND. A FOGTEC FIRE FIGHTING SYSTEM HAS BEEN INSTALLED IN ORDER TO PROTECT CRUCIAL PLANT ELEMENTS SUCH AS TRANSFORMERS AND CABLE RAILWAY.



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**Lake Limmern masonry dam**

The new underground pumped storage hydro power station is located at the foot of the dam of the lake Limmern about 1.700m above sea level. The machinery of the power station is positioned in a rock cavern 600m below ground level. The Power station pumps water from lake Limmern back up to the 630m heigher lake Mutt. On demand the water is used to supply turbines for creating electric energy serving peak-loads.



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**Machinery rock cavern**

For the transport of heavy machinery parts and maintenance purposes a cable railway is employed. FOGTEC HPWM technology protects the entrance and exit areas of the cable railway as well as 8 transformers. Due to the location of the transformers in a rock cavern manual intervention in case of fire is delayed by the time consuming access via the tunnel system. During this time fire fighting takes place and additionally the transformers need to be permanently cooled in order to avoid a reignition. For the technical detail realisation FOGTEC has developed a tailor made protection concept to fulfil customer specific demands.

The FOGTEC HPWM System consists of two redundant pump units which supply water for the relevant area via one of the 19 section valves. Alltogether approximately 400 open nozzles are installed. The power station will be put into operation stepwise during 2015/2016

**pump unit and control cabinet**

