LOCATION: BEMPOSTA, PORTUGAL

Blasting close to the Bemposta water power plant

Portugal has about 100 small hydro systems with a capacity of 256 MW. The Portuguese government wants to increase renewables share in the country's power mix, which in Bemposta, has resulted in a project extension that will add a new 191 MW unit to the power station built in 1964. The Bemposta hydro power station is located on the Douro River in the north-west of Portugal, close to the border with Spain.

Complex construction in a 42 million Euro contract

SOMAGUE, based in Sintra Portugal, is a leading company in construction, road concessions, property management, real estate and the services markets. SOMAGUE has been awarded the construction contract for the power upgrade of the Bemposta dam. The construction work consists of an underground shaft plant and associated works, a hydraulic system with a water intake, an inlet tunnel, a return tunnel and a return, two cofferdams, downstream canal, landscape restoration and other additional work.

Use of INFRA facilitates secure blasting

A lot of blasting has to be done during the first phase of the 46 month project. The new hydroelectric plant will be placed underground in a 60 metre deep pit along with a hydraulic circuit in a tunnel with various other pits and tunnels for support and access. In order to eliminate liability for damages to the existing power plant, two INFRA systems with five sensors are used. Sensors on the turbine and the transformer make it possible to adapt the amount of explosives to an appropriate level when blasting very close.

Easy to use – easy to understand

Matos Fernades, who handles the Bemposta installation, also likes the system. INFRA eliminates problems and makes it much more convenient to receive and interpret measurement results. Initially, measurement results were forwarded via SMS to the blaster and to Matos, and now the Internet is also used.

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