Gouvães

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Portugal – ANDRITZ HYDRO has been contracted by the Spanish energy utility Iberdrola Generación S.A.U. to supply the electro-mechanical equipment and the penstock for the new pumped storage power plant Gouvães in Portugal.

With four 220 MW pump turbines PSPP Gouvães will be the heart of the Alto Támega hydropower scheme, consisting of three hydropower plants. The scheme will be built on the Támega River in northern Portugal, close to the seaport of Porto. Together with HPP Alto Támega and HPP Daivoes, the Gouvães pumped storage power plant will produce in total 1,468 GWh of electrical energy. PSPP Gouvães will cover the need for peak-load energy and provide fast-responding regulating power. Together with the baseload generation from the other two power stations of smaller size, this scheme will ideally complement volatile electricity generation from wind power, which has been growing significantly in recent years. Additionally, the project will have a very positive impact on the employment situation in the region.

The scope of supply for ANDRITZ HYDRO comprises design, manufacturing, delivery, and installation supervision for the reversible pump turbines, motor generators, and electrical power systems. Also part of the contract are design, manufacturing, supply, and complete installation of a penstock including three bifurcators with a total weight of about 12,000 tons, an average diameter of about 5,400 mm and a length of 2.5 km.

With a net head of about 660 m, to provide a safe basis for the design of the technically outstanding high head pump turbines extensive research and model testing activities have been performed in ANDRITZ HYDRO's test laboratory. Thus, the high requirements of Iberdrola Generación regarding feasibility and reliability will be met in an optimum way.

This is the third large contract between Iberdrola Generación and ANDRITZ HYDRO on the Iberian Peninsula, after having received the contracts for equipment deliveries for the San Pedro II hydropower plant in 2011 and for modernization of the Aldeadávila hydropower plant in 2014.

TECHNICAL DATA	
Output	880 MW
Head	660 m
Speed	600 rpm
Runner diameter	3,500 mm

Penstock area