

# Iffezheim

Successful extension of a German run-of-river power station



▲ Generator installation

**Iffezheim is the biggest run-of-river power plant at the river Rhine and one of the biggest in Europe.**

In October 2007 ANDRITZ HYDRO received a contract from Rheinkraftwerk Iffezheim (RKI) Ltd. (a subsidiary of the German and French based utilities EnBW and EdF) for the extension of the existing HPP Iffezheim. It covers the engineering, supply, installation and commissioning of a new large bulb turbine-generator unit, which should be incorporated in a new separate powerhouse.

The scope of supply was managed by ANDRITZ HYDRO Ravensburg (Germany) providing the project leadership and the bulb turbine including mechanical auxiliaries. ANDRITZ HYDRO Weiz (Austria) was in charge of the bulb generator including auxiliaries and ANDRITZ HYDRO Vienna (Austria) provided the protection equipment.

A further contract has been awarded to ANDRITZ HYDRO Vienna (Austria) for engineering, supply, installation and commissioning of a new automation system for the whole power station, the four old bulb turbine units (former Escher Wyss turbines) and the new automation system of unit five.

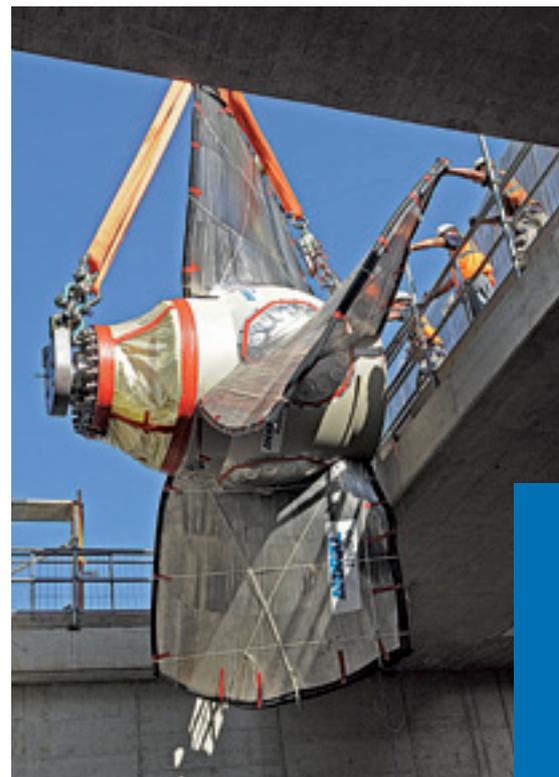
In order to allow an early start of all the engineering works for unit five, the contract documents were signed in October 2007 and fully released in December 2007. As one of the first activities a model test report was elaborated for the new turbine based on the leading technology and the comprehensive experience of ANDRITZ HYDRO in the field of hydraulic bulb turbines.

From the beginning, the civil works were confronted with a number of challenges and surprises in the form of some "discoveries" of geological issues, non-documented debris from the construction of the old power station and other issues. The outcome was a substantial delay in the civil construction and affected the overall project and the equipment installation program.

Irrespective of all these delays, the parties agreed to stick to the original supply schedule for all major components and ANDRITZ HYDRO successfully managed to deliver ontime. In the case of HPP Iffezheim the parts needed to be delivered and stored for a couple of months. The new unit was put into operation with a delay of around 20 months.

Since the commercial operation started, the new bulb turbine-generator unit has been running smoothly. The 148 MW power station is now able to produce approximately 860 GWh per year, providing 75,700 people with renewable green energy.

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▲ Turbine runner installation

## TECHNICAL DATA

Output: 38 MW / 38.85 MVA

Voltage: 6.5 kV

Head: 10 m -13.2 m

Speed: 83.33 rpm

Runner diameter: 6,800 mm

Stator diameter: 7,500 mm

