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Bilfinger supports VERBUND with the construction of a pumped storage power plant

- Bilfinger will deliver pressure piping and draft tube gates for new Limberg III pumped storage power plant in Austria
- Order volume of more than €20 million
- Bilfinger impresses with innovative, time-saving assembly technique

Bilfinger is supporting Austria's leading energy company VERBUND Hydro Power with the construction of the new Limberg III pumped storage power plant in Kaprun, Austria. The industrial services provider will deliver and assume responsibility for all work on the pressure piping and draft tube gates for the hydropower plant. Bilfinger impressed the customer with its highly efficient, innovative assembly technique. The order with a volume of more than €20 million will be booked in the Engineering & Maintenance Europe segment and is expected to run from October 2021 to June 2025.

"Hydropower is an important growth area for Bilfinger. In the context of the energy transition, demand for construction and modernization services for hydropower plants is increasing. With our full-service solutions from a single source, we guarantee the fast and efficient implementation of projects to expand this important source of renewable energy," says Christina Johansson, Bilfinger's interim CEO and CFO. "Our decades of experience and our extensive pool of experts allow us to support energy industry customers on their path to a low-emission and climate-friendly future."

"High-performance pumped storage power plants such as Limberg III are crucial for the success of the energy turnaround: our new power unit ensures that electricity can be temporarily and in a highly efficiently stored in times of surplus and flexibly fed back into the electricity system within a very short time when required. With such plants, we can contribute to a sustainable electricity supply in Austria in the long term," says Karl Heinz Gruber, Managing Director of VERBUND Hydro Power GmbH.

A team from <u>Bilfinger Industrial Services Austria</u> is responsible for the engineering, manufacture, delivery, assembly and commissioning of the pressure piping for the new pumped



storage power plant. In the future, these will secure the underground connection of the two high mountain reservoirs Mooserboden (2,036 m) and Wasserfallboden (1,680 m). Water will be pumped into the upper reservoir through the pressure piping where it is used for energy storage. During periods of peak demand, the water flows back into the lower reservoir at a maximum flow rate of 144 m³ per second, driving turbines to generate renewable energy.

Assembly of the piping in the pressure shaft presents the Bilfinger team with a particular challenge: due to the tight scheduling, it is not possible to first transport the individual pipe sections up the mountain from where they are roped down into the pressure shaft and only then welded together, which is the usual procedure. To save time, the 35 pipes, each weighing 45 tons, will instead be hoisted from the valley floor through the 585-meter-long and 42-degree-inclined pressure shaft, temporarily stored and welded directly at the same time as the other work in 48-hour shifts - a first in assembly technique.

In addition to the pressure piping, Bilfinger is also designing, manufacturing and assembling the draft tube gates for the new hydropower plant, each of which is 5 meters wide and 1.7 meters high, regulating the flow in the water distribution system through controlled opening and closing.

VERBUND decided to renew its partnership with the industrial services provider following the successful cooperation on its sister power plant <u>Limberg II</u>. At that plant, Bilfinger was also responsible for the manufacture, delivery and assembly of the piping systems.

The Limberg III pumped storage power plant is part of the Kaprun power plant group, one of Europe's highest hydropower plant. Following planned commissioning in 2025, the plant is expected to generate up to 480 megawatts of clean electricity, thereby making an important contribution to grid stability in Austria. The power plant operator is VERBUND Hydro Power GmbH, a subsidiary of Austria's largest electricity company <u>VERBUND AG</u>, and one of the leading producers of electricity from hydropower in Europe.



Bilfinger is an international industrial services provider. The Group aims to enhance the efficiency of assets, ensure a high level of availability, reduce emissions and lower maintenance costs. Designing sustainable production processes for customers is becoming increasingly important. Bilfinger's portfolio covers the entire value chain from consulting, engineering, manufacturing, assembly, maintenance and plant expansion to turnarounds and also includes environmental technologies and digital applications.

The company delivers its services in two service lines: Engineering & Maintenance and Technologies. Bilfinger is primarily active in Europe, North America and the Middle East. Process industry customers come from sectors that include chemicals & petrochemicals, energy & utilities, oil & gas, pharma & biopharma, metallurgy and cement. With its ~ 30,000 employees, Bilfinger upholds the highest standards of safety and quality and generated revenues of €3.7 billion in financial year 2021.

