

## Press Release

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### **World Water Day 2014 – Hydropower Is Indispensable for Future Energy Supplies Voith Launches Information Portal for Hydropower**

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Heidenheim. The figure is impressive: with an annual output of more than 3,000 terawatt hours (TWh), hydropower currently takes up the largest share in electric power produced from regenerative sources. 3,000 TWh is enough to supply 850 - 900 million two-people households with electricity for a year. "The figure proves: hydropower is an indispensable pillar of our energy supply", says Heike Bergmann, Board Member of Voith Hydro GmbH & Co. KG, on the occasion of the World Water Day 2014 held this coming Saturday. This year's motto is "Water and Energy" and illuminates the interaction between the vital element and energy as a fundamental physical quantity.

The element water already plays an important role in today's energy mix and contributes to climate protection. Hydropower is the largest affordable regenerative energy source: at present, more than 16 percent of the entire global energy output is generated with hydropower. In 2009, over 35 countries obtained more than half of their energy requirements from hydropower. Norway, for example, now covers between 98 and 115 percent of its annual electricity requirements from hydropower. With their utilization of hydropower, the USA save nearly 200 million tons of carbon dioxide (CO<sub>2</sub>) every year - this corresponds to the CO<sub>2</sub> emissions of 38 million vehicles. And according to the plans of the German government, 60 percent of all generated energy should originate from renewable energies by 2030.

In order to make sure that the future expansion of renewable energies is successful, pumped storage power plants play a major role: at times of peak demand, pumped storage power plants can store electric energy from fluctuating renewable sources such as wind and sun cost effectively and on a large scale and feed it back into the grid instantly whenever required.

In this way their capacities make a vital contribution to supply security and grid stability - a service that is needed all the more with increasing shares of volatile power from wind and sun in the grid. "Pumped storage power plants are affordable and simultaneously the most powerful batteries in the world", explains Heike Bergmann.

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More facts about hydropower:

- Worldwide, only one fifth of the technically viable potential for hydropower has been developed so far.
- Each kilowatt hour generated by hydropower reduces the overall CO<sub>2</sub> emissions by one kilogram. For Germany this means: in 2012, more than 20 billion kilowatt hours of power were generated from hydropower, reducing the emissions of CO<sub>2</sub> by about 20 million tons.
- Pumped storage power plants take up 99 percent of the worldwide capacity for energy storage.
- According to the Renewable Energy Agency, about 50 percent of all hydropower stations in the world are based on German know-how.
- Voith built its first water turbine as early as 1870.
- With an order for twelve Francis water turbines for the North American power station at the Niagara Falls, Voith made headlines in 1903 and established its reputation as an innovative think tank.
- The Voith Brunnenmühle research laboratory, which was opened in 1908, was the first pumped storage power plant in Germany.

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To commemorate World Water Day, Voith is launching a new information portal on all issues concerning the World Water Day, hydropower and pumped storage technology on: [www.wasserkraft.info](http://www.wasserkraft.info)

### **About the World Water Day**

Since 1993, the World Water Day takes place every year on 22 March. The objective of the World Water Day is to make people worldwide aware of water as a basis of life, and to draw public attention to issues such as clean drinking water, water conservation and sustainable water utilization. The World Water Day was recommended in Agenda 21 of the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro and adopted by the UN assembly in December 1992.

Voith sets standards in the markets energy, oil & gas, paper, raw materials and transport & automotive. Founded in 1867, Voith employs more than 43,000 people, generates €5.7 billion in sales, operates in over 50 coun-

tries around the world and is today one of the biggest family-owned companies in Europe.

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