

## Media Release

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### **Voith improves efficiency and environmental compatibility of Semla and Graninge hydropower plants in Sweden**

2018-01-22

- **New technology replaces 100-year-old turbines and power plant**
- **Graninge now generating double the amount of electricity**
- **Modernized Semla plant now more efficient and eco-friendly**

**Fagersta/Sollefteå, Sweden.** There are a large number of hydropower plants in Europe and North America that are more than 100 years old. Voith installed new technology in two of these plants in Sweden, Semla and Graninge, making them not only much more efficient but also more environmentally compatible.

As a result of the upgrade, the Semla 4 hydropower plant has replaced Semla 3, which was more than 100 years old. Located in the municipality of Fagersta along the Kolbäcksån River in the south of Sweden, the plant now has a power generation capacity of approximately 15 million kilowatt hours, a third more than could be generated by Semla 3. This improvement can be attributed to the complete horizontal bulb unit with generator and hydraulic governor supplied and installed by Voith. In addition, oil volumes were reduced significantly. This not only lowers the total cost of ownership, but also minimizes both risks and the plant's impact on the environment.

“Optimizing existing hydropower plants is one of the best options for producing more renewable energies. But another decisive factor is that, as a result, the impact on the environment is neutralized,” says Torbjörn Tärnhuvud, CEO of Sydkraft Hydro Power, who underscores the ecological added value of lower oil consumption. Sydkraft is a member of the Uniper Group, which owns 76 hydropower plants, including Semla 4, and contributes 12 percent of the hydropower produced in Sweden.

Uniper also operates the Graninge hydropower plant in Sollefteå, about 450 km north of Semla 4. Voith replaced virtually everything inside the

plant walls with new technology. As a result, Graninge received a completely new electrical system, control equipment and generator, as well as a new turbine to replace its 100-year-old unit.

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“The new plant works so efficiently that we are now generating 3.2 gigawatts of eco-friendly electricity – twice as much as before,” said a delighted Tärnhuvud, who expresses his appreciation of the collaboration with Voith. According to Tärnhuvud, it is not just the company's expertise that makes Voith stand out. It is also the reliability and precision with which such modernizations are planned and executed.

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He further comments on the quality of the newly installed technology. “It shows that hydropower plants can be substantially upgraded with respect to cost efficiency and ecology by means of retrofits.”

### **The importance of Hydropower**

Renewable energy is undoubtedly the most sustainable answer to the rise in energy demand. Hydropower plays a key role in sustainable and environmentally friendly power generation and is the leading renewable source of electricity generation globally. Worldwide it makes an indispensable contribution to a stable power supply and thus to economic and social development – both in industrialized countries and in regions seeing strong growth. Since the early days of hydropower exploitation, Voith has been a leading supplier of this technology and is constantly refining and improving it.

### **About Voith**

Voith is a global technology group. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets of energy, oil & gas, paper, raw materials and transport & automotive. Founded in 1867, Voith today has more than 19,000 employees, sales of € 4.2 billion and locations in over 60 countries worldwide and is thus one of the largest family-owned companies in Europe.



**Caption:** The Semla hydropower station in Sweden.

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