

Media Release

Voith Group

Mailing address
Voith GmbH & Co. KGaA
St. Poeltener Str. 43
89522 Heidenheim, Germany
Tel. +49 7321 37 - 6866

www.voith.com

2021-07-29

Voith Hydro successfully completes modernization work on South Africa's second largest pumped storage facility

- Modernization of three generators of the Drakensberg power station under pandemic conditions successfully completed.
- Voith concept solves temperature and vibration issues.
- Underground pumped storage power plant increases quality and reliability of energy supply in the region.

JOHANNESBURG, South Africa. Voith Hydro has modernized three generators of the Drakensberg pumped storage power plant and now successfully put them back into operation. The company received the order, including design, installation and commissioning, back in 2016. A special feature was that all works were carried out during normal plant operation of customer ESKOM.

Also special was the technical concept for the modernization, which improved the performance of the machines enormously thanks to selected measures. Now the generators in the power plant, which has been in operation since 1981, are designed for another 40 years of operation.

"We were able to reduce the operating temperatures and vibrations of the machines, so that their lifetime has been significantly increased," says Anton Harris, Managing Director at Voith Hydro in South Africa. This success was mainly based on the international cooperation between the local team in Johannesburg and the engineering department at the headquarters in Germany. During the pandemic, the project schedule was temporarily challenged. "We reacted quickly and accessed the experts at the headquarters in Heidenheim, who would originally have been on site, via remote support, " Harris continues.

About the hydropower plant Drakensberg

The pumped storage power plant Drakensberg, has a total installed capacity of 1,000 MW and therefore is the second largest of its kind in South Africa. The most unique feature of Drakensberg is that the power plant is built completely underground. Only shafts and transmission lines can be seen on the surface whereas the four reversible pump turbines are placed approximately 52 floors below ground.

Voith Group

Mailing address

Voith GmbH & Co. KGaA

St. Poeltener Str. 43

89522 Heidenheim, Germany

Tel. +49 7321 37 - 6866

www.voith.com

About the importance of pumped storage

Pumped storage power plants considerably contribute to grid stabilization. They react quickly to fluctuations by generating required energy or storing a surplus. This flexibility of the multipurpose plant is highly important for grid stability and subsequently the quality of energy supply in a country.

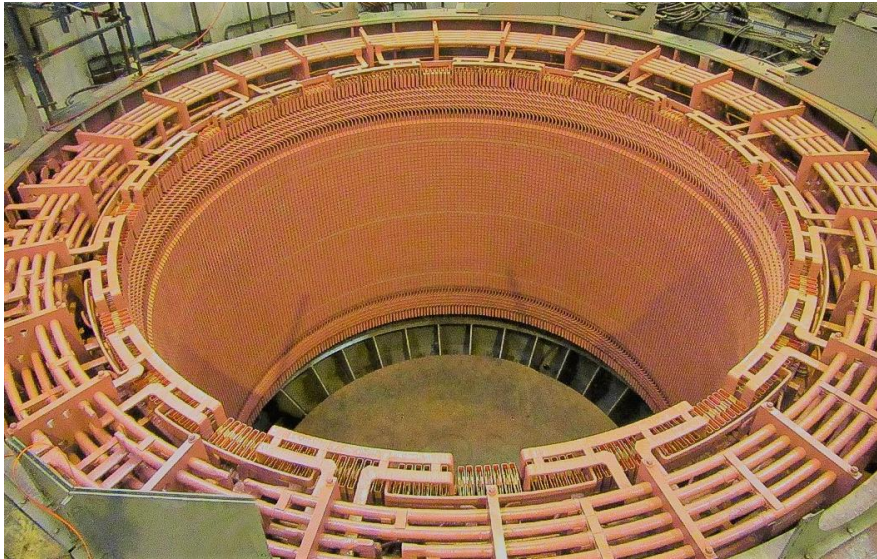
Page 2 of 3

Voith has been active in pumped storage technology for many years. The company has made vital contributions in this field, developed many innovations and continuously works on optimizing them. Voith invests in research and development in this area, because so far, pumped storage technology is the only long-term, technically proven and cost-effective form of storing energy on a large scale and making it available at short notice.

About the Voith Group

The Voith Group is a global technology company. 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, the company today has more than 20,000 employees, sales of € 4.2 billion and locations in over 60 countries worldwide and is thus one of the larger family-owned companies in Europe.

The Group Division Voith Hydro is part of the Voith Group and a leading full-line supplier as well as trusted partner for equipping hydropower plants. Voith develops customized, long-term solutions and services for large and small hydro plants all over the world. Its portfolio of products and services covers the entire life cycle and all major components for large and small hydro plants, from generators, turbines, pumps and automation systems, right through to spare parts, maintenance and training services, and digital solutions for intelligent hydropower.



Voith Group

Mailing address

Voith GmbH & Co. KGaA

St. Poeltener Str. 43

89522 Heidenheim, Germany

Tel. +49 7321 37 - 6866

www.voith.com

Page 3 of 3

Operating temperatures and vibrations of the machines in the Drakensberg power plant were reduced and its lifetime thereby significantly extended.

Contact:

Kathrin Roeck

Head of Communications Voith Hydro

Voith GmbH & Co. KGaA

Tel. +49 7321 37 - 6866

Kathrin.Roeck@voith.com

Twitter

<https://twitter.com/voithgroup>

https://twitter.com/voith_hydro

https://twitter.com/Voith_Career

LinkedIn

<https://www.linkedin.com/company/voithgroup>

<https://www.linkedin.com/company/voith-hydro>

<https://www.linkedin.com/company/voith-turbo>

<https://www.linkedin.com/company/voith-paper>

YouTube

<https://www.youtube.com/VoithGroup>

Instagram

<https://www.instagram.com/voithgroup>