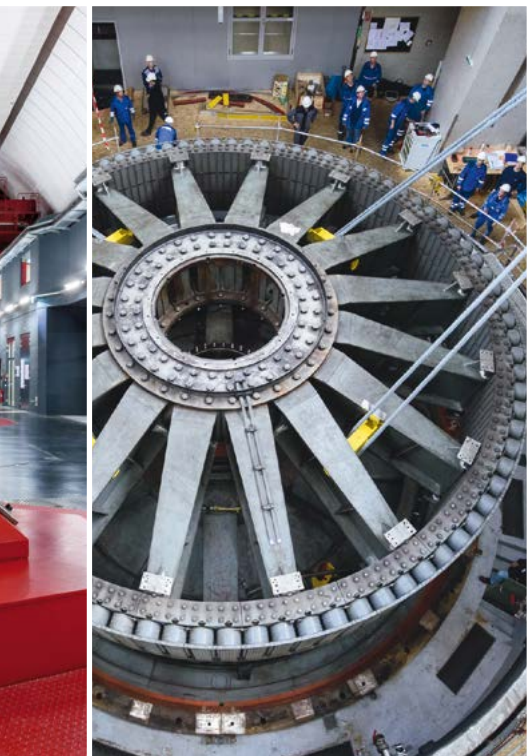


# Hydropower by VERBUND

Your partner with over 70 years  
of experience

Ready for the  
energy future  
—  
with VERBUND  
at your side



Planning  
Construction  
Refurbishment  
Operation  
Maintenance  
Consulting Services

# 1

We are the Number One producer of hydropower  
in Austria and Bavaria.

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# 70

We have been building and operating hydropower plants  
for more than 70 years.

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# 120

We operate more than 120 hydropower plants  
in Austria, Germany and Albania.

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# 1,500

Our 1,500 employees guarantee engineering,  
operational and maintenance excellence.

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# 8,200

Our plants have a total capacity  
of around 8,200 MW.

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# 30,000

We generate approximately 30,000 GWh  
of environmentally friendly electricity each year.

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# Safe plants, secure profits – your goals are our daily business

VERBUND is one of the largest producers of hydropower in Europe and a pioneer in innovation, secure operations and cost leadership. This has given us a great insight into the needs and interests of our customers.

As an investor in and operator of hydropower plants, you face many challenges such as creating profitable investments, ensuring sustained operations, complying with strict environmental standards and fulfilling regulatory requirements. With VERBUND, you have a competent partner at your side to offer you the customised solutions you need.



## Ready for the energy future – with VERBUND at your side

- Benefit from our **decades of experience** in the planning, construction, operation and maintenance of hydropower plants.
- Gain access to a **highly skilled team of experts** in all areas, including electrical, mechanical and structural engineering as well as finance and administration/human resources development.
- Take advantage of our **comprehensive experience** with generator sets of all sizes and generations, **free of dependencies** on specific suppliers.
- Measure yourself against a **highly competitive energy producer** and cost leader.
- Rely on a **partner that is familiar with your needs based on our own experience** and on which you can depend to offer targeted support in resolving any and all issues.

# Putting ideas into operation – our solutions for your success

## Asset management Assessment, optimisation, operation

Your goal is to use your hydropower plant to generate electricity as efficiently as possible. You can benefit from our core competencies. We develop strategies to help optimise your power plant portfolio and assist you in the technical and organisational implementation process.

### Our services

- Assessing plant condition
- Developing strategies and implementation concepts to optimise your power plant portfolio considering the market climate, the technical possibilities and economic options
- Developing strategies and implementation concepts for operation and maintenance
- Organisational analysis and development as well as human resources development, technical training and continuing education
- Assuming responsibility for and carrying out your hydropower plant operations

## Asset services Project planning and implementation

You plan to build a greenfield plant, or you want to renovate or expand your existing plants. We implement and manage your power plant projects. Take advantage of our many years of experience with plants of varying sizes and in the management of the entire plant lifecycle.

### Our services

- Preparing feasibility studies for new construction and expansion projects, efficiency increases, refurbishment and concession renewals
- Energy efficiency evaluations and profitability analyses
- Project management (assisting the asset owner/owner's engineer)
- Support and execution of the approval management process
- Support in: stakeholder management, tendering and contract management, organising the design/planning and approval process, supervising all planning, assembly and commissioning activities, developing the operational structure, training operating personnel, etc.



Freudenau power plant on the Danube River near Vienna



Cavern construction site at the Reißeck pumped storage power plant in Carinthia

## Asset support General services

You want cost-optimised maintenance based on the plant conditions to look confidently into the future. You can benefit from our professional diagnosis and monitoring of all plants and dams.

To supplement our routine servicing activities, we have developed an extensive package of services for use in our own plants. These services consist of inspections and objective assessments of conditions as well as planning, selecting and implementing the necessary repair and renovation projects. Don't hesitate to take advantage of our vast experience and specialised services.

### Our services

- Electrical engineering: generator diagnosis, protection technology and measurement technology, etc.
- Mechanical engineering: materials inspections, calculation and construction of steel hydraulic installations, efficiency measurements, etc.
- Civil engineering: dam construction supervision, etc.

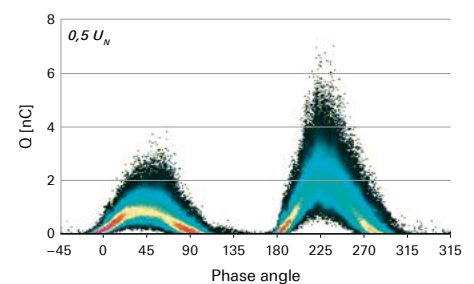
## Green assets Environmental services

You have to consider significant environmental aspects due to the EU Water Framework Directive when building and operating hydropower plants. Here as well, we want you to benefit from our experience in economic implementation of efficient environmental measures.

### Our services

- Developing strategies and concepts for cost-effective implementation of projects that are in legal compliance with the applicable environmental requirements
- Planning and implementation of measures and projects in environmentally sensitive regions in harmony with nature
- Support in the implementation of fish passes and other structural environmental measures

### PD pattern



generator diagnosis/partial discharge measurement



Project to restore the estuary stretch of the Traisen River in Lower Austria



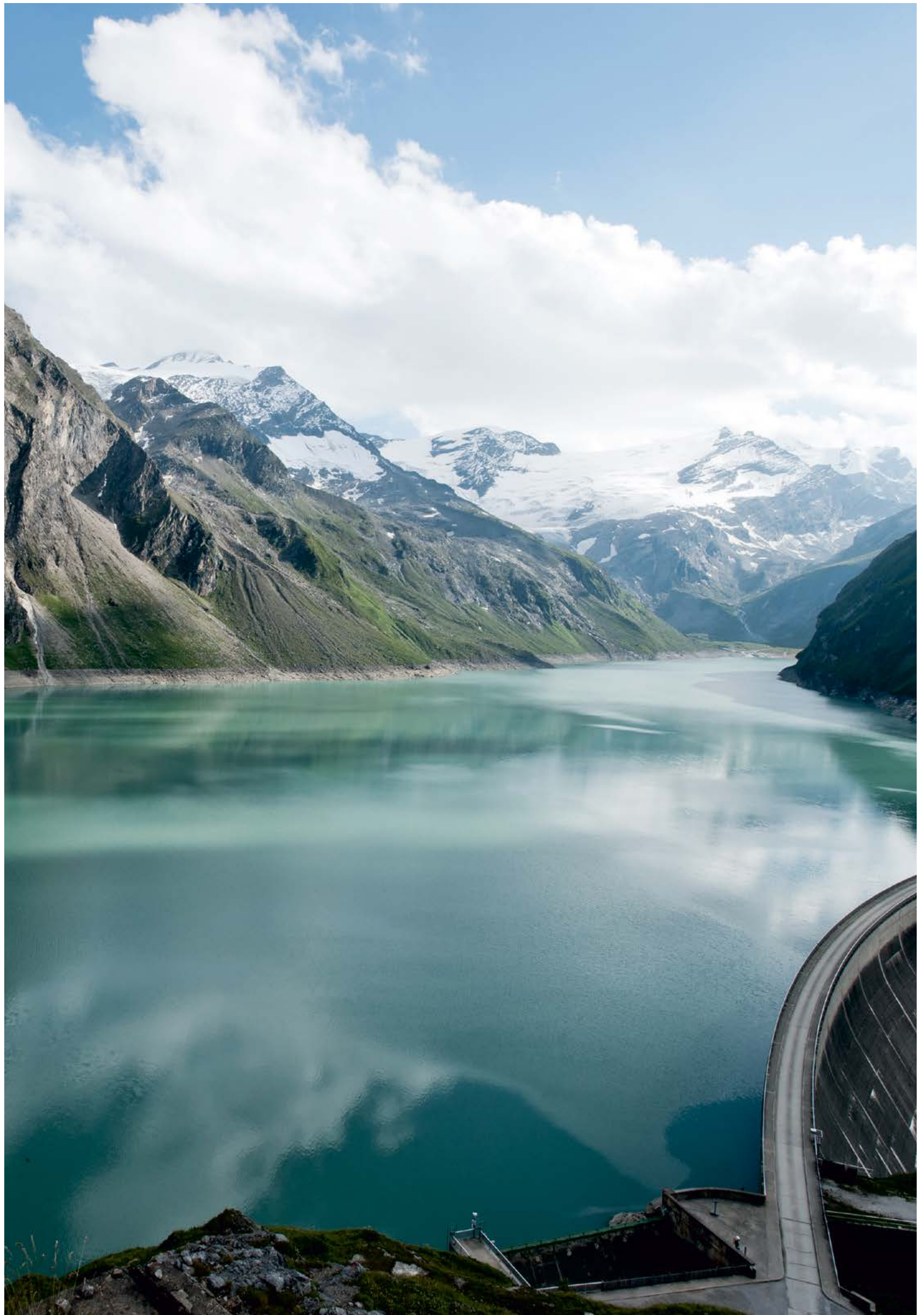
# Trust in our expertise – we are your hydropower specialist

We also invite you to benefit from our expertise in providing consulting and engineering services for more than seven decades in the fields of asset management, asset services, asset support and green assets.

## **Our strengths and references**

- VERBUND's reference projects include small and large run-of-river power plants, pondage power plants and pumped storage power plants in Austria and abroad.
- Our areas of expertise range from owner representation, owner's engineer and project management to feasibility studies, planning, construction, operation, servicing and maintenance.
- We are a sought-after partner thanks to our strengths in the areas of ecology, environmental protection, research and innovation as well as in projects to increase efficiency.
- For many years, our technical services have been contracted by energy supply companies, the industrial sector and insurers alike.







With **VERBUND as your partner, you benefit** from our experience over decades in the professional operation of hydropower plants.

Our expertise regarding the entire plant lifecycle and across all stages of value creation – planning, construction, supervision, maintenance and operation – for more than 120 hydropower plants of all generations makes us a reliable partner. We operate 22 storage power plants (including pumped storage power plants) and 107 run-of-river power plants in Austria, Germany and Albania. Our plants include 20 locks and 293 weirs, 455 generator sets ranging from 30 kW to 240 MW and 28 large-scale dams with storage capacity of around 700 million m<sup>3</sup>.

**Have we managed to catch your interest?**

**Then please don't hesitate to contact us!**

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