voestalpine AG VERBUND AG

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voestalpine and VERBUND launch strategic cooperation projects

voestalpine and VERBUND, two of Austria's largest industrial corporations and ecological pioneers in their respective industries, will step up their collaboration in the future with strategic cooperation projects. In addition to new concepts for long-term electricity supply by VERBUND for individual voestalpine locations, they will include more flexible concepts in the areas of generation of electricity and power requirements, exploring possible photovoltaics projects at voestalpine locations in Austria, and R&D collaboration in the future-oriented utilization of hydrogen.

Both energy producers and industrial companies are currently facing major challenges in energy policy in Europe. While the climate and energy targets of the EU contain a reduction of CO₂ emissions by 40 percent up to 2030, thus confronting energy-intensive industries with almost insurmountable problems, the electricity industry is also in the midst of radical, far-reaching changes associated with the energy transition or energy paradigm shift. Within this context, long-term viable and stable partnerships between energy and industrial corporations are becoming increasingly important. The prospective stepped-up cooperation between the technology and capital goods group voestalpine and VERBUND, the largest Austrian electricity producer and one of the largest electricity producers using hydroelectric power in Europe, goes clearly beyond the classic sector of mere electricity supply for the first time and is actively focusing on the joint utilization of future opportunities in both industries.

Strategic collaboration projects in four core areas

Building on existing business relationships, as a first step, the planned cooperation comprises the supply of electricity by VERBUND to individual voestalpine locations in Austria conducted on an expanded basis that will address the complex price and service structures of the future better than in the past. A supply agreement has been concluded for an initial period of six years. Furthermore, projects for renewable generation of electricity by voestalpine itself at its locations in Austria are currently being undertaken. Concretely, the feasibility and cost-effectiveness are being analyzed and operating models for photovoltaics systems are being developed. Additionally, the partners want to collaborate even more comprehensively than before on demand-side management solutions, i.e., how to offset short-term fluctuations in the power grid by using voestalpine's power generation facilities. The fourth core area is a joint, long-term research initiative on the subject of hydrogen, where the focus will be on the potential and the possibilities for the use of hydrogen in the individual process steps of steel production.

The designated joint objective of the strategic project work is ultimately to critically examine and evaluate the long-term competitiveness of Austria as a location for industry with regard to energy-specific requirements.

voestalpine as an ecology benchmark in the production of steel

In the steel industry, voestalpine has long been an environmental and efficiency benchmark. The company has spent more than EUR 2.2 billion in the last ten years alone just for the ongoing costs





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of operation for environmental systems in Austria. The steel production locations Linz and Donawitz are practically independent with regard to the generation of electricity due to an integrated energy cycle, where the process gases that occur in steel production are converted to electricity in voestalpine's own power plants, which is then used in downstream facilities (particularly the rolling mills). "voestalpine plans to consistently decarbonize steel production step by step and make the shift in the long term from coal to a possible utilization of CO₂-neutral hydrogen using bridging technologies, particularly those utilizing natural gas (for example in the new direct reduction plant in Texas). But the road to get there is still very long," says Wolfgang Eder, CEO and Chairman of the Management Board of voestalpine AG.

Hydrogen-based steel production is currently still a future scenario; from today's perspective, it could be reality in around 20 years. In order to fully convert its production to renewable energy, the Group would need around 33 TWh (terawatt hours) per year from the external power grid because a comprehensive change in the technology would bring with it energy requirements that can no longer be covered by the company's own electricity production. This corresponds to the production of more than 30 major hydroelectric power plants or around 50 percent of Austria's entire power requirement. This means that a switch to a new technology will not be technically or economically feasible for voestalpine in the foreseeable future. "A transformation requires a long-term, permanent coordination between energy producers and energy consumers so that switching to a new technology makes sense only if the required energy is available at terms that are globally competitive," Eder states. The voestalpine CEO also emphasizes that the framework conditions to maintain competitiveness in every phase of such a far-reaching transformation process depend far more on political decision-making processes rather than economic ones.

VERBUND is on the way to becoming a 100 percent CO₂-free energy producer

VERBUND is consistently continuing on its path to becoming a 100 percent CO₂-free energy producer. Currently, around 95 percent of the electricity generated by VERBUND comes from renewable energies, primarily hydropower. In addition to power generation, transmission, trading, and distribution, the company is increasingly focusing on the expansion of its energy-related services for industrial and commercial customers as well as for households. "We are delighted that this future-directed cooperation between two major Austrian corporations is coming to fruition; this proves that the issues important for the producing industry and the efficient use of clean energy complement each other. Our joint objective is to reduce CO₂ emissions and to enhance Austria's standing as a location for business and industry," confirms VERBUND CEO Wolfgang Anzengruber. "The subject of hydrogen specifically has a great deal of potential for both industrial use and as a storage technology to compensate volatile electricity generation by new, renewable energies."

The project cooperation between VERBUND and voestalpine is planned for an initial period of six years. The partnership agreement provides for the possibility to add additional joint projects to the current areas of focus.





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The voestalpine Group

In its business segments, voestalpine is a globally leading technology and capital goods group with a unique combination of material and processing expertise. voestalpine, which operates globally, has around 500 Group companies and locations in more than 50 countries on all five continents. It has been listed on the Vienna Stock Exchange since 1995. With its top-quality products and system solutions using steel and other metals, it is one of the leading partners to the automotive and consumer goods industries in Europe and to the oil and gas industries worldwide. The voestalpine Group is also the world market leader in turnout technology, special rails, tool steel, and special sections. In the business year 2015/16, the Group generated revenue of EUR 11.1 billion, with an operating result (EBITDA) of EUR 1.6 billion; it has 48,500 employees worldwide, who are collectively a major shareholder in the company with a stake of 14.5 percent.

About VERBUND

VERBUND is Austria's leading electricity company and one of the largest producers of hydroelectricity in Europe. The Group generates more than 90 percent of its electricity from hydropower. VERBUND trades electricity in twelve countries; it generated EUR 3 billion in annual revenue in 2015 and has around 3,000 employees. With its subsidiaries and partners, VERBUND's activities range from the generation of electricity to transport and international trading and sales. VERBUND has been quoted on the Vienna Stock Exchange since 1988; 51 percent of its share capital is held by the Republic of Austria. Additional information: www.verbund.com

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