

Siemens and juwi enter strategic partnership for microgrids in the mining industry

- **New trend to supply renewable energy for mines as secure and cost-efficient alternative to fossil fuels**
- **Siemens' proven microgrid controller serves as technical basis for juwi's Hybrid IQ microgrid solutions**
- **Two projects in Australia successfully delivered, paving way for partners to roll-out solution in other countries**

Siemens and the renewable energy developer juwi have joined forces to enter into a strategic technology partnership to focus on microgrids in the mining industry. A corresponding agreement was signed today. The two companies aim to roll-out and continually develop the advanced microgrid control system that enables the seamless integration of power from renewable energy to a mine's off-grid power supply. The Siemens Sicam based microgrid control platform is a proven and tested technology which is the basis for juwi's Hybrid IQ microgrid controller. juwi, on the other hand, brings industry-specific domain know-how and an excellent track record of planning and executing renewable energy projects at mine sites.

The solution adapts to changing ore bodies, processing and power requirements whilst providing detailed reporting and analysis to operations teams and management. Together, the strategic partners create a unique, standardized solution for the mining market. This will simplify the use of renewable energy for

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mines and help provide a cost-effective and reliable power supply, especially for mine sites that operate off the grid.

“Microgrids can bring high levels of reliability and improved energy quality to energy-intensive industries such as mining; and are an attractive alternative when autonomous power supply is needed,” said Robert Klaffus, CEO Digital Grid at Siemens Smart Infrastructure. “We are looking forward to the technology cooperation with juwi on microgrids and believe it will boost the commercial appeal of renewable energy to the mining industry.”

Member of the Board and COO of the juwi Group, Stephan Hansen, adds:

“Renewable energy will not only future proof mining operations, but reduce cash operating costs today. The centerpiece to this is the juwi Hybrid IQ system. It enables us to provide hybrid power that goes far beyond what has been industry practice until now. I am looking forward to the technology partnership with Siemens.”

The co-operation between juwi and Siemens has already resulted in the successful delivery of the solar power plant at Agnew Gold in Australia. The partnership also provides hybrid power to Australia’s largest and oldest marine research station on the Great Barrier Reef. Heron Island now uses juwi Hybrid IQ to combine solar with a redox flow battery to replace Diesel fuel. Both projects showcase the next generation of hybrid systems and enable mine sites to significantly lower their carbon footprint and their cash operating costs.

This press release and a press picture is available at <https://sie.ag/2C7cJKV>

For further information on Smart Infrastructure, please see

www.siemens.com/smartinfrastructure

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For further information on the Agnew Project, please see

<https://www.renewablepress.com/energy/press-release-6344-juwi-signs-agreement-with-edl-to-deliver-hybrid-project-at-gold-fields-agnew-mine-site-in-australia>

For further information on the HIRS Project, please see

<https://www.uq.edu.au/news/article/2018/11/reef-research-power-ahead-renewable-energy>

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Siemens Smart Infrastructure (SI) is shaping the market for intelligent, adaptive infrastructure for today and the future. It addresses the pressing challenges of urbanization and climate change by connecting energy systems, buildings and industries. SI provides customers with a comprehensive end-to-end portfolio from a single source – with products, systems, solutions and services from the point of power generation all the way to consumption. With an increasingly digitalized ecosystem, it helps customers thrive and communities progress while contributing toward protecting the planet. SI creates environments that care. Siemens Smart Infrastructure has its global headquarters in Zug, Switzerland, and has around 72,000 employees worldwide.

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Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 170 years. The company is active around the globe, focusing on the areas of power generation and distribution, intelligent infrastructure for buildings and distributed energy systems, and automation and digitalization in the process and manufacturing industries. Through the separately managed company Siemens Mobility, a leading supplier of smart mobility solutions for rail and road transport, Siemens is shaping the world market for passenger and freight services. Due to its majority stakes in the publicly listed companies Siemens Healthineers AG and Siemens Gamesa Renewable Energy, Siemens is also a world-leading supplier of medical technology and digital healthcare services as well as environmentally friendly solutions for onshore and offshore wind power generation. In fiscal 2019, which ended on September 30, 2019, Siemens generated revenue of €86.8 billion and net income of €5.6 billion. At the end of September 2019, the company had around 385,000 employees worldwide. Further information is available on the Internet at www.siemens.com.

The **juwi group** is one of the world's leading companies in the area of renewable energy. The renewable energy pioneer offers project development, Hybrid Solutions as well as EPC and O&M services. Company activities are mainly projects with solar and wind. The juwi group was established in 1996 in Rhineland-Palatinate/Germany. Since the end of 2014, Mannheim based utility MVV Energie AG has been partner shareholder of the juwi Group. juwi has about 850 employees worldwide, branches on all continents and is actively engaged in various projects all over the globe. Working together with passion to implement renewable energy economically and reliably is what drives us.

So far, juwi has realized more than 1,000 wind turbines with a total capacity of more than 2,300 megawatts at 180 sites globally. In the solar segment, more than 1,700 projects with a total capacity of around 2,500 megawatts have been designed and constructed. Combined, these energy systems produce around 8.0 billion kilowatt hours of clean energy per year, equaling the annual demand of more than 2.6 million German households. Within the past 20 years, juwi has initiated an investment volume of around 8.8 billion euros to realize these projects.

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