

# Press release

Orlando, March 1, 2021

## Siemens Energy and Intermountain Power Agency drive transition to sustainable energy through study of hydrogen energy storage at a utility-scale power plant in Utah

- Project to advance industry vision of cost-efficient and CO<sub>2</sub>-free power generation using hydrogen in gas turbines
- One of four Siemens Energy projects funded by the U.S. Department of Energy to further decarbonization of the U.S. power generation sector

Siemens Energy announced today that it has teamed up with Intermountain Power Agency to perform a conceptual design study on integrating a hydrogen energy storage system into an advanced class combined cycle power plant. The project has been awarded a \$200,000 grant from the U.S. Department of Energy, one of four funding awards received by Siemens Energy in late 2020 to advance hydrogen applications in the U.S. power generation sector.

The study is set to begin in March at the 840-MW Intermountain Generating Station in Delta, Utah. The goal of this study is to analyze the overall efficiency and reliability of CO<sub>2</sub>-free power supply involving large-scale production and storage of hydrogen. Additionally, the study will analyze aspects of integrating the system into an existing power plant and transmission grid, such as the interaction with subsystems, sizing and costs.

“The study will be designed around Siemens Energy’s Silyzer technology, which uses electrolysis to generate hydrogen. The scope of our research will include hydrogen compression, storage and intelligent plant controls,” said Tim Holt, executive board member at Siemens Energy. “This is an exciting opportunity to work with the Intermountain Power Agency on integrating the cost-efficient use of CO<sub>2</sub>-free hydrogen in a power plant on a large scale basis. The outcomes will benefit customers, advance the knowledge about using hydrogen in the US power sector, and ultimately put us one step closer to decarbonizing electricity production.”

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The Intermountain Generating Station is transitioning from coal to natural gas, with plans to integrate 30% hydrogen fuel at start-up in 2025 and 100% hydrogen by 2045. The project is to provide 840 MW of electricity to customers in Utah and Southern California.

“By switching from coal to a mixture of natural gas and hydrogen we can reduce carbon emissions by more than 75%,” said Dan Eldredge, general manager of Intermountain Power Agency. “We are committed to being a leader in the transition to a clean energy future while taking advantage of the significant energy infrastructure already in place at the Intermountain Power Project. This study will help pave the way for the successful transition to net-zero carbon power generation.”

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**Siemens Energy** is one of the world's leading energy technology companies. The company works with its customers and partners on energy systems for the future, thus supporting the transition to a more sustainable world. With its portfolio of products, solutions and services, Siemens Energy covers almost the entire energy value chain – from power generation and transmission to storage. The portfolio includes conventional and renewable energy technology, such as gas and steam turbines, hybrid power plants operated with hydrogen, and power generators and transformers. More than 50 percent of the portfolio has already been decarbonized. A majority stake in the listed company Siemens Gamesa Renewable Energy (SGRE) makes Siemens Energy a global market leader for renewable energies. An estimated one-sixth of the electricity generated worldwide is based on technologies from Siemens Energy. Siemens Energy employs more than 90,000 people worldwide in more than 90 countries and generated revenue of around €27.5 billion in fiscal year 2020. [www.siemens-energy.com](http://www.siemens-energy.com).