



## **Imergy signs flow battery deal with Hawaii's Energy Research Systems**

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Hawaii has been leading the way in the installation of advanced energy technologies as it seeks to build a clean power grid for the 21st century, says Imergy.

Hawaii State Department of Education

Energy storage and flow battery group Imergy Power Systems has landed its first battery order in the United States with Hawaiian renewable energy company Energy Research Systems.

The company purchased four ESP5 vanadium flow batteries, which are capable of 5 kW of capacity and can store up to 30 kilowatt hours (kWh) of electricity. Currently, more than 200 Imergy vanadium flow batteries are installed worldwide, with customers ranging from residential users to remote off-grid commercial users to institutional microgrids.

Energy Research Systems will use the units for two residential customers who are installing the ESP5 vanadium flow batteries in conjunction with new off-grid solar power systems as well as a microgrid customer who is installing the battery as it works to develop an off-grid microgrid to test various solar, storage, hydrogen production and other advanced energy technologies. A separate institutional customer -- a technical school's science center and recipient of both LEED Platinum and Living Building Challenge certifications -- will use an ESP5 battery in conjunction with a solar power system at the facility as the school evaluates how to take their entire campus off-grid using renewable energy and energy storage technologies, Imergy reported.

"As these customers demonstrate, the combination of solar power systems and Imergy vanadium flow batteries are a cost effective solution for areas with high electricity prices or limited grid capabilities," said

Herve Mazzocco, Imergy's director of Business Development. "From residential island homes to advanced energy technology power testing facilities, more and more customers around the world are choosing to install Imergy vanadium flow batteries."

The California-based company added that Hawaii, with its high energy costs, stressed grid and ample renewable resources, was "leading the way in the installation of advanced energy technologies as it seeks to build a clean power grid for the 21st century."

Imergy's proprietary, vanadium-based flow batteries store electricity in a liquid electrolyte that circulates between tanks, which the company says creates a robust and efficient system that can be charged and discharged completely without impact on its lifespan. Imergy produces its storage systems with low-grade vanadium from mining slag and other environmental waste. By extracting vanadium from slag, Imergy says it is lowering the cost of obtaining and processing vanadium by 40% relative to competitors. Indeed, the group says it will be able to lower the cost of its turnkey flow battery solutions (including power conversion systems) from \$500 a kilowatt hour to under \$300 per kilowatt hour.