

# BluWave-ai and Sustainable Power Systems Announce Collaboration to Integrate Artificial Intelligence and Microgrid Control

*Combined solution enables autonomous AI-controlled grids with renewable energy*

**OTTAWA, Canada and BOULDER, Colorado, USA – July 16, 2018** – BluWave-ai and Sustainable Power Systems have announced a collaboration to integrate BluWave-ai distributed artificial intelligence software with Sustainable Power Systems' advanced Universal Microgrid Controller® (UMC).

By merging these progressive technologies, BluWave-ai and Sustainable Power Systems (SPS) will provide a solution for optimal control of microgrids, adding particular value in microgrids with high renewable energy penetration, battery energy storage, and dynamic load conditions. This evolutionary step in microgrid control enables lower energy costs, lower greenhouse gas emissions, extended battery life, and increased revenue for owners and operators of microgrids: Off-grid microgrids such as remote communities, islands, military forward bases, mining and forestry operations; and grid-connected microgrids such as commercial and industrial plants and campuses.

BluWave-ai's distributed AI-based software optimizes the operation of smart grids and microgrids. It uses both real-time and archived data to perform accurate forecasting of loads and renewable generation output, sending recommendations, signals and actions to optimally manage grid resources.

"As an early innovator in AI for islanded and grid-attached microgrids, we view this infusion of AI for microgrid controllers similar to the evolution of autonomous vehicle technology for safety and ultimately self-driving cars," said Devashish Paul, CEO of BluWave-ai. "To drive this evolutionary step for microgrid control, we are really excited to be working with SPS's team of microgrid controller pioneers with roots in the National Renewable Energy Lab (NREL)."

BluWave-ai's solution consists of components at the edge and cloud data center. BluWave-ai Edge is installed at the aggregation points of IoT sensors, meters, and other sources of data. The physical location can be at edge computing nodes, a private data center or public cloud. BluWave-ai Center machine learning runs in either the private data center or public cloud, collecting data from Edge nodes to train AI models and coordinate functions between multiple BluWave-ai Edge locations. It includes an ensemble of machine learning and statistical techniques that discover patterns in data, performing predictive analysis and pattern recognition in real-time.

"With our broad deployment of microgrids in Alaska, Continental US and China, the powerful combination of BluWave-ai's artificial intelligence with our Universal Microgrid Controller will provide enhanced operation for microgrids worldwide." said Steve Drouilhet, CEO of Sustainable Power System.



Sustainable Power Systems has developed a full suite of modular and flexible power components and control systems that integrate and manage power generation from different sources – grid, wind, solar, microhydro, CHP units, and diesel generators – coordinated to achieve reliable electricity supply, power system dynamic stability, and maximum fuel savings. The Universal Microgrid Controller® is a powerful power and energy management system designed to meet the needs of a wide spectrum of microgrid applications and architectures. It monitors and controls the operation of all microgrid system components, providing high power quality and reliability, maximum renewable energy utilization, minimum fossil fuel consumption, and lowest overall cost of energy. The UMC is an easy-to-install industrial control cabinet that virtually eliminates the need for any control system integration engineering on the part of the project developer/installer.

The joint solution will be offered by both companies beginning in 2H 2018. Contact BluWave-ai or Sustainable Power Systems for further information.

### **About BluWave-ai**

BluWave-ai was founded to optimize renewable energy usage with Artificial Intelligence (AI) in smart grids and microgrids. We are using our expertise in big data, AI, supercomputing, and distributed edge computing to positively impact how our planet uses clean renewable energy sources. BluWave-ai's products manage loads and distributed clean energy sources in real-time to make optimal allocations. BluWave-ai ingests large data sets, applies AI, and optimizes system decisions in both energy and pricing contexts.

### **About Sustainable Power Systems**

Sustainable Power Systems, Inc. is a leading controls manufacturer and integrator for renewable energy microgrids for both grid-tied and off-grid community and industrial scale applications. SPS believes that microgrid technology is the key to enabling the massive deployment of distributed renewables that will be necessary to avert catastrophic climate change.

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