



## SUPPORTING THE CLEAN ENERGY TRANSITION IN HAWAII, USA

Wärtsilä teams up with Clearway to optimise the first solar-plus-storage facilities on Oahu

### The Story

Hawaii is leading the energy transition in the United States. As the state increases its mix of renewable energy generation to further its aggressive carbon reduction goals, the need for energy storage technologies is paramount to the health of the electric grids.

To provide essential grid reliability, Wärtsilä provided 75 megawatts (MW) / 300 megawatt hours (MWh) of energy storage to Clearway Energy Group, one of the largest developers and operators of clean energy in the U.S. The systems are connected to Clearway Energy Group's Mililani I Solar and Waiawa Solar Power facilities—the first utility-scale solar-plus-storage power plants on the island of Oahu.

**“Wärtsilä is proud to be leading the clean energy economy in Hawaii and addressing climate change in partnership with Clearway Energy Group and Hawaiian Electric. Power system optimisation technology and flexibility solutions such as energy storage play a key role in balancing the state’s renewable energy power systems and ensuring power reliability for island residents.”**

*Håkan Agnevall,  
President and CEO, Wärtsilä*

| THE CHALLENGE  | WÄRTSILÄ'S SOLUTION  | BENEFIT   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• Help Hawaii meet its clean energy targets.</li> <li>• Help Clearway ensure reliable delivery of sustainable energy from its solar PV facilities on the island of Oahu, Hawaii.</li> </ul> | <ul style="list-style-type: none"> <li>• Wärtsilä integrated 75 MW / 300 MWh of energy storage systems with two of Clearway's existing solar PV facilities in Hawaii.</li> <li>• Wärtsilä's Service+ GAP solution ensures that the energy storage systems perform optimally and on guaranteed levels.</li> </ul> | <ul style="list-style-type: none"> <li>• Provide stability to the Hawaiian energy market while allowing the state to continue to integrate renewable energy assets and progress toward the country's decarbonisation goal.</li> <li>• Reduce energy costs for Hawaiian residents by providing more affordable energy options and reducing reliance on imported fossil fuels.</li> </ul> |

### Decarbonising Hawaii

In 2015, Hawaii became the first state to mandate 100% renewable energy by 2045. The state also aims to transition to clean energy to reduce the reliance on costly imported fossil fuels.

The Mililani I solar-plus-storage and Waiawa solar-plus-storage plants will help Clearway ensure reliable delivery of sustainable energy and contribute to the state's carbon reduction targets. Due to reliance on energy imports, Hawaii residents pay twice the rate of any other state in the U.S. for their electricity. Increased clean energy investments will help reduce these cost pressures for utility customers.

These projects are Wärtsilä's first large-scale energy storage systems in Hawaii, and are expected to be finalised in 2022.

### Backed by the best

Each facility will include Wärtsilä's [GridSolv Quantum](#), a fully integrated, modular, and compact energy storage system as well as the [GEMS Digital Energy Platform](#), Wärtsilä's sophisticated energy management system. All five projects will also include 10-year [Service+ GAP](#) agreements with Wärtsilä, guaranteeing capacity and maintenance with performance guarantees for the lifecycle of the system.

### Ushering in the future of co-located carbon-free energy

For the U.S. to meet its climate goals, the country will need to install a total of 100 GW of energy storage by 2030. Over the next several years, most planned upcoming energy storage projects will be co-located with solar generation. These projects illustrate Wärtsilä's position as the leading solutions provider for the clean energy transition. With these projects, Wärtsilä's energy storage capacity is over 1.2 GW / 2.7 GWh in the U.S. and 2.6 GW / 5 GWh of energy storage delivered or awarded around the world.

#### SITE SIZES:

**Mililani I:** 39 MW / 156 MWh

**Waiawa:** 36 MW / 144 MWh

#### SITE LOCATION:

Oahu, Hawaii

#### APPLICATIONS:

Renewables+

#### SCOPE OF SERVICES:

Engineering equipment delivery (EEQ), Service+ GAP

#### DELIVERY:

2022

### RELATED RESOURCES

[Press Release](#)



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