

## THE CURRENT

Hawaii State Energy Office  
Clean Energy Update

Spring 2017

**THE CURRENT** serves Hawaii's businesses and policy makers in making informed decisions about clean energy investments and policy. Hawaii's clean energy sector is a significant driver for economic development to replace fossil fuel expenditures with home-grown industries that stimulates smart economic growth for future generations of Hawaii.

### CLEAN ENERGY VISION

The Hawaii State Energy Office's (HSEO) mission is to maximize Hawaii's energy self-sufficiency and security by developing and utilizing local energy resources in a balanced way.

In doing so, HSEO will guide our state toward the Hawaii Clean Energy Initiative goals to achieve 100 percent renewable energy in the electricity sector by 2045, reduce electricity consumption by 4,300 gigawatt-hours by 2030, and reduce petroleum use in transportation. To this end, HSEO works toward the deployment of clean energy infrastructure and serves as a catalyst for energy innovation and test bed investments. By achieving these goals, HSEO will grow the clean energy sector and transform Hawaii's economy.

### LEADING THE CHARGE

#### *New Hawaii Green Business Program Website*

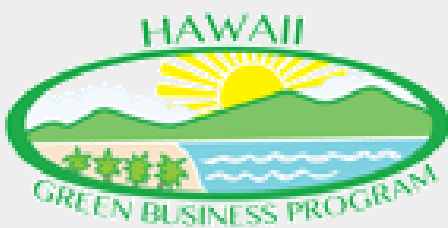
The Hawaii Green Business Program site has launched! The Hawaii Green Business Program is a free program that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. Visit the site and learn how your business can become a Hawaii Green Business Program awardee!

#### *New Code Will Reduce Energy Use*

Gov. David Ige approved an updated energy code for the construction of state buildings. The updated code will significantly reduce energy use and move Hawaii closer to achieving its clean energy goals.

#### *HSEO Supports Bike Share System*

HSEO is proud to be a sponsor of Biki, Honolulu's first full-scale bike share system presented by Bikeshare Hawaii, a 501(c)3 non-profit. Biki is a new public transportation system that supports the state's clean energy goals. This low-cost, zero-emissions, on-demand transportation option will launch this summer and will include 1,000 bikes and 100 stations, spanning 5.14 square miles from Chinatown to Diamond Head.



[New Hawaii Green Business Program Website](#)



[New Code Will Reduce Energy Use](#)



[HSEO Supports Bike Share System](#)



### IMPROVING ENERGY RELIABILITY AND RESILIENCY AT KALAELOA

Approximately 70 local, national and international energy professionals packed the Hawaii Community Development Authority (HCDA) boardroom recently to learn more about plans being developed to upgrade the deteriorating Kalaeloa electrical grid. This event provided an opportunity for HCDA and the Navy to share information about the conditions and challenges of Kalaeloa's electrical grid and to gather input from industry leaders.

Kalaeloa, which is officially called the "Kalaeloa Community Development District," occupies 3,700 acres on the site of the former Naval Air Station-Barber's Point in West Oahu. The Naval Air Station was closed in 1999 as part of the Department of Defense Base Realignment and Closure process.

*The Sandia report, which lays out a range of options, will help guide HCDA as it secures a partner and moves forward with the upgrade project.*

Because the Navy has not made any capital investments in the Kalaeloa electric system since 1999 it no longer meets industry standards, and its reliability is considered marginal. "Most tenants complain of multiple power outages each month that often last more than an hour, and sometimes as much as eight hours, with most tenants experiencing approximately 40 hours of power outages a year," according to a February 2017 report prepared by Sandia National Laboratories.

Sandia, in collaboration with the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy, the Hawaii State Energy Office, HCDA and the Navy launched a project in June 2016 to assess the state of the Kalaeloa energy system and evaluate possible courses of action. Potential options include use of both existing and new renewable energy generation and storage resources within advanced microgrid frameworks to cost-effectively enhance energy security and reliability.

The Sandia report, which lays out a range of options, will help guide HCDA as it secures a partner and moves forward with the upgrade project. The authors of the Sandia report recommend that within the next one to two years HCDA establish an alternative electric utility to assume control of the Navy's grid. Improvements could be done in phases after that, with milestones set for three, six and 10 years out. When completed in 11 to 15 years the project would result in significantly improved energy reliability and resiliency at Kalaeloa, according to the report.



### USDOE TAKES NOTE OF HAWAII'S PERFORMANCE CONTRACTING SUCCESS

The State of Hawaii was recognized for its role in helping the U.S. Department of Energy (USDOE) surpass its goal of catalyzing \$2 billion in public-sector energy efficiency investments over a four-year period.

State and county agencies in Hawaii signed \$345.9 million in performance contracts for energy efficiency improvements from 2013 through 2016, exceeding a \$300 million commitment made under USDOE's Better Buildings Initiative, Performance Contracting Accelerator Program. USDOE recognized Hawaii as the state that met the highest goal under the Accelerator program. Hawaii's milestone not only exceeded the state's goal but also put the USDOE's performance contracting accelerator program over the top to surpass its \$2 billion national goal for performance contracting for the 2013-2016 period.

*State and county agencies in Hawaii signed \$345.9 million in performance contracts for energy efficiency improvements from 2013 through 2016 . . .*

Performance contracting uses the savings from upgrades such as digital controls for energy systems, lighting, plumbing and air conditioning improvements to repay the cost of installing the equipment. The costs of the energy upgrades are borne by the performance contractor and paid back out of the energy savings.

Hawaii's \$345.9 million total was the result of contracts signed by the City and County of Honolulu for the Kailua Wastewater Treatment Plant, the City and County of Honolulu Board of Water Supply, and the Hawaii Department of Transportation for all three divisions: Highways, Harbors, and Airports. The projects cover more than 24.4 million square feet of building space and include installation of more than 136,000 lighting retrofits, 13 megawatts of photovoltaic power, and other energy efficiency improvements. Energy savings from the projects are estimated at \$865.9 million over the life of the contracts. The energy savings are equivalent to powering 20,464 homes in one year and 389,381 homes over the life of the contracts.

The Hawaii State Energy Office, a division of the Department of Business, Economic Development and Tourism, has been providing technical assistance for performance contracting to state agencies and counties since 1996.

In addition to being recognized by the USDOE, Hawaii has also been acknowledged by a national panel of experts for its progress in energy performance contracting. For five consecutive years, from 2012 through 2016, Hawaii was honored with the Race to the Top Award from the Energy Services Coalition. The award is given to the state with the highest per capital investment in performance contracting projects.



### DID YOU KNOW?

Hawaii residents save the most on overall household utility bills according to a study by the Appliance Standards Awareness Project and the American Council for an Energy-Efficient Economy. While the average American family saves nearly \$500 on utility bills, Hawaii residents save the most at \$945. The study details average household savings for all 50 states in four categories: household utility bill savings, electricity savings, natural gas and oil savings, and water savings.



### ENLIGHTENING NEWS & UPDATES

[DON, Pacific Energy Solutions, LLC, Hawaiian Electric, State of Hawaii Celebrate Completion of Solar Facility in Hawaii](#)

(America's Navy, 4/28/17)

[Report: HECO grid ran on 26% renewables in 2016](#)

(Utility Dive, 4/26/17)

[Hawaii ranks among tops in the U.S. for clean energy adoption](#)

(Pacific Business News, 4/19/17)

[KIUC opens new 52 megawatt-hour solar farm](#)

(The Garden Island, 3/09/17)

[Major power plants may be in the works at 2 Hawaii military bases](#)

(Pacific Business News, 3/03/17)

[How Hawaii's New Shared Renewables Program Could Benefit the Electric Grid](#)

(GreenTech Media, 2/14/17)

[MECO on track to beat renewable energy goals](#)

(The Maui News, 2/12/17)



### UPCOMING EVENTS

VERGE Hawaii returns to Honolulu, June 20-22, to convene nearly 800 key stakeholders — from government, military, utilities, global leaders, energy producers, entrepreneurs and other solution providers. This unparalleled conference is the ideal platform for the candid, action-oriented conversations needed to address the significant challenges and opportunities in achieving 100 percent renewable energy — in Hawaii and beyond. For more information and to register, visit [greenbiz.com/events/verge/Honolulu/2017](http://greenbiz.com/events/verge/Honolulu/2017)

Department of Business, Economic Development & Tourism  
Hawaii State Energy Office  
235 S. Beretania Street, 5th Floor | Honolulu, Hawaii 96813

phone (808) 587-3807

email [dbedt.energyoffice@hawaii.gov](mailto:dbedt.energyoffice@hawaii.gov)

