

## THE CURRENT

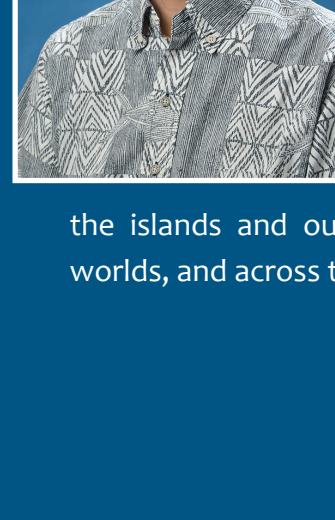
### Hawaii State Energy Office Clean Energy Update

Fall 2019

**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 stimulate smart economic growth for future generations of Hawaii.

### COMMITTED TO A CLEAN ENERGY FUTURE

*Scott Glenn, Chief Energy Officer*



Aloha,  
With the passage of Act 122, Session Laws of Hawaii 2019, the Hawaii State Energy Office has transformed into an attached agency to the Department of Business, Economic Development, and Tourism. The Legislature gave the HSEO a clearly defined mission: promote energy efficiency, renewable energy, and clean transportation to help Hawaii achieve a resilient clean energy economy. Act 122 also created the position of the chief energy officer to lead the HSEO and assume the responsibility for guiding the state to reach its clean energy and decarbonization goals. I am excited and honored to serve as Hawaii's first chief energy officer. As we move forward toward our 2045 goals for clean energy and a clean economy, the HSEO looks forward to working with our communities across the islands and our colleagues across governments, stakeholders in the business and non-profit worlds, and across the globe.

### FEATURED STAFF: A CLEANER JOURNEY: GOING ELECTRIC

*June Chee, Energy Systems and Planning*

The Energy Systems and Planning Branch of the Hawaii State Energy Office is working collaboratively with state departments and county agencies to implement near term clean transportation solutions. Clean Transportation Analyst, June Chee is supporting this effort with the management of Hawaii's \$8.125 million allocation of Volkswagen Environmental Mitigation Trust funds. June works closely with the Department of Health Clean Air Branch (DOH-CAB) to leverage VW Trust funds and bring additional federal funds from the Environmental Protection Agency to the state, supporting replacement projects of older, higher polluting vehicles with zero emission vehicles. Through a collaborative partnership with DOH-CAB and the City and County of Honolulu Department of Transportation Services, two City and County of Honolulu diesel transit buses will be replaced with battery electric buses. Additionally, the energy office is utilizing VW funds to launch a statewide Electric Bus Assistance Program which will offer financial assistance to private and public fleet owners looking to replace higher polluting diesel buses with battery electric buses. Both bus replacement projects are set in motion and will be implemented in 2020.

"These near-term projects are exciting wins and help Hawaii continue down our clean transportation roadway," says June. "Electric buses in particular are supporting our goals and community by providing cleaner air and a more accessible, electrified transportation option for many of our residents, students, and visitors."

### LEADING THE CHARGE

#### *Hawaii Earns Energy Efficiency Recognition for 8th Straight Year*

Hawaii received the Energy Services Coalition's 2019 Race to the Top award for its "outstanding commitment to energy efficiency, environmental stewardship, and economic development through guaranteed energy savings performance contracting." Hawaii, with cumulative investment of \$372.81 per capita in energy performance contracts, outpaced second place Washington State at \$211.83 per capita.

#### *Hawaii Participates in Energy Security Exercise*

Hawaii was one of four states selected by the National Governors Association to participate in a state-focused project to enhance their experiences in the GridEx V energy security exercise. GridEx is a remote exercise conducted by the North American Electric Reliability Corporation to simulate a cyber and physical attack on the electric grid across North America. Participants include members of the electric sector, other critical infrastructure operators, law enforcement, and state, local and federal officials from across the country. HSEO and the State of Hawaii Department of Defense Office of Homeland Security jointly submitted Hawaii's application to participate in the exercise.

#### *Online Energy Dashboard*

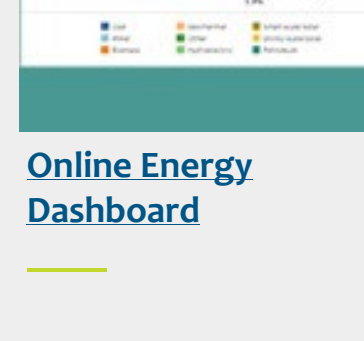
HSEO has launched an online Energy Dashboard that features 26 charts providing Hawaii-specific energy and transportation data that will support sound decision-making as Hawaii moves forward with its clean energy transformation. The Energy Dashboard, created jointly with the Research & Economic Analysis Division in DBEDT, provides Hawaii-specific data under four main categories: efficiency, electricity, transportation, and economy/environment. The Dashboard is intended to inform all stakeholders, including private industry, regulatory agencies, and consumers.



**Hawaii Earns Energy Efficiency Recognition for 8th Straight Year**



**Hawaii Participates in Energy Security Exercise**



**Online Energy Dashboard**

*(L-R) ESC's Board Pres. David Terry, Exec. Director Jim Arwood, and HSEO's Alan Okimoto at the 8th Annual Market Transformation Conference in Denver where Hawaii received its award.*



### THE NEXT GENERATION OF CLEAN ENERGY LEADERS

A self-described "change agent" in the fight against global warming, high school senior Kristen Brown from Ewa Beach recruited classmates from James Campbell High School to attend this year's 5th Annual Student Energy Summit hosted by the Blue Planet Foundation.

Brown and her team were among 240 middle and high school students from all four Hawaii counties and Japan to attend the annual event that takes a deep dive into the world of clean energy and climate action.

"I participated last year, and I loved it so much I brought five classmates and a teacher along with me this time. We had so many light bulbs go off. I'm excited for us to share our project," Brown said. Campbell took top honors in a competition at the summit to develop a community-based clean energy campaign.

"I'm interested in how what we do impacts our daily lives and our environmental surroundings, and the new technologies that have been created to help reduce our carbon footprint as an island and as individuals," Brown added.

Held at the Hawaii Convention Center, the Student Energy Summit is a two-day interactive educational conference that focuses on Hawaii's clean energy challenges and opportunities. Inspired by the recent Youth Climate Strike, the Summit is designed to educate attendees about policy and the legislative process, empower them to use their voice, and provide the appropriate tools and information to support their messages.

The Hawaii State Energy Office was a Diamond sponsor for the event, which complements HSEO's education and outreach objectives. HSEO believes Hawaii's youth are the next generation of clean energy leaders, and educational programs like Blue Planet Foundation's Student Energy Summit will help empower them to be part of the solution to reach our state's clean energy goals. Blue Planet Foundation was awarded the sponsorship funding through a competitive procurement process undertaken by HSEO.

Energy Office Transportation Energy Analyst June Chee served as a judge for the clean energy campaign challenge.

"I was really inspired by the presenting high school and middle school teams," Chee said "I was impressed by the students' broad understanding of renewable energy, fossil fuel use, and the need for more circular solutions. These students aren't shying away from the challenges at hand and are ready to tackle them head on with big, brave ideas."

The theme of this year's summit was "Revolution 20/20: Past, Present and Renewable." Students learned how the world arrived at its current energy situation, what the social, technological and political energy landscapes look like currently, and what it will take to shape a clean energy future.

"This year, we're especially focused on policy – teaching the students how the legislative process works and how they can get their voices heard," said Griff Jurgens, Blue Planet Foundation's education director who manages the curriculum for the Summit. "We saw some of that action taken at local Youth Climate Strikes earlier this year, and we're hoping our attendees will leave the Summit feeling inspired and ready to get involved in their own communities."



### FROM CONTAMINATED LAND TO RENEWABLE ENERGY

There is no question that one of the keys to reaching Hawaii's target of 100 percent clean energy in the electricity sector will be finding suitable sites for renewable energy projects in the land-constrained Aloha state.

To this end, the Hawaii State Energy Office has developed a suite of tools that facilitate the efficient and appropriate siting of renewable energy projects by informing preliminary site due diligence and reducing the soft costs associated with renewable energy development decisions. The latest addition to the toolbox is a new online mapping tool created as part of the Hawaii Brightfields Initiative that will make it easier for landowners, developers, community members and policymakers to assess the renewable energy capacity of potentially contaminated sites statewide in support of Hawaii's clean energy future.

The new tool may be found at HSEO's Developer & Investor Center Self-Help Energy Suite at [energy.hawaii.gov/developer-investor](http://energy.hawaii.gov/developer-investor).

The tool was developed by HSEO and the Hawaii Department of Health Office of Hazard Evaluation and Emergency Response (HEER), with support from the Hawaii Statewide Geographic Information Systems (GIS) Program in the Hawaii Office of Planning, the U.S. Environmental Protection Agency (EPA), and the National Renewable Energy Laboratory (NREL).

The tool encourages the reuse of previously developed, disturbed or contaminated lands, which can be more development-ready and helps to preserve untouched lands in Hawaii. The Hawaii Brightfields Initiative also supports HEER's mission to protect human health and the environment by enabling the effective management and redevelopment of sites with known soil contamination.

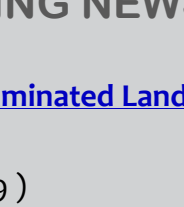
"Assessing the potential to site renewable energy projects on contaminated and disturbed parcels is particularly relevant in Hawaii where it is imperative that we make the best use of our limited land," said Scott Glenn, chief energy officer for the State of Hawaii. "We look forward to continuing to work with our partners and others in making information and data useful and accessible to the public," he said.

The Brightfields Initiative tool is designed to be user-friendly without the need for special skills, software or experience. Users can find sites by viewing the map or research specific sites through a filtering feature.

The Hawaii Brightfields Initiative database was originally developed by NREL with assistance from the EPA. Significant technical contributions were provided by Symbionics and the Hawaii Statewide GIS Program, which will publish and maintain the tool on the state's Geospatial Data Portal. Numerous other government agencies and private entities also contributed to the development of the Hawaii Brightfields Initiative with review of the tool and suggestions for features.

According to the EPA contaminated sites often have cost advantages over green field sites, including access to infrastructure and advantageous slope. Contaminated sites usually have existing electric, water and sewage infrastructure in place. In addition, contaminated sites frequently have large flat areas suitable for solar, wind, geothermal or biomass plants, which reduces site preparation costs.

Developing a contaminated site reduces the overall environmental impact of the activity and leaves other sensitive areas protected, according to the EPA.



### ENLIGHTENING NEWS & UPDATES

[Online Map Identifies Contaminated Land With Potential for Renewable Energy Development](#)  
(Hawaii Public Radio, 11/25/19)

[UH Manoa students code their way to victory](#)  
(University of Hawaii News, 11/19/19)

[State, military, HECO drill for power grid emergency](#)  
(Honolulu Star-Advertiser, 11/17/19)

[Nearly 250 make efforts for a cleaner future at the Student Energy Summit](#)  
(KHON, 11/10/19)

[State drives toward renewable energy](#)  
(The Garden Island, 11/04/19)

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