

THE CURRENT

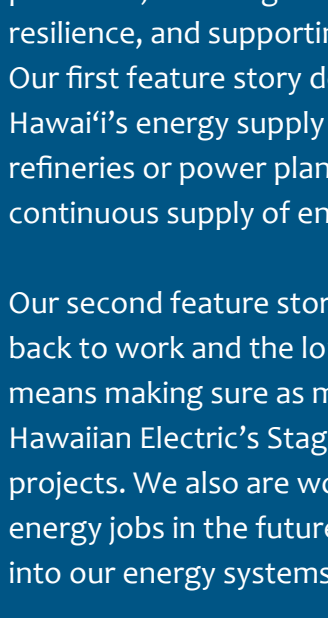
Hawaii State Energy Office
Clean Energy Update

Fall 2020

THE CURRENT serves Hawai'i's communities, businesses, and policy makers in making informed decisions about clean energy investments and policy. Hawai'i'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 Hawai'i.

ENERGY OFFICE CONFRONTS COVID-19 CHALLENGES

Scott J. Glenn, Chief Energy Officer



The Hawaii State Energy Office and other government agencies across the state are working hard to develop innovative programs to help businesses and workers recover from the severe economic impact of the COVID-19 pandemic. Hawai'i's tourism-dependent economy was one of the hardest hit in the nation by the outbreak. After a lockdown early in the pandemic forced the closure of many businesses Hawai'i's unemployment rate soared to 23.8 percent in April. Only two states had higher jobless rates.

COVID-19 has dealt a devastating blow to Hawai'i's economy. But we can use this as an opportunity to redouble our efforts to stimulate smart growth in a way that moves us closer to becoming a carbon-free economy.

The fall issue of *The Current* looks at some of the ways the Energy Office is responding to the pandemic, including fulfilling its statutory duties to develop programs for energy assurance and resilience, and supporting economic development related to energy efficiency and renewable energy. Our first feature story details the steps taken by the Energy Office to ensure the proper functioning of Hawai'i's energy supply chain during the pandemic. Although the government doesn't own any refineries or power plants it is our job to work with the private sector to make sure there is a continuous supply of energy to our residents and businesses.

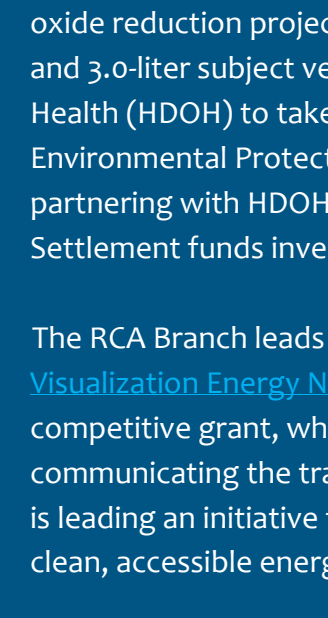
Our second feature story highlights the Energy Office's response to the immediate need to get people back to work and the longer term need to make our economy more resilient. In the near term that means making sure as many local workers as possible are hired for the construction and operation of Hawaiian Electric's Stage 1 and 2 utility scale solar-plus-storage projects and standalone energy storage projects. We also are working to better position Hawai'i workers to compete for advanced clean energy jobs in the future as we use microgrids and other cutting-edge technology to build resiliency into our energy systems.

The leadership Hawai'i and other states have demonstrated in pursuing a resilient, decarbonized economy is more important than ever given the United States' recent formal withdrawal from the Paris Agreement on Climate Change. Hawai'i will continue its steadfast commitment to a clean energy future while we wait for any news of the nation's possible return to the landmark climate accord.

FEATURED STAFF: STRATEGIC ENDEAVORS TO CLEAN ENERGY

Chris Yunker

Managing Director, Resilience, Clean Transportation, and Analytics



In 2019 the Hawai'i State Legislature strengthened the capacity of the Hawaii State Energy Office (HSEO) to carry out the activities and coordination necessary to achieve Hawai'i's clean energy transformation. The passage of Act 122 reshaped the Energy Office into an agency with a clearly defined mission to promote energy efficiency, renewable energy, and clean transportation to help achieve a resilient, clean energy, decarbonized economy. To align with this direction, the HSEO was reorganized into two new programmatic branches. Chris Yunker is Managing Director of the Resilience, Clean Transportation, and Analytics Branch (RCA).

RCA administers the [Volkswagen Settlement](#), an \$8.125 million fund intended to invest in nitrogen oxide reduction projects to compensate for the excess nitrogen oxide emissions from the 2.0-liter and 3.0-liter subject vehicles. The Energy Office has partnered with the Hawai'i Department of Health (HDOH) to take advantage of increased funding available through the Settlement's U.S. Environmental Protection Agency (EPA) Diesel Emission Reduction Act (DERA) Option. By partnering with HDOH, the EPA provides an incentive equal to 50 percent of the Volkswagen Settlement funds invested.

The RCA Branch leads the development of visualization tools, including the [Hawai'i Advanced Visualization Energy Nexus](#). The project was made possible with a U.S. Department of Energy competitive grant, which seeks to demonstrate visualization as an effective means of analyzing and communicating the tradeoffs and interdependencies of clean energy deployment. The Branch also is leading an initiative to implement a data governance framework to provide clearly documented, clean, accessible energy data sets for all stakeholders.

"The new statutory direction and leadership has reinvigorated the Energy Office," Chris says. "Our objective is to achieve Hawai'i's energy goals while providing value to communities and stakeholders."

The Energy Office is the primary and coordinating agency for [State Emergency Support Function 12: Energy](#). In this role the HSEO has responsibility for situational awareness and the coordination of energy issues during disruptions such as hurricanes and COVID-19 pandemic. In order to provide greater resiliency, the Energy Office is developing proposals seeking to leverage the Federal Emergency Management Agency Hazard Mitigation Grant Program (HMGP) and Building Resilient Infrastructure and Communities (BRIC) funding. Through HMGP and BRIC, the Energy Office, in coordination with the Hawai'i Emergency Management Agency and energy suppliers, are looking to advance resiliency investments in Hawai'i's energy systems. BRIC is an annual competitive program funded at \$445.4 million for 2020. By leveraging federal funds, the Energy Office is increasing investments in resiliency and energy assurance for Hawai'i's people.

OUR VISION

A Hawai'i-powered clean energy economy.

OUR MISSION

The Hawaii State Energy Office is committed to promoting energy efficiency, renewable energy, and clean transportation to help achieve a resilient, clean energy, decarbonized economy.

LEADING THE CHARGE

2020 Hawai'i's Energy Facts & Figures

The HSEO is pleased to announce the 2020 edition of *Hawai'i's Energy Facts & Figures*. This publication, produced by the HSEO, combines in one place key information and data about Hawai'i's energy ecosystem. In this edition you will find an overview of Hawai'i's energy sector and progress in the areas of energy efficiency, renewable energy, clean transportation, and decarbonization. The *Hawai'i's Energy Facts & Figures* report is an information source to inform Hawai'i's citizens, communities, and decision-makers. We hope you find the comprehensive collection of energy data informative and useful.

Gail Suzuki-Jones: Women in Green 2020 SHEROES

Gail Suzuki-Jones, Energy Efficiency and Renewable Energy Buildings Program Manager, was recognized as a U.S. Green Building Council Pacific Region, August Women in Green "SHERO."

"It is by working together collaboratively, and with aloha, that we support and promote progress in our existing buildings, re-building our communities, clean energy and building, and living green," Gail says.

Gail's recognition comes from her leadership of the Hawaii Green Business Program, a state program that assists businesses that strive to operate in an environmentally and socially responsible manner. Gail has also mentored over 40 inspiring interns from across the world during her 23 years at the HSEO where her proactive leadership approach is an inspiration to others.

Under Gail's leadership, the Hawai'i State Office Tower recently achieved LEED 4.1 Operations and Maintenance Gold level recertification with the participation of the Hawaii State Energy Office, Department of Accounting and General Services, Department of Health, Honolulu Board of Water Supply and volunteers from the USGBC Hawai'i. Gail helped coordinate that effort and actively participates in USGBC Hawai'i's Education and Green Schools committees coordinating continuing education and training activities such as the Hawai'i Build and Buy Green Conference, site tours, and other seminars, workshops and webinars.

Sage Lang Joins the HSEO Team

The Hawaii State Energy Office welcomes Sage Lang as the new Volkswagen Settlement Specialist. Sage will provide project management support for the design and implementation of HSEO's portfolio of electrified transportation program activities and projects in conjunction with the administration of Beneficiary Mitigation Trust Fund allocations from the Volkswagen Settlement.

"Sage brings an ideal blend of professional experience and enthusiasm to a critically important clean transportation effort in the state," said Chris Yunker, Managing Director, Resilience, Clean Transportation, and Analytics Branch. "She will build on Hawai'i's 'Beneficiary Mitigation Plan,' and look to accelerate the HSEO's efforts towards the mission of reducing our state's carbon footprint through administration of the Volkswagen Environmental Mitigation Trust funds and execution of eligible environmental mitigation projects."

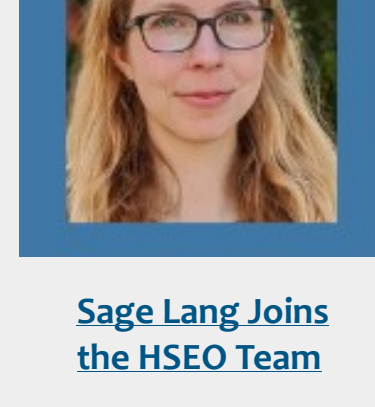
Sage was most recently an Energy Program Coordinator at a locally controlled public agency supplying clean and renewable electricity for residents and businesses in select Central Coast, California counties, where she managed a light-duty Electric Vehicle Supply Equipment (EVSE) rebate program.



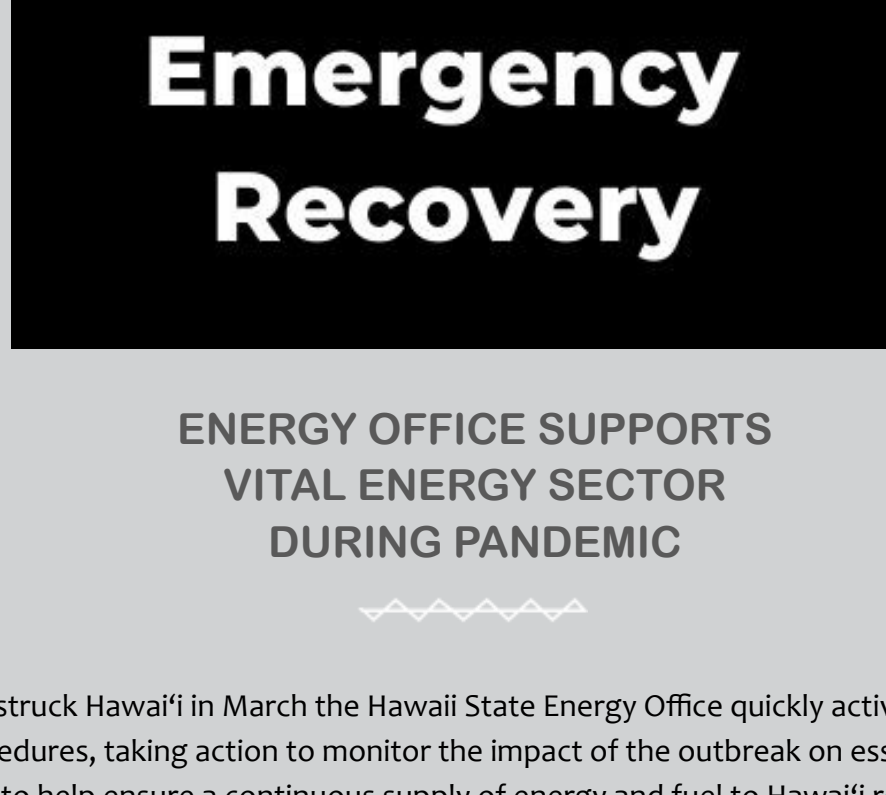
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ENERGY OFFICE SUPPORTS VITAL ENERGY SECTOR DURING PANDEMIC

When COVID-19 struck Hawai'i in March the Hawaii State Energy Office quickly activated its emergency procedures, taking action to monitor the impact of the outbreak on essential fuel and power suppliers to help ensure a continuous supply of energy and fuel to Hawai'i residents and businesses.

Working under its emergency operations plan and in coordination with the private sector and other government agencies, the Energy Office was able to ramp up support for Hawai'i's vital energy sector during the early stages of the pandemic.

As the primary and coordinating agency for State Emergency Support Function #12 (Energy), the Energy Office is an integral part of the state's emergency response to "all hazards," including pandemics. Other emergencies the Energy Office has responded to in recent years include Hurricanes Lane and Olivia, the Kilauea eruption and the flooding on Kauai's North Shore.

The Energy Office has a statutory duty under HRS 196-72 to "develop and recommend programs for energy assurance and energy-related information." In 2016, The Energy Office is a clearinghouse for coordination and all energy-related information in the state. That is vitally important during a state of emergency whether it is a natural disaster or a pandemic.

In order to support the smooth operation of Hawai'i's energy sector during the mandatory shelter in place order early in the COVID-19 pandemic, the Energy Office worked with its partners to ensure all essential energy and fuel infrastructure workers in Hawai'i were able to carry out their duties safely and efficiently.

"Our challenge is to be prepared as possible to effectively contend with energy emergencies and threats to our energy security," said Mark Want, the Energy Office's resiliency and energy assurance program manager. "It is essential to keep the energy flowing in a natural disaster or pandemic. There are tremendous numbers of critical services that rely upon energy to deliver services for the health, safety and well-being of people," Want said.

The main pillars of energy resiliency are robustness, resourcefulness, rapid recovery and learning lessons, Want said. Resourcefulness plays a bigger role than most people may think when it comes to emergency response, he noted.

"We look at the people who are involved in the operation of the energy system here in Hawai'i. You look at a gasoline truck driver who is moving fuel. It's not just someone who is driving a truck. You have to understand all the components about how to handle hazardous materials and what is best way to deliver that fuel safely," Want said.

Another element of emergency response that is often overlooked is the work that is done before and after the actual event.

"It's not just during hurricane season or when there is a tropical storm crossing the 140th meridian west that you start worrying about these things. It's a full-time, year-round occupation to look at your systems and people and strive to make everything work better for agencies if we have a major disruption here in the islands," he said.



CLEAN ENERGY PRESENTS OPPORTUNITIES FOR HAWAII'S JOB MARKET

Over the past decade the clean energy sector has consistently contributed to job growth in Hawai'i's economy. In 2012 when the local economy was struggling to recover from the Great Recession solar-related construction expenditures helped take up the slack, accounting for nearly one-third of all construction spending in Hawai'i.

Now, with COVID-19 outbreak hammering Hawai'i's job market, there is an opportunity for clean energy to once again play a role in Hawai'i's economic recovery. For its part, the Hawai'i State Energy Office is mobilizing to support the economy, while still maintaining readiness to respond to energy security matters and keeping an eye on the weather with hurricane season still in effect.

"Clean energy has a proven track record for creating jobs and generating economic activity," said Hawai'i Chief Energy Officer Scott Glenn. "The Energy Office is focused on helping get Hawai'i people back to work and into clean energy job, advancing clean energy projects and diversifying our economy more."

The Energy Office is identifying opportunities through a phased approach to support economic recovery and resiliency with initiatives aimed at having an immediate impact while addressing short-term strengthening and long-term, sustained benefits. The Office has launched a Workforce Development Initiative that addresses all three phases by coordinating, acquiring and efficiently deploying workforce development data and funding.

The Energy Office is working with community colleges, labor unions and others to make sure Hawai'i-based workers have the skills to be competitive for clean energy jobs in all segments of the energy sector, said Maria Tome, the Office's managing director for Energy Efficiency and Renewable Energy. "We want local workers to be filling these jobs. If Hawai'i people can get the training they need for these positions, then maybe not as many workers will need to be brought in. We want to make sure our own folks can develop those skills here," Tome said.

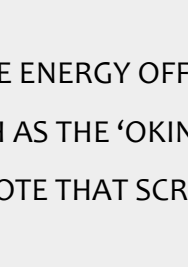
One area with significant potential for job creation are Hawaiian Electric Company's Stage 1 and Stage 2 solar-plus-storage projects on three islands. The Energy Office estimates that 20 projects either under construction or planned on O'ahu, Maui and Hawai'i Island will generate roughly 5,000 temporary jobs and numerous long-term positions.

The Energy Office is surveying developers of the Stage 1 and Stage 2 projects to understand their hiring needs and deployment timeline.

"Because we expect the most difficult time in our economy is in the next couple of years we are particularly interested in the temporary jobs because they are well-paying construction jobs," Tome said.

Over the next few years, the Energy Office will focus on short-term strengthening using training programs to build the capacity of local energy sector workers to take on jobs in new technologies such as smart buildings. After that, the long-term focus will shift to training the local workforce to support resiliency and the integration of clean energy technologies into the community.

"Billions of dollars will be spent on clean energy projects, including energy efficiency, rooftop and utility solar, energy storage and clean transportation. The potential for Hawai'i's economy will be significant," Tome said.



ENLIGHTENING NEWS & UPDATES

[State energy office says local effort to combat climate change needed as U.S. pulls out of Paris climate agreement](#)

(Honolulu Star-Advertiser, 11/04/20)

[On The Withdrawal Of The US From The 2015 Paris Agreement](#)

(Honolulu Civil Beat, 11/04/20)

[Hawaii's new normal: Heat waves, rain bombs and rising seas](#)

(ClimateWire, 10/26/20)

[Good environmental policy requires understanding people](#)

(University of Hawai'i News, 10/22/20)

[New city project aims to boost green jobs and reduce taxpayer costs](#)

(KHON2, 10/07/20)

FOR SCREEN READER USERS, THE HAWAII STATE ENERGY OFFICE RECOGNIZES THE USE OF DIACRITICAL MARKINGS OF THE HAWAIIAN LANGUAGE SUCH AS THE 'OKINA (ALSO CALLED A GLOTTAL STOP) AND THE KAHAKO (ALSO CALLED A MACRON). PLEASE NOTE THAT SCREEN READERS MAY NOT READ OR PRONOUNCE THE HAWAIIAN WORDS CORRECTLY.

Hawaii State Energy Office

235 S. Beretania Street, 5th Floor | Honolulu, Hawaii 96813

phone (808) 587-3807

email dbed1.energyservice@hawaii.gov

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