

2 FINDING THE 2 BRIGHT SPOTS

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ALOHA.

I am honored to share with you our Annual Report for Hawai'i Energy's Program Year 2020-2021. You will find highlights from our diverse portfolio of energy efficiency programs, examples of the positive impacts we've had on Hawai'i's families and businesses, and the progress we're making in our mission to help our state reach our 100% clean energy goals.



Photo courtesy of Hirako Farms

As I look back on the past Program Year, I am humbled when I think about how our team – and Hawai'i – has navigated through one of the most challenging times of our lives. We started this Program Year in July 2020 in the middle of a global pandemic, having completely shifted the ways we work and serve our customers. Under the guidance of the Hawai'i Public Utilities Commission (PUC), we focused our efforts on helping to support economic recovery, particularly for small businesses and nonprofits who were struggling to keep their doors open, programs alive, and staff employed. We also dug deep into our program toolbox to see what we could do to reach and benefit our friends and neighbors who, like us, were mainly working and schooling from home.

I am most proud of the Energy Relief Grant which we launched in August 2020 to help fund energy efficiency improvements for nonprofits, small businesses and other qualifying organizations hit hard by the pandemic. I am happy to report the program provided \$2 million in funding which will save customers over \$500,000 a year.

On top of all the changes our Program has made in the light of COVID-19, we also stepped up to support the energy industry's efforts to prepare for the planned shutdown of the AES coal plant on O'ahu in September

2022. This will continue to be a high priority for both the PUC and Hawai'i Energy in the next Program Year and beyond.

As I reflect on our past and current endeavors, what stands out to me is resiliency.

It's a word that has been used in the sustainability and energy space for years, but is especially meaningful at this moment. I'm proud of how our team has elevated their work through innovation and collaboration to meet these challenges. I'm grateful to our partners who have stood beside us as we seek and implement joint solutions. And I'm appreciative to the thousands of Hawai'i residents and businesses who have used us as a resource or participated in one of our programs.

Together, we will be a more resilient and energy-efficient community, ready to take on whatever comes our way. Stay strong and mahalo for your support!

Brian Kealoha
Executive Director



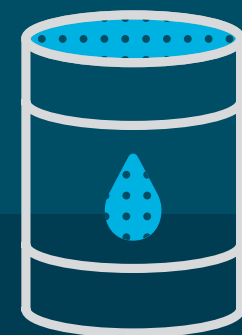
02 PROGRAM YEAR 2020 OVERVIEW

Program Year 2020 was undoubtedly characterized by the COVID-19 pandemic's many disruptions to our local economy. As we all weathered through the "new normal" for much longer than anticipated, Hawai'i Energy continued to focus on supporting recovery measures for our local residents and businesses, despite major impacts to supply chains and the limited ability to nurture business relationships face-to-face.

We saw the pandemic put a spotlight on clean energy affordability and accessibility issues in many local communities, and motivate others to take more serious action as the clock ticks in the fight against climate change – reminding us all how important and great it can be to work together with common purpose.

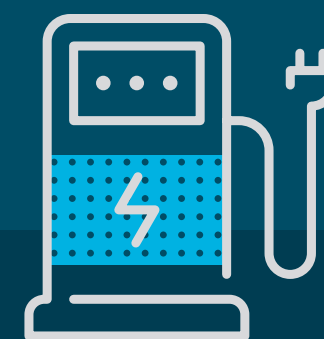
116 MILLION *kWh*
Saved in 1 year.

\$33.7 MILLION *dollars*
Saved in one year, equivalent to \$386.8 million dollars in lifetime savings.



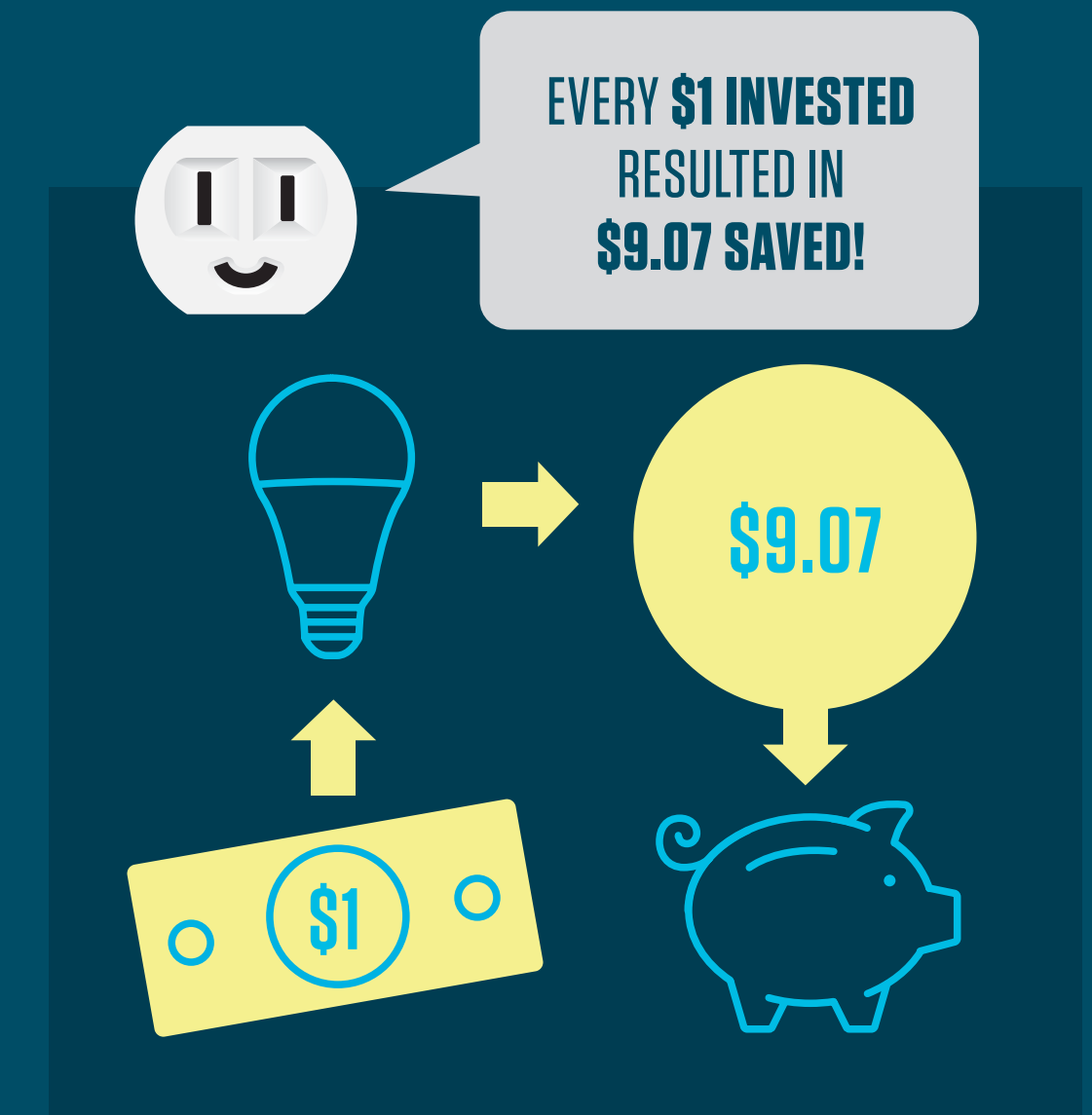
147,004

barrels of oil avoided



63,187

metric tons of greenhouse gas emissions avoided



Number of participants who lowered their electricity usage through Hawai'i Energy program offerings

HONOLULU COUNTY

11,323

RESIDENTIAL HOUSEHOLDS

1,068

BUSINESSES

MAUI COUNTY

1,094

RESIDENTIAL HOUSEHOLDS

138

BUSINESSES

HAWAII COUNTY

1,927

RESIDENTIAL HOUSEHOLDS

178

BUSINESSES

Why Efficiency?

In Hawai'i's journey to 100% clean electricity generation by 2045, no one type of clean energy will be the sole generator. The plan has always been to have a mix of renewable sources combined with efforts by local residents and businesses to simply use less.

Why? Simply put – reducing energy consumption continues to be the cheapest and easiest “type” of clean energy. It doesn't require manufacturing and connecting large solar panels or windmills, takes far less time to implement, does not require you to own your home, and provides additional benefits to our communities in the form of resiliency, financial savings, and health and safety. This is where Hawai'i Energy's work is focused, where we thrive, and why we believe so much in what we do.

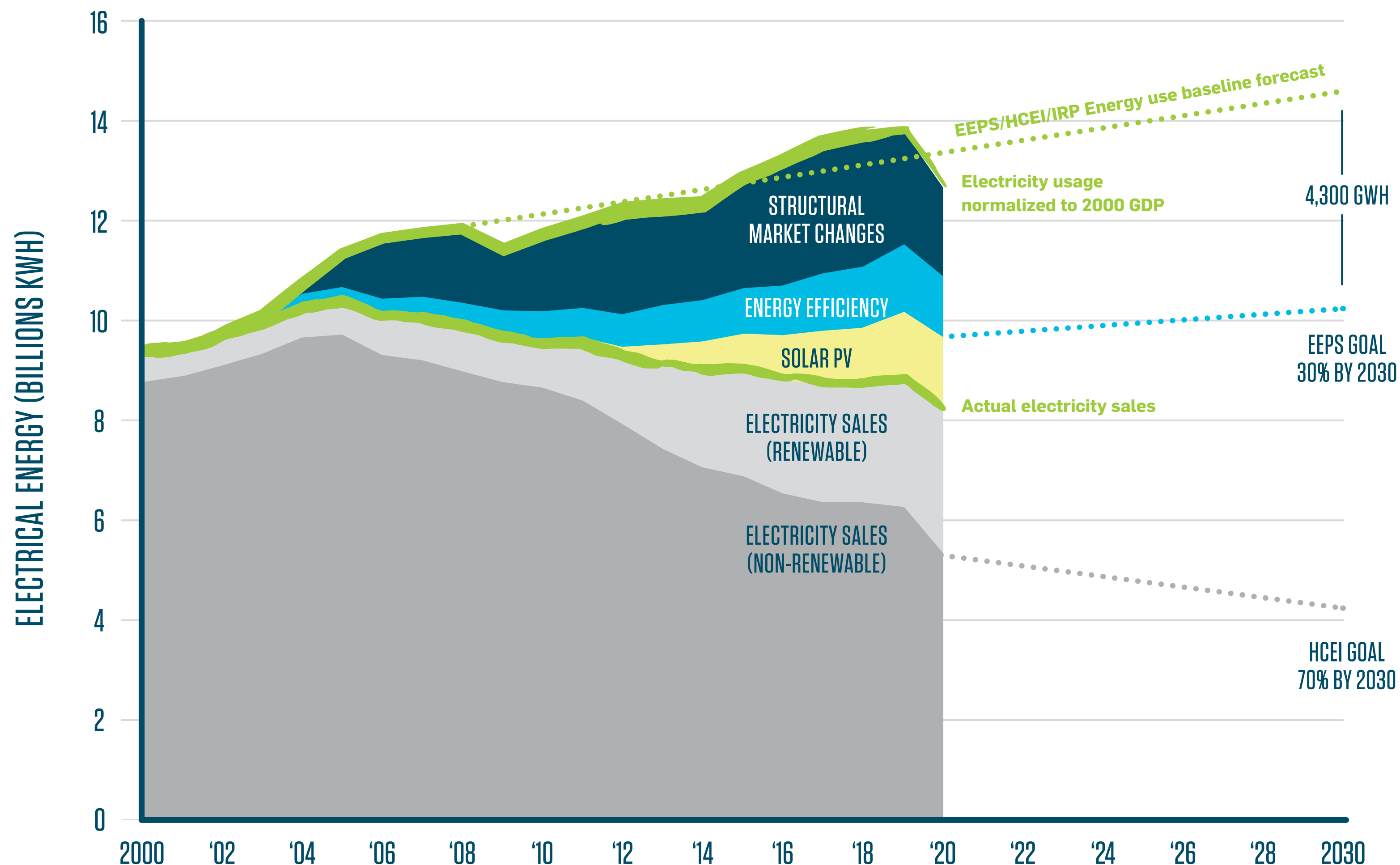
EEPS: Hawai'i's statewide Energy Efficiency Portfolio Standard, established in 2009.

HCEI: Hawai'i Clean Energy Initiative, a framework of statutes outlining Hawai'i's transition to 100% clean energy by 2045.

IRP: Hawaiian Electric Company's Integrated Resource Plan, which outlines the utility's plans for where electricity will be generated from in the coming years.

Clean Energy Transition

SOURCES OF ELECTRICAL ENERGY SALES & REDUCTIONS



AFFORDABILITY & ACCESSIBILITY INITIATIVES

In 2018, we added Affordability & Accessibility as a core operational tenet, carving out specific resources to address energy-related equity issues faced by many Hawai'i residents and businesses.

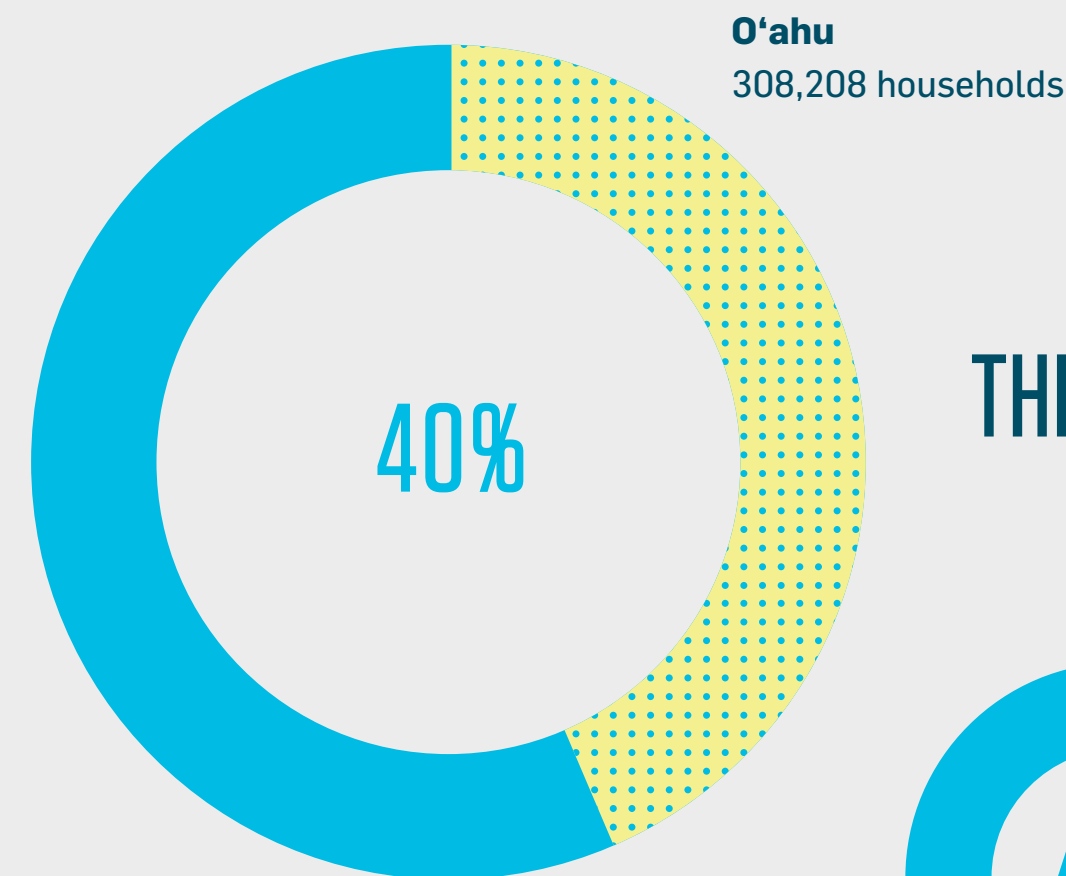
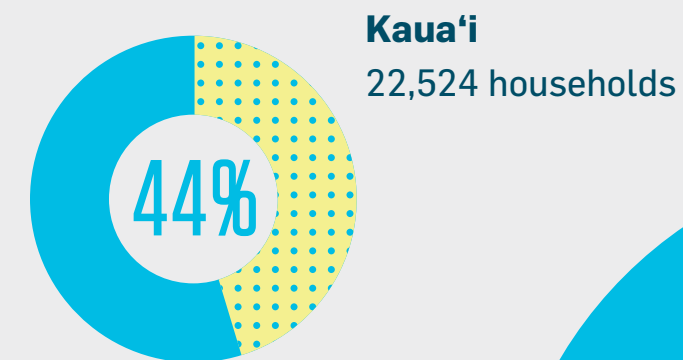
ALICE IN HAWAI'I

42% of households before COVID-19

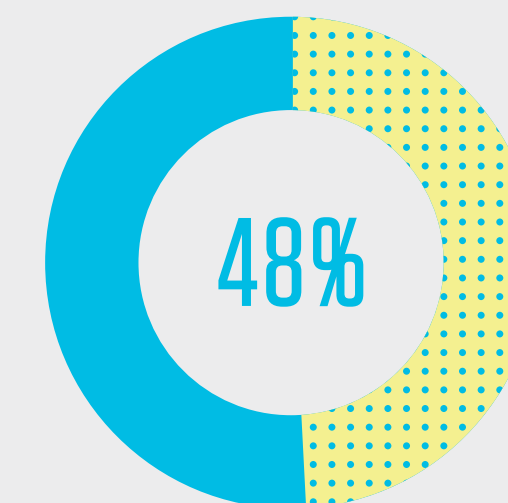
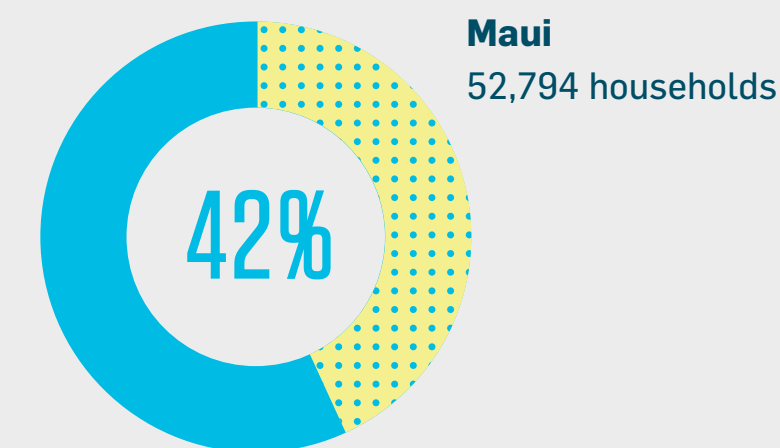
59% of households since COVID-19 began

"ALICE" is an acronym for Asset-Limited, Income-Constrained, Employed, characterizing the number of households in Hawai'i that are employed, but either on the brink of poverty or at or below the federal poverty level. The ALICE® report is part of a nationwide study, commissioned locally by Aloha United Way.

In assessing the impacts of transitioning the state to 100% clean energy by 2045, data shows that a significant number of residents are living paycheck-to-paycheck – many in rural communities – and are less likely to invest in energy-efficient appliances or anything other than meeting basic needs. However, data also shows that many of these residents live in older and sometimes multi-generational homes, which means they stand to benefit the most from reducing energy usage in both the short and long term.



% BELOW ALICE
THRESHOLD IN 2020



Hawai'i Energy works with and through established community organizations in ALICE® and/or "low-to-medium income"-classified towns to provide community-centric programming and strategic engagement plans to build trust and further the adoption of energy-saving technologies and behaviors in those areas. We seek to build long-lasting relationships, include community feedback into program designs, and empower everyone to see themselves in a future where clean energy is a feasible reality, from individual households to small businesses to new construction developments.



RESIDENTIAL PROGRAMS

LED lighting made accessible and affordable

Understanding community histories plays a critical role in our approach to providing services. Sometimes, communities have not had good experiences working with local government, the electric utility, developers, and other large entities, and may harbor feelings of resentment or being “passed over” for good opportunities. Hawai’i Energy makes a concerted effort to listen to concerns and incorporate this knowledge into our program design.

One such example this year was coordinating a LED bulb promotion at Ace Hardware stores. Recognizing that many residents in our target communities still use incandescent bulbs but may not be able to afford the higher costs of LEDs, Hawai’i Energy worked with HouseMart Hawai’i (operator of Ace Hardware stores in Hawai’i) to develop a promotion for shoppers to either bring in and exchange their bulbs for free LEDs, or purchase LED bulbs for 50 cents each. Ace Hardware stores are present in smaller towns across the state, eliminating the need to drive a long distance to visit a big-box retailer. As a result, more than 50,000 LED bulbs were distributed through the promotion at 16 stores statewide, with exchanges making up roughly 11% of the bulbs.

Start small and build

In regards to energy-saving actions, we often say “big change starts small.” Our Energy Smart 4 Homes program helps residents kickstart their sustainability journey by making small household devices like LED bulbs, advanced power strips, high-efficiency shower heads and faucet aerators available at no cost. Trained technicians start with an assessment of the home, and then provide quick installations and disposal of old equipment. This program used to primarily target multi-unit properties like apartment complexes and senior housing facilities; however, with the pandemic putting a major spotlight on lowering monthly household expenses, we expanded eligibility to offer the service to more single-family homes in communities with high numbers of ALICE® residents.

“As someone who always wants to lower my carbon footprint and to decrease my monthly electric and water bill, I responded immediately. We learned how to be more efficient, we learned how much energy our lights were using and ways to cut it down, what type of bulbs we had and some of the dangers of them (we had several that have mercury in them which is scary!), we learned how much water we were wasting just because of our shower heads and we learned that just with a few minor changes, how much energy we could save overall.

The results? We went from 600w to 60w just on our bathroom lighting alone; 240w to 40w with our lamps; and 180w to 15w with our ceiling fans. Our showers went from 2 1/2 gallons of water being used per minute to 1 1/2 gallons per minute. And I have a new power strip for my electronics. So super stoked and happy for this opportunity!

Jody Shiroma
Waimānalo resident



LED Bulb Promotion

16	5,108
PARTICIPATING STORES	BULBS EXCHANGED
50,000	291.3
BULBS DISTRIBUTED	KWH SAVED PER BULB





Next-level tech in the homes that need it most

With a growing industry focus on energy optimization – preparing individual homes and businesses for a “smarter” electrical grid – we continued our collaboration with Shifted Energy to bring their signature water heater controls to homes in Waimānalo. More than 30 homes received their free controls, which allow for the utility to control the time of day water is heated, shifting the required energy load to off-peak (day) times and helping to balance the entire electrical grid.



MORE THAN
30
HOUSEHOLDS RECEIVED
FREE WATER HEATER
CONTROLS

CASE STUDY

HUI O HAU‘ULA

Community partners helped make programs a reality

Continuing to partner with local nonprofit organizations within our target communities has been especially rewarding. This year, Hawai‘i Energy launched several programs in the Ko‘olauloa district of O‘ahu with partner organization Hui O Hau‘ula, a well-known nonprofit connecting residents to everything from locally-grown food to kūpuna activities. Led by Dotty Kelly-Paddock, their knowledge of how and when to approach residents was an invaluable piece of getting energy-efficient equipment in homes. They provided a centralized registration and payment hub that was available during evenings and weekends (to accommodate residents working multiple jobs), and served as a valuable, trusted communication channel when COVID-19 caused months-long appliance shipping delays and pauses of in-home installation for Energy Smart 4 Homes participants.

“

We are focused on resiliency as a community.



We were once told we were invisible out here – and we’re on our own when it comes to food, healthcare, communication, all the essential things. I see how hard people work to make a better life, and the program you’ve provided has been a part of that. It’s so positive to be able to bring that kind of resource here – it’s given people a richer vision, stronger purpose, and hope that we’ll be able to make it together.”

Dotty Kelly-Paddock

President, Hui O Hau‘ula/
Hau‘ula Community Association

SMALL BUSINESS PROGRAMS

Challenges such as limited capital, expertise, and long-term strategies for energy management make it even more difficult for Hawai'i's small businesses and nonprofits to implement energy efficiency measures. The pandemic intensified the need to lower electricity costs while revenue and donations were at all-time lows. In response, we shifted our strategy and re-tooled our programs to provide short-term relief, and worked quickly to help organizations reduce monthly operating costs.

Our long-standing Energy Advantage program, which this year offered efficient lighting installations for free, complemented the launch of our Energy Relief Grant, a pandemic-specific initiative in which we offered up to \$25,000 per business toward energy-saving equipment installations. In total, more than 800 local businesses and nonprofits received support toward implementing efficiency measures that will reduce their energy costs for years to come. Additionally, we and facility managers from seven nonprofits navigated (mostly virtually) through a third year of the EmPOWER Hawai'i Project, our 10-month cohort-style training program.

For some participants, it was their first time working with Hawai'i Energy, and the exposure to additional collaboration and consultation was well-received. We saw lifeline businesses such as neighborhood grocery stores and community medical centers now connect the benefits of using less energy to their mission, and through participating in our programs, provide local contractors and electricians with work. And despite being unsure of what the future held, we witnessed incredible stories of hope, and saw many businesses – from generationally-owned family restaurants to large educational centers – begin to trust in and prioritize clean energy investments for the long-term.

MORE THAN
800
LOCAL SMALL BUSINESSES
& NONPROFITS RECEIVED
SUPPORT FOR ENERGY
EFFICIENCY PROJECTS



I don't think they [businesses] could have afforded to upgrade their lighting on their own without Energy Advantage.

A lot of people in Kohala work at the resorts, so sales are down because of COVID-19 and everyone watching how they spend money. To any business I would say, do it! You can save on your electric bill every month, and you can get it for less than what you pay for on your own. It's a great energy saver just like your appliances, or anything else."

Elwyn Carvalho
Clerical Assistant, Hinokawa Electric

CASE STUDY

HINOKAWA ELECTRIC

In the remote Kohala area of the Big Island, Hinokawa Electric is the only licensed electrical contractor for miles – making them a vital and appreciated piece of the community.

For businesses in the area, having someone close who is trained to offer energy-efficient products and Hawai'i Energy rebates is much preferred over working with someone farther away with limited schedules and higher overhead costs. This prompted Hinokawa Electric to join our participating contractor list this year and bring the benefits of the Energy Advantage program to Arakaki Store and Nakahara Store – two family-owned grocery stores that have been around for decades.



Energy Relief Grant

Recognizing the significant challenges small businesses and nonprofits faced in covering operating costs with reduced revenue during the pandemic, Hawai'i Energy launched its first-ever Energy Relief Grant, announcing \$1 million in available funding. We were overwhelmed with applications requesting over \$10 million in aid for projects including commercial kitchen equipment, air conditioning, and lighting replacements – many that would have not been done in the short-term had it not been for Hawai'i Energy's support.

To date, over 200 organizations have received more than \$2.8 million in support of energy efficiency upgrades, which is expected to collectively reduce their electricity costs by over \$500,000 a year. Given the overwhelming success of the program, Hawai'i Energy will continue offering a grant program next program year.

MORE THAN
\$2.8M
GIVEN IN GRANTS FOR
EFFICIENCY UPGRADES



CASE
STUDY

OMIYAGE MARKET

The space we took over [at the start of the pandemic] had been vacant and used for storage for the last 6 years so the A/C system was unused and very out of date. In order to create a pleasant experience for both our vendors as well as our visiting public, we knew we had to make a change to the A/C units, but had no idea how we would get the resources to do so being a new business with zero income coming in. Fortunately, we were blessed with the opportunity that Hawai'i Energy has given us and numerous others to be able to receive the grant to improve our air conditioning throughout the facility while also saving the environment.

It was such a blessing and we are forever grateful."

Edward Sugimoto
Owner

ONGOING COMMUNITY BUILDING

Energy Equity Hui

How can we create equity amongst stakeholders? How can we ensure that all have access to the benefits of clean energy? These are some of the "big picture" questions addressed by the Energy Equity Hui, a statewide collaborative group established by Hawai'i Energy this year. Recognizing that Hawai'i's energy landscape can be extremely complicated, the Hui was born out of a need to ensure equitable transformation in our quest to meet Hawai'i's clean energy goals. By bringing together representatives from government, private sector and NGOs, the Hui prioritizes ensuring clean energy solutions are provided to those who need it most; increasing economic activity and tax revenue; and increasing disposable income in assuring affordability of electricity costs.

Some of the Energy Equity Hui members include:

**Hawai'i Public Utilities
Commission**

**City & County of
Honolulu**

**Hawai'i State
Energy Office**

**Hawai'i Natural Energy
Institute**

**Hawai'i Green
Infrastructure Authority**

**U.S. Department of
Housing & Urban
Development**

**Hawaiian Electric
Company**

**Hawai'i Energy
Shifted Energy**

Hui O Hau'ula

**The Centre for
Conscious Design**

**Renew, Rebuild Hawai'i
Blue Planet Foundation**

MARKET TRANSFORMATION & ECONOMIC DEVELOPMENT

Achieving Hawai'i's clean energy goals will require lasting, systemic changes in consumer and organizational behaviors. Market transformation efforts aim to strategically address barriers at this level and leverage opportunities within education, policy, and economic development systems to further advocate for energy efficiency as a value in everyday life.

This year, Hawai'i Energy's multi-faceted work in this area was focused on education and training, relationship-building, and strategic partnerships and collaboration in light of the pandemic's impacts on our local economy.

These efforts included:

- More education and outreach on low- to no-cost energy efficiency tips and incentives
- Technical training on COVID-related energy management topics
- Recognizing the growth potential of the "green" workforce and diversifying clean energy training opportunities for industry professionals
- Selecting industry leaders to provide guidance and serve as energy efficiency ambassadors



6,882

*total participant hours
through professional development*



96

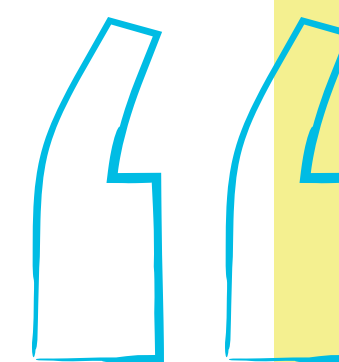
*total national professional
certifications awarded*



COVID-Related Energy Management Trainings

Trainings on topics related to COVID-19 continued to be popular offerings throughout the program year, as facility managers were constantly seeking new information to mitigate rising costs and safety risks. Hawai'i Energy was uniquely positioned to tie the topic of energy management into these discussions through several webinar offerings, including a two-part "COVID-19, Indoor Air Quality, & Energy" session and another titled "HVAC, COVID-19, and Outdoor Thermal Comfort" in collaboration with the U.S. Green Building Council (USGBC).

Both webinars focused on the role of HVAC systems in improving air quality to mitigate the risk of virus transmission while also addressing energy management opportunities to offset the associated energy increases. The virtual format allowed for a wider variety of attendees than in previous years, including USGBC members, HVAC designers, and engineers.



The [pathogen reduction] webinar was one of the most informative and interesting your team has set up thus far.

All webinars have been great but today's one really opens up so many solutions for us at Outrigger Hotels."

Albert Kahalehoe II

Area Director of Engineering, Outrigger Reef

Green Mentorship Program

Building upon their National Association of Realtors® (NAR) Green Designation and workshops on energy-efficient accessory dwelling units (ADUs) and selling homes with solar, a small, select group of realtors was given an opportunity to work one-on-one with an expert on green real estate to enhance their knowledge and choose a 'capstone project' in an area they are passionate about.

Christina Laney Mitre

would like to use her nonprofit to unite the state in sustainability, and will work with other mentees to create awareness and build a statewide green vendor list.

Working with a contractor on three lots spanning 9 acres that will be sustainable homes, **Chelsea Fernandez** is working to make the homes better than code and create a path to green. She also plans to form a network with other mentees and offer educational sessions about GREEN.

FEATURED PROJECTS

Krishna Renauer would like to create energy-efficient spaces for aging parents like ADU/'Ohana units. She is looking into a universal design, creating timelines, and identifying obstacles for the project.

"Thanks to Hawai'i Energy for their support in training different Hawai'i professions in the energy and green space. More Realtors across the state need to learn how they can better serve their clients with all these new and innovative energy saving features and high performance homes of the future. With their sponsorship, I received my NAR GREEN designation and I have connected with many GREEN agents across the country through this network and the NAR conferences. With all that I am learning,

I am able to be that resource for my clients and fellow Realtors.



The more educated we are as a community, the closer we are to a more sustainable Hawai'i! Our Smart Living Hawai'i Real Estate Team focuses on Green & Sustainable Building/Sales, Affordable Housing, High Performance Homes, Smart Homes, Healthy Homes and Agricultural/Sustainable Land Acquisitions. This designation gives credibility to our expertise and has opened doors for our business. The mentoring program has just begun and I look forward to working with John Shipman with Franklin Energy as he helps guide me through my project focused on a Smart Living Vendor List for the state of Hawai'i (Green Home & Build Vendor List).

Christina Laney Mitre

Owner & Founder of SLHi
Green Mentorship Program Mentee



Codes Training

A dual-part building energy codes training was run in collaboration with the Hawai'i State Energy Office to highlight the 2018 International Energy Conservation Code (IECC) that was adopted in December 2020.

Overall, the series comprised 747 hours of training for hundreds of design and construction professionals, and in a post-webinar survey, over 97% of the low-rise residential training attendees and 95% of the high-rise residential & commercial training attendees said the webinar improved their knowledge of the new 2018 IECC.

"INFORMATIVE AND RELEVANT."

"VERY COMPREHENSIVE."

"THE WEBINAR WAS VERY INFORMATIVE AND IMPROVED MY KNOWLEDGE ABOUT CODE UPDATES."

Selected Quotes
(from anonymous attendees in post-webinar survey)

Creation of the Strategic Advisory Board

Hawai'i Energy formed a new Strategic Advisory Board to help broaden the impact and benefits of energy efficiency for Hawai'i's residents and businesses. The following seven local industry leaders were selected to provide insights into their respective industries and serve as energy efficiency ambassadors in the community:



Jason Ito

Vice President, Administration,
Labor and Community Relations,
Kyo-ya Management Co. Ltd.



Brent Kakesako

Executive Director, Hawai'i
Alliance for Community Based
Economic Development



Lisa Maruyama

President and CEO,
Hawai'i Association of
Nonprofit Organizations



Bettina Mehnert

President and CEO, AHL



Jennifer Potter

Commissioner, Hawai'i Public
Utilities Commission



Walter Thoemmes

Managing Director,
Commercial Real Estate Division,
Kamehameha Schools



Lauren Zirbel

Executive Director, Hawai'i Food
Industry Association

*"When developing this Strategic Advisory Board,
we wanted fresh perspectives from
a variety of industries and sectors
that we can use to reach island families and
businesses more effectively as we look to
develop new partnerships and work toward
the state's economic recovery."*

Brian Kealoha

Executive Director, Hawai'i Energy



HAWAIIAN AIRLINES ENGAGES EMPLOYEES

As a two-year participant of the program, Hawaiian Airlines had an internal goal of increasing employee education to reduce energy use. The airline held a Summer Savings Home Energy-Savings Idea contest, in which employees submitted their top three home energy-saving tips that were then shared with the rest of the company.

Strategic Energy Management

Strategic Energy Management (SEM) is a holistic, long-term, data-driven approach that enables large businesses to fully understand how they use energy, and to generate a roadmap for effectively managing energy costs. The SEM program engages participants through a cohort peer exchange, to integrate energy efficiency and conservation within business cultures and to make energy performance a priority for everyone.

In PY20, 13 workshops and 3 technical webinars were held for SEM participants, and 5 Energy Management Assessments (EMAs) were conducted.

Participants of the PY20 SEM cohort included:

Alohilani Resort

**County of Hawai'i
Department of Water Supply**

County of Maui

**Department of Commerce
and Consumer Affairs**

Hawaiian Airlines

Hale Koa Hotel

Department of Public Safety

Department of Education

**Hawai'i Health Systems
Corporation**

"Have a daily unplug with the entire 'ohana – that means no cellphones, TV, laptops, and other electronic devices and instead read a book, do a puzzle, or have board game night. Disconnect and power up on connecting with your friends and family!"

"Candlelight dinners rekindle romance and save on your electric bill!"

"Open windows and enjoy the trade winds. If there aren't any trade winds, head down to the pool or beach to cool off!"



"I learned to unplug your charger when you are not using it."

Kahakai Elementary
2nd grade student

Introductions to Efficiency for Audiences of All Ages

Hawai'i Energy continues to provide entry-level efficiency education for all ages as we believe a solid foundation and working knowledge is critical to ensuring long-lasting lifestyle changes. Through partnerships with local nonprofit Blue Planet Foundation and long-time facilitator Keli'i Wilson of Vivian Ward Affairs, nearly 5,000 virtual participants – including young students, faith groups, sports teams, and more – learned a little more about the importance of reducing energy waste, many for the first time this year.

The "Energy Unplugged" series breaks down confusing energy concepts and approaches energy management from an entrepreneur's mindset – offering practical

tips on how to make money (in savings) through reducing energy waste. The presentation focuses on the "Top 10 habits to reduce your energy bill" and promotes Hawai'i Energy's many programs and offerings, raising awareness about Hawai'i Energy's role in assisting our island communities.

We continued our longtime collaboration with the Blue Planet Foundation to provide clean energy-focused sessions to adult community groups and school classrooms. These sessions offer energy efficiency content combined with education on climate change impacts in Hawai'i, using co-developed tools and games for engagement, and pointing older participants to the Hawai'i Energy online marketplace for further action.

Energy Unplugged

27

SESSIONS

2,104

PARTICIPANTS

Community Energy Education

61

SESSIONS

1,099

PARTICIPANTS

Student Energy Education

41

SESSIONS

1,746

PARTICIPANTS

"It was cool that energy saving tips were included in the presentation like unplugging all electronic things when it's not being used and switching our fan to cycle counter-clockwise. I never realized that most of Waikiki's store's doors are open and they run A/C. I wonder if they realize how inefficient doing that is and if they are aware of how much energy they are wasting?"

Chaminade University
Intro to Environmental
Science student

Waipahu Intermediate
8th grade student

"I'll definitely be doing the tips provided such as taking short showers, [and] turning off the lights. Once again, thank you for your time and effort. And I can't wait to see the day Hawai'i becomes 100% renewable."

HONOLULULI MIDDLE SCHOOL



A PROJECTED
64%
ENERGY SAVINGS COMPARED
TO A CODE-COMPLIANT
BASE



Honouliuli Middle School Receives Excellence in Energy Efficient Design Award

The winner of the American Institute of Architects Honolulu Chapter's 2020 Design Award for Excellence in Energy Efficient Design, as well as its overall Award of Excellence for the Institutional category, was Honouliuli Middle School in Ewa on O'ahu. This was the second annual award for energy efficiency sponsored and juried by Hawai'i Energy. The buildings were designed with energy efficiency as a foundational design goal with an integrated design process – requiring a high level of commitment from the client as well as the design team.

The buildings are designed for optimal natural ventilation and have mixed mode mechanical cooling. A “red light / green light” system alerts occupants if conditions are sufficient for natural ventilation or if the air conditioning should be used in order to achieve occupant comfort. Other efficient features, all incorporated with the assistance of

sophisticated energy, fluid dynamics and daylight modeling, included sun shading, advanced glazing, and a highly insulated building envelope.

High-performance variable refrigerant flow air conditioning equipment and highly controllable, zoned and dimmable 100% LED lighting also contributed to the projected 64% energy savings in comparison to a code-compliant base. It was designed to accommodate a future PV system, which is sized to take the building to net-zero energy use. The project was recognized with third-party verification of its resource and energy efficiency with Hawai'i Collaborative for High Performance Schools (HI-CHPS) certification for the design phase.

We commend the state Department of Education and the design team for their achievement and their commitment to high performance, sustainable, flexible 21st century learning environments.

05 CLEAN ENERGY ALLIES

Hawai'i Energy's Clean Energy Ally (CEA) network includes over 300 contractors, architects, engineers, manufacturers, and distributors who are on the frontlines of making Hawai'i's clean energy future a reality.

CEAs are leaders in their fields, providing technical expertise on energy-efficient products and resources, leveraging Hawai'i Energy rebates and services, and in many cases, offering installation and maintenance services for both residential and commercial customers.

In PY20, Hawai'i Energy focused on expanding the CEA network while simultaneously supporting existing Allies through COVID-19. The program grew 120% over the course of the year due to our increased focus on adding new specialties and onboarding new Allies. Despite the pandemic, CEAs remained very active, ensuring that thousands of local residents and businesses could take advantage of Hawai'i Energy's programs and enjoy the benefits of energy efficiency.

11,172 PROJECTS

completed

55.45 MILLION

kWh saved

\$12.85 MILLION

total incentives CEA customers received

341

CLEAN ENERGY ALLIES

"Being a CEA has been great! We're able to offer a lot of value to our customers because of Hawai'i Energy's valuable rebates. The rebates encourage customers to develop good energy efficiency habits. For example, the AC tune up rebates encourage customers to periodically maintain their ACs so that they operate more efficiently, thereby saving energy. The VRF Mini-Split rebates encourage customers to choose energy efficient AC systems to install. Lastly, we've been able to also use Hawai'i Energy's Co-op Advertising Program, and this has allowed us to market more of our services to existing as well as new customers. We enjoy working with the Hawai'i Energy team because of their collaborative approach to creating solutions."

Sherman Louie
President, Air Masters Inc.



Expanding the CEA Program in Response to Market Trends

Customers needing assistance with energy projects often search Hawai'i Energy's online directory of CEAs as a starting point. This year, Hawai'i Energy added two new specialty categories to the search: *refrigeration*, for contractors providing installation and maintenance for commercial refrigeration equipment, and *green real estate*, for agents who are extra-knowledgeable about efficient home features and may be working toward or have obtained the National Association of Realtors' Green Designation. The addition of these new specialties directly reflects growing consumer demands in both of these areas and will allow a wider range of customers to find Allies to fulfill their efficiency needs. By the end of the program year, we had 25 Allies in the refrigeration specialty and 12 in the green real estate specialty.

Going hand-in-hand with the new specialties were new professional development courses to strengthen the

skills of our new Allies. For the refrigeration contractors, we offered educational refrigeration workshops and for the green real estate contractors we offered a variety of green real estate courses ranging from NAR designation, accessory dwelling units, selling solar, and a green mentorship program.

"I am so honored to be a member of the Clean Energy Ally program. As a GREEN designated realtor it helped me to network with other sustainable-minded realtors, and develop relationships with sustainable partners such as contractors, architects, engineers, solar companies, etc.

This valuable training provided by Franklin Energy enabled me to educate and assist my clients on energy saving practices, find appropriate energy efficient solutions which will in turn help them save money, add value to their home, take advantage of energy efficient tax incentives and essentially help Hawai'i become a global leader in clean energy. Collectively, we can collaborate and achieve Hawai'i's ambitious sustainable goals."

Lisa van den Heuvel
Green Real Estate CEA



"Hawai'i Energy kickstarted my business with many opportunities to provide customers with the latest technology in lighting.

It also enabled my company to establish long relationships with these customers which needed many other electrical services. I would not be as successful today if it wasn't for the Hawai'i Energy Program. They generated a lot of income for my company that benefitted the customer as well. To provide services that will save the customer money, provide better quality lighting, help the State of Hawai'i to go green, and survive fiscally in an ever-changing economy is a win-win situation for everybody. Mahalo Nui Loa Hawai'i Energy."

Nolan Correa
Owner, Correa Electric



Honoring Top Performing CEAs

To honor clean energy champions who do great energy efficiency work in our community, Hawai'i Energy continued to recognize top performing CEAs through both the Energy Insiders Rewards (EIR) program and the Energy Advantage Insiders Rewards (EAIR) program. CEAs can achieve EIR or EAIR recognition by completing 10+ Hawai'i Energy projects or 25+ Energy Advantage projects in the program year. PY20 saw the most rewards recipients in both categories, showing that despite the pandemic, CEAs remained active and engaged, helping to bring energy-saving tools to many residents and businesses across the islands.

Energy Insiders Rewards		Energy Advantage Insiders Rewards	
7	184	6	501
AWARDEES	PROJECTS COMPLETED	AWARDEES	PROJECTS COMPLETED

For our islands, for our future.
Ho'a Solar is a locally owned and operated renewable energy company based on the island of O'ahu. We specialize in taking over renewable energy systems whose installing company had gone out of business.

808.261.9740
www.hoasolarinc.com
info@hoasolarinc.com

Ho'a Solar is proud to be a Clean Energy Ally of Hawai'i Energy, which is currently offering a \$750 instant rebate on new solar hot water systems and a \$100 instant rebate on solar hot water tune-ups to qualifying customers.
Mention "Go Kaiuua" for an extra \$250 off of new systems and \$25 on tune ups.

COMMERCIAL/RESIDENTIAL
BEST OF BOTH WORLDS

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SAVE ENERGY AND MONEY ON YOUR UTILITY BILLS!

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We adhere to COVID-19 guidelines for safety protocol recommended by the CDC to keep you and our employees safe.



Basically none of these projects would be viable had it not been for the funding that Hawai'i Energy provided.

With that funding, it opened a lot of opportunities and helped our creative ideas to be implemented, and the hotel loved the solution. We're meeting a need and solving that solution for them."

Dante Aragon
President, EMCC Hawai'i



Supporting CEAs Through COVID-19

At the beginning of COVID-19, Hawai'i Energy surveyed CEAs to see what COVID-related challenges they were experiencing and how we could better support them. Two of the top challenges identified were financial hardship on the customer side and decreased sales, with particular difficulty generating new business.

To help reduce the financial burden on customers that was directly impacting our Allies, Hawai'i Energy increased many rebates to lower customers' upfront costs. For example, Hawai'i Energy increased rebates up to 3x the standard amount for the hard-hit hotel sector, made LED lighting retrofits essentially free for small businesses and restaurants, and offered grants to assist struggling businesses and nonprofits with energy efficiency projects. These increased rebates and grants allowed contractors to continue securing projects even during the economic downturn.

In addition, to help CEAs generate new business, Hawai'i Energy increased co-op subsidies to help Allies market their business. Co-op advertising funding helps Allies to offset their costs of pre-approved, co-branded, TV, radio, print, or digital ads. Not only did we double our total budget from \$50,000 to \$100,000, we also reimbursed 100% of advertising costs (up to a cap) instead of the typical 50%. This allowed more Allies to take advantage of our co-op advertising program, with a record 31 Allies receiving over \$95,000 in reimbursements for co-op ads.

Hawai'i Energy also expanded the co-op events program to provide 100% reimbursements for one-month subscriptions to webinar platforms. This allowed three CEAs to run (virtual) co-op events, which encouraged business-to-business and customer learning opportunities.

A follow-up survey in May 2021 found that our efforts to support CEAs were working, with only 33% of Allies still having difficulty with sales, down from 81% the year prior.

THE NUMBER OF ALLIES
REPORTING DIFFICULTIES
WITH SALES IS DOWN
48%
FROM THE YEAR
PRIOR

NOTEWORTHY QUOTES

(from anonymous CEAs
in the CEA Survey)

"We appreciate the efforts Hawai'i Energy has done this year to assist contractors and businesses continue to do business by providing special grants and rebates."

"Thank you for your support in education with webinars and updates, especially COVID-19 related HVAC operations."

CASE
STUDY

Notable Project by New CEA

HIRAKO FARMS

On Hawai'i Island, new refrigeration CEA Dwayne Matsumoto completed a vacuum cooler coil replacement for Hirako Farms. A vacuum cooler is used by produce farmers to rapidly bring their produce down to refrigerated temperatures, so it can then be put into the normal walk-in freezer for storage. This extends the shelf life of the produce, and prevents the freezer from being loaded with warm produce and having to work harder. Vacuum coolers also speed up the time harvest can be brought in, then shipped out. Dwayne Matsumoto helped Hirako Farms receive a rebate of over \$800 for the new coils, which are estimated to save them approximately \$2,050 per year on their energy bill.

THE FARM WILL SAVE
\$2,050
YEARLY ON THEIR
ENERGY BILL



“Our farm is a fourth generation vegetable farm growing primarily leafy vegetables. Because of the highly perishable nature of our produce, effective refrigeration is critical to maintain its freshness. We were very happy when we were approached by Graceson Ghen of Hawai'i Energy who offered support in the form of a rebate to replace the evaporator coils in one of our vacuum coolers to improve its cooling efficiency resulting in lower energy requirements to cool our produce.

We found the process in applying for the rebate to be very straightforward and simple. We appreciate the assistance that Hawai'i Energy provides.

Roger Hirako
Owner, Hirako Farms



06 RESIDENTIAL PROGRAMS

The effects of the COVID-19 pandemic on residential energy usage were widespread and numerous. As many residents continued to work and school from home, overall usage increased an average of 11%, and many became acutely aware of their energy costs and behaviors. Hawai'i Energy's goal throughout the pandemic period has been to provide support for residents at all levels of need while leveraging this opportunity to create valuable, long-lasting conversations around energy usage.

18,853 REBATES
processed

50.3
MILLION

*kWh saved in
the first year*

\$9.4
MILLION

in rebates given

255,845

HOUSEHOLDS RECEIVED AT
LEAST ONE HOME ENERGY
REPORT IN PY20

When a significant number of residents experienced financial hardship and were focused on meeting basic needs (including utility bills), we amplified messaging around small, low/no-cost actions they could immediately take to bring relief. Others who had down time and more flexible incomes tackled home improvement projects like replacing or servicing old equipment, so we worked actively with retail partners and contractors to encourage these investments with additional financial incentives. As a result, we provided rebates to over 14,344 households, reducing energy usage by over 50.3 kWh, and saving Hawai'i residents \$9.4 million that will be reinvested back into rebuilding our economy.

Impacts of supply chain issues on distributors, retailers, and consumers

Despite best efforts, challenges and delays in the supply chain continued to set the speed at which energy-efficient technologies were accessible. An increase in demand for appliances – refrigerators in particular – at the start of the year meant retailers could not keep up as production lines and shipping slowed. Locally, customers navigated through limited delivery coverage and long wait times (from 4-6 weeks to 6-8 months), and the closure of long-time retailer Sears in Pearl City added to accessibility limitations on O'ahu. Stores that remained open often operated at reduced hours and staff.

Hawai'i Energy remained committed to supporting our customers during these challenging times. We extended rebate eligibility timeframes and increased communication to provide personal updates on estimated delivery dates as we received information through our retail partners. We launched an instant, point-of-purchase rebate option for heat pump water heaters, and reintroduced QR codes to retail signage – which offered a direct, contactless path to rebate applications and information – in an effort to reduce the need for store staff to answer questions as we all rode through the storm together.

Doubling Down on Digital

In line with nationwide retail trends, more local residents went online than ever before to conduct product research and shop for energy-efficient products, choosing contactless purchasing methods and self-service options when available. As these savvy customers turned to Hawai'i Energy's website for information, we leveraged our

659
HOUSEHOLDS PARTICIPATED
IN THE APPLIANCE
TRADE-UP PROGRAM

connections with ENERGY STAR® to point them toward shopping guides, product comparisons, and encourage efficient choices. We saw higher engagement in educational materials provided online, increased qualified contractor searches, and an increase in email newsletter subscriptions – significant proof that people were realizing the immediate impacts energy efficiency can have in their lives.

Similarly, we enhanced our online marketplace offerings in the fall season with new products to encourage safe holiday shopping, including LED holiday lights, air purifiers, and smart thermostats. These coincided with a weekly educational video series titled "Maika'i Holiday Energy Tips" on social media platforms.

Photo courtesy of Pono Home



BEN & GERRY NIHIPALI

Ben and Gerry Nihipali come from a small community on O'ahu. Through our programs, they have saved 87% on their monthly electric bill. Already a solar customer, they had seen the benefits and cost savings of using less energy, but through attending an Energy UNPLUGGED workshop, they learned about additional ways they could cut back. This led to signing up for Energy Smart 4 Homes to receive free energy-saving measures (such as LED bulbs installed by a technician), and then saving hundreds of dollars on the purchase of 2 new ENERGY STAR® freezers through the Appliance Trade-Up program. The new freezers use as little as half the energy of the old units they recycled, saving them even more on energy costs for years to come.

"Since changing all our lights and getting the new freezers, the electric bill took a big dive.

Before, it was about \$200 and it's now \$26! It's amazing what a drop in energy bill it is. Now, we even got other things like fans and ENERGY STAR window ACs. I'm just glad it's available. We're just glad that you provide all this information and service. —Gerry Nihipali



Knowing past participants have grown to trust in us and the value our programs bring their families is humbling. There is no greater reward than to hear people from Honolulu to Hawi say, "Thank you for helping us lower our energy bill."

BUSINESS PROGRAMS

Hawai'i Energy has a team of dedicated Energy Advisors committed to building trusted relationships with commercial customers and providing sector-specific support throughout their energy projects and rebate process. The advisors help to remove some of the barriers to participation, ensuring that customers in every sector are able to reap the benefits of energy efficient products and services.

1,092

BUSINESSES

participated

\$13.5

MILLION

in rebates given

65.7

MILLION

kWh saved in the first year

This year, the business team focused on aligning program offerings with customer needs and helping local businesses expand their project pipelines through increased rebates and incentives for efficient and grid service ready technologies.

Despite being a challenging year for many, there remained significant willingness to invest in energy efficiency, demonstrating that customers realized the long-term benefits of their projects. As a result of their efficiency projects, commercial customers in all industries saw huge savings on their electric bills, providing them with an opportunity to reallocate valuable funding elsewhere towards their missions.

Helping the Hard-Hit Hospitality Sector

Early in 2020, everything changed when COVID-19 shut down travel and brought Hawai'i's \$18 billion tourism industry to a halt. To help the hard-hit hospitality sector, Hawai'i Energy quickly responded with a Hotel Relief Bonus initiative, which included limited-time rebates of up to three times the standard amount. Through this initiative, 22 hotels were able to complete 36 energy efficiency projects and secured rebates of nearly \$2.6 million, which not only helped reduce operating costs, but stimulate job growth as well.

One of the participating hotels was the Sheraton Waikiki. Working with Hawai'i Energy, Sheraton Waikiki completed a retro-commissioning project to assess their facility's energy performance and identify low- and no-cost energy-saving project opportunities. Sheraton Waikiki received an initial Hawai'i Energy rebate of over \$60,000 and will receive additional savings-based rebates for project implementation. With the recommended actions, the retro-commissioning project will save the hotel more than \$150,000 annually – boosting the facility's bottom line and advancing its economic recovery.





“The retro-commissioning project helped us take a look at our plant, how it operates and how we can save on our gas usage, save on our electrical usage and make our hot water system as efficient as possible.

We wouldn't have been able to do this without the support and backing of Hawai'i Energy.”

Harzali Hashim
Director of Engineering
Sheraton Waikiki



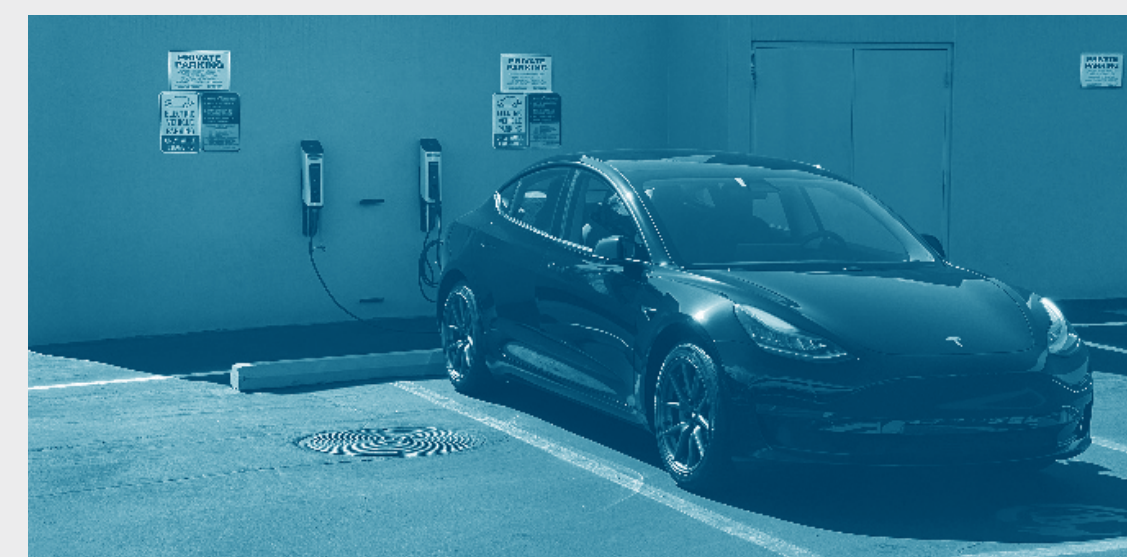
22 HOTELS
COMPLETED 36 ENERGY
EFFICIENCY PROJECTS WITH
REBATES OF NEARLY
\$2.6 MILLION

Electrification of Transportation

As directed under Act 142, Hawai'i Energy continued to administer the State of Hawai'i's Electric Vehicle Charging Station (EVCS) rebate program, in support of increasing publicly-accessible charging stations and making EVs a more viable choice for everyone across the islands. In addition to state funds, Hawai'i Energy offered a bonus incentive of up to \$5,000 for charging station installations at affordable housing facilities. In all, \$281,500 in rebates were distributed in PY20 toward 71 charging stations across the state, with bonuses paid out for stations at two affordable housing developments – Ko'olua'ula and Kūlia at Ho'opili by Mutual Housing Association.

“Airport Trade Center is a retail, office and warehouse project near the Honolulu airport. We have seen a growing number of EVs in our parking lot and decided to install a couple of Level 2 EV charging stations as an amenity for our tenants and customers. Hawai'i Energy approved our \$4,500 rebate application and gave us 4 months to complete installation. The project was completed on time, a few EVCS documents submitted, and the full rebate received from Hawai'i Energy. It was a great overall experience...and the usage rate of the EVCS is higher than expected.”

T. Gregory Kemp
President of Managing Member, Airport Trade Center LLC



“We strongly believe that more and more of our residents will be buying EVs in the future and we want to prepare for this emerging need in our communities. We were happy that we could incorporate EV charging stations at our Ko'olua'ula and Kūlia properties. We were very grateful for the support and assistance we received from Hawai'i Energy to navigate the rebate process.”

David Nakamura
Executive Director
Mutual Housing Association

Incentivizing Energy Efficiency in New Developments

Efficiently-designed buildings play an important role in our clean energy future, but can be more costly to achieve once a building is built.

Investing in energy efficiency from the start not only saves building owners time and money from having to retrofit later, but also encourages a holistic approach that looks at a building as an entire system working together, allowing each variable that affects energy use to be designed optimally.

To bring energy efficiency into the development conversation, Hawai'i Energy offers a \$5,000 rebate for energy modeling, which compares building options with various levels of efficiency. Hawai'i Energy also incentivizes a meeting between the developer and property owner (with an Energy Advisor in attendance), where the developer explains the different options. The overall goal is to raise awareness of energy efficiency among the property owners in hopes they decide to incorporate it into their building.

However, upfront costs associated with developing a more efficient building can be a barrier. Though there are great energy savings for years to come, property owners typically don't pay the bills and care more about the initial costs. To address this, Hawai'i Energy helps to reduce the initial investment by incentivizing energy efficiency options that go above the minimum requirement. Previously focusing on incentives for efficiency options taken during the construction phase, in PY20 Hawai'i Energy placed greater emphasis on the Energy Model approach, which incentivizes efficiency options incorporated in the early (conceptual and design) stages, which lead to more energy savings down the road.

Incorporating energy efficiency into new affordable housing developments is particularly significant, since the efficiencies achieved will help reduce the operational costs of the building. These savings will often be passed on to residents, making the housing even more affordable for them to live in.

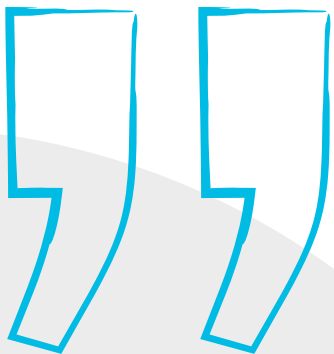


KEAHUMOA PLACE

Keahumoa Place, a 320-unit affordable housing development in East Kapolei by The Michaels Organization was recognized in November 2020 by the U.S. Green Building Council (USGBC) for earning the Leadership in Energy and Environmental Design (LEED) for Homes Platinum certification on its fourth and final stage of the project (other phases received the certification in 2019). Energy-efficient features include lighting, solar water heating, and in-unit ENERGY STAR® appliances. Hawai'i Energy provided \$235,000 in rebates to help offset costs, which are now combined with an estimated 1.4 million kWh of savings in the first year to be passed on directly to residents. Keahumoa Place is the first affordable housing development on O'ahu to be designated as LEED Platinum.

“Designing Keahumoa Place as LEED Platinum certified allowed us to create affordable housing that also helps residents keep utility costs in check. Keahumoa Place demonstrates that quality housing can be both affordable and sustainable.

Karen Seddon
Hawai'i Region Vice President
The Michaels Organization



“We remain committed to removing barriers and burdens for attaining LEED for Homes Certification which was why the partnership with Hawai'i Energy for efficiency rebates on the project was so important. We hope this can serve as another great example of a low-energy, healthy living option for those households who are typically energy insecure and forced to live in high pollutant areas.

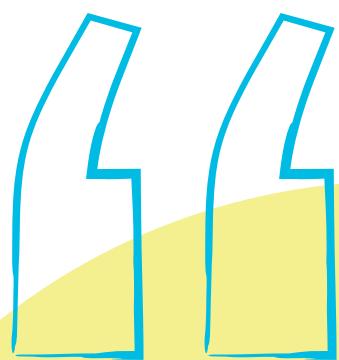
Robyn Vettrains
President, Verde (LEED-accredited consultant)



Energy Audits Identify Energy-Saving Opportunities

Hawai'i Energy's enhanced energy audit program kicked off at the start of 2020, but progress was quickly stopped short due to COVID-19. However, once safety protocols were in place midway through the year, Hawai'i Energy was able to make up for lost progress and incentivize 38 audits, providing \$257,000 to cover the costs. The audits provide valuable insight on energy usage and help identify measures that would, if retrofitted, save money on customers' utility bills.

For example, Ameresco's energy audit for Castle Professional Center found that the property could save over \$160,000 in annual utility costs, representing a total of 38% savings in current utility consumption, if they implemented six recommended actions ranging from LED lighting upgrades to transformer replacements.



We are very pleased with our Hawai'i Energy Audit experience. Through the engagement we have been made aware of many energy savings opportunities which have the potential for helping us to reduce our carbon footprint, become a more aware energy consumer and saving thousands of dollars in expenses."

Richard Kirchner
Director of Facilities, Adventist Health/JLL
(Castle Professional Center)



KEAUHOU SHOPPING CENTER

CASE STUDY

LED Lighting Upgrades for Hawai'i Island Shopping Center

Kona-based Keauhou Shopping Center was in need of upgrading their old parking lot lighting due to low visibility. While common practice is to upgrade individual lamps only after they burn out, replacing all lamps at once can have a significant impact on the lighting and safety in the

parking lot. Receiving a rebate of \$14,356, Keauhou Shopping Center was able to replace all of their dull, energy-intensive low-pressure sodium lights with brighter and more efficient LEDs, an upgrade that will save them \$26,308 annually on their electric bill.

08 ENERGY OPTIMIZATION INITIATIVES

As the types of technologies that make up Hawai'i's electricity grid increase in variety and efficiency, energy optimization – or, managing the way energy is monitored and when it's used – has become an increasingly critical piece of achieving our clean energy goals.



Over the last few years, Hawai'i Energy has added a number of services and financial incentive programs to empower customers to fine-tune their energy consumption with new, innovative products and collaborations with companies on the cutting edge of energy management. Energy optimization initiatives also support the future needs of the grid, with many technologies preparing customers to participate in demand response programs when they are available. This year's efforts included projects benefitting both residential and commercial customers, targeting everything from water heating to smart, sophisticated controls on air conditioning and hotel guest room management with numerous demand response capabilities. With increased incentives, residents and businesses were willing and excited to adopt these innovative grid-service ready technologies that are necessary for Hawai'i to reach 100% clean energy by 2045.

Smart Devices with Gridpoint

Hawai'i Energy continued to collaborate with smart control manufacturer Gridpoint to offer a \$6,000 subsidy toward each installation of controls at commercial facilities, targeting convenience stores and chain restaurants. The controls collect real-time energy data from air conditioning and refrigeration equipment and allow business managers to identify areas of waste and make operational adjustments. In total, Hawai'i Energy awarded \$96,000 in rebates to install 24 smart devices at 24 locations and will continue to grow the program going forward.



24
SMART CONTROL
DEVICES INSTALLED AT
24 LOCATIONS

“

Thanks to the Hawai'i Energy incentive, we were able to install GridPoint at all eligible sites throughout Hawai'i. It was a smooth process from initial site data collection through installation and commissioning. Our initial savings are almost 13%, reducing our operating costs! Additionally, the reporting provided through [GridPoint Energy Manager] allows us to better understand how our units are operating and what we can do to continue to improve our savings, without impacting the comfort of our staff and customers.”

Butch Galdeira
Regional Director of Retail & Restaurant Operations, Aloha Gas

Hotel Guest Room Controls

In the wake of the hospitality sector shut down during COVID-19, Hawai'i Energy offered increased rebates for Energy Management Systems (EMS) to help local hotels better manage their energy usage during low occupancy, while still maintaining high levels of indoor air quality. These rebates covered guest room controls, which save

energy by using sensors to detect occupancy in a room and setback the temperature when guests are away. Throughout PY20, Hawai'i Energy rebates helped 12 hotels install a total of 6,670 controls across their guest rooms. The new updates should save the hotels approximately 8,000,000 kWh annually, reducing their electricity bills by over \$2,500,000.



CASE STUDY

OUTRIGGER HOTELS & RESORTS

Albert Kahalehoe II, Area Director of Engineering for Outrigger Hotels & Resorts, said the silver lining of the pandemic lay in the opportunity to revamp and restructure. Partnering with Hawai'i Energy and Clean Energy Ally Hawai'i Energy Systems, Outrigger Reef upgraded their thermostat systems to allow for better data collection and remote monitoring and control of room temperature and humidity. Overall, the ability to optimize energy savings through the upgraded software is estimated to save over \$175,000 on their annual energy bill.

“The reason why we chose this technology, obviously with the pandemic, energy efficiency is most important, and we wanted to leverage it to conserve energy, especially when all the hotels are vacant. So now they’re able to optimize savings through the mesh network, through the software, and get ready for demand response.”

Arsena Kailihiwa
Business Development Manager for Hawai'i Energy Systems

Partnering For Comprehensive Solutions

Building upon a pilot project with Shifted Energy, a local tech start-up that specializes in smart water heater controls, Hawai'i Energy expanded to offering a suite of services with an ultimate goal of helping customers, particularly renters and those in ALICE® communities, save more money. Program incentives helped offset the cost of customer acquisition for enrollment in demand response, and in addition to supporting the grid interactive water heaters with Shifted Energy, Hawai'i Energy also offered Energy Smart 4 Homes direct installs, Appliance Trade-ups, Home Energy Kits, and community workshops and presentations. Initially standalone offerings, the programs were found to provide more value when packaged, as a wider range of offerings allows customers not only to save via multiple program channels, but to find programs that best suit their needs.

Packaged offerings:

Grid Interactive Water Heaters

Water heating controls that shift time of day that water heats up, allowing customers to participate in demand response

Energy Smart 4 Homes

Free direct installation of energy efficiency equipment (lighting, advanced power strips, showerheads and faucet aerators)

Appliance Trade-Ups

ENERGY STAR® appliances at greatly reduced costs with coordination of delivery and disposal of old units

Home Energy Kits

Free, easy way for households to reduce energy usages

Community Workshops

Fun and engaging workshops with energy-saving tips



09 CLEAN ENERGY POLICY

Hawai'i Energy recognizes the significant role policy plays in shaping our future while balancing critical needs. At the federal, state and county levels, Hawai'i Energy sees how policies that promote energy-efficient measures can help support an equitable transition to clean energy for all residents.

Hawai'i Energy worked closely with government and industry stakeholders to keep climate change issues on the agenda during a year dominated by critical pandemic and economic needs. In Program Year 2020, Hawai'i Energy continued to serve as a technical advisor to lawmakers and agencies, providing guidance on energy efficiency and clean energy measures. Top of mind were policies related to increasing the energy efficiency of state government buildings, the adoption of state and county energy codes, and clean transportation.



Continuing EV Charging Station Rebate Program

The 2021 Hawai'i State Legislature passed three landmark bills related to electric vehicles (EVs), including House Bill 1142 which will provide continuous funding for the EV charging station rebate program that Hawai'i Energy has been administering from its inception. Since the rebate program launched in January 2020, Hawai'i Energy has seen the demand for the charging installation stay steady, even during the pandemic, and foresees continued and growing interest as more electric vehicles are released and more secondhand EVs hit the market. The incentive was even highlighted by a February 2021 Plug-In America report as a main reason why Hawai'i is ranked #14 in its "Top 25 States Supporting the EV Driver" report.¹

On June 24, 2021, Governor David Ige signed House Bill 1142 into law as Act 75, noting the significant role charging infrastructure plays to meet clean transportation goals and stating that

"House Bill 1142 really puts us at the forefront of committing dedicated resources into providing electric vehicle charging stations across the state."

¹ "Top 25 States Supporting the EV Driver," Plug-In America, February 2021
<https://pluginamerica.org/policy/top-25-states-supporting-the-ev-driver/>





Celebrating Energy Efficiency Day in the City & County of Honolulu

On October 7, 2020, then-Honolulu Mayor Kirk Caldwell presented a proclamation to Hawai'i Energy in celebration of "Energy Efficiency Day" in the City and County of Honolulu. He also announced an ambitious effort to progress City and County of Honolulu facilities, parks, and operations towards a more sustainable future. The City selected two Energy Service Companies (ESCO) partners to assist it in becoming more energy efficient, while saving taxpayer dollars and boosting clean energy jobs during the COVID-19 economic downturn.

"On this 2020 Energy Efficiency Day, we are proud that the City and County of Honolulu has moved up six places in the national ranking of the 100 most energy efficient cities in the United States," said Honolulu Mayor Kirk Caldwell.

"We appreciate the partnership of Hawai'i Energy when we updated our energy codes, and their financial support as we replaced over 50,000 city streetlights to LEDs across our island."

I hope every resident will take advantage of their incentives just like we did — and make our city even more efficient in 2021!"

U.S. Senate Subcommittee on Energy

Hawai'i Energy Executive Director Brian Kealoha represented the energy efficiency sector, the organization and the state when he testified before the U.S. Senate Subcommittee on Energy on June 23, 2021. Chaired by Hawai'i U.S. Senator Mazie Hirono, the subcommittee invited Kealoha and two other energy experts to provide testimony on programs to reach rural and low income communities.

In his virtual remarks, Kealoha showcased Hawai'i Energy's diverse portfolio of residential and commercial programs, marketing, and policy efforts that are effectively connecting low- to moderate-income communities, many in rural areas, to energy savings opportunities to reduce

their energy burden. He remarked on the challenges Hawai'i Energy has faced in reaching vulnerable communities, along with highlighting the successes and opportunities.

Honolulu Climate Action Plan

On Earth Day 2021, the City and County of Honolulu released its first Climate Action Plan, which looks at how the City plans to manage climate change-related issues between 2020 and 2025. Hawai'i Energy served as a technical advisory to the City's Office of Climate Change, Sustainability and Resiliency in the development of the plan, specifically for the electricity section.

PROJECTED
\$1 BILLION
IN SAVINGS FOR HAWAII
RESIDENTS OVER
20 YEARS

Raising The Bar On Appliance Efficiency

On January 1, 2021, new appliance standards went into effect for the state of Hawai'i. The law, passed in 2019, established minimum efficiency requirements for shower heads, faucets, high-CRI (color rendering index) fluorescent lamps, sprinkler heads, and computers, ensuring that Hawai'i consumers have access to efficient versions of these small appliances. These appliance standards also included protections against the repeal of federal standards. The state's new standards are projected to save Hawai'i residents up to \$1 billion on their utility bills over 20 years, or about \$215 annually for each household.

