

THROUGH LINES



Hawai'i Energy

PY21 ANNUAL REPORT

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Aloha,

It is my honor to share with you Hawai'i Energy's Annual Report for Program Year 2021-2022. This document is truly a representation of our team's perseverance and passion for our mission to help our state reach our 100% clean energy goals.

Program Year 2021-2022 can be characterized as one of growth and innovation. We found ourselves transitioning slowly out of the throes of the pandemic into what continues to evolve into the new "normal." Our fully remote work conditions shifted into a new hybrid format as we welcomed customers and Clean Energy Allies back for in-person training and events. Our team eagerly returned to community outreach events where we could sit and talk face to face for the first time in years. These precious moments together reinforced how critical our work is, as so many of our residents face unique barriers to participating in efficiency programs, including lack of access to energy efficiency information.

Despite these long-awaited reunions, this year also brought with it a new set of challenges. The conflict in Ukraine had cascading effects, driving up fuel prices and leading to increased customer energy bills. High inflation continued to raise the cost of energy-efficient products and equipment, and pandemic-related labor shortages and supply chain disruptions slowed project timelines. This all occurred as we approached the planned shutdown of the AES coal plant on O'ahu in September 2022.

Through it all, our team remained steady and focused - navigating change, investing deeper in our relationships, and

providing support for Hawai'i residents and businesses in their journey towards a cleaner, more affordable energy future. We continually expanded and adapted our programming to meet changing conditions and cultivated new partnerships to ensure our work was aligned with customers' needs.

Within these pages you will find highlights of our program offerings. Notably, we launched our Power Move suite of rebates designed to address the potential capacity shortfall in the months after the coal plant retirement by reducing evening peak load. This included our first ever energy storage rebate offering. We also continued our EmPOWER grant program, awarding 170 small businesses and nonprofits over \$950,000 in funding to install energy efficient equipment. And for our residents, we worked closely with five different communities across the state to offer appliance trade-ups and our Energy Smart 4 Homes installations so that those facing the toughest financial situations could still benefit from energy-saving programs.

As I reflect on our collective accomplishments over the last year, I'm incredibly grateful and excited for what will come next. Each year we continue to build upon our deep investments in community and collaboration to deliver a diverse portfolio of energy efficiency programs. We remain grateful to all who have supported us along this journey and optimistic for our clean energy future.

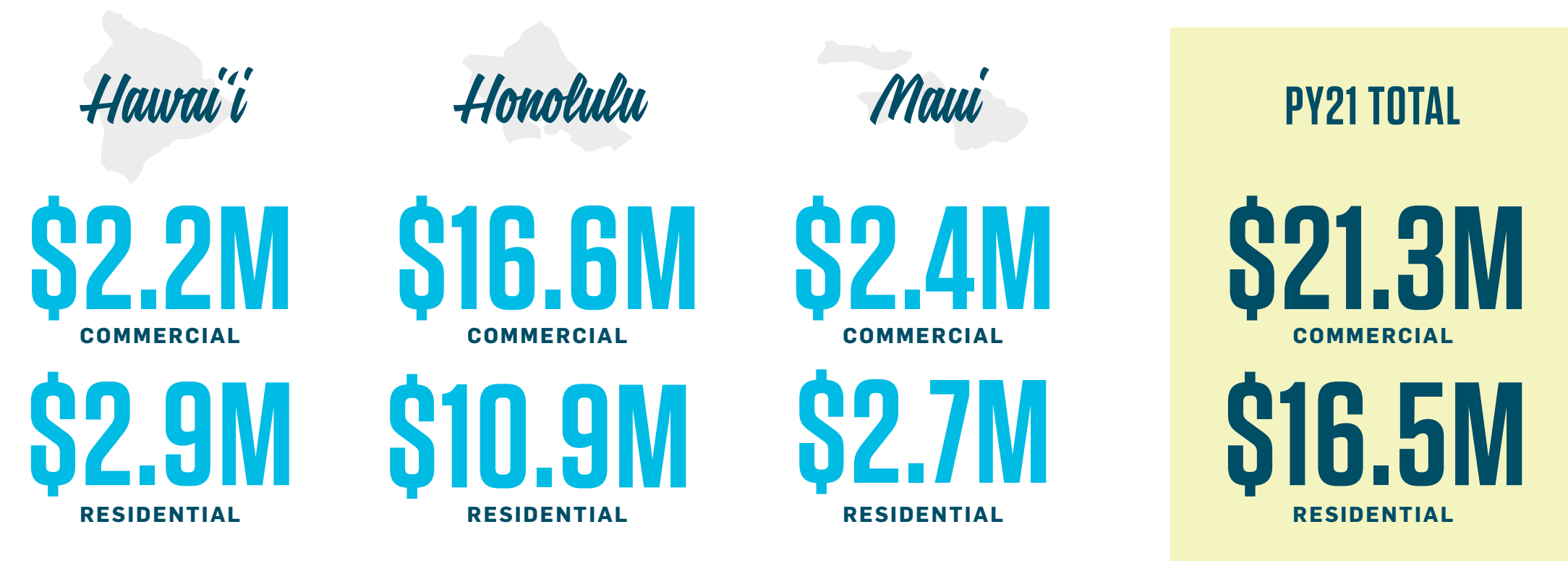
Mahalo for your support!

CAROLINE CARL
EXECUTIVE DIRECTOR
HAWAII ENERGY

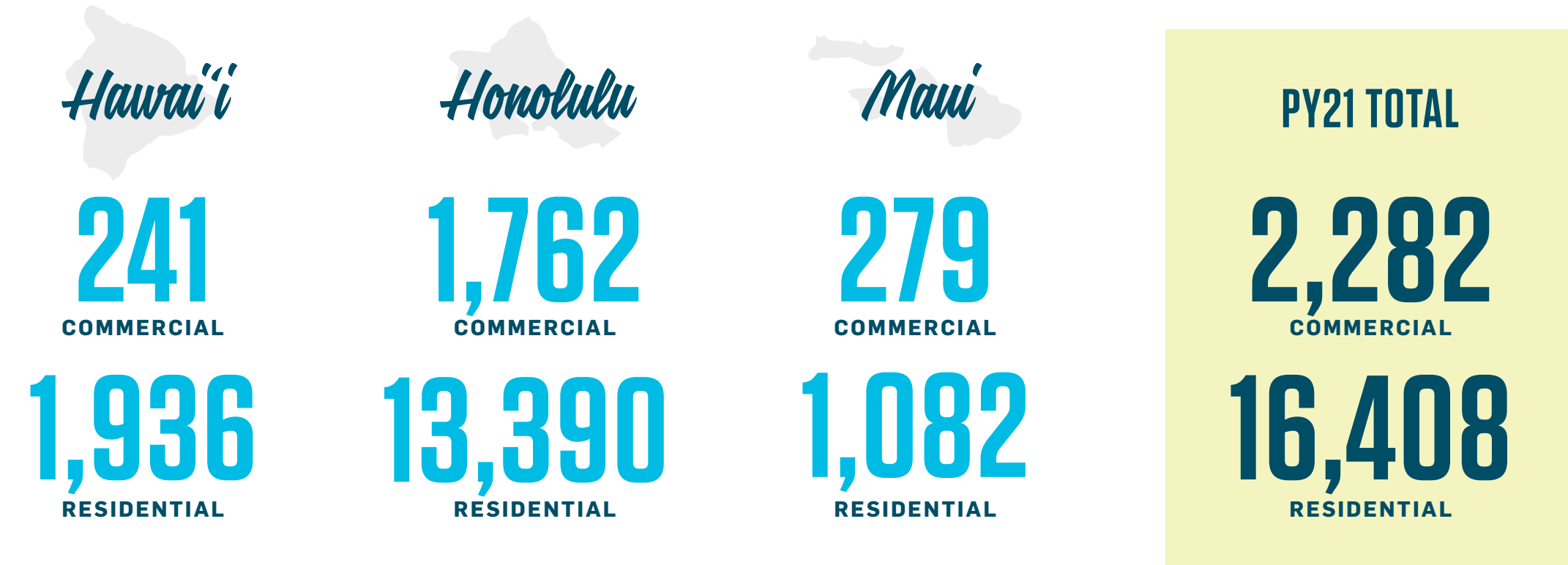
FIRST YEAR ENERGY SAVINGS TOTALED 107,475,477 KWH, SAVING \$38,203,000 OVER THE FIRST YEAR AND A LIFETIME SAVINGS OF \$413,535,181.

Savings values presented in this report are claimed by Hawai'i Energy, but have not yet been verified.

PBF CONTRIBUTIONS BY COUNTY



PARTICIPANTS BY COUNTY



THE PBF RETURN ON INVESTMENT FOR EVERY \$1.00 WAS \$2.31 FOR THE 1ST YEAR AND \$25.01 LIFETIME BILL SAVINGS.

AFFORDABILITY & ACCESSIBILITY PROGRAMS

Nearly half of Hawai'i's population now falls below the Federal Poverty Line (FPL), which means that for many households, paying for monthly utilities and energy-efficient upgrades is not just difficult, it can be near impossible. Deeply understanding this and connecting the right dots to be helpful, yet *pono*, is what drives our Accessibility & Affordability strategy.

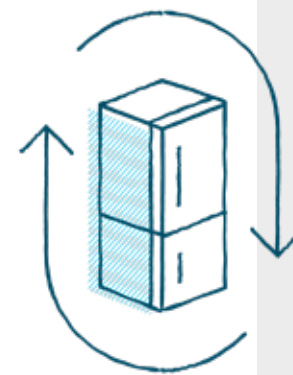
Ensuring that those in our islands who face the toughest financial situations can still benefit from energy-saving programs and services has never been more important, especially as electricity costs skyrocketed upwards of 15-20% this program year with the rising prices of overseas oil.

To support households, Hawai'i Energy facilitated appliance trade-ups and Energy Smart 4 Homes installations in five communities across the state, some for a second round of service. We also supported local small business and nonprofits – those most impacted by the pandemic – through our long-standing Energy Advantage program and a second, more refined year of grant funding.

**ACCORDING TO THE 2022 REPORT,
44% OF HOUSEHOLDS ARE ALICE® OR BELOW -
52% ON HAWAI'I ISLAND, 41% ON O'AHU, 46% ON KAUAI AND 52% ON .**

"I'M ESPECIALLY PLEASED WITH THE SERVICE I RECEIVED FROM THEM. AND OF COURSE THE BRAND NEW APPLIANCES, WHAT A BLESSING. I SURE HOPE EVERYONE TOOK ADVANTAGE OF IT LIKE WE DID HERE IN OUR FAMILY. THANK YOU VERY MUCH FOR HELPING MAKE THIS PROGRAM POSSIBLE FOR US."

DAVE MARTIN
WAI'ANAE, O'AHU



RESIDENTIAL APPLIANCE TRADE-UP

This was a year of growth and learning for our Appliance Trade-Up program. Three years in, we continue to make inroads with our partners and customers while learning so much about how different the challenges (and thus, solutions) are across communities. For example, many residents this year expressed not being able to afford the appliances – even at a quarter of the retail price – likely due to economic strains from the pandemic. Deliveries also required that someone was home to receive the appliances, meaning someone had to take off work and possibly sacrifice earning some income. Factors like these led our team to remove the co-pays for some communities and seek supplemental funds from other organizations. Persistent shipping delays also made things difficult to coordinate, as families with fridges at their end of life were understandably concerned about whether they'd be able to store food.



From an administration standpoint, we continue to navigate our relationships with community partners thoughtfully above all, with the intent to be a part of the organization's growth while staying conscious of the additional workload. We learned that a lack of familiarity around Hawai'i Energy as an organization, much less energy efficiency measures altogether, creates an extra hurdle when trying to persuade residents to participate in our community-based energy efficiency programs – and that challenge presents itself differently in every community.

Through the program, residents purchase new, energy-efficient refrigerators or freezers for significantly less than retail price with the trade-in of an old, working model. Hawai'i Energy leverages bulk purchasing to order directly from local appliance distributors and provides them to homes without markup. It is no small task – Hawai'i Energy also sources and relies on a community partner (typically a well-established, well-known nonprofit supporting that community), and together, we work to enroll participants, collect payments, organize ordering and delivery of appliances, and share about the benefits of energy-efficient actions.

**PARTICIPATING HOUSEHOLDS
INCLUDED 118 IN WAI'ANAE
AND 47 ON MOLOKA'I.**

In Puna, it meant that our community partner took the lead with marketing as they have established branding with residents; in Wai'anae, in-person outreach with our community partner at farmers' markets helped to clarify roles and mitigate confusion. We also learned that for many communities, word-of-mouth sharing tends to lead to a much better participation rate if we offer it a second time.

Overall, we have found it to be much more valuable to re-engage (and keep engaging with) communities to become more connected, build more trust and relational experiences, and align our efforts with the right community leaders before expanding to more communities. As conversations on energy equity become more central to planning and policymaking, bringing in the perspectives of these communities will remain a critical piece of the next phase of the clean energy transition.



THE VILLAS AT ROYAL KUNIA



“WE APPRECIATE THE ES4H PROGRAM BECAUSE IT’S HELPING US SAVE ON HOT WATER AND OUR ELECTRIC BILL. WE REALLY APPRECIATE THEIR ABILITY TO COME TO OUR HOMES, LOOK AT WHAT WE HAVE, AND ALSO HELP US UPGRADE OUR APPLIANCES.”

JESSICA OPEEKEY
ENERGY SMART 4 HOMES PARTICIPANT

ENERGY-EFFICIENT PRODUCTS WERE INSTALLED IN THOUSANDS OF RESIDENCES, INCLUDING 346 SINGLE-FAMILY HOMES WITH EXPECTED SAVINGS OF 3.8 million kWh OVER THE LIFETIME OF THE PRODUCTS.

ENERGY SMART 4 HOMES

As people became more comfortable with in-home services this year, our Energy Smart 4 Homes program began to ramp up again. The increased access allowed the team to reduce service wait times significantly, and ultimately, we exceeded our goal for participants – a feat, considering the challenge of ensuring enough technicians to keep up with the increase in demand. Working with our Channel Partner Pono Homes, proved again to be key to the success of ES4H.

This year, we also expanded eligibility to single-family homes in communities with high numbers of ALICE® residents. This change enabled us to reach 25% more recipients, many of whom were struggling to pay their electric bills. The free measures installed through Energy Smart 4 Homes can reduce annual electricity bills by up to \$200, which is a great opportunity for a resident or renter who may be unable to make major upgrades. Nearly 350 single-family homes participated with an estimated lifetime savings of 3,837,226 kWh.

\$116,542 TOTAL ESTIMATED 1ST-YEAR BILL SAVINGS FOR ES4H MULTIFAMILY UNITS

\$122,604 TOTAL ESTIMATED 1ST-YEAR BILL SAVINGS FOR ES4H SINGLE FAMILY HOMES



EMPOWER GRANT

Hawai'i Energy facilitated a successful second year of awarding grant funds to businesses struggling to recover from the pandemic. We received more than 270 applications requesting more than \$1.4 million in support, and while the overall available budget was smaller this year, more emphasis was given to helping as many small businesses and nonprofits as possible. In total, \$950,000 was distributed to support 170 projects, estimating a cumulative savings of more than \$800,000 at these organizations who represent some of the most in-need sectors of our business community.



“WE WERE SO GRATEFUL TO RECEIVE A GRANT FROM HAWAI'I ENERGY FOR OUR NEW ENERGY EFFICIENT FREEZER. ELECTRIC COSTS ARE A BIG PART OF OUR EXPENSES AND THE HIGH COST OF INVESTING IN FREEZER SPACE FOR OUR PRODUCE IS ALSO A CHALLENGE.

THE TEAM AT HAWAI'I ENERGY WERE EASY TO WORK WITH AND WENT ABOVE AND BEYOND TO ASSIST US WITH OUR GRANT APPLICATION. THANK YOU AGAIN, EVERYONE AT HAWAI'I ENERGY, FOR SUPPORTING SMALL BUSINESS AND HELPING TO REDUCE OUR ENERGY USE.”

JESSICA ROHR
FORAGE HAWAI'I
LOCAL MEAT PURVEYOR

EMPOWER GRANT PROJECTS

APPLICATION STATS

272
TOTAL NUMBER RECEIVED

\$1.4M
TOTAL AMOUNT OF REQUESTS

AWARD STATS

\$950K
TOTAL AWARDED

\$170K
TOTAL CUSTOMER BILL SAVINGS IN PROJECTS COMPLETED IN PY21

170

TOTAL NUMBER OF PROJECTS AWARDED IN PY21*

*285 cumulative

123

TOTAL COMPLETED PROJECTS IN PY21

CASE STUDY

ZENSHIN DAIKO

Maui-based Zenshin Daiko, is a nonprofit dedicated to teaching taiko to children and sharing its performances with the community. Since forming in 1999, Zenshin Daiko has performed at over 1,000 cultural and community events all over Maui and the neighboring islands. With the help of Hawai'i Energy's EmPOWER Grant and Energy Advantage program, the nonprofit was able to receive funding to upgrade their old window AC units and lighting to save over \$2,000 a year in energy costs.

“AS A NONPROFIT, WE ARE ALWAYS LOOKING FOR WAYS TO SAVE MONEY ON EXPENSES SUCH AS OUR MONTHLY ENERGY COSTS. WE ARE EXTREMELY HAPPY WITH RECEIVING THE EMPOWER GRANT AND PARTICIPATING IN THE ENERGY ADVANTAGE PROGRAM FROM HAWAII ENERGY. CHANGING THE LIGHTS TO LED AND PURCHASING TWO NEW AIR CONDITIONING UNITS HAS SAVED US A LOT ON OUR HAWAIIAN ELECTRIC BILL. THE NEW AC UNITS ARE SO MUCH MORE EFFICIENT THAN THE OLD UNITS THAT MANY TIMES ONLY ONE IS NEEDED TO COOL OUR DOJO.”

ANTHONY JONES
MANAGING DIRECTOR



619

businesses served

\$5.8M

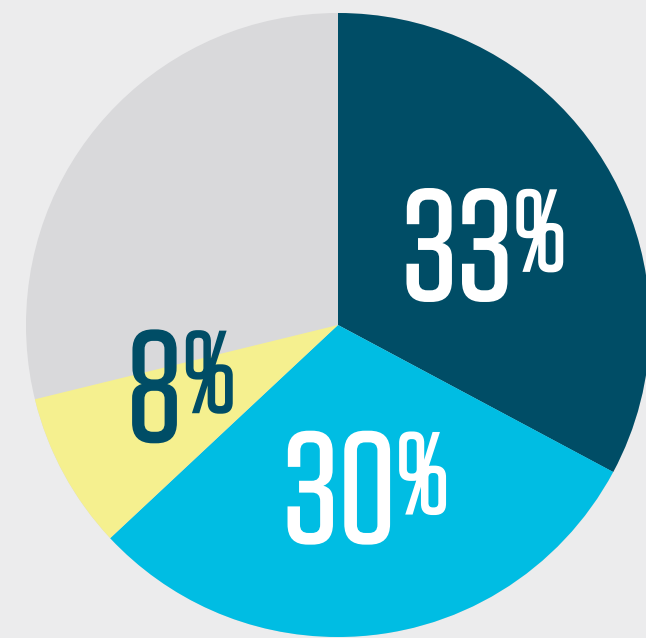
bill savings

TOTAL BUSINESS A&A

EmPOWER Grant + Energy Advantage

SINCE 2020, HAWAI'I ENERGY HAS AWARDED MORE THAN *\$3 million* TO SUPPORT *285 businesses* ACROSS MAUI COUNTY, HAWAI'I COUNTY AND IN THE CITY & COUNTY OF HONOLULU.

TOP 3 SECTORS THAT RECEIVED GRANTS SINCE INCEPTION:



- NONPROFIT
- RESTAURANT
- RETAIL
- OTHER

ENERGY ADVANTAGE

This year represents Hawai'i Energy's 11th year providing a low-cost, turnkey option for Hawai'i's small businesses, restaurants, and nonprofits to retrofit and upgrade the efficiency of their lighting. While the need remains big, qualifying businesses have become more difficult to reach, requiring stronger and more nuanced marketing and outreach techniques.

As in 2020, a limited time "no co-pay" promotion was offered this year to incentivize more participation, particularly for nonprofit organizations, who received a waiver on the \$10,000 per project rebate cap. As a result, more than 300 businesses applied during the no co-pay period, including more than 25 nonprofits.

With the recent rise in electricity rates and continuing challenges from COVID-19 we are grateful that the Energy Advantage program continues to help our Clean Energy Allies and small businesses, and bring Hawai'i closer to our statewide goal of 100% clean energy by 2045.

"THE OVERALL PROCESS WITH THE ENERGY ADVANTAGE PROGRAM WAS VERY SMOOTH BECAUSE CHESTER AND THE TEAM WERE QUICK AND RESPONSIVE. HE WAS ALSO ABLE TO CONNECT ME WITH THE DIFFERENT CONTRACTORS (CEAS) WHO WERE VERY FAMILIAR WITH THE PROGRAM IN ORDER TO HELP STREAMLINE THE PROCESS."

ROD FRANCE
TEDDY'S BIGGER BURGERS



"WE LOVE OUR LIGHTS! THE INSTALLATION WAS QUICK AND PROFESSIONAL. THE LIGHTS ARE PERFECT. SINCE ENERGY COSTS ARE HIGH IN HAWAI'I AND ARE RISING, ENERGY EFFICIENCY IS VERY IMPORTANT TO US. WE INSTALLED LIGHTS IN SEVERAL AREAS ON OUR PROPERTY, AND EVEN THOUGH THE LIGHTS ARE EXPOSED TO A BIT OF WEATHER, THEY HAVE WORKED PERFECTLY AND THEY LOOK GREAT! HAWAI'I ENERGY WAS SUCH A BLESSING TO US!"

STRAT GOODHUE
PASTOR, SOUTHSORE
CHRISTIAN CHURCH



ENERGY ADVANTAGE



495 ENERGY ADVANTAGE PROJECTS
WERE COMPLETED IN PY21,
RESULTING IN **\$1,681,781**
IN CUSTOMER BILL SAVINGS.



“WE TOOK ADVANTAGE OF THE ENERGY
ADVANTAGE PROGRAM THAT HAWAI’I
ENERGY OFFERED BECAUSE FROM MY
RESTAURANT BUSINESSES THE LED
CONVERSIONS AFFECT MY UTILITY BILL
A LOT. SO WHEN THE OPPORTUNITY
PRESENTED ITSELF FOR THE UNITED
CHINESE SOCIETY WE APPLIED RIGHT

AWAY. IT’S BRIGHTER NOW, ALL THE
FIXTURES WORK, AND OUR BILLS ARE
SIGNIFICANTLY LOWER THAN BEFORE.

INCENTIVE PROGRAMS ALLOW US TO
REDUCE THE COST OF CONVERTING,
THAT IS WHY I’M A FIRM BELIEVER
IN HAWAI’I ENERGY.”

VICTOR LIM
UNITED CHINESE SOCIETY

TOTAL VALUE OF
ENERGY ADVANTAGE
INCENTIVES DISTRIBUTED

\$2.7M

ESTIMATED
1ST-YEAR SAVINGS
(ALL PROJECTS)

\$6.1M

CUSTOMER-LEVEL

\$5.8M

PROGRAM-LEVEL

ESTIMATED
LIFETIME SAVINGS
(ALL PROJECTS)

\$82.4M

CUSTOMER-LEVEL

\$78.2M

PROGRAM-LEVEL

RESIDENTIAL PROGRAMS

Continuing to adapt during a pandemic to provide energy savings for Hawai'i residents made this program year one of the most challenging yet. Financial strains still lingered for many residents, and as inflation drives the cost of living up, spending money on energy upgrades can become less of a priority for many in comparison to purchases for basic necessities. This pushed the organization to its creative limits in a search to find ways to still bring cost-effective energy savings to the marketplace.

This year's strategy included a major investment into getting rebates and savings in customers' hands faster. Water heating measures (solar water heating and expanding heat pump water heater adoption) were a big focus due to their significant savings, as well moving to a "midstream" rebate delivery model for some measures and streamlining our Rid-A-Fridge recycling offer on the Big Island. These investments became much more impactful, when, during the second half of the year, many residential customers experienced increases upwards of 20% on their monthly bills, primarily due to oil prices affected by military conflict in Russia between Ukraine.

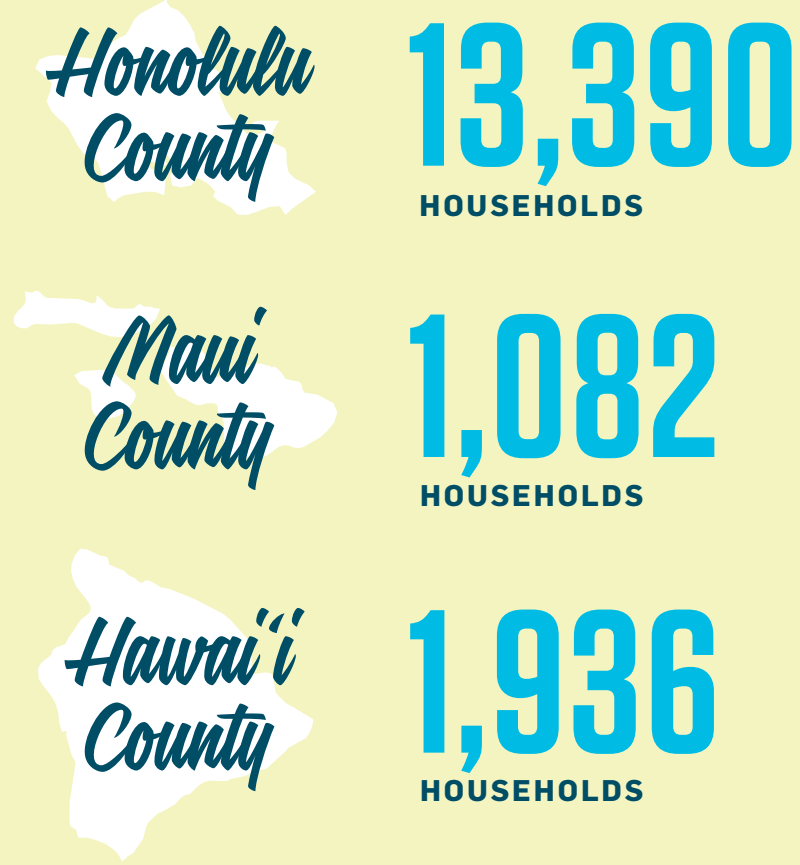
In all, over 16,000 residential rebate applications were submitted by year-end with the top drivers being AC Tune-Ups (45%), Refrigerator Trade-Ups (18%) and VRF Installations (11%). These three measures combined make up 74% of our downstream portfolio, and despite supply chain and inventory issues we were able to exceed our savings goals.



POPULAR MEASURES

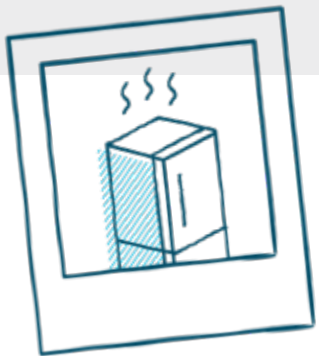
MEASURE	EQUIPMENT QUANTITY	TOTAL VALUE OF REBATES AWARDED
REFRIGERATOR TRADE-UP <small>WITH RECYCLING OF OLD</small>	3,249	\$722,119
RID-A-FRIDGE <small>BOUNTY</small>	256	\$19,200
SOLAR WATER HEATER INSTALL	1,333	\$1,025,000
HEAT PUMP WATER HEATER	921	\$487,360
WINDOW AC PURCHASE	2,713	\$111,685
WINDOW AC TRADE-UP <small>WITH RECYCLING OF OLD</small>	184	\$9,400
AC TUNE-UP	8,058	\$607,050

TOTAL # OF PARTICIPATING
HECO ACCOUNTS



“UGLY FRIDGE” PROMOTIONAL
GIVEAWAY WINNER

To drive further awareness of the energy-saving potential of refrigerator upgrades, Hawai'i Energy leveraged National Energy Awareness Month in October to launch an “Ugly Fridge” giveaway. Residents were encouraged to send in photos of their old refrigerators, and a winner was randomly selected to receive a brand new, ENERGY STAR® fridge courtesy of trade ally Pacific Home & Appliance Distribution. Through the promotion, Hawai'i Energy was able to spotlight the ENERGY STAR® brand while also marketing a local trade ally to over 100,000 residential customers. Honolulu resident Stephen Tsushima was the lucky winner, and all participants were encouraged to take advantage of Hawai'i Energy's refrigerator rebates.



RID-A-FRIDGE

Back on the Big Island

One of the biggest triumphs this year was securing a hauler and recycler for Hawai'i Island customers. In past years, these residents had to recycle their old units themselves, often paying hauling fees that would negate the rebate amount, leaving them with no financial incentive.

In December, Hawai'i Energy struck an agreement with Island Movers to service the Kona side of the island, working closely with their operations team to ensure a smooth implementation of rebate processing and administration. Island Movers has been a valued ally in Maui for ten years, and we were grateful that they were able to provide that same reliable service for Hawai'i Island. The free haul-away and recycling service also ensured equity for residents with mobility challenges. 22 customers recycled appliances on the Big Island due to the addition of a local hauler.

PULSING THE APPLIANCE SUPPLY CHAIN

As the pandemic continued to affect the supply chain, much of Hawai'i Energy's work involved researching, preparing for, and weathering through delays of up to 10 to 14 weeks in the delivery of ENERGY STAR® appliances. Though these delays were in line with national trends and in many ways outside of our control, they naturally extended the timeframe in which customers would submit applications for rebates. In response, we opted to extend deadlines and shifted our communications to reflect the urgency of making appliance replacement plans well before appliances actually

stop working to help customers make the most of these delays.

By mid-program year, the average cost of refrigerators had also increased by \$250, with some manufacturers announcing at least a 10% increase across their products. During this period, Refrigerator Trade-Up participation decreased, correlating with higher costs and inventory scarcity for ENERGY STAR® units. Customers needing a refrigerator reported turning to standard models available in stores and utilizing the Rid-a-Fridge offer to recycle old appliances. Luckily on

Hawai'i Island, a new CEA Rid-A-Fridge hauler helped improve customer experience and grow participation for the program during this shortage. For our hard-to-reach communities, we worked directly with General Electric and our local vendor to secure products in advance and mitigate supply chain delays.

Fulfillment times picked up towards the end of the year but were still unpredictable. We were able to finish the program year at 75% of goal.

ELAPSED TIME TO RECEIVE AN APPLIANCE REBATE*
INCREASED SHARPLY FROM 1.5 months IN PY19
TO OVER 3.5 months IN PY21.

*Time between the customer's purchase date and date of rebate receipt

HEAT PUMP WATER HEATING

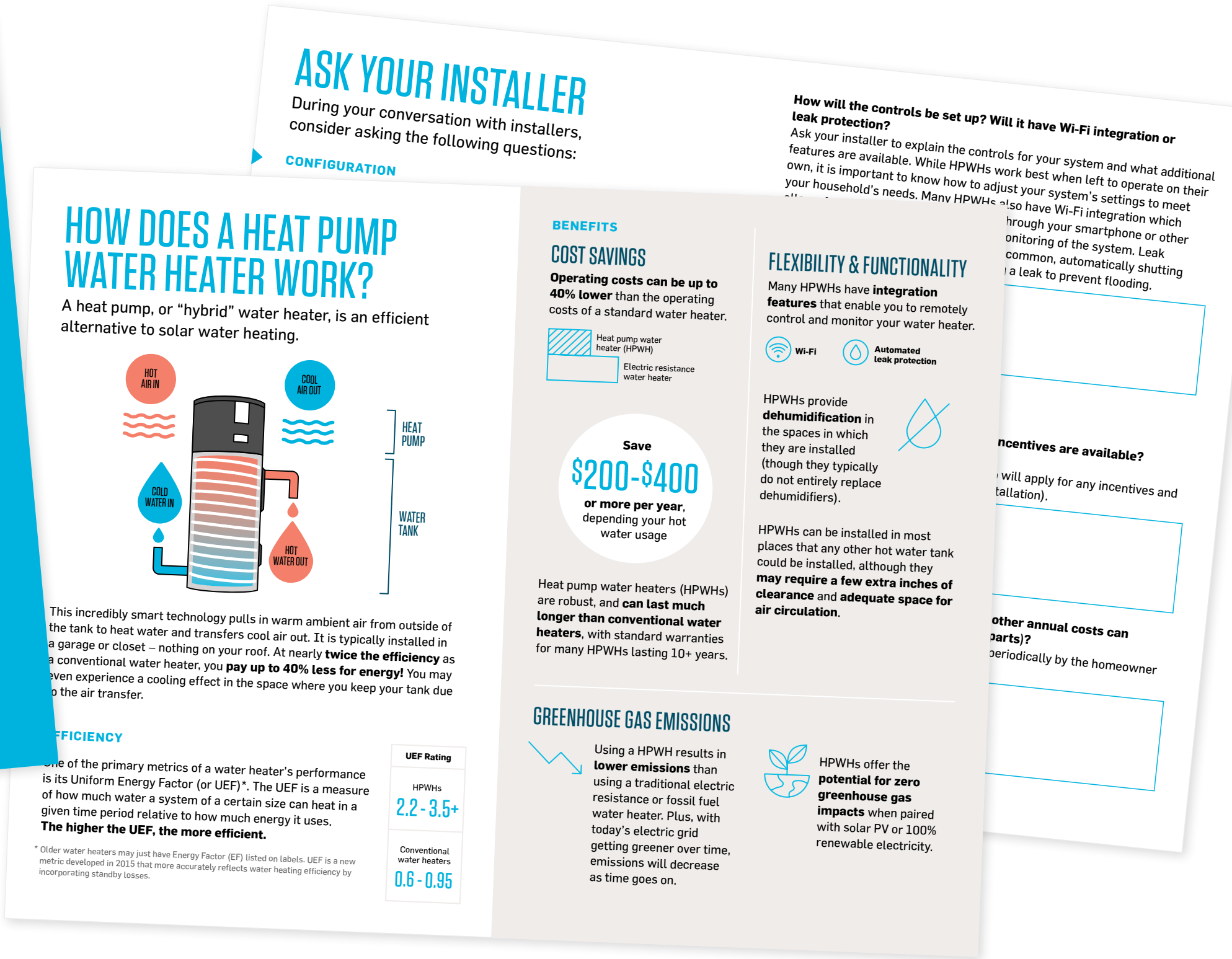
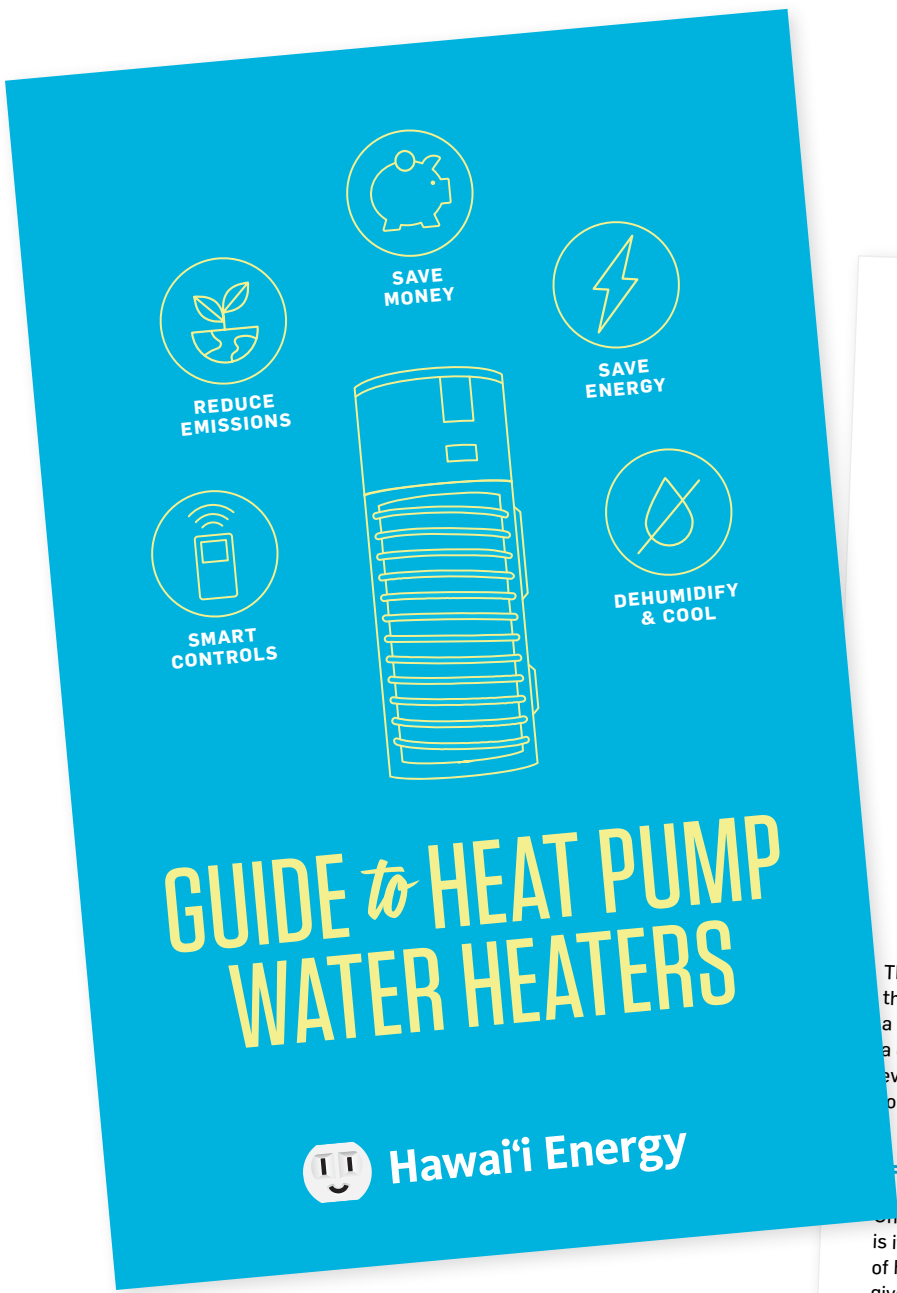
Campaigning for the Smart, Affordable Choice

One of the biggest users of energy in a home is a water heater, and with heat pump water heaters being up to 3 times more efficient than standard electric water heaters, they are often a more affordable efficient option for households with shaded rooftops or smaller families in comparison to the cost and needs of solar water heating. Historically, however, the Program has found that many customers do not know much about how this type of water heater works, the savings benefits, or even its availability in Hawai'i.

To further increase adoption, Hawai'i Energy worked with several retail partners to make significant changes to the HPWH rebate model. We switched the rebate format to a point-of-purchase (midstream) model so customers could receive instant rebates without having to fill out a paper application, increased the rebate amount to \$500 (up from \$300 previously), and expanded eligibility to include all ENERGY STAR® models up to 82 gallons (previously 50 gallons).

Hawai'i Energy also launched a targeted marketing campaign to generate further consumer awareness and explain how the technology works in Hawai'i. Television and digital ads were targeted at neighborhoods more likely to have aging homes and water heaters, as well as those searching online for water heater replacements or repairs. The Program revamped existing website content to include fresh infographics, customer testimonials, and our first-ever downloadable customer guide to help with Hawai'i-specific questions and concerns residents might have about the upgrade and installation process.

Together, these efforts helped jumpstart this traditionally undersubscribed program, with more than 921 rebates processed by end of year – exceeding our goal by 188% and generating a total of 1,431,528 kWh first-year energy savings.



188% OF ANNUAL PARTICIPATION GOAL

1.4M KWH FIRST-YEAR ENERGY SAVINGS



HEAT PUMP WATER HEATING CAMPAIGN

The first heat pump water heater ad campaign in Program history was launched in PY21 with the goal of educating consumers on the technology while also normalizing it for Hawai'i homes. Heat pumps – also known as hybrids – are undersold in comparison to solar heaters, even though energy saving benefits can be comparable. The campaign,



which featured different hilarious examples of the impact of Hawai'i's warmer climate and how it could also be leveraged to heat water more efficiently, was shown on several major TV networks and was repurposed for targeted digital advertising.

MARKETPLACE REFRESH

Hawai'i Energy's online marketplace was relaunched with design upgrades in November, that included improved navigation, re-vamped visuals that featured localized imagery, and a customer chat support feature. As part of the launch and just in time for the holiday season, we offered a promotional energy kit that included an advanced power strip, smart bulb and power switch delivered to the home for \$15. An option to purchase a six-pack of omni LED bulbs as an add-on for \$5.00 was also included as part of the promotion.

To market the offer, we leaned on email marketing, which has proven to generate the most sales in previous years. This promotional email was sent out to over 100,000 residential customers, and as a result, the kits sold out in nine days, with over 1,700 kits ordered in total. Though ultimately a lower-volume distribution channel, the marketplace continues to be a valuable method of making energy-efficient products accessible to residents, particularly those products and brands that may be difficult to obtain through standard retail stores.



8,964
*items sold in
the Marketplace*



MOVING WINDOW AC PROGRAM TO MIDSTREAM

This year also marked a shift in delivery mechanism for window air conditioner rebates. What has historically been delivered as a “downstream” rebate, where a customer receives cash after a purchase, transitioned to a “midstream” model at the end of March as a result of two new retailer agreements with Lowe’s and Home Depot stores. The midstream model provides the Program’s incentive dollars to retailers, which are then typically passed on to the customer in the form of a discount on the product, and allows programs like ours to more accurately track and attribute sales of energy-efficient products in the marketplace. Midstream models also benefit the customer, eliminating the need to fill out/send in applications and wait for a check in the mail, which can ultimately influence more customers to choose efficient products over standard models.

Hawai'i Energy strategically timed the switch of this rebate delivery method to go into effect during the hot summer season in our islands when AC sales are typically at their highest and did experience a steady increase in participation compared to the previous year. Also included in this year's promotions was a \$100 instant rebate at Home Depot for dual-inverter window air conditioners – a relatively new technology. Dual inverter window were named ENERGY STAR® Most Efficient in 2021 and utilize the most efficient cooling technology available. In Department of Energy tests, these systems were at least 25% more efficient than the minimum ENERGY STAR® requirement. According to Program data, inventory for this new technology was introduced two years prior and has taken a while to build in Hawai'i. With over 250 rebates claimed in PY21 compared to about 30 in the previous year, it was clear this new technology is beginning to pick up steam.

Benefits of a Midstream Model

- ✓ MORE ACCURATELY TRACK & ATTRIBUTE SALES OF ENERGY-EFFICIENT PRODUCTS
- ✓ REMOVE BARRIERS & ELIMINATE WAIT TIMES FOR CUSTOMERS TO RECEIVE INCENTIVES

“BY WORKING WITH MY LANDLORD, I LEARNED THAT SAVING ENERGY STARTS WITH GOOD HABITS AND CONSERVING. FINDING THE RIGHT EFFICIENT HOME COOLING ALSO MADE A DIFFERENCE IN SAVING ENERGY.”

KAIPOLANI BAILEY-WALSH
HONOLULU RESIDENT

BUSINESS PROGRAMS

The long-term economic impacts of the COVID-19 pandemic began to manifest this year, and the biggest impact to the Hawai'i Energy program was a significant dip in the number of businesses showing interest in energy efficiency investments. Whether due to labor shortages, equipment shipping delays or inflation, project completion timelines extended beyond average and extra effort was put into securing leads.

However, this scenario presented an opportunity for Hawai'i Energy to approach business customer support in new ways – first, with the launch of Power Move, a new family of demand response-themed rebates, and second, by diving deep on consultation-type services to provide high-potential customers with expert education. This year also brought the launch of a new instate rebate program for commercial foodservice equipment, helping to facilitate the adoption of more ENERGY STAR® appliances and easier rebate participation for restaurants and other foodservice facilities.



TOTAL FIRST-YEAR SAVINGS
ACROSS ALL BUSINESS GET TOTALED 74,442,667 kWh
AT THE CUSTOMER LEVEL
AND 60,217,501 kWh AT THE PROGRAM LEVEL.

POPULAR MEASURES

MEASURE

*Prescriptive & custom unless otherwise noted

EQUIPMENT QUANTITY

TOTAL VALUE OF REBATES AWARDED

APPLIANCES

179

\$27,475

BUILDING ENVELOPE

14

\$22,246

COMMERCIAL KITCHEN

120

\$66,199

HVAC

337

\$1,847,069

LIGHTING

PRESCRIPTIVE, NON-EA

408

\$1,529,469

PUMPS & MOTORS

20

\$203,695

SUBMETERING

6

\$261,750

WATER HEATING

17

\$108,733

WHOLE BUILDING ASSISTANCE

64

\$357,751

TOTAL # OF
PARTICIPATING
HECO ACCOUNTS

241

Hawai'i
County

1,762

Honolulu
County

279

Maui
County



HALE KALELE

Hale Kalele is an affordable housing development in Honolulu, built through a first-of-its-kind collaboration between the Hawai'i State Judiciary and the Hawai'i Housing Finance and Development Corporation (HHFDC) that allowed for a mixed-use facility to be built on state land. The building houses state offices on the bottom floor, and 200 much-needed affordable housing rentals in the heart of Honolulu's urban core. Kobayashi Group's incredible foresight and willingness to creatively serve the community led to energy efficiency principles being applied throughout the entire design process – from the building as a whole down to appliance choices for individual units.



“IF YOU LOOK AT OWNING A BUILDING OVER A LONG PERIOD OF TIME - AT HALE KALELE WE STUDIED IT OVER A 40 YEAR LIFE CYCLE - YOU ACTUALLY GET LED TO MAKING THE RIGHT DECISION FROM AN ENVIRONMENTAL STANDPOINT BECAUSE IT IS ACTUALLY THE RIGHT DECISION FROM AN ECONOMIC STANDPOINT.

IN THE LONG RUN, IF YOU INVEST IN HIGHER EFFICIENCY SYSTEMS, YOU'LL SAVE THOSE DOLLARS FROM AN OPERATIONAL STANDPOINT, AND THE REALITY IS THAT ENERGY COSTS ONLY GO UP, SO FOCUSING PARTICULARLY ON ENERGY EFFICIENCY IS REALLY THE SMART BUSINESS MOVE.”

ALANA KOBAYASHI
PARTNER & EXECUTIVE VICE PRESIDENT
KOBAYASHI GROUP

CASE STUDY

ISLAND NATURALS, KONA

Not all buildings are designed with energy efficient products in mind, which made it even more exciting that Island Naturals, a new natural foods marketing and deli in Kona, was willing to pause and revisit their plans to look for energy-saving opportunities. Upon working with a refrigeration contractor, they found that by choosing an efficient

refrigeration system (as well as lighting, HVAC units, and commercial kitchen equipment), they could save over 163,000 kilowatt hours per year. Their refrigeration equipment included six walk-in freezers, four walk-in coolers, and eight various reach-in and self-service display cases.

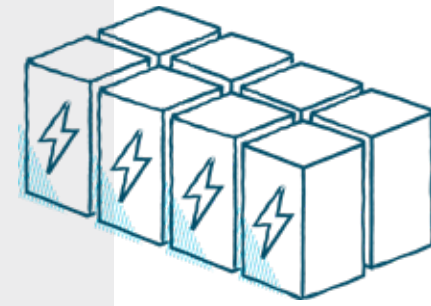


MAKING A “POWER MOVE” FOR PEAK REDUCTION

As the state prepared for the scheduled shutdown of Hawai‘i’s last coal-fired power plant (Barbers Point Power Plant on O‘ahu), data showed that there would likely not be enough renewable energy online in time to bridge the 50MW expected shortfall in capacity reserves that the coal plant would leave for O‘ahu customers. Because of this gap, customers would likely be subject to higher electricity costs after the shutdown as the utility would need to rely on oil-generated electricity to continue meeting customer demands.

To help, Hawai‘i Energy was asked to provide extra financial incentives to motivate high energy consumers to not only reduce their overall consumption, but to do it during the times of the day when demand for power tends to be the highest, helping to reduce the load on the grid and prevent service disruptions. Working with research partner VEIC, Hawai‘i Energy refined a target customer list to large facilities on O‘ahu, as those had the most potential for demand savings.

With the launch of the commercial battery storage rebate, Hawai‘i Energy entered a new era of going beyond incentivizing traditional energy efficiency work. It was also developed through a unique collaboration with an Electric, where Hawai‘i Energy’s rebates supported customers’ enrollment in their existing “Battery Bonus” program.



The Power Move program includes two forms of rebates: The first awards customers a hefty “demand savings bonus” for energy efficiency projects that reduce consumption between the hours of 5-9pm on weekdays. The second provides additional dollars to customers who install a battery storage system (used with an existing solar PV system) and use their stored daytime energy to power their facilities during the evening hours rather than draw from the grid.

By making rebate eligibility based on the amount of energy a customer could shift or reduce, businesses had the flexibility propose their own project ideas versus having to pick from Hawai‘i Energy’s existing equipment list. It also incentivized businesses to maximize their energy reduction, as they could earn more with more energy saved.

**POWER MOVE PROJECTS
CONTRIBUTED TO 189 peak kWh SAVED.**

**11% OF O‘AHU’S ELECTRICITY WAS
GENERATED BY THE BARBERS POINT
POWER PLANT WHILE OPERATIONAL**

**17 PROJECTS RECEIVED A
POWER MOVE REBATE**

**\$271,847 TOTAL AWARDED TO POWER
MOVE REBATE RECIPIENTS**

**18 CUSTOM PROJECTS QUALIFIED
FOR POWER MOVE BONUS**



CASE STUDY

FOUR SEASONS RESORT O‘AHU

As Hawai‘i hotels rebound from the pandemic’s hardest months, some are finding that they now have the resources to invest in larger efficiency projects. Four Seasons O‘ahu, a luxury property on the island’s west side, had been researching a chiller plant optimization project and was able to utilize the increased rebate to help secure a fast

approval. Clean Energy Ally Hawai‘i Energy Systems was hired to complete the upgrade and was able to work within the existing infrastructure and building management system – a major benefit that allowed the Four Seasons to recoup their investment much faster on top of a nearly \$21,000 rebate.



FACILITY AUDITS OPEN THE DOOR

Hawai'i Energy took commercial customer engagement to new levels this year. With many businesses either strapped for capital or staff due to the pandemic, the Program provided free educational assessments to help encourage dialogue with decision-makers, aiming to go beyond considering efficiency at the point of ad-hoc equipment replacements, and into more long-term, strategic planning. This approach not only helps broaden the customer's potential for savings but builds a pipeline of potential work for Hawai'i Energy – a win-win.

GROCERY AUDITS

Supermarkets have some of the slimmest profit margins of all commercial sectors. Couple that with the pandemic's onslaught of staffing, stocking, and health & safety issues, and it's no wonder that these types of businesses are some of the hardest to persuade to invest in energy efficiency upgrades. This year, Hawai'i Energy worked with Ratio Institute – a California-based nonprofit dedicated to accelerating sustainability and viability in food retail – to offer free energy audits to local supermarkets for the first time, to help facility managers quantify the potential financial savings and inspire action.

In total, three grocery chains participated in the audit process, including Wai'anae Store, a family-owned and operated facility on O'ahu's west side that services some of the island's most rural communities. As of this writing, Hawai'i Energy is actively engaged with all three chains to plan out future efficiency improvements.

ENERGY TREASURE HUNTS

Energy Treasure Hunts are a nationally-recognized process that involves an in-person walkthrough of a company's facility with representatives from all levels of operations, with the objective of finding ways to improve efficiency throughout. By including team members outside of those in facility management, and focusing on facilities that house many employees, guests, or tenants, the impact of the Treasure Hunt becomes more widespread, and helps demonstrate that everyone in a building can take ownership of overall energy reduction.

This year, Hawai'i Energy selected a few highly-engaged organizations to participate in these "hunts" at no additional cost. Hawai'i Energy worked

with contractor VEIC to produce reports for each company that illustrated savings opportunities both small and large. While the hunts are focused around low and no-cost opportunities and quick ways to reduce energy use, our Energy Advisors also dialogued with these companies beyond the initial findings, and it led to the implementation of several additional projects.



3 GROCERY CHAIN PARTICIPANTS

20 STORES COMPLETED AUDITS IN PY21



CASE STUDY U.S. NAVY AT FORD ISLAND

The U.S. Navy, whose facilities are managed by Navy Facilities Engineering Command (NAVFAC), has ambitious, ongoing clean energy goals that require them to constantly research and implement energy-saving projects throughout the state. This made them a no-brainer candidate for an energy treasure hunt, which helped them identify a wide variety of project opportunities to save even more energy in the coming years.

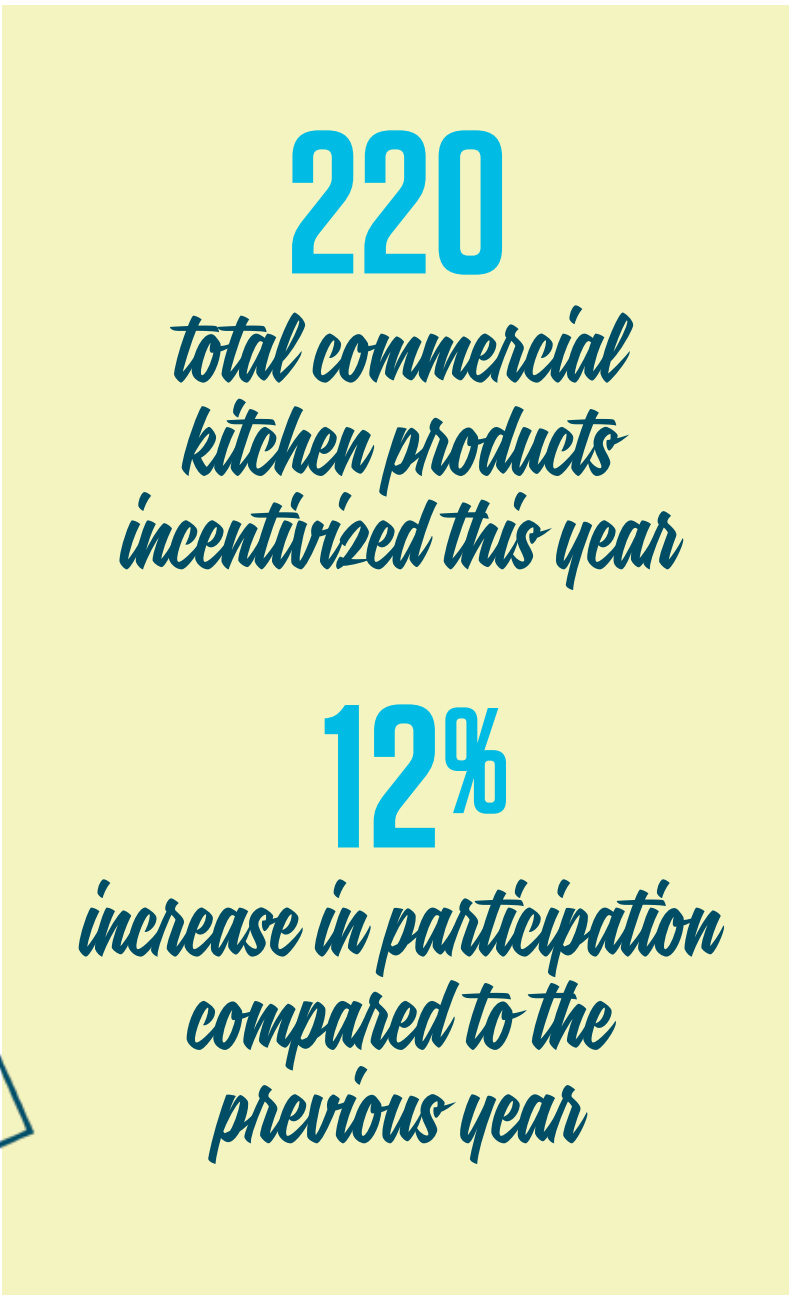
"I REALLY LIKE THE ORGANIZATION OF THE SPREADSHEET AND THE ESTIMATED COST SAVINGS. THE COST SAVINGS ARE VERY HELPFUL IN ADVOCATING FOR A PROJECT. WE HAVE COMPLETED SOME LIGHTING PROJECTS AS A RESULT, ARE ENSURING OUR OFFICE AC TEMPERATURES ARE KEPT UNDER 74°F, AND ARE DISCUSSING FUTURE PROJECTS."

DONNA BUSCEMI
PACIFIC FACILITIES MANAGER,
NUWC DET-PAC

SIMPLIFYING FOODSERVICE EQUIPMENT EFFICIENCY

This year, Hawai'i Energy launched an “instant” rebate offer for commercial foodservice equipment using a “midstream” model in which equipment retailers receive financial incentives in batches based on the number of qualifying products they sell. This model eliminates the need for the purchasing customer to apply for the rebate on their own, which is particularly beneficial in a sector that historically opts for inefficient equipment due to lack of affordability.

Hawai'i Energy launched the offer at Bargreen Ellingson and Mid-City Restaurant Supply, two of Hawai'i's most well-known equipment distributors. These partnerships led to more than 220 pieces of commercial kitchen equipment being sold to local businesses, representing a 12% increase compared to the previous year.



BARGREEN ELLINGSON

As the state's largest wholesale foodservice supply and design company, Bargreen Ellingson is a key player in ensuring Hawai'i's restaurateurs and kitchen managers have access to energy-efficient equipment at affordable prices. With locations on the Big Island, Maui, and O'ahu, working with Bargreen allows for Hawai'i Energy's rebates to be shared with more potential customers.

“THE INSTANT REBATE PROGRAM HAS BEEN HELPFUL TO OUR RESTAURATEURS FINANCIALLY. IT GIVES THEM THE UPFRONT SAVINGS WHEN PURCHASING EQUIPMENT FROM BARGREEN ELLINGSON WITH THE OPPORTUNITY (AND EASE) OF THE UPFRONT SAVINGS RATHER THAN HAVING THEM SUBMIT ON THEIR OWN AFTER PURCHASE AND WAITING FOR A REBATE CHECK.”

DOUG MOORE
CONTRACT SUPPORT
BARGREEN ELLINGSON



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 benefiting 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.



HOTEL GUEST ROOM CONTROLS

Enhanced controls are an excellent option for load reduction in hotel guest rooms. Hotels make up one of the largest commercial sectors and operate at 100% coincidence with the utility evening peak. Guest room controls save energy by using sensors to detect occupancy in a room and setback the temperature when guests are away, and many controls have demand response capabilities that can provide grid-wide benefits. With over 30,000 hotel rooms in Waikīkī alone, Hawai‘i Energy remains committed to our enhanced rebate for guest room controls with demand response capabilities. In PY21, Hawai‘i Energy rebates helped 3 hotels install controls across 1,338 guest rooms, which is expected to produce over 1.2 million kWh in energy savings and 385 kW in peak demand reduction.

1,338 TOTAL GUEST ROOMS
ACROSS 3 HOTELS

1.2M KWH IN EXPECTED
ENERGY SAVINGS

385 KW IN PEAK
DEMAND REDUCTION

GRIDPOINT

Hawai‘i Energy’s collaboration with GridPoint originally initiated in PY20 continues to steadily produce results. GridPoint works with businesses to install metering and HVAC controls that collect real-time energy data. Their Energy Manager software and analytics allow business managers to identify areas of waste and make operational

adjustments. In PY21, 26 small businesses installed GridPoint controls with the help of Hawai‘i Energy’s incentives, producing an average energy savings of 14% for all participants. GridPoint is also using their software platform to evaluate the potential for on-demand capacity reduction for both one- and four-hour demand response events.



SHIFTED ENERGY

Through our ongoing partnership with Shifted Energy, a local start-up that specializes in smart water heater controls, Hawai'i Energy continued to support low- and moderate-income customers with a suite of efficiency-based services paired with enrollments in Hawaiian Electric's demand response programs. In PY21 we supported the deployment of 255 grid interactive controls in multifamily dwellings. Shifted's software uses machine learning to forecast and maximize demand response capacity from every participating water heater. Individual forecasts are then aggregated and optimized as a fleet in a cloud-based virtual power plant of water heaters for HECO's Grid Service Purchase Agreement demand response program.

Customers were also offered the opportunity to participate in Hawai'i Energy's Energy Smart 4 Homes, Appliance Trade-ups, receive home energy kits, and/or attend community workshops and presentations. Similar to last program year, data shows that programs were found to provide more value when bundled, 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.

Additionally, testing the capabilities of grid-interactive heat pump water heaters was a primary focus for customer engagement in the second half of the year. Hawai'i Energy funded a comprehensive field study that involved transitioning 20 homes in Waimānalo, O'ahu to a new heat pump water heater with controls. The participants were all single-family homes with native Hawaiian families, with a minimum of four residents (many of which had more). Over the course of five months, Shifted Energy

recruited participants and completed installations for these homes, utilizing heaters from two leading water heater manufacturers. Shifted then tested grid service capabilities for load reduction and emergency demand response.

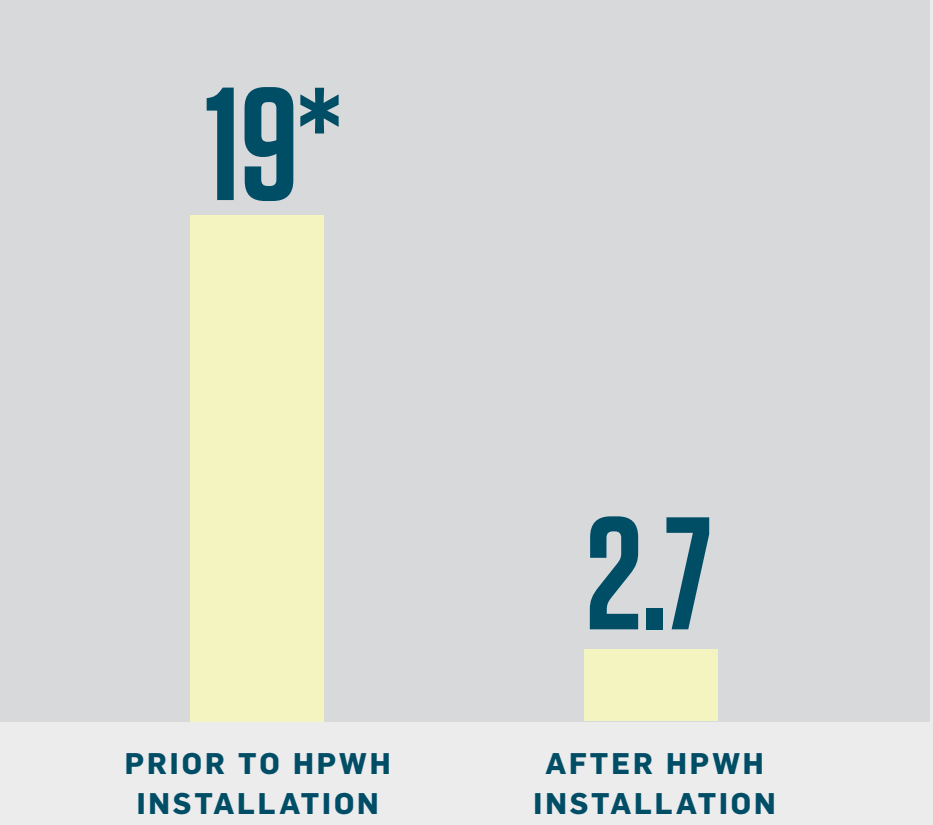
The results were an eye-opening snapshot of the weighty challenges and conversations that occur in ensuring not just efficient, but basic hot water access for many low to moderate-income residents. Many households had higher than average water heating usage, often driven by a larger number of residents in the home. As expected, most participants cited "initial purchase price" as the most important factor when considering a new appliance. The vast majority said they could only pay \$1,000 or less for a new energy efficient heater, and a few referenced looking for something used or having friends do installations for free to save on costs. Examining those sentiments against a cost range of \$1,300-\$2,000+ for the heater and installation – not to mention space and plumbing considerations – illustrates just one of the many challenges in ensuring all customers are able to participate in Hawai'i's clean energy transition.



SHIFTED ENERGY CASE STUDY

HEAT PUMP WATER HEATER CAPABILITIES TRIAL FINDINGS

WATER HEATING DAILY ENERGY USAGE (KWH)



* Participant water heating usage exceeded Hawai'i's residential average daily usage of 8.6 kWh.

\$210 AVERAGE MONTHLY HOUSEHOLD SAVINGS
\$2,520 AVERAGE YEARLY HOUSEHOLD SAVINGS
* as of August 2022

BASED ON ENERGY SAVINGS ALONE, THE AVERAGE TIME TO RECOUP THE TOTAL PURCHASE AND INSTALLATION COSTS OF THESE HPWHS WITHOUT ANY INCENTIVES OR REBATES IS JUST *2.6 years.*

80% OF PARTICIPANTS NOTED A SIGNIFICANT DIFFERENCE IN THEIR ENERGY BILL POST-INSTALLATION.

THIS ENERGY USAGE REDUCTION REPRESENTS

60%
decrease from the Hawai'i average

86.1%
decrease for the average study participant

MARKET TRANSFORMATION

70 NUMBER OF
“ENERGY UNPLUGGED”
WORKSHOPS HELD

2,444 TOTAL NUMBER
OF ATTENDEES

ADULT EDUCATION

Our popular “Energy Unplugged” workshops for adults and community groups experienced even more success in 2021-22. Workshops included a small fundraising incentive for diverse community groups, which drove participation and created a viral “buzz” for those attending to spread the word to their networks. Year-on-year, workshop attendance increased 39% for Maui County and 19% for Hawai‘i County while decreasing in Honolulu County, coming closer to our equity targets. Participants, often including multiple generations in a household watching together, were very engaged and appreciative of the energy and bill-saving tips, particularly as rate increases began to impact household budgets. The workshops were also a powerful vehicle and gateway to introduce other parts of the program. Promotion of the ES4H direct install program resulted in 974 zip-code qualified residents signing up to receive 100% free light bulbs, water conservation and power management devices. Finally, surveys administered as part of the workshops help Hawai‘i Energy to gauge what rebates residents are most interested in, and analyze what populations they are a part of (homeowner vs. renter, etc).

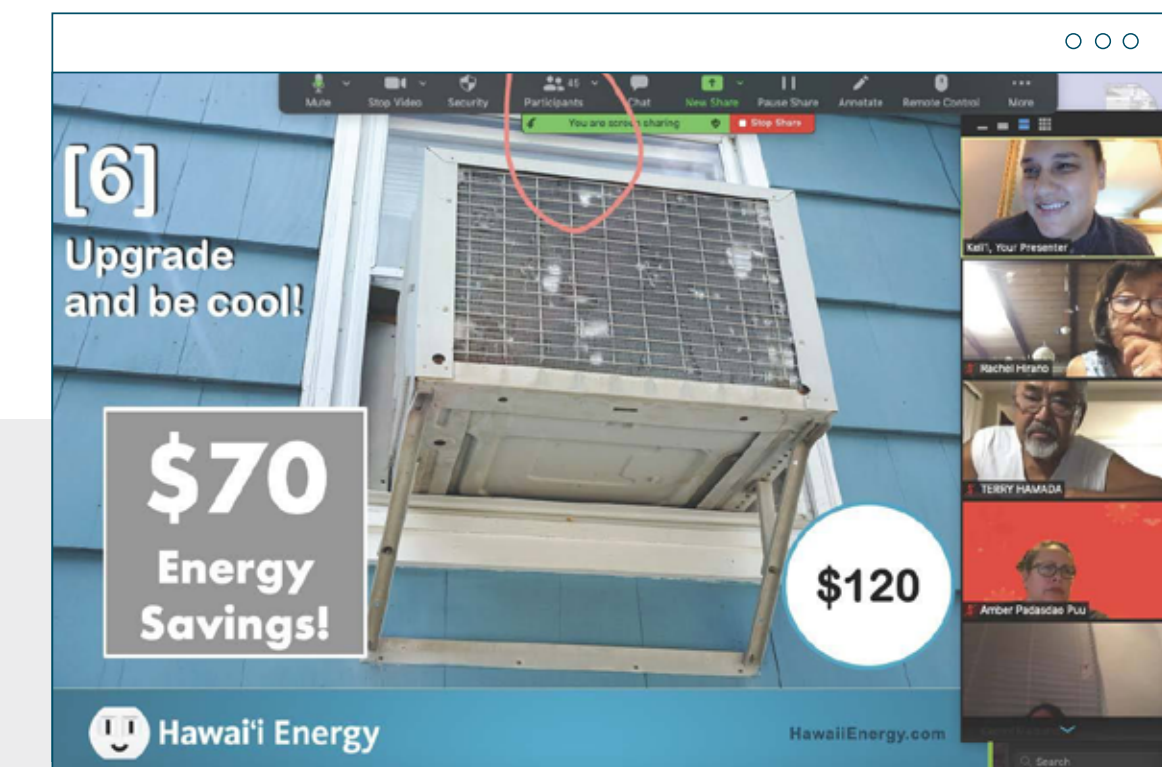
“HĀNA IS A REMOTE AND HARD TO REACH COMMUNITY ON THE ISLAND OF MAUI. THIS WORKSHOP WAS IMPLEMENTED DURING A REFRIGERATOR UPGRADE CAMPAIGN IN THIS COMMUNITY. ENERGY UNPLUGGED PARTNERED TOGETHER WITH MA KA HANA KA ‘IKE, A COMMUNITY FOCUSED ORGANIZATION, TO IMPLEMENT THIS WORKSHOP. THE PARTICIPATION WAS HIGHER THAN ANTICIPATED FOR THIS GROUP.

THE THEME OF THE SESSION ALIGNED PERFECTLY WITH THE NAME OF THE ORGANIZATION AS “MA KA HANA KA ‘IKE”

TRANSLATED MEANS “AS WE WORK AND PRACTICE, WE LEARN.” THIS PROVERB AND MESSAGING WAS USED AS AN EXAMPLE OF HOW FAMILIES IN HĀNA CAN APPLY THIS TRADITIONAL THINKING TO THEIR HOME ENERGY TRANSFORMATION, INCLUDING PRACTICING NEW EFFICIENCY BEHAVIORS AND IMPLEMENTING ENERGY UNPLUG’S TOP TEN HABITS TO REDUCE ENERGY BILLS.”

ENERGY UNPLUGGED
WORKSHOP PARTICIPANT

In a landscape where “low-hanging fruit” at work and at home has often been picked, finding deeper savings in energy efficiency requires an increasingly energy-literate and technologically knowledgeable target audience who are empowered and motivated to implement changes in their consumer and organizational behavior. The Program continued to focus market transformation and economic development efforts on expanding community education to new areas in tandem with A&A efforts, and training for professionals on leading-edge equipment, strategies and quickly-evolving new regulations.



A TOTAL OF **4,457** COMMUNITY
EDUCATION PARTICIPANT HOURS
WERE COMPLETED, INCLUDING
1,406 IN STEM STUDENT WORKSHOPS
AND **3,051** IN ADULT LEARNING.

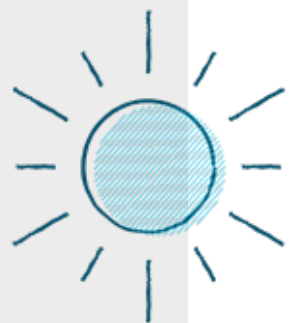


YOUTH EDUCATION

High demand for online delivery of clean energy and climate change K-12 workshops continued in PY21, with over 1,400 students reached. Hosting the webinars on Zoom enabled the Program to serve neighbor island and rural communities more easily. Pre-and post- workshop surveys measured new knowledge and attitudes toward clean energy; a representative batch showed 86% of 30 students learned something new about clean energy and what they can do to speed our transition toward it. The program supplemented online workshops by sending card decks, games and supplementary materials by postal mail whenever feasible, so that teachers could reinforce concepts with hands-on learning after the workshop. Toward the end of PY21, school audiences were eager for in-person learning and our partner Blue Planet responded with flexibility to meet these requests while maintaining varied safety protocols.

80% OF STUDENTS LEARNED SOMETHING NEW ABOUT CLEAN ENERGY

According to a representative survey of 30 students



STUDENT TESTIMONIALS

“I REALLY ENJOYED THIS PRESENTATION, IT WAS A COOL WAY OF LEARNING MORE ABOUT THE UNIT WE ARE CURRENTLY LEARNING. I LEARNED ABOUT HOW THERE AREN’T MANY OTHER TYPES OF ENERGY HERE ON HAWAI’I AND SOLAR ENERGY IS THE MOST OPTIMAL WAY WE ARE ABLE TO GAIN ENERGY AND ALSO USE IT EFFICIENTLY. I DID NOT KNOW THERE WERE NO COAL, NATURAL GAS, AND OIL IN HAWAI’I.”

“A NEW WAY I CAN BE MORE ENERGY EFFICIENT IS TO RUN MORE.”

“THROUGHOUT THE PRESENTATION, I LEARNED A LOT OF NEW THINGS LIKE HOW DISHWASHERS ARE ACTUALLY MORE EFFICIENT THAN WASHING BY HAND WHEN IT COMES TO SAVING WATER. I LEARNED NEW WAYS THAT I COULD SAVE ENERGY AT HOME.

I found the presentation interesting because it was going over a topic that actually concerns me and the future of Hawai’i.”

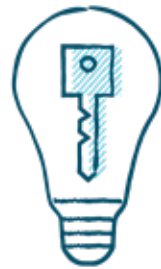
“HANG UP CLOTHES INSTEAD OF USING A DRYER AND USE A DISHWASHER INSTEAD OF WASHING DISHES BY HAND.”

“IT WAS VERY EYE OPENING ESPECIALLY THE VIDEO :) I LOVED THE PART WHERE THE PRESENTER SAID THAT IT’S HAPPENING NOW BECAUSE MANY PEOPLE STILL THINK THE EFFECTS ARE ONLY GOING TO AFFECT THE FUTURE GENERATIONS WHEN IN REALITY IT’S HAPPENING IN THIS TIME.”

PROFESSIONAL DEVELOPMENT

GREEN REALTORS® / GREEN REAL ESTATE CEA PROGRAM

We continued to roll out our new Green Real Estate category under the Clean Energy Ally program with a robust set of 12 free or low-cost trainings, anchored by the popular National Association of Realtors (NAR) Green Designation. Data through the end of the program year shows Hawai'i is now third in the nation for Green designations (only behind California and Florida), with 199 Realtors®. The vast majority of that growth has come in the last 3 years through Hawai'i Energy support. Realtors are trusted advisors in our community, and through their connection with our program, clients benefit from knowing how to make energy-efficient, healthy, money-saving upgrades to their home. Our CEA program further supports realtors with the information and marketing support to grow their green real estate business and keep up with the latest trends and tips on energy. Although we experienced some challenges related to realtor availability during a historically hot market, we improved course participation and continued to build relationships within this sector.



HAWAI'I IS NOW THE *3rd* STATE IN THE NATION
FOR GREEN DESIGNATIONS, THE MAJORITY
OF GROWTH IN THE LAST THREE YEARS
FROM HAWAI'I ENERGY SUPPORT.

<i>Program Area</i>	<i>Participants</i>	<i>Workshops</i>
TARGETED PARTICIPANT TRAINING	3,190	45
VOCATIONAL TRAINING	2,410	28
TRADE ALLY TRAININGS	1,713	17



CODES AND STANDARDS

The evolution of energy conservation codes in Hawai'i continues to accelerate, and with it the need for the design and construction and operations/facilities professionals to understand important changes, an increasingly complex grid, and the march toward net-zero energy. The Program continued its close collaboration with the Hawai'i State Energy Office (HSEO), supporting HSEO's efforts to educate this community. In the spring, Hawai'i Energy helped to plan and promote a three-part code series that included residential, indoor air quality and commercial building educational modules made possible by the University of Illinois' SEDAC (Smart Energy Design Assistance Center) with U.S. EPA funding. A webinar on code compliance helped attendees understand IECC 2018 for state buildings, which took effect in December 2021. Hawai'i Energy was given the opportunity to share information about the New Construction & Major Renovation (NCMR) program and its new incentives and invited designers to collaborate with the Program for future projects that go beyond code. In all, 428 participants attended this year's code trainings.

ARCHITECTURE AND DESIGN

Led by the American Institute of Architects, Honolulu Chapter (AIA-Honolulu), the architecture and design sector continues to be a key partner in transforming the market for high-performance, energy-efficient buildings. We are fortunate to have a vibrant local community that recognizes how climate change brings intersectional economic, social and environmental impacts and embraces a progressive role in improving resiliency of the built environment and equity for its most vulnerable residents. Hawai'i Energy awarded its third annual AIA Award for Excellence in Energy-Efficient Design to Ferraro Choi & Associates for the Kohala High School STEM Science facility. This inspirational project showed a strong commitment to energy efficiency and thermal comfort from concept through construction. It utilizes passive design, rigorous modeling, daylighting, smart controls and a mixed-mode air conditioning system. Much anticipated by the North Kohala community, it is expected to use 45% less energy than a standard code-compliant building and will serve as a living laboratory for sustainability and building science concepts.

CLEAN ENERGY ALLIES

Hawai'i Energy's Clean Energy Allies have been at the frontlines of economic recovery since the beginning of the pandemic. The pandemic stretched many of our Allies thin with staffing, equipment, and even capital shortages, and many relied on Hawai'i Energy's rebate offers to encourage customers to pursue energy-efficient upgrades where possible, ensuring that their companies could stay afloat while helping residents and other businesses do the same. This year Hawai'i Energy focused on maintaining an engaged membership base, making improvements and adding value to CEA membership through new digital offerings tailored around current needs.

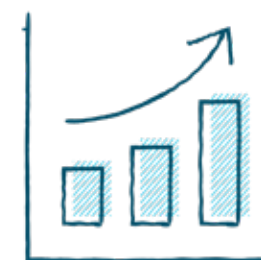
NEW WEB RESOURCES

Long-awaited technology improvements were completed this year with the launch of two new contractor portals. Energy Advantage contractors received their own online rebate submission portal, which digitizes the rebate and worksheet process, allowing these contractors to easily find qualifying lighting products, calculate rebate estimations, and submit applications.

The main Clean Energy Ally online portal services most all other Allies, offering the ability to digitally track rebate submissions, energy savings estimates, status toward reward program bonuses, and receive program updates from a single dashboard. This portal was rolled out on October 1, and immediately led to positive dialogue with Allies and our team around what data could be visible in the portal in the future to streamline operations further.

MARKETING TRAINING SERIES

Taking note from previous feedback surveys, Hawai'i Energy began a small training series on marketing and hosted two sessions this year. The sessions were facilitated by Hawai'i Energy's marketing team, who shared best practices on how to maximize reach while working with smaller marketing budgets and little-to-no dedicated marketing staff – a common occurrence amongst many Allies. The first was a “crash course” on basic marketing strategy and tactics, and the second was deeper dive into the topic of email marketing, based on a poll in which Allies indicated that email marketing was an area of high interest.



EXPANSION OF ENERGY INSIDERS REWARDS

Hawai'i Energy was proud to expand the Energy Insiders Rewards program this year to residential contractors for the first time. Recognizing that these contractors operate differently from commercial contractors (e.g. driving larger quantities of rebate applications within a year), we knew that the eligibility requirements and benefits needed to be different to be valuable. The rewards program is now available to solar water heating and air conditioning installation contractors, with the top reward being a 25% bonus coupon, based on original incentive level, to be applied toward a future installation or maintenance – something a contractor could offer to a customer to influence a sale. Since the expansion, 56 new contractors enrolled in Energy Insiders in PY21.

27 NEW CEAS JOINED IN PY21

“WE ENJOY BEING ABLE TO HELP BUSINESS OWNERS DROP OPERATING COSTS, AS WELL AS HELP THE ENVIRONMENT BY REDUCING ELECTRICITY USAGE. WE ENJOYED ALL THE DIFFERENT PROJECTS WE COMPLETED, ESPECIALLY THE ONES THAT HELPED SMALL BUSINESS OWNERS RECOVER FROM THE HARSH FINANCIAL EFFECTS OF THE COVID-19 PANDEMIC. WE APPRECIATE THE PRIVILEGE OF BEING PART OF A PROGRAM DOING SO MUCH TO IMPROVE OUR HOME HERE IN HAWAI'!”

ANDREW MAKELY
THE POWER CONNECTION



POLICY & ADVOCACY

Hawai'i Energy's support for clean energy policy includes submitting letters of support, testifying, and enhancing public education around pieces of legislation that have the potential to substantially boost our progress toward our state's clean energy goals. The 2022 legislative session brought some long-awaited wins and major steps toward these goals, most notably the passage of the state's "Lead By Example" legislation that will require a majority of state facilities to implement cost-effective energy efficiency measures – a bill that was vetoed in previous years.

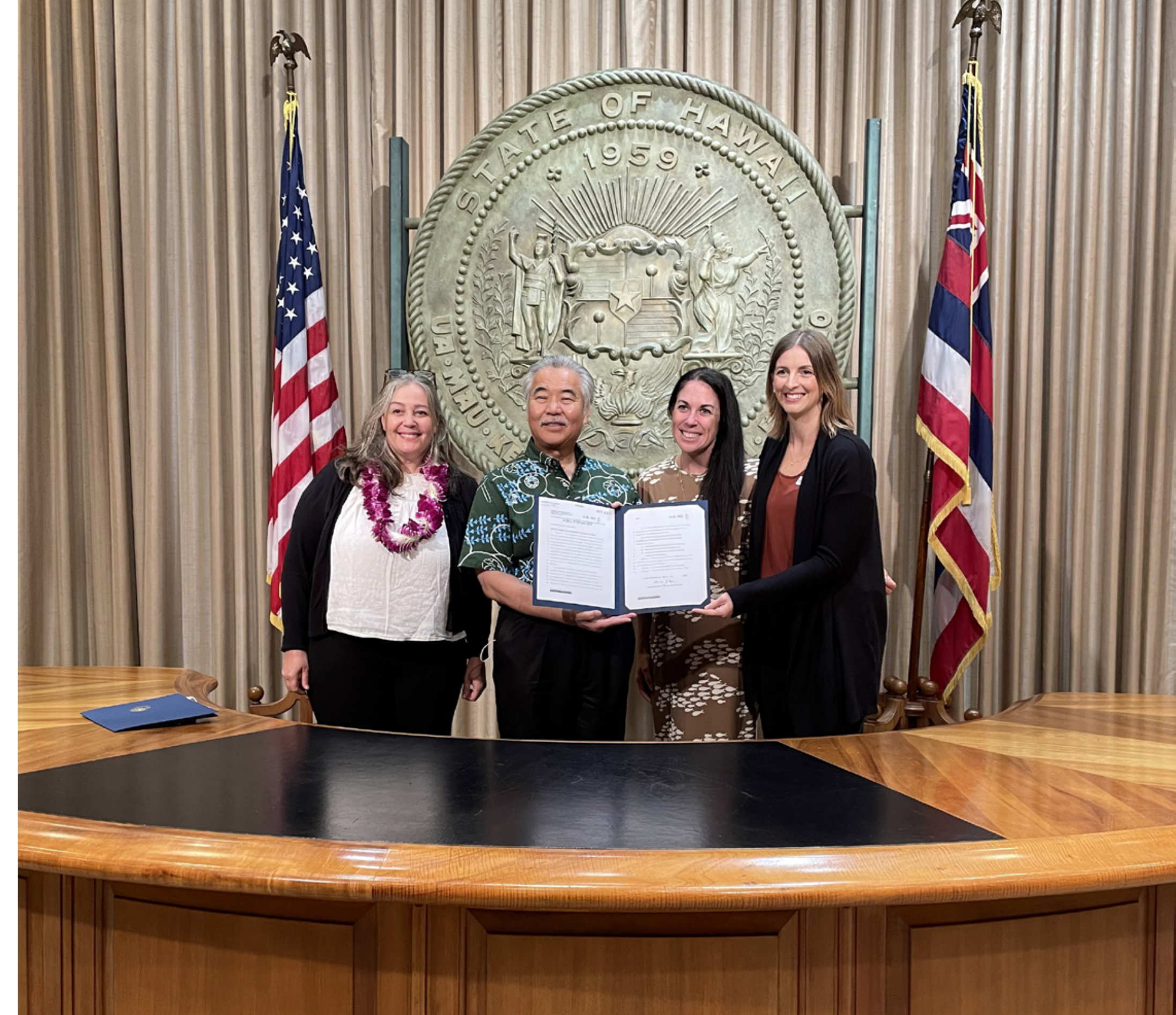
POLICY WINS

ACT 239 – ENERGY EFFICIENCY IN STATE FACILITIES (A.K.A. "LEAD BY EXAMPLE")

The passage of Act 239: 1) requires and establishes deadlines for state facilities, except smaller facilities, to implement cost-effective energy efficiency measures; 2) directs the State energy office to collect and publicize the utility bill and energy usage data for all state-owned facilities; and 3) where feasible and cost-effective, requires any new state buildings to be designed to maximize energy and water efficiency, as well as use materials that reduce the carbon footprint of the project. This law is tremendously impactful considering that more than 50% of the electricity consumed in the State of Hawai'i is currently used to power buildings.

CITY & COUNTY HONOLULU ORDINANCE 22-17 – ESTABLISHING THE BETTER BUILDINGS BENCHMARKING PROGRAM

Measuring a building's energy and water usage over time allows owners and occupants to see their building's performance relative to similar buildings, which can help jumpstart projects to improve efficiency. With the passage of Ordinance 22-17, the City will now have a formalized program to support this initiative, requiring large commercial and multifamily buildings to officially benchmark and publicize their data using the nationally-recognized, free, ENERGY STAR® Portfolio manager tool. According to the City, this program is expected to reduce the electricity consumption of large buildings by nearly 7% by 2030.



THROUGH IMPROVED BENCHMARKING,
ELECTRICITY CONSUMPTION OF
LARGE BUILDINGS IS EXPECTED
TO DECREASE BY NEARLY 7% BY 2030.



ACT 202 – EV CHARGING STATION REBATE PROGRAM EXPANSION

To meet the growing demand for public EV charging stations, the Hawai'i State Legislature appropriated additional funding for rebates for EV charging station installations at commercial facilities. Act 202 also includes several expansions to the program, such as a larger appropriation of funds than previous years and making single-port stations eligible for rebates. Hawai'i Energy will continue to administer this rebate program for customers across the state.



EXPANDING LEGISLATOR OUTREACH

Hawai'i Energy also launched a new “Energy Insights” e-newsletter this year to keep local lawmakers, their staff, and other government officials informed of rebates, services and general tips that might benefit their constituents. Designed with simplicity and clarity in mind, content from the newsletter has been shared by a handful of legislators in their own constituent updates via email and social media, and we have received feedback that the information has also been a helpful tool during the policy research process. The newsletter is sent twice a month during the legislative session (January through May) and monthly during the rest of the year.

The most popular issue in PY21 was sent on March 2, 2022 which discussed the impacts of the Russia-Ukraine conflict on Hawai'i's electricity industry and how residents could conserve. Days later, Hawaiian Electric announced bill increases of 10-20% for customers across the state, which made this messaging even more timely.

97 NUMBER OF RECIPIENTS OF THE “ENERGY INSIGHTS” E-NEWSLETTER

40% AVERAGE OPEN RATE SINCE OCTOBER 2021 LAUNCH, MAKING IT OUR MOST-READ EMAIL PUBLICATION

