

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of )  
 )  
PUBLIC UTILITIES COMMISSION )  
 )  
Instituting a Proceeding to Investigate the )  
Issues and Requirements Raised by, and )  
Contained in, Hawaii's Public Benefits )  
Fund, Part VII of Chapter 269, Hawaii )  
Revised Statutes. )

DOCKET NO. 2007-0323

2019 JUL 12 P 3:41  
PUBLIC UTILITIES  
COMMISSION

FILED

**RESPONSE OF HAWAI'I ENERGY**  
**AS THE PUBLIC BENEFITS FEE ADMINISTRATOR**  
**TO**  
**THE DIVISION OF CONSUMER ADVOCACY'S COMMENTS FILED MAY 31, 2019**  
**REGARDING**  
**HAWAI'I ENERGY'S TRIENNIAL PLAN PROGRAM YEAR 19-21**  
**AND FILING OF SUPPLEMENTAL ADDENDUM**

**Brian Kealoha**  
Executive Director  
Hawai'i Energy - Public Benefits Fee Administrator  
Leidos, Inc.  
1132 Bishop Street | Suite 1800 | Honolulu | HI | 96813  
Tel. 808-839-8880

## **Background:**

Leidos, Inc. ("Leidos") is currently the Public Benefits Fee Administrator (PBFA) operating the Hawai'i Energy program. On May 1, 2019, Leidos filed the Hawai'i Energy Triennial Plan ("Plan") for Program Year 19 – 21 which was set to begin on July 1, 2019. On May 21, 2019, the Hawai'i Public Utilities Commission ("Commission"), held a public stakeholder meeting where representatives from the Hawai'i Energy program presented an overview of the Plan and addressed questions from the Commission, the Division of Consumer Advocacy ("CA"), the Hawaiian Electric Companies ("Companies"), and other stakeholders.

On May 31, 2019, the DCA filed comments on the Plan, along with the Companies and other stakeholders. On June 21, 2019, the Commission instructed Leidos via Order No. 36383 to "respond to and address the concerns raised in the Consumer Advocate's comments, filed on May 31, 2019, in the form of a supplemental addendum to the Triennial Plan. The supplemental addendum shall be filed in this docket by July 12, 2019."

## **Response**

First, Leidos would like to thank the CA for its comments and for providing valuable input and feedback to the Plan so that the Hawai'i Energy program may best serve ratepayers. Leidos is grateful the CA acknowledged that many of their past comments have influenced the proposed Plan, and can confirm that these comments have indeed shaped the Plan. In addition, we have formally engaged with other stakeholders through strategic planning meetings in February and November of 2018, as well as through other informal means. The stakeholder group was comprised of customers, Clean Energy Allies, government, economic development groups, non-profit agencies and utilities. This was the most robust process Leidos has undertaken in the creation of an Annual/Triennial Plan and the approach has proven to be very impactful. While there is always room to improve, Leidos has put forward a Plan that reflects a great deal of stakeholder feedback.

Leidos respectfully submits to the Commission a supplemental addendum to the Triennial Plan. The supplemental addendum provides Leidos' response to the CA on programmatic and budget concerns/issues raised. This introductory letter will cover the other concerns/issues raised by the CA.

### **A. INCLUDING COMPARISONS ACROSS SEVERAL PORTFOLIO CHOICES**

The Hawai'i Energy program planning incorporates a robust analysis of historical participation, market conditions/drivers, national best practices, Commission priorities and stakeholder feedback, in order to produce a proposed approach for program implementation. Because of the rapidly evolving market, it can be difficult to predict how portfolio options will perform in advance of their initiation. Therefore, in practice, the

programs operate dynamically and can be modified across portfolio choices as needed in order to meet established targets. Communication with the Commission, EEM, and stakeholders is continuous, so process and impact evaluation for programs is ongoing.

## **B. LINKING TO GOALS AND OUTCOMES IDENTIFIED IN THE PERFORMANCE-BASED REGULATION (PBR) DOCKET**

At a high level, Leidos agrees that future plans and metrics should align more closely with the guiding principles, goals, and outcomes established in the PBR framework. While the Decision and Order on Phase I of PBR was issued after the filing of the Plan, Leidos and many of the stakeholders that participated in the Plan's process were also involved in or followed Phase 1 of the PBR docket.

Given some overlap in stakeholders, many of the same themes surfaced. Specifically, the societal outcomes were raised often and discussed at length given the role of the PBFA. Programs that provide GHG reductions were discussed in order to align with all of the State and County policies enacted over the past few years. Resilience and Electrification of Transportation also came up frequently.

All of these discussions, suggestions, and recommendations influenced the Plan, particularly in the new initiatives proposed. The Plan by nature is focused on Distributed Energy Resources, and its programs can help increase asset effectiveness for the utility as well as improve grid investment efficiency, if done properly. Leidos agrees with the CA that alignment with Hawai'i Energy's programs is important and should be incorporated where applicable.

It is important to note, however, that the PBFA is not a utility. The size of the organization, the structure (contractor to the Public Utilities Commission), the competitive nature of the PBFA contract, the access to data, the amount of ratepayer dollars allocated to the PBFA, and the compensation structure are all significantly different than a utility. In order to leverage the strengths a third-party administered program can offer to ratepayers, the way the PBFA is managed, operated, and compensated will always be different.

The Hawai'i Energy program has been recognized by stakeholders as being customer-centric in terms of both the programming and benefits. This was a strength stakeholders repeatedly mentioned needed to be leveraged further for customers, the grid, and the State.

## **C. COST-EFFECTIVENESS**

The CA continues to encourage that the Hawai'i Energy program be cost-effective and that cost-effectiveness be a standing goal. The CA also suggests that different metrics

should be utilized when evaluating Hawai'i Energy's Accessibility and Affordability ("A&A") programs, formerly called hard-to-reach (HTR). Leidos can confirm in past program years it was difficult to increase investment in this area without jeopardizing the overall cost-effectiveness results of the portfolio. Additionally in PY16 – 18, the significant decrease in budget made it challenging to invest further in A&A programs without also jeopardizing resource acquisition targets necessary for Energy Efficiency Portfolio Standard ("EEPS") attainment. The modification of metrics and increased funding are both necessary for success.

As part of the above referenced stakeholder meetings, additional investment in A&A/HTR had broad support and the stakeholder group highlighted that metrics of success needed to be modified in order for the programs to receive the proper level of focus and funding. Metrics evaluating A&A programs are still emerging on a national level, as the energy burden continues to mount for low income families and small businesses. Outcomes are incredibly difficult to measure, so many jurisdictions continue to rely upon activity or investment rather than traditional cost-effectiveness tests. Leidos will continue to seek additional input on how to better refine the metrics for success and appreciates the CA's recognition that ALICE households and other HTR groups are not left behind in Hawai'i's energy transition. It will continue to take guidance from PBFA contract manager, the evaluation team, the PUC, and other stakeholders in order incorporate best practices for measuring the success of these programs.

#### **D. COLLABORATION**

The addendum to the Plan addresses some of the specific program areas of concern raised by the Consumer Advocate. Many of the new initiatives originated and were refined as part of the above referenced stakeholder process. These areas were identified as gaps occurring on the customer side of the meter – squarely where the Hawai'i Energy programs have been targeted over the past nine years. While stakeholders encouraged the expansion of program offerings, they too raised the need for greater collaboration with the Companies to avoid duplication or market confusion. However, the guidance was clear that this concern should not prevent the Hawai'i Energy programs from doing more.

Leidos has and will continue to work closely with the Companies to ensure duplication is minimized or eliminated. As pointed out by many of the stakeholders during the planning process, there are many market actors and pathways that will move Hawai'i towards its clean energy goals. They were clear to state that no single entity alone will be able to do this, and many of the participants were market actors or customers.

In the development of the Plan, Leidos worked hard to verify gaps. Leidos was careful to ensure investment in new initiatives would increase ratepayer value rather than diminish it. Leidos agrees with the CA and other stakeholders around the necessity for collaboration to ensure programs are complementary instead of counterproductive.

Ideally, the Companies and the Hawai'i Energy program working together would leverage the strengths and expertise of each of their respective organizations to maximize ratepayer benefit. This is the intention of Leidos and coordination has improved over the years. Leidos also recognizes there are growing areas of overlap which will require more coordination and effort by both parties going forward.

The Companies, in their comments, acknowledged the efforts to date by the program and highlighted the need for ongoing close coordination. Leidos and its subcontractor Honeywell are also actively involved in HECO's Integrated Grid Planning Process. In addition to its participation on the steering committee, Leidos is participating in 4 of the 7 working groups. Furthermore, Leidos will be participating in the upcoming Advanced Rate Design and Data Access and Privacy Workshops. All of these activities are in addition to regularly cadenced collaboration meetings as well as coordinated efforts with specific groups where there is collaboration such as EV charging, large commercial customer outreach, demand response, Hawai'i Energy's rapid response program and other targeted programs on Hawai'i Island, rates (demand charge modifications for efficiency upgrades in the Maui Electric service territory), forecasting, and the Companies' new business efforts which have an energy efficiency component (such as an online marketplace).

With the limited Hawai'i Energy staff, the activities above are not a small investment. While the vast majority of the joint work together has created opportunities to leverage resources and improve outcomes for customers, this isn't always the case given the vast size of the Companies and the numerous initiatives that are rolled out. An example of a missed opportunity launched by the Companies is the "Project Footprint" campaign. According to the Companies' website, Project Footprint "is a way for Hawai'i to come together and make conscious choices about how we use energy.... Our goal is to empower you with the knowledge and energy options you need to reduce your carbon footprint." The motto of the initiative is "'A'OHE HANA NUI KE ALU 'I'A - No task is too big when done together by all". The campaign suggests 4 actions for customers to take and rewards them along the way for taking the actions: paperless billing, automatic bill payment, residential solar and electric vehicles. Energy efficiency and conservation is absent, which is not the ideal messaging for ratepayers given efficiency is the most cost-effective option to reduce their bill.

Leidos does not view the omission as intentional, but rather offers this example to illustrate that the size of the Companies' staff and breadth of their programs is already a challenge. This does not mean that the Companies or the Hawai'i Energy program should not be pursuing activities that can cause overlap, but recognizes the need for coordination and collaboration must be prioritized by both organizations. This example also highlights that overlap can be an opportunity rather than liability. Had the program been rolled out with Hawai'i Energy support, resources could have been optimized and messaging could be more aligned.

The Companies have expressed the need for a more extensive and robust process with active engagement with the Commission in the comments filed. First, Leidos welcomes Commission engagement as suggested by the Companies. Second, Leidos recommends the existing collaboration framework should be reviewed and modified to address the growing areas of overlap rather than developing a more extensive and robust process. Leidos recommends the framework also be modified to encourage the Companies to present collaborative opportunities to maximize ratepayer value, especially in the areas of non-wires alternatives and where there are temporal or locational benefits for energy-efficiency or grid services ready offerings.

Given the Hawai'i Energy program representatives, the Companies, and the Commission have spent significant time developing this framework, and since the PBFA is quite different than other parties engaging with the Companies, it may be necessary to revisit the amount of Hawai'i Energy program resources involved in the numerous IGP meetings and working groups. Perhaps more focused discussions on specific program initiatives with participation by executives of the Companies on a more frequent basis would be more effective. While Leidos is open to improving coordination and collaboration, investing more time and resources should only occur once the time and resources currently being invested are maximized and made more efficient.

As in years past, the Plan is a framework and Leidos will continue to modify offerings as needed. It is important to highlight there are areas that will continue to have some degree of overlap. For example, the CA highlights that the Companies have key account managers and Hawai'i Energy has energy advisors. The reality is that this relationship has been working very well and resources are being maximized. Both groups are subject matter experts in their core areas while providing customers the best information available. National research as well as local market research has shown customers utilize different sources of information to make decisions and often need to compare the information they received before making a decision. Therefore, the alignment of the messaging is the more important area to focus on, rather than avoiding overlap, because it can improve the customer decision making process when groups or activities work well together.

#### **E. EEPS**

Leidos recognizes that the Hawai'i Energy program is one of the primary vehicles to help the State of Hawai'i achieve EEPS. To that end, the program's responsibility is focused on the actions and efficiency upgrades needed in order to achieve EEPS. The evaluation, measurement and verification of the Hawai'i Energy program's contribution to achieving EEPS is managed on an annual basis by the Energy Efficiency Manager ("EEM"), EM&V contractor and the PUC. Leidos is actively engaged in providing the necessary data for this third-party evaluation, but the comprehensive analysis is outside of the Program's purview. Additionally, Leidos will adjust plans as necessary to incorporate any required modifications these activities identify.

## **F. SURCHARGE DESIGN**

The surcharge design is outside of Leidos' and the Hawai'i Energy program's scope. Leidos will continue to offer comments and feedback around proposed surcharge designs. The Companies have put forward an alternative design aimed to address some of the issues raised by the CA. From the Hawai'i Energy program perspective, some form of volumetric rate is needed so that the largest energy users have an incentive to participate as well as contribute a larger proportion to the PBF. Leidos also recognizes that the surcharge can have an adverse impact on the ALICE population and other hard to reach markets and has done its best to address this impact through increased investment in the Affordability and Accessibility programs.

## **G. AVAILABILITY OF NATIVE FILES**

Leidos appreciates the CA's desire to have the native files that support the tables contained within the plan. Given the competitive nature of the Public Benefits Fee Administrator contract, Leidos has concerns about providing this information publicly. Leidos provides this information to the Commission and recommends the request for the files goes to the Commission for determination on what information should be made publicly available to the CA.

## **H. UPDATED AVOIDED COSTS**

Leidos will continue to support the need to regularly update avoided cost estimates and operates under the direction of the EEM and the Commission. Leidos has been involved in many discussions relating to the update over the last two years and recognizes it is a difficult value to pin down based on the dynamic nature of the grid and the information currently available to the EEM and the Commission. The EEM has presented its recommendation and it has been approved by the Commission. These new avoided cost values will be incorporated by Leidos into the Plan.

## **I. NEED FOR FURTHER EVOLUTION OF EE EFFORTS**

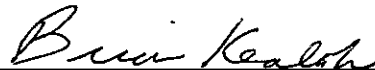
Leidos has presented a Triennial Plan that has significantly evolved the offerings to address both policy changes and an evolving grid. Additionally, many of the approaches Leidos is pursuing in the delivery of the energy efficiency components of the plan have evolved substantially from the program's origination and will continue to evolve in this Plan.

Financing continues to be a significant barrier around the adoption of energy efficiency and other clean energy technologies. This is one of the reasons we are expanding our efforts to reduce some of the barriers around accessing financing (i.e. understanding of options, cost of capital, split-incentive issues, interest rates, creditworthiness, etc.). Leidos research around best practices in this area predominantly found programs

were partnering with industry to offer solutions. Hawai'i Energy is looking at options like efficiency as a service, interest rate buy-downs, and other mechanisms to reduce barriers without actually providing the financing and taking on significant ratepayer risk by acting as a source of capital.

Leidos continues to explore additional opportunities with GEMS given the on-bill repayment. Leidos recently hosted GEMS in a financing lunch and learn event, along with other financing options, to provide customers information about a number of ways to take action. It is currently difficult to pursue the loan option as suggested by the CA, as many of the measures are not financially attractive. With the significant reduction in lighting, the majority of other measures, when combined with the cost of financing, do not produce enough cash flow and ROI to contemplate having a portion of the rebate funds be returned to the PBF.

Leidos is exploring ways to further leverage PBF funds and will share the results of some of those efforts in the future. The 3 year program horizon has allowed for greater possibilities, which is very positive.



---

Brian Kealoha  
Executive Director  
Hawai'i Energy - Public Benefits Fee Administrator)  
Leidos Inc.



# **TRIENNIAL PLAN – Addendum July 12, 2019**

Hawai'i Energy

Program Years 2019 – 2021

**The following tables include modified text for the Hawai'i Energy Triennial Plan submitted May 1, 2019. These modifications are submitted in response to the Division of Consumer Advocacy's Comments Regarding Hawaii Energy's Program Year 2019-2021 Triennial Plan, filed May 31, 2019, and are intended to supersede the original document text.**

<p>CA Comment May 31, 2019 Pgs. 8 – 9</p>	<p>The Consumer Advocate has long pushed for greater collaboration between HE and the Hawaiian Electric Companies to ensure the most cost-effective and complementary measures (to alleviate technical issues on both the grid and circuit levels) are pursued and towards that end, develop a forecast that outlines the anticipated impact of proposed measures towards meeting the EEPS. The recommended collaboration and coordination is necessary to facilitate Hawaii Energy's and the Hawaiian Electric Companies' efforts to develop plans that are complementary instead of counterproductive. The need for this collaboration is emphasized with many of the stated program initiatives that are being proposed. In its Triennial Plan, HE has proposed many initiatives that appear to be either duplicative of activities that the Hawaiian Electric Companies already engage in and, if not properly coordinated, the Consumer Advocate is concerned that the funds collected for the PBF as well as the funds collected through utility rates will not be used in the most optimal manner. HE has proposed to: offer energy advisory services (which could overlap with advisory and client services already offered by the Hawaiian Electric Companies through its customers service representatives and client managers;) install meters and monitor (which could overlap with the Grid Modernization Strategy approved by the Commission for the Hawaiian Electric Companies in Docket No. 2017-0226); and provide demand response support (which might cannibalize or otherwise be duplicative of demand response efforts ongoing through the program authorized in Docket No. 2015-0412,) to name a few examples.</p>
<p>REVISED HE Triennial Plan July 12, 2019 Pgs. 21-22</p>	<p><b><i>Grid Support Services</i></b></p> <p>a) <b>Metering and Monitoring:</b> One major barrier identified in the installation or deployment of grid service technologies is the present lack of customer interval data, both at the main meter and for key energy using equipment, which is necessary to design solutions. To alleviate this market barrier, Hawai'i Energy will increase its metering and monitoring support for customers in order to provide them access to more granular energy usage data. The Hawai'i Energy Program will also benefit by having increased data for program design, marketing and implementation. As such, we have doubled the metering budgets in both the residential and business portfolios. We also anticipate an expansion in the number of incentives given over the three year program cycle, as IGP progresses.</p>

	<p>Where possible, Hawai'i Energy will leverage existing smart metering deployed by the serving utility. In most instances where this isn't available, or when the timeline for installation is unclear or beyond the current triennial period, Hawai'i Energy will utilize monitoring and metering to obtain data at the meter or sub-meter level. Hawai'i Energy will also utilize monitoring that is deployed at a specific end-use (i.e. chiller plant). To ensure the work is not duplicative, Hawai'i Energy will work with the utilities to better understand the rollout of smart meters in terms of timing, location, and ability to easily access the data. The ability for customers, as well as Hawai'i Energy and contractors to access this data is extremely important for project purposes. Any data sharing will require consent from the customer.</p> <p>Hawai'i Energy has engaged with a number of business customers through benchmarking and data analytics efforts over the last five years. We will continue to provide customer-focused data analytics services and energy insights to support clean energy choices and drive customer action. We will expand benchmarking and energy optimization services for connected devices to enhance locational and temporal energy savings to support grid needs. We will also leverage detailed energy use data to inform targeted technologies for customer and grid benefit. Hawai'i Energy will not deploy metering or monitoring equipment for off-grid systems or if the customer's or contractor's reason for obtaining this data is to disconnect from the grid.</p> <p>With the expansion of the Strategic Energy Management program, utilization of metering and monitoring to provide benchmarking and goal setting will be important. This will also allow for better management and project identification, as well as tracking success.</p> <p>The Program will also continue to partner with local organizations to support the sharing and analysis of energy data in order to help inform policy and project implementation. This could also be a critical resource should benchmarking legislation gain further momentum in the later years of the triennial plan.</p>
<p>REVISED HE Triennial Plan July 12, 2019 Pgs. 22 - 23</p>	<p><b><i>Grid Support Incentive Offers</i></b></p> <p><b>a) Demand Response Support:</b> In response to the ever-changing needs of the electric grid, Hawai'i Energy is committed to preparing and empowering customers to be ready to participate in grid service programs as they become available from the utility or through third-party aggregators. Currently, the Hawaiian Electric Companies are in</p>

the process of rolling out new Demand Response (DR) programs as well as finishing the competitive bidding process for Grid Services Utilizing Demand-Side Resources. Hawai'i Energy is committed to providing foundational incentives to promote grid service capable technologies that can be installed today, so that they are advanced enough to adapt to future utility programs and optimize customer savings while minimizing negative impacts to the grid. We are actively supporting Hawaiian Electric's Integrated Grid Planning (IGP) efforts as well as meeting regularly with the Demand Response Team, and will continue to evolve offerings to align with this process.

Key areas that the program currently sees as supporting future grid needs are technologies and devices that have grid service capabilities. The following are examples of traditional technologies that would be appropriate for such delivery:

- **Smart thermostat** technologies that provide both energy efficiency and enable demand response participation for small commercial businesses.
- **HVAC controls** that provide both energy efficiency and enable demand response participation for medium and large commercial businesses.
- **Energy management and control systems** that provide cutting-edge building energy management in relation to grid needs.

It is important that programs help prepare customers for future programs offered by the utility, particularly when customers are making purchasing decisions on equipment with a long lifetime that can run 10 to 20 years. Incentive stacking can jumpstart adoption of these technologies. Added incentives in this area would not necessarily be tied to a traditional reduction of kWh usage, but rather focused on enabling customers to participate in grid services programs with the opportunity to reduce their billing demand charges and be incentivized to reduce utility peak load.

Hawai'i Energy has been following the DR docket and has had a number of conversations with the utility's DR team. In the current model being pursued by the utility, incentivizing technologies that aggregators can utilize is a viable resource if the programs can enable at the time customers are making purchasing decisions on energy efficient equipment.

**b) Customer-Sited Energy Storage Systems:**

In addition to more traditional technologies that enable demand response capabilities to buildings and systems, battery energy storage systems (BESS) have been identified to provide numerous benefit streams (of which demand response is one), all of which are not currently captured by existing utility program offerings. Without an economic price signal, there is no value proposition for customers to control their load to be "grid-friendly" and until there is so, incentives can be a powerful motivator to shift customer load and flatten the system duck curve. Said incentives are also meant to pass on to customers system benefits that peak demand reduction achieves such as increased hosting capacity on the circuit level, T&D upgrade deferrals, etc.. BESS can help address short-term issues with temporal values of energy efficiency and better position customers to adjust their load profile in preparation for the application of Time-of-Use rates We will also include kW focused incentives for thermal energy storage systems to encourage daytime load while reducing evening cooling loads. These may be ice or chilled water HVAC system focused.

In recognition of the complexity of capturing all revenue streams and maximizing utility of energy storage devices by the customer to reduce energy bills as well as participate in grid services, Hawai'i Energy will work to choose participants based on grid/geographic considerations, as well. The locational value of these technologies can offer non-wire alternatives to reduce the overall cost to ratepayers. Additionally, there exists opportunity to focus on deployment of battery storage with a resiliency aspect for essential government and private sector facilities where resiliency is critical; including the opportunity to provide grid services during non-emergency events. A pilot approach will first be taken to assess infrastructure needs for program deployment as well as the opportunity to do benefit-cost analysis of residential and commercial energy storage.

Hawai'i Energy will continue to work with interested stakeholders (customers, the Utility, government, the Commission and others) as the details of the programs are developed. Customer-sited energy storage systems continue to come up within community conversations around increased resiliency and within the Integrated Grid Planning process.

REVISED  
HE Triennial Plan  
July 12, 2019  
Pgs. 30-31

#### **D. Grid Service-Ready Support**

Hawai'i Energy is committed to providing foundational incentives to promote grid service capable technologies that can be installed today, so that they are advanced enough to adapt to future utility programs and optimize customer savings while minimizing negative impact to the grid. It is important that these programs help prepare customers for future programs offered by the utility, particularly when customers are making purchasing decisions on equipment with a long lifetime that can run 10 to 20 years. Incentive stacking can jumpstart adoption of these technologies. Added incentives in this area may not necessarily be tied to a traditional reduction of kWh usage, but rather focused on enabling customers to participate in grid services programs with the opportunity to reduce their demand. Hawai'i Energy can also align programs with grid/geographic considerations. The locational value of these technologies can offer non-wire alternatives that can reduce the overall cost to ratepayers. Deployment can be ramped around specific locational grid needs based on direction from the utility or the PUC.

#### ***Demand Response***

The Program will develop targeted initiatives to increase the penetration of efficient equipment and smart devices to provide customer benefits and support grid services. Initiatives identified for promotion in PY19-21 include:

- **Smart thermostat** technologies that provide both energy efficiency and enable demand response participation for homes.
- **Support Energy Monitors and Smart Devices:** One major barrier identified in the installation or deployment of grid service technologies is the present lack of customer interval data, both at the main meter and certain key energy-using equipment which is necessary to design solutions. To alleviate this market barrier, Hawai'i Energy will increase its metering and monitoring support launched in PY18 for customers in order to provide them access to more granular energy usage data down to the equipment level, beyond what a smart meter installed by the utility can provide. The Hawai'i Energy Program will also benefit by having increased data for program design, marketing and implementation.

	<ul style="list-style-type: none"> <li>• <b>Grid-Interactive Water Heaters:</b> Hawai'i Energy will also continue to support targeted grid-interactive water heaters installations. The overall water heating strategy will be implemented in collaboration with utility demand response initiatives to ensure alignment with grid service objectives.</li> <li>• <b>Heat Pump Water Heaters (HPWH):</b> The Program will accelerate heat pump water heater incentives with added bonuses for controls. Water heating is the largest electrical load in residential homes in Hawai'i. For homes that are not viable candidates for solar water heating – or that have existing PV systems – heat pump water heaters are a cost-effective and proven solution for the replacement of demand-intensive standard electric water heaters.</li> </ul> <p>Hawai'i Energy has been working with HECO on grid-interactive water heating applications for several years now. Hawai'i Energy anticipates one of the selected aggregators would focus on this end-use. Should that occur, Hawai'i Energy intends to work with the aggregator(s) to provide continued assistance for deployment. The other technologies represent additional opportunities, particularly if integrated with GIWH, but still offer value if load is available for aggregators in the future.</p>
<p>REVISED HE Triennial Plan July 12, 2019 Pg. 31</p>	<p><b><i>Customer-Sited Energy Storage Systems</i></b></p> <p>Deployment of grid-connected battery energy storage systems (BESS) can provide immediate DR value, while also driving peak demand reductions. BESS can help address short-term issues with temporal values of energy efficiency and better position customers to adjust their load profile in preparation for the application of Time-of-Use rates.</p> <p>For PY19-21, Hawai'i Energy will design programs to incentivize early adopters to change energy consumption behavior to be more grid friendly during utility peak hours. Program rules are under development and we are leveraging input from national partner organizations to align with storage incentive programs being implemented within other energy efficiency programs (eg. Massachusetts, SMUD, NV Energy). We anticipate these initiatives will draw upon the "nudge unit" resources of behavioral science techniques to position and test approaches that navigate known challenges in the role of customer choice, perspective, and support and concerns for programs and rate options.</p>

	<p>As the BESS market expands and more locational data becomes available, we anticipate ongoing evolution of the incentive structure. We will actively engage with industry stakeholders to ensure that the program design is properly aligned with changing customer and grid needs.</p> <p>As with the commercial programs, Hawai'i Energy will continue to work with interested stakeholders as the details of the programs are developed. Customer-sited energy storage systems currently are not a focus of the utility, however the need for increased resiliency has been discussed throughout the community and within the Integrated Grid Planning process. There may be opportunities to pair storage incentives with smart inverter upgrades for legacy systems.</p>
--	---



<p><b>CA Comment</b>  <b>May 31, 2019</b>  <b>Pg. 10</b></p>	<p><b>Home Energy Report program. The Consumer Advocate continues to receive anecdotal comments regarding customers' responses to this program and believes that greater scrutiny may still be warranted to ensure and validate that the Home Energy Report program is a cost-effective option. The Consumer Advocate remains skeptical of the efficacy of peer comparisons on reducing energy use.</b></p>
<p>REVISED  HE Triennial Plan  July 12, 2019  Pg. 29</p>	<p><b><i>Behavior Engagement</i></b></p> <p>a) <b>Increased Awareness and Adoption of Clean Energy Technologies:</b> Hawai'i Energy will leverage our existing energy behavior engagement platform and home energy reports to support awareness and adoption of clean energy technologies (EVs, PV + storage and high efficiency technologies).</p> <p>Home Energy Reports remain one of the largest behavioral programs in the country. Recent research by E Source shows home energy report programs return an average of about 1% to 2.5% annual energy savings per customer. And those savings are borne out over a decade of reports.<sup>1</sup> Additionally, the Home Energy Reports remain a critical part of raising Hawai'i Energy's brand awareness for the 230,000 recipients.</p> <p>As Hawai'i Energy enters its 8th year of utilizing Home Energy Reports to promote energy savings through behavior change, we are working closely with the PUC, Energy Efficiency Manager (EEM), and EM&amp;V contractor to implement a work plan for evaluating the impacts of the Peer program using a stoppage treatment group. These findings will be utilized in future program year savings assessments and program design in order to further evaluate cost effectiveness.</p> <p>b) <b>Tailored and Effective Energy Technology Messaging:</b> Using the reach, experimental design structure, and data-driven capabilities of the program, the ability to target, tailor, and test the effectiveness of energy-transition technology messaging can be more swiftly, flexibly, and cost-effectively conducted with confidence.</p>

<sup>1</sup> <https://www.utilitydive.com/news/home-energy-reports-still-the-biggest-baddest-way-to-drive-customer-beh/558166/>

<p><b>CA Comment</b>  <b>May 31, 2019</b>  <b>Pg. 5</b></p>	<p><b>The Consumer Advocate continues to urge that the provision of historical data on customer uptake would help to provide insight on how efforts going forward should be shaped and/or designed to better serve the HTR customer base.</b></p>
<p>REVISED  HE Triennial Plan  July 12, 2019  Pg. 35</p>	<p><b>C. Track Data and Demographics</b></p> <p><b><i>Demographic Data for Program Evaluation:</i></b> Each year customer participation data for transformational efforts including, but not limited to, sign-in sheets, location, program evaluations and surveys, are collected and submitted as part of the EM&amp;V review process. In the PY19-21 Triennial, Hawai'i Energy will collect, to the degree possible, additional participant demographic data on program participation to evaluate program impact, level of service and design of programs. The Program has been working with a number of community organizations to identify how best to summarize the characteristics of those served while still protecting sensitive or private information. Additionally, the Program will build on mapping efforts to geographies with low participation while also overlaying census data to further assist with characterization.</p> <p><b><i>Energy- and Non-Energy Metrics to Inform Effective HTR Programming:</i></b> We will assess energy and non-energy program metrics that best achieve desired outcomes for low-income and HTR customers through Hawai'i Energy clean energy program services.</p> <p><b><i>Systems Mapping of Low-Income and HTR Service Agencies:</i></b> We will also utilize data to inform systems mapping of the high-performing community action groups and service providers to low-income and HTR communities.</p>

<p>CA Comment May 31, 2019 Pg. 5</p>	<p>The Consumer Advocate makes an initial observation that modifications to the annual plan may be necessary as it appears that there may be some sections in accessibility and affordability that are misplaced. On Page 36, HE discusses sections E. Energy Advantage Expansion and F. ENERGY STAR® Commercial Kitchen Equipment under Section 2.2 Accessibility and Affordability. It appears that Sections E and F should be relocated to HE’s discussion of commercial measures.</p>
<p>REVISED HE Triennial Plan July 12, 2019 Pg. 36</p>	<p>The following business Accessibility and Affordability programs are designed to overcome historically underserved commercial markets. The Program has found that without significant intervention, small businesses and restaurants remain limited in their participation in traditional energy efficiency program offerings. Barriers include limited time and staff resources, difficulty accessing to capital, landlord tenant split incentives, long run hours and language barriers. Direct installation through local contractors with enhanced incentives has proven</p> <p><b>E. Energy Advantage Expansion</b></p> <p>Since 2011, the <i>Energy Advantage</i> (formally Small Business Direct Install) program has been addressing some of the key barriers to participation in underserved communities within the commercial sector. Enhanced rebates from traditional commercial program offerings, development of a specific contractor base that understands the target customers, and providing a relatively turnkey solution through direct installation of energy efficient equipment are all offered through the Energy Advantage program. The Energy Advantage program will continue to deepen its influence by engaging more hard-to-reach small businesses, restaurants, and qualified multifamily properties for LED lighting retrofits, while expanding to provide other energy saving measures, such as HVAC upgrades, through the program as well. Investments will be made to expand functionality in the Leidos AMPLIFY tool utilized by contractors for audits, approvals, invoicing and project document submittals. Streamlining the rebate application process while adding functionality for HVAC equipment, the Energy Advantage team will continue to grow the number of participating contractors and train them on the tools necessary to drive deeper energy savings within Hawai‘i’s hard-to-reach businesses.</p>

**F. ENERGY STAR® Commercial Kitchen Equipment**

Restaurants are extremely energy intensive, using about 5 to 7 times more energy per square foot than other commercial buildings, such as office buildings and retail stores. High-volume, quick service restaurants may even use up to 10 times more energy per square foot than other commercial buildings. Restaurant operators and commercial or institutional kitchens can save energy and money annually and over the equipment lifetime by choosing ENERGY STAR® certified models, but they are often hesitant to do so. Commercial kitchens are operational throughout most of the day and those working in the kitchen are often unaware how their behavior can impact energy usage. Incentivizing higher efficiency equipment can help to reduce a portion of this energy intensity.

To meet ENERGY STAR's stringent requirements for energy efficiency, manufacturers use high-quality components and innovative technologies that often lead to other benefits such as shorter cook times, improved recovery times, higher production rates, and longer product lifetimes. Hawai'i Energy will continue to provide incentives for ENERGY STAR's seven commercial food services equipment categories, including: fryers, griddles, hot food holding cabinets, ice makers, ovens, refrigerators and freezers, and steam cookers.

<p>CA Comment May 31, 2019 Pg. 12</p>	<p>While HE discusses the intent to rely more on data, the Consumer Advocate believes that it may be appropriate to discuss the possibility of developing a uniform and open data platform for customers that would allow customers to access relevant energy data from energy stakeholders that currently possess that data, whether it is a utility company, a PBFA, or third party services.</p> <p>Greater attention should also be provided to the customer privacy issues and whether current processes are modified to ensure that customers are aware of what kind of data is being collected, their rights to access that data, as well as who, such as the PBFA and third-party services, that may be given access to such information.</p>
<p>REVISED HE Triennial Plan July 12, 2019 Pg. 41</p>	<p><b>A. Ongoing Strategic Program Design</b></p> <p><b><i>Data-Driven Strategic Alignment of Goals, Market Trends and Desired Outcomes</i></b></p> <p>Strategic planning efforts will align immediate IDSM core program initiatives with interim goals and long-term policy objectives and outcomes. Effective data-informed strategic plans allow for stable commitment in markets to increase stakeholder confidence, engagement, investment, and widespread adoption of products and practices that are crucial to the transformation of Hawai'i's energy and transportation system.</p> <p><b><i>Individual &amp; Group Stakeholder Feedback to Inform Program Effectiveness</i></b></p> <p>Hawai'i Energy program strategy will assess existing and new programs within the framework of the identified triennial goals and objectives, as well as support strong customer, trade ally and external stakeholder input through individual and cohort-style listening sessions.</p> <p><b><i>Continuous PUC and Energy Efficiency Manager (EEM) Team Input</i></b></p> <p>To ensure alignment with other policy objectives and docket proceedings, Hawai'i Energy will engage with the PUC and the EEM team – consisting of 2050 Partners and the associated EM&amp;V contractor – throughout the triennial program period. These engagements will allow for additional input around all areas of the program, particularly, with the newer initiatives laid out in this plan. In the areas where the program offering has inherent complexity in either</p>

	<p>the implementation or performance evaluation, or is likely to intersect significantly with other dockets, Hawai'i Energy will actively seek input from this team. Beyond alignment, the intent of this ongoing collaboration is to provide opportunities for input on program design and evaluation metrics that can easily scale up for broader implementation in future years.</p> <p>Access to data remains a critical part of these ongoing discussions, especially in regards to critical needs for proper program design, implementation and evaluation, as well as customer data privacy.</p>
--	---

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing **RESPONSE OF HAWAI'I ENERGY AS THE PUBLIC BENEFITS FEE ADMINISTRATOR TO DIVISION OF CONSUMER ADVOCACY'S COMMENTS FILED MAY 31, 2019 REGARDING HAWAI'I ENERGY'S TRIENNIAL PLAN PROGRAM YEAR 19-21 AND FILING OF SUPPLEMENTAL ADDENDUM**, will be duly served upon each of the following parties by U.S. mail, postage prepaid.

DEAN NISHINA  
EXECUTIVE DIRECTOR  
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS  
DIVISION OF CONSUMER ADVOCACY  
P.O. Box 541  
Honolulu, Hawaii 96809

DEAN K. MATSUURA  
MANAGER – REGULATORY RATE PROCEEDINGS  
HAWAIIAN ELECTRIC COMPANY, INC.  
P.O. Box 2750  
Honolulu, Hawaii 96840-0001

RICK REED  
EXECUTIVE DIRECTOR  
HAWAII SOLAR ENERGY ASSOCIATION  
PO BOX 37070  
Honolulu, Hawaii 96821

HENRY Q. CURTIS  
VICE PRESIDENT FOR CONSUMER ISSUES  
LIFE OF THE LAND  
P.O. Box 37158  
Honolulu, Hawaii 96837

CARL FREEDMAN  
HAIKU DESIGN & ANALYSIS  
4234 Hana Highway  
Haiku, Hawaii 96708

YVETTE MASKREY  
DISTRICT MANAGER  
HONEYWELL INTERNATIONAL, INC.  
220 S. King Street, Suite 1460  
Honolulu, Hawaii 96813

DATED: Honolulu, Hawaii, July 12, 2019

  
\_\_\_\_\_