



COVID RECOVERY & RESILIENCE PLAN



Hawai'i Energy

AUGUST 14, 2020

PHOTO COURTESY:
SHERATON WAIKIKI

Table of Contents

Executive Summary	1
Clean Energy Technologies	3
Residential Programs	3
Commercial Programs.....	3
Accessibility & Affordability	4
Residential and Commercial Programs	4
Market Transformation & Economic Development	6
Residential and Commercial Programs	6
Energy Optimization Initiatives	7
Expansion of Residential Energy Storage Pilot.....	8
Commercial Energy Storage Pilot.....	8
PV System Maintenance	9
Commercial Financing	9
Strategic Advisory Board	10
Revised Budget and Savings	10
PY20 Revised Budget Summary	10
Summary of Modifications:	13
Residential CET.....	13
Residential A&A	13
Commercial CET	13
Commercial A&A.....	14
Appendices: Program Designs	14
Appendices: Hawai'i Public Utilities Commission letter, March 30, 2020	15

Executive Summary

In early 2020, the COVID-19 pandemic made its mark on the world in unprecedented ways – crumbling economies, halting travel, and isolating people in their homes – essentially changing the way we live, work and play. As a result, millions of people became unemployed when businesses were forced to suddenly shutter. The national unemployment rate reached 14.7% in April, with Hawai'i ranking the third highest at 22.3%.¹ The U.S. clean energy industry also suffered, losing nearly 600,000 jobs in March and April.² The energy efficiency sector was hit the hardest, seeing a nationwide decrease of 413,500 jobs³ – 1,930 of those in Hawai'i⁴ – over the two months.

As many residents experienced reduced incomes, they also faced rising costs. The statewide quarantine orders created a situation where people had to cook, work, learn and entertain themselves at home – electricity-dependent activities that would lead to higher utility bills. According to Hawaiian Electric, the average residential bill increased 17% over the same period last year.⁵ While shutoffs have been delayed, at some point residents will have to address their increasing energy bills.

CRISIS RESPONSE (MARCH-MAY 2020)

When the pandemic began to take shape in the islands, Hawai'i Energy (the "Program") immediately followed both government and corporate mandates, adjusting its operations to adhere to the new health and safety protocols.

With non-sales energy efficiency workers being deemed essential, the Program extended and increased existing rebates to promote efficiency measures. It also stepped up to provide resources, information and education to help businesses and residents better manage their energy use and lower their electricity bills.

As outlined in the Triennial Plan, Hawai'i Energy directed much of its efforts towards serving low-income and hard-to-reach customers through its newly created Accessibility and Affordability (A&A) program. While the A&A team intended to use PY19 to build its foundation and create a network of strategic partnerships, the COVID-19 situation escalated the urgency, as more residents faced financial hardships. A&A efforts included the acquisition and distribution of 2,100 free Home Energy Kits to underserved communities through meal/food sites across O'ahu, Molokai, Hawai'i Island, and Maui, as well as a partnership with the nonprofit Vibrant Hawai'i to conduct a free online home energy-saving workshop for Hawai'i Island residents.

In April 2020, Hawai'i Energy surveyed its Clean Energy Allies (CEAs) – a network of contractors, equipment vendors, architects, engineers, distributors, manufacturers and retailers that provide energy-efficient products and services.

CEA SURVEY RESULTS

- 95% were still operating
- 93% saw project delays
- 87% saw a decrease in sales
- 50% were forced to downsize

LOOKING AHEAD (JUNE 2020+)

As the state and counties transition to phased reopenings of industries, businesses and activities, Hawai'i Energy is poised to provide resources to support new customer needs. While the Program will continue to promote energy efficiency and push to meet the state's Energy Efficiency Portfolio Standards (EEPS) 2030 goal, we are stepping up and modifying efforts in several areas. The following programs and activities are designed to reach the Program's goals but also keep nimble to adjust to changing times:

1. [Fortune. A state-by-state breakdown of unemployment in the U.S., according to the latest figures \(May 22, 2020\)](#)

2. [BW Research Partnership. Clean Energy Employment Initial Impacts from the COVID-19 Economic Crisis \(April 2020\)](#), 1.

3. [Ibid.](#), 2.

4. [Ibid.](#), 14-15.

5. [Hawaiian Electric. May electric bill higher? Here's why \(June 5, 2020\)](#)

Clean Energy Technologies (CET) – Our Business team is focused on helping commercial customers expand their project pipelines through increased incentives, grant funding, and diversification of technologies that promote health and resilience, such as improved indoor air quality. The Residential team is concentrating on providing enhanced incentives, increasing promotions, and accurately messaging to residents.

Accessibility and Affordability (A&A) – With this sector growing due to more communities affected by COVID-19, the A&A team will accelerate its outreach and expand its definition to include new markets, while also prioritizing key partnerships. Significant increases in incentives are planned, and in some cases, equipment cost may be fully subsidized.

Market Transformation and Economic Development (MTED) – In support of the CET and A&A programs, MTED will continue to coordinate professional development workshops and trainings designed to boost knowledge, increase engagement, and promote incentives. It will tailor these offerings to meet emerging interests and customer needs. Additionally, the Program will increase its support of Clean Energy Allies through more co-advertising support, new programs that bring CEAs and customers together virtually, and a new CEA grant program.

Energy Optimization Initiatives (EOI) – Hawai'i Energy will continue to pursue a commercial energy storage pilot and start a residential photovoltaic system maintenance program to ensure proper renewable generation production. The Program is evaluating modifications to its residential energy storage pilot as well.

Project Financing and Grant Funding – With businesses experiencing reduced capital budgets, the Program will explore opportunities and partnerships to enhance project financing and establish a grant program for qualified customers who need gap funding to help cover their efficiency project costs.

Strategic Advisory Board – As identified in its Triennial Plan, the Program will move forward with assembling an Advisory Board – focusing on recruiting leaders from various industries who can lend their expertise and guidance and also serve as energy efficiency ambassadors.

Budget – In anticipation of a decline in Public Benefits Fee collections due to the COVID-19 economic fallout, Hawai'i Energy is proposing to reduce the PY20 budget by \$3.7 million by maintaining the PY19 budget. The Program will utilize any unspent funding from PY19 in PY20 or PY21. June program activity is not yet reflected in rollover estimates.

Savings – With the increased incentives in place during these challenging times, the Program will realize less kWh per dollar spent. At a Program level, there is a 13% reduction in cost effectiveness. Estimated savings are now 94 million in first-year kWh, down from 101 million in the Triennial Plan.

SUMMARY

Before COVID-19, energy efficiency was already a tough sell in the clean energy movement, outshined by the flashy promises of renewable energy and often overlooked in climate change conversations. As the world settles into a “new normal,” it will be critical for the Program to remain fluid to meet ever-changing and unknown circumstances, protocols and needs. Hawai'i Energy's COVID Recovery Plan provides a pathway for the Program to support the state's economic recovery and resiliency efforts while holding steady in its goal to meet the state's EEPS mandate by 2030.

Clean Energy Technologies

Residential Programs

As residents continue to grapple with unemployment or reduced income, it is hard to predict what amount of program participation Hawai'i Energy can expect in PY20.

At the time of the stay-at-home (SAH) order, residential activity dropped significantly with electronic and appliance dealers shutting down. With retailers remaining a big part of CET goal attainment, their recovery is critical in order to achieve goals.

Through it all, Hawai'i Energy has kept close contact with relevant and important stakeholders to ensure the Program remains flexible and resilient during these uncertain times. The Program has been closely tracking customer applications through retail channels. The past six weeks indicate a drop off in foot traffic and hesitancy to engage in appliance upgrades. As the retail industry starts to reopen, the Program is hearing from the field that traffic is still down about 30-40% prior to the shutdown.

Hawai'i Energy has already launched a number of increased incentives to spur market activity and will continue these incentives into PY20. Short-term promotions have proven effective at stimulating activity in the energy efficiency (EE) space, and the Program is looking to spur customer engagement and purchasing throughout the summer.

Additionally, in an effort to stimulate economic activity and business for our valued CEAs, it has coupled its increased incentives with targeted marketing efforts aimed to drive business their way. With an increased need for comfort during the hot summer months, combined with the urgency for improved air quality, the Program hopes to not only save customers money, but also improve their well-being and quality of life while at home.

The Program has extended offerings for customized energy efficiency kits and added air purifier to its online store as more people are shopping online. It will continue to modify messaging in its Home Energy Reports with relevant COVID-19 sensitive communications.

All of the purposed activities for commercial and residential CET fit into the current Triennial Plan. Similar to the other areas outlined herein, the cost to obtain first-year and lifetime savings will increase.

Commercial Programs

During normal circumstances, the project cycle for commercial projects range between six months to multiple years, depending on the complexity, data logging, and sales efforts required to bring a project from concept to completion. As PY19 draws to a close, commercial project activity has continued on projects that had already been contracted and were in various phases of construction. The Program expects to see this continue through the first quarter of PY20 as additional projects that commenced prior to the SAH order are completed.

Based on the limited new project activity during the SAH period, there remains significant uncertainty about new projects which could have a major impact in PY20 and PY21. It appears that new projects

coming through tend to be smaller in scope and savings, mainly driven by the Program's Energy Advantage initiative where rebate levels are greater.

Therefore, **pipeline and backlog development** will be a major focus for Hawai'i Energy and its programming. It will focus on **increasing and diversifying** the following activities to grow the pipeline:

- Incentives
- Re/Retro-commissioning & Energy Audits
- Targeted technology pushes/increased incentives
 - HVAC indoor air quality/health
 - Grocery & cold storage refrigeration systems
 - Hotel guest room thermostats
 - Booster pumps
 - Transformers
- Clean Energy Ally support
 - CEA bonuses, access to grant funding, and increased cooperative advertising
- Strategic Energy Management grants
- Financing

Accessibility & Affordability

Residential and Commercial Programs

As part of the Triennial Plan, Accessibility & Affordability (A&A) was developed as one of three core areas, focusing on providing critical assistance to low-income households, small businesses, and other hard-to-reach customer segments throughout Hawai'i. As anticipated, this first program year was challenging with much work needed to identify the various target sectors and effective ways to deliver the right package of incentive measures and educational programs to these tight-knit communities that often lack the time, staffing capacity, knowledge and financial ability to implement energy efficiency at their facilities. However, the team laid critical groundwork for program design and deployment by creating the necessary outreach and relationships with key community groups, leaders and service agencies throughout the state that can provide effective inroads to our target audiences by opening doors to previously unreachable communities. While it can leverage some of the foundational work in PY20, it still will be very challenging as ALICE® (Asset Limited, Income Constrained, Employed) families and small businesses are focused on survival rather than energy.

Hawai'i Energy has developed new programming in the hopes of making a bigger impact in PY20. Here are a few of its immediate and longer-term programs to assist low-income and hard-to-reach communities in the PY20 period:

- Expanded A&A definitions to include new market sectors impacted by COVID-19 and for nonprofits providing services to the community to receive elevated, enhanced and/or packaged prescriptive and custom incentives

- New grant program for businesses approved for a Small Business Administration (SBA) Economic Injury Disaster Loan or the SBA Paycheck Protection Program through a qualifying lending institution which may cover up to 100% of the project cost
- Enhanced Community-Based Energy Efficiency resources with turnkey programs, like community appliance bulk purchases with higher incentives to residential customers who have high energy burdens and live in communities with higher percentages of low-income households
- Assist LIHEAP (Low-Income Home Energy Assistance Program) applicants for Energy Crisis Intervention (ECI) funding and connect them to Hawai'i Energy programming, such as Energy Smart 4 Homes
- Enhanced incentives on measures for new construction of affordable rental housing
- Combined efforts with Hawai'i Energy's Market Transformation & Economic Development programs to educate building owners, operators, managers, engineers, maintenance staff, and others serving low-income and hard-to-reach sectors
- Targeted programs for teachers and students, including a pilot program supplying energy-efficient laptops and network connectivity to students in Title I schools and professional development for teachers and other educators in A&A communities
- Increased engagement with low-income, multi-family property managers to secure opportunities for efficiency retrofits
- Virtual energy assessments and inspection to provide safer access to facilities for contractors and greater peace of mind to building owners, property managers and tenants

Hawai'i Energy will also attempt to obtain funding from third-party philanthropic and charitable organizations to provide grants in combination with PBF-funded incentive rebates or grants to customers to help cover their efficiency project costs. For customers, especially those who are not eligible for loan financing, access to grants will enable them to implement needed efficiency retrofits to save energy and money that can be reinvested back into the business during the COVID-19 economic recovery.

While Hawai'i – and the rest of the nation and the world – works on various recovery planning efforts to address economic and community hardship, the Program will continue to develop and roll out its enhanced offerings to serve the low-income and hard-to-reach communities.

All of these offerings fit within our Triennial Plan. While A&A efforts are not measured under traditional cost-benefit tests, like all programs, the Program will be increasing rebates which impact those tests. Specifically, Hawai'i Energy will expand funding in certain situations to fund 100% of the installed cost of a measure given the current economic challenges, like it currently does in its residential direct install program.

Market Transformation & Economic Development

Residential and Commercial Programs

As part of the PY19-21 Triennial Plan, Hawai'i Energy expanded its Market Transformation initiatives to specifically emphasize the importance of Economic Development as part of our program design. The Program outlined a forward-focused approach, combining education and training with an ever-growing network of strategic partnerships and collaborations in alignment with the state's policy goals of 100% Clean Energy by 2045. This tactic also provides foundational support for the Program's new Accessibility & Affordability focus area designed to deliver economic and social benefits to customers, contractors and the community.

The onset of COVID-19 required Hawai'i Energy to quickly adapt its delivery methods for community engagement and professional development in order to best meet customers' needs amidst local and state SAH orders. As the number of canceled or postponed events continued to rise due to the uncertainty around how to conduct business in this changing health and economic environment, the Program pivoted to online meeting platforms and facilitating virtual training. The new course format was met with unprecedented success, often far surpassing the attendance counts that were anticipated for in-person versions.

Notably, this ongoing engagement has further underscored the role energy efficiency can play in driving Hawai'i's economic recovery. During this time of financial hardship, leveraging energy efficiency will not only increase operational savings to help keep families and businesses afloat in tough economic times, but also preserve local employment in clean energy jobs. For the many families now facing increased electric bills and loss of income, providing this access to energy education is more critical than ever, which is why there will be a greater focus on more education and outreach on low- to no-cost money-saving energy efficiency incentives and equipment.

Building on the foundation of technical training kicked off in PY19, the Program's PY20 efforts will expand technical training on COVID-related energy management topics to address lower building occupancy and energy usage. Programming approaches will focus on improving indoor air quality while managing energy use increase associated with this requirement. Participants will learn about current and expanding programs, including limited-time special incentives designed to assist with impacted sectors. The Program will also provide virtual connection to its team of Energy Advisors in order to assist with identifying on-site efficiency projects.

In order to identify gaps where our professional development and workforce training can help further bolster the clean energy workforce, Hawai'i Energy will continue working closely with the State Energy Office, county energy managers, and other stakeholders who are actively developing clean energy economic recovery plans in the state. Through continued work with external partners, including existing subcontractors (such as Blue Planet Foundation, University of Hawai'i Outreach College, and University of Hawai'i Maui College) and promotional partners (such as the American Institute of Architects (AIA),

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), and Building Owners and managers Association (BOMA)), it will focus on delivering the identified in-demand topics. Hawai'i Energy will also continue to facilitate Clean Energy Ally (CEA) access to resources on local, state and federal funding for small businesses. It will be expanding its CEA support programs including sales training for energy efficient equipment and systems during a recession and co-operative event funding and advertising.

For the most vulnerable communities as defined by its A&A efforts, the Market Transformation & Economic Development programs will continue to focus on building energy literacy to make an even greater impact in PY20. The Program is exploring new educational offerings through schools, including the distribution of energy efficient laptops coupled with online energy education, as well as professional development for teachers and other educators in underserved communities to develop awareness of energy efficiency measures and workforce development opportunities for students. Additionally, the Program is focusing on efficiency education delivered in tandem with other critical family services like distributed meals and healthcare.

Hawai'i Energy reaches thousands of participants annually through our education and outreach programs and remains committed to growing these efforts to ensure it meets the growing needs of the community. As the state of Hawai'i, the nation, and the rest of the world continue to develop recovery mechanisms to address economic and community hardship, the Program will continue to customize our training enhancements in line with these established best practices. While Market Transformation & Economic Development efforts are not measured under traditional cost-benefit tests, the Program is dedicated to measuring the success of its initiatives by tracking both activities and impacts. It will be regularly evaluating initiatives to maximize the breadth and diversity of relevant training opportunities.

Hawai'i Energy is further refining program metrics to reflect the short- and medium-term outcomes proposed in its December 2019 Decision & Order filing. This includes, but is not limited to, increased awareness of energy saving opportunities and increased participation in Hawai'i Energy offerings.

Energy Optimization Initiatives

Recognizing that energy storage can provide revolutionary support for both customers and the grid, Hawai'i Energy proposed both residential and commercial energy storage pilot efforts at the outset of PY19. With the shutdown of the economy and specifically tourism, renewable energy generation has been severely curtailed. The need for shifting and storing has increased as a slow, staged re-opening of the economy is considered.

The last two months have proven very challenging for both customers and CEAs, and these challenges will persist for some time. Nationally, the Solar Energy industries Association estimates a nearly 55% decline in new business for the residential sector alone. Additionally, a recent Hawai'i Solar Energy Association (HSEA) survey indicates that 75% of respondents expect to lose between 10-50% of their staff in the next month. Industry feedback indicates a complete drop off in sales, which will result in a significant negative impact on installations starting in early June.

As evident over two decades of a successful solar thermal hot water program, incentives from Hawai'i Energy are a valuable asset in the sales cycle which is especially critical at this time.

Expansion of Residential Energy Storage Pilot

- Initial proposed program design targeted only retrofit installations (e.g. NEM to NEM Plus) as this would carve out a smaller customer base and could support improvements to existing NEM systems that may be further exacerbating the “duck curve.” Additionally, a higher incentive for townhomes for *any* installation would be desired by the industry as permitting constraints lead to increased costs, thus leaving townhomes largely unserved by the solar industry
- In light of dramatic COVID-19 economic impact across the state, Hawai'i Energy will now offer residential energy storage rebates for all grid-connected systems for a limited time only from mid-August - December 31, 2020. These efforts are focusing on leveraging incentive dollars to support both customer energy bill relief and economic recovery by supporting clean energy jobs. As noted in a recent *Utility Dive* brief, “incentives for energy storage are a key to wider adoption and providing utilities with a valuable resource.”⁶
- Ongoing feedback and survey results have indicated that many sales staff were furloughed through the first few months of the pandemic and the pipeline of future projects has slowed significantly. The incentive is designed to act as a sales tool in the short term to support growing projects in their pipeline. In looking to the near future, Hawai'i Energy hopes that current economic impetus will help protect jobs in the solar industry and continue the trend towards achieving our clean energy targets. For longer term planning, this pilot will help Hawai'i Energy establish and test the assumptions around incentive level and delivery mechanism so that we can solidify the implementation process for future expanded efforts. It will also help to identify the best methods for contractor engagement.
- Beyond direct incentives, Hawai'i Energy will be supporting CEAs in communications and outreach for its contractors by conducting trainings, promotions for bundling with energy efficiency measures.

Commercial Energy Storage Pilot

- Initial proposed program design outlined an RFP (request for project) application process targeting projects with demand reduction potential or for critical infrastructure
- Hawai'i Energy continues to recognize the urgent need for resilience and increasing clean energy on the grid for commercial customers, but also that there are inherent challenges for commercial storage applications (impact of demand ratchet, timing to interconnection). These challenges are especially exacerbated in the wake of COVID-19.
- Hawai'i Energy proposes the same RFP design for PY20 with more focused support on market adoption in critical infrastructure to increase resilience

⁶ <https://www.utilitydive.com/news/energyhub-partners-with-vivint-solar-as-utility-incentives-for-residential/579973/>

PV System Maintenance

- Similar to solar water heating tune-ups or air conditioning service contracts, customer photovoltaic (PV) systems need regular maintenance in order to ensure optimal performance
- System output can drop an estimated 10-20% without annual cleaning of panels. For customers on a NEM account, or with battery banks sized for their nighttime use, this can be very important.
- Panel connectors and wires, combiner box connections, breakers, and other integral connection points within a PV system should be periodically inspected for corrosion, wear, and water infiltration to avoid system shutdown and potential hazards. Review of inverter/charger performance logs can help identify sub-optimal performance, and ensure batteries are being charged and cycled properly. This is essential to the long life of these components
- For batteries that require maintenance, servicing is essential to ensure they perform for their expected life

Hawai'i Energy sees these programs as a way to begin creating long-term relationships with customers who may or may not have participated in our programs before. If they have, it further reinforces Hawai'i Energy's brand in providing incentives and education to help customers reduce energy costs and drive towards a 100% clean energy future. The Program will take advantage of the opportunity to cross-sell in a number of ways once we have these customers as participants in EOI offerings. These include targeted marketing campaigns, special offers, educational materials, and, in some cases, limited promotions such as free energy efficiency kits.

Commercial Financing

The economic fallout of the pandemic has been severe, leaving businesses scrambling to develop new and safe business operations while revenue has decreased. Businesses are very low on available capital, and financing isn't very appealing either since they are worried about taking on additional debt.

What's unclear is whether businesses would be more inclined to take on debt if the savings exceed the debt payments. If combined with a 90-day deferred payment, this program would create immediate and additional revenue. This model isn't new, but it is something that Hawai'i Energy is revisiting to hopefully unlock additional projects.

Hawai'i Energy currently has several financing programs offered through our CEA finance channel partners. The complexity of project financing is still overwhelming for customers, and the Program recognizes the need to simplify this for customers. Additionally, credit quality is being more closely examined by financiers, and industries such as gyms and restaurants could be problematic to finance.

Hawai'i Energy is pursuing financing partners to address both small businesses and larger energy projects. Active discussions are occurring with a local credit union and a large national energy financing company. To customers, it would be a more seamless and clear transaction, with assistance from both our Energy Advisors and the financial institution. The program may use incentives for rate buy downs

and work with CEAs to start selling payments rather than a total cost, much like automobiles and power purchase agreements. Additional benefits would include a delayed first payment so energy savings can be captured immediately to help the business recover.

Hawai'i Energy would not take on any financial risk, as this would be borne by the financial partner.

Strategic Advisory Board

The formation of the Strategic Advisory Board is to engage with community and business leaders who the Program doesn't typically have access to and represent areas that Hawai'i Energy would like to gain a deeper foothold and relationship. The Advisory Board will be comprised of members who can provide insights and connections in their industries or sectors, and will champion energy efficiency within their own business and networks. Hawai'i Energy will share high-level strategies for Advisory Board members to provide feedback. Board members will not be expected to have energy backgrounds or technical expertise, but rather those who have a high-level of influence and knowledge in their respective fields. Technical expertise and input will be obtained through our existing channels and partnerships and others will be added as necessary as the program further integrates all aspects of Integrated Demand Side Management. The Advisory Board members will not receive any compensation or have any legal authority to govern the organization.

Revised Budget and Savings

PY20 Revised Budget Summary

Hawai'i Energy recognizes these times are challenging for everyone and it also needed to make cuts, especially with the reduction in PBF collections. This plan is based on the PY19 budget instead of PY20, representing a \$3.7 million budget reduction from the approved plan. After all contractual obligations are met, the unspent PY19 funds will be rolled over for PY20 or PY21 use. However, with the increased incentive amounts in place during these challenging times, the Program will realize an approximate 13% reduction in cost effectiveness. See Table 1. *August 14, 2020 Impact Summary* on page 12 for full details.

These proposed budget and savings changes summarized here are based on the following:

- Hawai'i Energy will forego its original PY20 budget and reduce to PY19 levels across all programs
- The Program will include PY19 unspent funds in new proposed PY20 budget in order to support: increased incentives, increased Accessibility and Affordability (A&A) funding, a small business energy-efficiency grant program, increased A&A customer technical assistant, and other post-COVID economic recovery programming
- Hawai'i Energy applied the updated PY20 TRM guidance including the modified impacts of the Energy Independence and Security Act of 2007 (EISA)
- Hawai'i Energy integrated guidance from both the Codes and Standards and LED attribution memos
- Savings are detailed in the bottom-up model submitted August 14, 2020

Overall Portfolio Impacts:

- Approximately \$3 million reduction from base PY20 incentive budget
- Spending in A&A will increase by over \$1.5 million from the original PY20 plan
- Estimated savings of 94 million in first-year kWh, down from 101 million originally approved
- Increased incentives across entire portfolio resulting in \$.28/kWh proposed PY20 portfolio compared to \$.25 in original plan, 13% reduction in cost effectiveness

Table 1. August 14, 2020 Impact Summary

DIRECT INCENTIVES	PY19 Triennial plan			PY19 Rollover (updated 8.14.20)	Proposed PY20 COVID Updates (PY19 values with PY19 Rollover updated 8.14.20)								PY20 Triennial Plan (Original)						Impact compared original PY20 plan (Sept 2019 Contract)		
	Budget	Savings (kWh)	\$/kWh		Budget	Budget	Savings	kW	TRB	Lifetime	\$/kWh	\$/Lifetime kWh	Budget	Savings	kW	TRB	Lifetime	\$/kWh	\$/Lifetime kWh	Budget	Savings
Total Portfolio	22,192,921	101,397,235	\$ 0.22	\$ 4,228,225	26,421,146	94,435,506	14,783	\$ 132,275,296	1,003,741,449	\$ 0.28	\$ 0.03	25,126,858	101,216,302	14,095	\$ 170,916,951	1,368,965,942	\$ 0.25	\$ 0.02	\$ 1,294,288	(6,780,796)	-13%
Residential Totals	\$ 9,574,346	42,459,820	0.23	\$ 1,322,529	\$ 10,896,875	40,547,739	8,312	\$ 40,335,934	290,881,056	\$ 0.27	\$ 0.04	\$ 11,059,805	40,240,642	7,293	\$ 47,819,320	364,575,188	\$ 0.27	\$ 0.03	\$ (162,930)	307,097	2%
REEM	\$ 6,159,597	39,329,547	0.16	\$ 77,342	\$ 6,236,940	37,058,072	7,738	\$ 36,517,919	264,771,376	\$ 0.17	\$ 0.02	\$ 6,764,597	29,814,845	6,004	\$ 36,273,562	284,070,345	\$ 0.23	\$ 0.02	\$ (527,658)	7,243,227	26%
CREEM	\$ 340,000	303,994	1.12	\$ 267,800	\$ 607,800	530,924	53	\$ 655,310	4,770,218	\$ 1.14	\$ 0.13	\$ 400,000	303,994	19	\$ 350,337	1,538,121	\$ 1.32	\$ 0.26	\$ 207,800	226,930	13%
RESM	\$ 815,000	1,546,127	0.53	\$ 152,923	\$ 967,923	1,133,921	235	\$ 640,497	3,800,649	\$ 0.85	\$ 0.25	\$ 815,000	9,252,440	1,088	\$ 9,506,726	66,888,529	\$ 0.09	\$ 0.01	\$ 152,923	-8,118,519	-869%
(A&A) RHTR	\$ 1,821,622	1,280,151	1.42	\$ 438,765	\$ 2,260,387	1,824,822	286	\$ 2,522,208	17,538,813	\$ 1.24	\$ 0.13	\$ 2,006,192	869,363	182	\$ 1,688,695	12,078,193	\$ 2.31	\$ 0.17	\$ 254,194	955,459	46%
RGRID	\$ 438,127	-		\$ 385,699	\$ 823,826							\$ 1,074,015							\$ (250,189)	0	
Business Totals	\$ 12,618,574	58,937,415	0.21	\$ 2,905,697	15,524,271	53,887,767	6,471	91,939,362	712,860,393	\$ 0.29	\$ 0.02	\$ 14,067,053	60,975,660	6,802	\$ 123,097,631	1,004,390,754	\$ 0.23	\$ 0.01	\$ 1,457,218	-7,087,893	-25%
BEEM	\$ 3,222,000	21,776,775	0.15	\$ 5,406	\$ 3,227,406	18,728,093	2,861	\$ 32,104,902	248,325,187	\$ 0.17	\$ 0.01	\$ 2,949,705	18,374,824	2,576	\$ 40,472,632	322,008,728	\$ 0.16	\$ 0.01	\$ 277,701	353,269	-7%
CBEEM	\$ 4,203,010	24,910,048	0.17	\$ 188,734	\$ 4,391,744	23,118,164	2,312	\$ 38,714,605	299,436,001	\$ 0.19	\$ 0.01	\$ 3,529,839	20,920,357	319	\$ 34,190,549	262,735,958	\$ 0.17	\$ 0.01	\$ 861,905	2,197,807	-13%
BESM	\$ 1,047,500	1,837,262	0.57	\$ 468,572	\$ 1,516,072	733,144	73	\$ 288,000	1,917,982	\$ 2.07	\$ 0.79	\$ 1,236,250	3,186,250	2,092	\$ 6,859,710	61,863,319	\$ 0.39	\$ 0.02	\$ 279,822	-2,453,106	-433%
(A&A) BHTR	\$ 3,529,866	10,413,329	0.34	\$ 1,827,681	\$ 5,357,546	11,308,366	1,225	\$ 20,831,855	163,181,223	\$ 0.47	\$ 0.03	\$ 4,038,074	10,404,318	1,147	\$ 19,821,221	155,534,940	\$ 0.39	\$ 0.03	\$ 1,319,472	904,048	-22%
BGRID	\$ 616,199	-		\$ 415,304	\$ 1,031,502							\$ 1,312,685	-						\$ (281,183)	0	
BET - SWAC												\$ 1,000,500	8,089,912	668	\$ 21,753,519	202,247,809	\$ 0.12	\$ 0.00	\$ (1,000,500)	-8,089,912	

Summary of Modifications:

Residential CET

For the residential clean energy technologies (CET), the proposed budget amount reflects the doubling of incentive levels for most of the Clean Energy Ally driven programs. This includes solar water heating installations and tune-ups and HVAC installations and retrofits. On the retail side, the PY20 portfolio includes both new measures and increased incentives for refrigerators, window AC, heat pump water heaters, solar attic fans, whole house fans and high efficiency pool pumps. The lighting portfolio has been diversified to include more specialty and smart LED bulbs. For Energy Optimization Initiatives, the Program has expanded the customer battery storage pilot by doubling the budget and targeting residential installations across all DER tariffs.

Hawai'i Energy has estimated these incentive increases will remain in place through December 2020. The Program has already witnessed a 30-40% slowdown in retail rebate program activity. While it is optimistic that participation levels will ramp back up as the SAH orders are eased, we have reduced quantities PY20 estimates to at or near PY19 levels. Additionally, the Program has reallocated a portion traditional Residential CET programming to A&A for retail and CEA activity in harder to reach geographies as it will be expanding marketing and messaging to drive participation.

Residential A&A

The Residential A&A programs will be expanded from current levels to more aggressively address the devastating economic impacts of COVID19. Through its community-based energy efficiency initiatives, efforts will focus on increased direct installation of high-efficiency equipment in both multi-family and single-family homes. In addition to its Energy Smart 4 Homes (ES4H) program that focuses on high efficiency water measures, lighting and plug loads, this community sweep approach will include the bulk purchase of ENERGY STAR® appliances (refrigerators, washing machines, dryers and/or dishwashers). Through the ongoing work with schools and teachers, Hawai'i Energy is also exploring an ENERGY STAR laptop educational program. Retail and CEA efforts in specific communities will also receive enhanced programming efforts.

While the new budget proposed for PY20 Residential A&A will increase by approximately \$250,000, Hawai'i Energy estimates that overall cost effectiveness in this area will increase by approximately 45% compared to the original PY20 plan as a result of additional savings from deeper retrofit efforts.

Commercial CET

The Commercial CET portfolio modifications reflect a focus on HVAC and refrigeration for PY20, with higher incentives and a target to increase participation by at least 15%. In the wake of the hospitality sector shutdown, Hawai'i Energy is focusing on sector specific support for hotels with increased incentives for EMS systems to address indoor air quality and low occupancy. The Program is also targeting contractor and customer bonuses for packaging multiple efficiency upgrades to encourage

deeper energy savings. Additionally, the Program has increased audit services for strategic energy management (SEM customers) and industrial customers.

While overall funding for Commercial CET increases moderately in the proposed PY20 plan, Hawai'i Energy anticipates a decrease in cost effectiveness as a result of the focus on HVAC and refrigeration which are generally more expensive. However, these deeper energy savings remain a critical part of health and safety.

Commercial A&A

The Commercial A&A portfolio has been expanded by approximately \$1.3 million dollars, utilizing budget originally intended for sea water air conditioning (Commercial CET budget). These dollars will be dedicated to increased incentives for the expanded Energy Advantage small business program, helping to eliminate the customer co-pay requirement during these challenging times. Hawai'i Energy is also dedicating \$1,000,000 to an energy-efficiency grant program specifically for small businesses, non-profits and other community service organizations. Additionally, the Program's PY19 increased restaurant and commercial kitchen incentives will remain in effect until at least September 30, 2020, at which time market assessment will allow for an extension as needed.

While overall commercial A&A savings will increase from the original PY20 plan, Hawai'i Energy estimates that cost effectiveness will decrease by about 22% as a result of the robust grant relief program.

Appendices: Program Designs

Please see the attached Excel file for the various program design worksheets as referenced above.

Appendices: Hawai'i Public Utilities Commission letter, March 30, 2020

DAVID Y. IGE
GOVERNOR
JOSH B. GREEN
LT. GOVERNOR



STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
485 S. KING STREET, #103
HONOLULU, HAWAII 96813

JAMES P. GRIFFIN
CHAIR
JENNIFER M. POTTER
COMMISSIONER
LEODOLOFF R. ASUNCION, JR.
COMMISSIONER

Telephone: (808) 586-2020
Facsimile: (808) 586-2066

Website: puc.hawaii.gov
E-mail: puc@hawaii.gov

March 30, 2020

Brian Kealoha, Executive Director
Hawai'i Energy
Brian.A.Kealoha@leidos.com

Dear Brian,

In an effort to support our community and utilities during and after the COVID-19 pandemic, the Commission is prioritizing economic stability and recovery during this critical time.

We would like to acknowledge the responsive efforts to date that Hawai'i Energy has undertaken to further promote public awareness of energy efficient activities and programs, as well as efforts to enable the Clean Energy Allies to continue operations safely during this time, for those that choose to do so. Recognizing that the state and Counties have included the energy sector as "Essential Businesses" (in addition, the City and County of Honolulu has specifically identified energy efficiency activities as "Essential Services") during this pandemic, the Commission is requesting that Hawai'i Energy continue to be supportive of appropriate Clean Energy Ally operations.

Of particular concern are our residential and vulnerable populations, most of whom will remain at home for the duration of the State's emergency declaration period. The Commission encourages Hawai'i Energy to promote energy efficiency and conservation actions by customers in their home to help these populations reduce energy use in an effort to minimize potential bill increases during this time. Additionally, we ask that Hawai'i Energy develop services that can promote economic activity among the commercial customer classes, especially as businesses reopen.

We are aware that you and your team are already contemplating programmatic adjustments to address COVID-19 impact, and request that Hawai'i Energy incorporate the above guidance and provide such proposals to the Commission for review as soon as you are able.

If you have any questions or concerns, please let us know.

Thank you,

Ashley Norman
Utility Analyst
PUC Energy Efficiency Team