

State of Hawaii Public Utilities Commission
Public Benefits Fee (PBF)
Technical Advisory Group (TAG)

Meeting Summary
Tuesday, October 5, 2021
1:30 p.m. to 2:45 p.m.
Via Zoom Video and Telephone Conference

1:30 – Welcome

- The Commission provided opening remarks:
 - Thanked attendees for their continued commitment and the Energy Efficiency Manager (EEM), the evaluation, measurement and verification (EM&V) contractor, and Hawai'i Energy as they continue their efforts to bring the state closer to its clean energy goals.
 - Public Benefits Fee Administrator (PBFA) works to achieve the state Energy Efficiency Portfolio Standard (EEPS) mandate, also able to target specific needs such as equity, inclusion, and collaboration.
 - Hawai'i Energy has focused on low to moderate income (LMI) customers who have been drastically impacted by COVID and made them even harder to reach.
 - Have seen the EEM and EM&V contractor creatively consider new metrics and end uses that can deliver flexible savings.
 - This is a critical time for the state, especially in Oahu as we face the closing of the AES coal plant and island-wide black-outs over the next several years and are trying to fill that gap with customer-sited resources.
 - Imperative that we encourage new ideas that are brought to these types of platforms, introduce ideas to reach more customers, and to help reduce the energy burden on the distribution system and on the system all together.
 - Also need to address these issues on Hawaii Island and Maui who have resource adequacy concerns now and for the next three years.
 - Energy efficiency will play a huge role in achieving goals and keeping the lights on. Have looked at batteries and EVs that potentially provide power source but need to continue to right-size load through energy efficiency and demand response and any other DSM measures so we can keep the lights on and have supply adequacy.
 - Need to turn up the heat with the PBF to deliver relief during this constrained period.
 - Please contact the EEM Lead with your ideas.
- The EEM team welcomed 38 attendees and thanked the Commission, Hawai'i Energy and others.
 - The EEM advised that the meeting was being recorded.
 - The EEM described the role of the TAG and gave an overview of the meeting agenda.

- The EEM asked participants to submit questions via chat and noted that there would be time at the end for questions.

1:35 – PBF Program Update

- Hawai‘i Energy provided a program update which covered PY20. Acknowledged that it was a challenging year as the pandemic continued to impact the program in many ways including customer interest in energy efficiency, supply chain issues, restrictions on gatherings, and budget cuts.
- Despite these challenges, the program met the vast majority of their goals:
 - CET met all goals across residential and commercial;
 - A&A struggled in the areas of Energy Advantage and direct install;
 - The Energy Grant was very successful and gained national recognition; and
 - Market transformation and economic development goals were met with the exception of innovation and emerging technologies.
- The commercial CET Hotel Bonus was very successful in driving projects and keeping the CEAs busy while the Do More, Get More incentive offering received less interest than anticipated.
- The residential CET downstream and CEA-driven programs had strong participation. The solar water heating budget was strained.
- Market transformation and economic development professional development goals were met in June of 2021.
 - Hawai‘i Energy team continues to look for the most effective styles and formats to deliver virtual workshops to combat virtual fatigue.
- EV Charging station rebate program paid 24 rebates in Q4 and customer and contractor interest is strong heading into PY21 but there are project delays because of issues in securing necessary permits and with the supply chain.
- Accessibility & Affordability program had several successful community-based activities in PY20 that drove participation in Energy Smart 4 Homes, bulk appliance trade-up, LED bulb exchanges. In addition, Hawai‘i Energy donated 55 Energy Star laptops to Kohala Elementary School.
- The grant project was a success with 271 projects awarded and 221 projects completed in PY20 amounting to about \$450,000 in projected customer bill savings. The bulk of these projects went to non-profit customers, restaurants and service providers and the most frequent project types were HVAC, lighting, and commercial kitchen measures.
- Key activities targeting hard-to-reach customers included solar tune ups for Kalihi Valley Homes (through the Hawaii Public Housing Authority) and Energy Smart 4 Homes projects in single family and multifamily housing units.
- Energy Optimization:
 - Installed 800 residential DR units in PY20 but COVID-related restrictions slowed the pipeline in Q4. A heat pump project with Hunt Military base is on hold and pool pump manufacturers push out their estimates for a controllable model to Q4 of 2021; and

- Completed 24 commercial installations and promoted the program through a lunch and learn and press release. Q4 installations were delayed due to customer and contractor scheduling constraints.
- An online 2021 Brand Awareness and Market Study was conducted:
 - Generally, scores improved throughout, in some cases substantially;
 - Respondent awareness, trust, participation and advertising recall increased;
 - Not surprising, market channel preferences shifted toward digital and online; and
 - Marketing channel mix suggests that customers are becoming more “self-service”
- Hawai‘i Energy thanked the Commission for their ongoing support.

1:55 – EM&V Update

- The EEM team gave an update on a recently released RFP for EM&V services:
 - New contract will begin in April 2022. The current contract for EM&V services runs through October 2021;
 - The new contract term will be for two years with an option to extend for another two years;
 - The required tasks are: verification, TRM, an EEPS Legislative Report, and project management; and
 - The annual budget is \$400,000 to \$500,000 annually.
- Applied Energy Group (AEG) provided an overview of the EM&V activities for July 1, 2021 to June 30, 2022:
 - Prospective research uses past data to inform the future and includes TRM updates; and
 - Retrospective research seeks to understand what happened in the past and includes a PY20 Verification and Annual Calendar Year (CY) Reports.
- AEG described the PY20 Verification Study in more detail:
 - The PY20 Verification Study will align with the PY19 study in that it is a verification of all performance metrics, conducts an Excel-based database replication to verify population of measures for TRM application and a desk review on a sample of projects. The budget is approximately the same;
 - The key differences between the PY20 and PY19 verifications are that AEG will perform all activities in PY20 and includes a small effort to show that the data is available for inclusion in the low-to-moderate income performance indicator metric;
 - CY21 Annual EM&V Report will include: findings from studies completed in the 2021 calendar year and purpose of studies initiated in the 2021 calendar year; and
 - The CY21 History of EM&V Report will add these to the CY20 History of EM&V Report.
- AEG provided an overview of the Technical Reference Manual review and update:

- Described the TRM review and update effort and stressed that stakeholder engagement was very important and ensures that the relevance of new and existing measures to the Hawai'i Energy portfolio and mitigates the risk of inaccurate TRM savings; and
- AEG will send a follow up email to the TAG distribution list soliciting input on the TRM update.
- AEG summarized the EM&V timing and costs:
 - EM&V costs amount to about 0.9 percent of total program costs; and
 - The bulk of the funding goes toward the retrospective research.

2:10 – Adoption of Total System Benefits Metric in California

- The EEM team gave an overview of the Total System Benefit metric:
 - The TSB was recently adopted in California but won't become the official metric until 2024. The program administrators will begin reporting their results using the TSB informally beginning next year;
 - TSB is intended to be a single metric that will replace both the current energy and peak demand goals. The program administrators will be required to continue to report energy and peak demand savings to allow for comparisons to past performance, but these will no longer be metrics;
 - TSB is intended to capture all of the benefits and policy goals of energy efficiency including time and locational value of savings, GHG benefits, and lifecycle savings in a single metric;
 - TSB is not the same as the Hawai'i Energy Total Resource Benefit metric;
 - TSB is the sum of the benefits reduced by the sum of increased supply costs. It's expressed in dollars and the values are net values, meaning the net-to-gross ratio has been applied:
 - The benefits portion of the TSB calculation is the NET the sum of the measure's avoided costs - it does not include non-avoided cost benefits, such as customer rebates, bill savings, or non-energy benefits.
 - California is using three main COSTS:
 - Interactive effects
 - Fuel substitution
 - Costs related to increased high GWP (global warming potential) emissions
 - The intent of the TSB metric is to tie the goals for the program administrators directly to the avoided cost value of energy efficiency savings, which should encourage achievement of savings that deliver high value:
 - In California, this will encourage program measures that will reduce energy use during hours 17 through 21; and
 - Currently, all energy savings count equally towards the program goals in California.
 - There are three resources that describe TSB:
 - California's 2021 Potential and Goals study
 - The CPUC decision that adopted TSB

- The CPUC Technical Guidance for calculating TSB
- Contact the EEM if you are interested in any of these documents.
- The EEM clarified that this is not a proposal by the EEM at this time but was presented as information only.

2:20 – Q&A

- The EEM Team invited questions from the participants.
 - *Question: Regarding the Hawai'i Energy A&A pie chart, slide 19. Interested in what the take aways are for restaurant and nonprofit awareness of energy. Are they coming to you with an awareness of need to curtail usage? What are those engagements like?*
 - *Response: There was a lot of outreach to promote the Energy Grant. Over half of grant participants had not participated in with Hawai'i Energy before. One success was using the word "grant" which meant that a lot of third parties amplified the message and they reached a lot of folks they wouldn't have otherwise reached. Also, Clean Energy Advisors were hungry for work during this time so having something that was easy for them to promote to customers helped its success. Once customers heard about it, the interest was there. Feedback surveys showed that most Energy Grant participants are interested in doing more energy efficiency.*
 - *Question: I appreciate that these are newer customers. Curious whether there is overlap with GridPoint, as the focus was on restaurants.*
 - *Response: Restaurants were a much bigger focus with grant program given their challenges and needs. But we are moving towards the small grocery application and other food storage business. Part of grocery audit is that it offers synergies between energy efficiency, GridPoint, and other DR opportunities. IDSM drive is a wholistic offering where customers are looking at all offerings.*
 - *Comment: It's exciting to see that California is using the TSB. I like how they have formulated a new measurement that captures more values, especially the interactive effects of lighting and HVAC. Would be good to explore in Hawai'i.*
 - *Response: It opens the door to IDSM activities, is flexible and captures time element of energy use but will require more data than we have available; through meters or other devices to collect that information.*
 - *Question: How does TSB address locational value?*
 - *Response: On an island basis, the avoided cost that go into the calculation are established at least at the island level. You pick up some locational but that's not going to solve circuit level analysis.*
 - *Response: Different locations have different values but it depends on whether the data is available.*

- *Question: Regarding the conversation about existing data informing TSB, is it not a data capturing undertaking?*
 - *Response: It's a series of calculations so you have to get the data. Typically provided by the utilities for the service area you are looking at.*
- *Question: From the program perspective, TSB is integrating all of the benefits we are not capturing. What is the interplay with TOU? Customer usage isn't necessarily aligned with grid value. How much does TSB metric affect more with TOU?*
 - *Response: TSB will be based on avoided cost to the grid system. That value to system will be aligned to TSB. Rates that consumers pay would be aligned with the cost to the system. This is a separate question to the Commission and HECO, the ability to align avoided costs with consumer costs so the correct signal is sent to the customer.*
- *Comment: Traditionally envisioned that avoided costs were generally backward looking. Not forward looking like avoided capacity needs. Wouldn't the primary value for locational be the future avoided costs and any capture of that. We no longer need to do infrastructure upgrade because we are able to implement this load reduction in a key area.*
 - *Response: Avoided costs on annual averages is what we've been using based on what HECO provides. It is historic. We certainly need projections. This will come out of IGP process. As we incorporate more renewables and storage, the avoided costs will change and ratio of capacity versus energy will change. Huge caveat that making projections about the future is difficult to do. For today's calculations, the net benefits for Hawaii, those projections are based on the quality of the data we have available. For California, the avoided costs are projections over the life of the measure. What that kWh is worth in 2019 may have no relation to what that kWh is worth in 2027. We need to be good at making those projections.*
- *Comment: California spent time and effort on the avoided cost calculator. Might be the same exercise we have to do here.*
 - *Response: Should get somewhat easier to forecast as we move to a more renewable base, the energy cost of the power gets to be zero to trivial. That seems to be the source of uncertainty versus the capacity cost which is the primary component of renewables which are established via contract and installed equipment. We should be able to be better about projecting in the future.*

2:45 – Adjourn

- The EEM thanked attendees for their participation and shared that meeting materials will be posted on www.HawaiiEEPS.org.

- The EEM concluded the meeting and welcomed follow up questions and comments from participants.