

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

**Meeting Summary**

February 28, 2024

2:00 pm to 4:15 pm Hawaii Standard Time

Hawai'i Energy Offices with Teams Web Conference Option

**2:00 – Welcome**

- Attendees (9 in person and 33 virtual) were welcomed.
- All attendees welcomed on behalf of the Commission, thanked for their continued participation, and asked that they share their ideas and questions.

**2:05 – Agenda**

- The Energy Efficiency Manager (EEM) provided an overview of the meeting agenda and objectives. Each attendee introduced themselves by name and organization.

**2:10 – Evaluation, Measurement & Verification (EM&V)**

- Applied Energy Group (AEG) presented draft findings from PY22 Verification.
  - Provided summary of verification activities for CET and non-CET programs.
  - Discussed progress on verification activities and provided update to the slide presented. They have completed 27 of 30 onsite visits and as of tomorrow, will be 29.
  - Reported CET Performance and provided overview of some of the claimed savings reported by Hawai'i Energy. Four of 6 major program channels achieved 90% of savings targets.
  - Shared that the Power Move battery program which was deployed in PY21 got a lot of battery projects started in PY22 but were not completed. Therefore, they anticipate that those targets will be achieved in PY23 when the in-process projects are completed.
  - Provided Highlights from Program Manager Interviews.
  - Highlighted that with LED savings becoming essentially obsolete, they are looking towards water heaters and solar water heaters to be a big driver of energy savings in the future.
  - Have also calculated the net benefits LMI customers have received through Performance Incentive Mechanisms (PIM) and shared those findings with the EEM.
  - Anticipate we will provide a first draft of our report to EEM by early April.

- *Question: Will the final results be ready when you finish the onsite visits? Will the results be ready to present at next TAG meeting in the May to June timeframe?*
  - *Answer: I do not want to promise anything but yes, we plan to present the results at the next TAG meeting.*
- *Question: Are you assuming that LED savings are becoming obsolete because LEDs have saturated the market?*
  - *Answer: Because of standard changes, we have phased out energy savings. There will be minimal calculated savings compared to prior years.*

## **2:30 – Updates to the Technical Reference Manual (TRM)**

- Applied Energy Group (AEG) provided a summary of PY24 TRM updates including new measures, cross-cutting content, updated measures, sunseting measures and other clarifications.
  - Discussed two new measures added:
    - Commercial Horticulture Lighting
    - Commercial Distribution Transformer
  - Summarized 3 residential measures updated and anticipated impact on savings:
    - Heat Pump Water Heater
    - Solar Water Heater
    - VFD Pool Pump
  - Discussed updated three commercial measures and anticipated impact on savings:
    - Electronically Commutated Motor (ECM)
    - Variable Refrigerant Flow AC
    - VFD Pool Pump
  - Presented measures with upcoming sunset dates and impact to Hawai'i Energy programs.
    - To stay at same level of savings will need to look at increasing rebates for other areas or could add new measures. Looking for ideas so please share promising new measure ideas you can think of. Would like to add new measures to the TRM.
  - Updated the GHG Calculator. Updated emission rates in the GHG calculator with eGRID 2022 data.
- *Question: How are the GHG emissions reductions calculated and applied to the program? Does the calculation include consideration for location, time, function or technology?*
  - *Answer: It is a linear function. The calculation determines an equivalent CO2 savings number and applies it to all kWh savings across the program. It uses the same value across all kWh savings for Hawaii as a whole.*
- *Question: In other states do they do the same thing? Or do they consider savings by time and location.?*

- *Answer: We think other states might have other resources to calculate based on time and location.*
- *Question: Why do the VFD savings to go down in the future due to updated measures?*
  - *Answer: It is relative. The TRM calculator is calculating savings for a new system that must be 10% more efficient than the baseline. The calculated savings in PY24 for the same piece of equipment will be lower than if it was installed in PY23 because the baseline got more efficient from '23 to '24. The calculated savings will be lower from one year to the next as the federal standard baseline improves.*
- *Question: Regarding declining savings for LEDs, the typical lamp being sold now is well below the federal baseline so seems like there is still a nice chunk of savings to be had.*
  - *Answer: Are you asking if there could still be some savings? If people are already buying the higher efficacy LEDs then there is not a reason to continue to have a rebate for those.*

## **2:50 – PY22 – PY24 Triennial Plan Progress Update**

- Hawai'i Energy presented on their progress on their PY22-PY24 Triennial Plan.
  - Presented Agenda. Shared about planning process and what they have been doing since the program started.
  - Walked through details of where they are focusing for implementations and where they have opportunities for collaboration.
  - Provided an executive summary of some of the key focus areas for this program year.
  - Presented PY23 Progress Matrix for – CET and A&A, Market Transformation, Grid Services Ready, Demand Flexibility, and Green House Gas Emission Reduction.
  - There were some bright spots in progress for clean energy technologies. This year, we are happy to report we have seen a comeback in Business Prescriptive and on track with our targets.
    - We had a number of multifamily projects that came through that had been delayed.
    - The custom portfolio has displayed it is still far behind and we recognize we have a long way to go.
  - Provided a snapshot of customer engagement – many customized trainings and engagement through each step of the engagement.
  - Looked at commercial customer portfolios for PY21, PY22 and PY23 as a YTD comparison. We are building. Note that in the slides, the '21 breakdown is not totally accurate. The miscellaneous category has some refrigeration in there. The comparison is meant to give a sense of where forecasted projects are coming from in comparison to other years.
- Hawai'i Energy presented on Energy Optimization Initiatives
  - Power Move – Commercial Energy Storage & Demand Savings Bonus.

- Kicked off in '21 and launched in '22. Long project sales cycle. We have seen 2 commercial storage projects that are operating today with nearly 2 megawatts expected by end of this year. The pipeline has grown.
- Commercial Demand Response Ready
  - Focus on hotel guest rooms control. We have a couple projects already done and confident we will see an additional 5 this year. Project timelines are long.
  - Also supporting smart devices for smaller retail stand-alone buildings with rooftop units that are controllable. Our partner is trying to get national chains to sign on.
- EV charging station rebate program.
  - We have been waiting for additional funding. Received it in 2023 and continuing program with projects in the pipeline.
- Presented on Accessibility and Affordability (A+A) programs, the key focus areas, targets, and what we have achieved.
  - For Island equity we are seeing similar patterns to last year. County of Hawaii and Honolulu looking ok. Challenges with Maui due to challenges there from the fire.
  - Presented highlights of work done in Community Based Energy Efficiency Programs.
- Energy Advantage (E.A.) is a small install direct lighting program.
  - Things have slowed down a little because the program is so contractor driven. Losing any participating contractor effects how fast we see projects come in.
  - E.A. program is when a small business that has old lighting that is not LED and can come to us and work with one of our verified contractors to get a heavily subsidized lighting upgrade.
- *Question: Is PY23 the first year that worship facilities have been eligible for the E.A. program?*
  - *Answer: Partway through PY22 was when worship facilities were allowed.*
- *Question: What are barriers are in place that would prohibit this program from extending it to window replacement or water heating?*
  - *Answer: Primary barrier is using different contractors for different installations. Trying to get a group of contractors willing to do everything is very hard. Having a successful direct install program for all the different types of installations is hard to find contractors.*
  - *Answer: We have talked about small commercial spaces and A/C and how to fit it in. We question what would be the compensation structure to make it worthwhile to a contractor. Frequently find that additional infrastructure is needed for additional changes and it is hard to define. We are always trying to assess where are the program funds and how far can they go.*

- *Question: With weatherization efforts or panel upgrades, could IRA funding help address some of that? Are there opportunities to leverage what will go on in that program?*
  - *Answer: Think it is a matter of the target audience. It could be a challenge to figure out where the rules overlap.*
- *Question: Can you expand on the challenges of contractors being busy? Are they busy on non-efficiency projects?*
  - *Answer: Yes, especially on neighbor islands. They could be just general electrical contractors and they are working on a new housing development and will take those jobs instead.*
- EmPOWER Grant. These are small business and nonprofit grants that are creating a lot of business for contractors supporting the grants. We will leave application open and continue enrolling for rest of program year until the funding is spent.
- Market Transformation – The objective of the program is to provide technical training around emerging efficient technologies and best practices.
  - Participant hours is our target. We are on track to meet our target. It takes time to ramp up and to get programming in place.
  - Brought the energy Symposium back after it was placed on hold for COVID. Received strong positive feedback from participants.
- Hawai'i Energy presented PY23 Q1 and Q2 key takeaways. Primary conclusion is that it will take more groundwork to achieve goals. Partnership development is critical. Marketing and communication piece is very important.
- - *Question: You hear on the news that people were excited coming out of the pandemic to spend money but have now pulled back on spending. Do you think it's a matter of looking for the economy to rebound to meet your targets?*
    - *Answer: Yes, and I think that we need to go deeper and go beyond what we have done previously. An optimization of everything and more sophistication is needed. The economy is part of it on the residential side, everything is just more expensive. We are looking at studies and using studies to help shape the future of program targets. Our analysis has to really reflect on what 4 years have brought us and it has been surprising to see how it has played out.*
- Reviewed PY23 Considerations – Maui Wildfire Response
  - Opportunity to increase incentives and modify current criteria to help more in the affected area. Need to modify the rules a bit and broaden the zip code we are looking at. There are longer term rebuild efforts and opportunities for coordination.
    - There are some models to make efficiency programs easier to work with especially in planning development and rebuild. Will

require communicating with community organizations and other stakeholders. We want to support resilient new construction.

- *Question: The target for economically disadvantaged customers served through Business A&A in PY23 is 550 but have only achieved 145 in Q1 and Q2. Are you on track to achieve the goal?*
  - *Answer: For both business and residential A&A, we have them coded as yellow because we are still moving through. On residential, we are closer to goal. Grant programs takes a bit of time to kick off. We are a little behind in terms of pipeline we have in hand.*
- *Question: The EPA is offering a very generous instant rebate for Heat Pump Water Heaters. Is Hawaii thinking of stacking another rebate on top of a federal rebate to make it almost free to low-income consumers?*
  - *Answer: We want to make sure we give customers as much as possible. The DOE has rebates that are coming and would like to learn more about the EPA rebate you mention. Direct install is ideal for getting things installed and it is just really expensive. Not a one size fits all installation because it can be more complicated. You may need to relocate your water heater and noise issues in multifamily situations we have to abate. Contractor base is key as well. Must find the contractors that want to push HPWH which is a slow process.*
  - *Additionally, if 80% of water heaters are replaced in an emergency situation (i.e. water heater broke), we need to find a way to get out in front of the consumer so that they make the decision to purchase a more efficient option.*
- *Question: You mentioned a MEP drawing review service. Is this a current offering or something planned for the future?*
  - *Answer: It is part of our energy advisor engagement with customers.*
  - *Customers in buildings need different levels of engagement and this is a method of doing an energy audit if a building has a drawing set. It can be easy to come up with opportunities off the drawing set. First, we go through the Energy Star checklist and then look at drawings. We are involved with existing buildings but getting involved with new construction too and looking at early designs to make suggestions.*
- *Question: For EV charging rebates, my impression was that those rebates were going faster in the past.*
  - *Answer: We had paused the program for a bit so we were still collecting applications and had a backlog to process when funding came back. That is when we went through it quickly. Backlog was close to \$300k. Right now, we have about \$500k left in there. We have some permitting issues still so it boils down to that to get projects to move along. When we got previous tranche of funding there was a big backlog, that is why it looked like we spent it quickly. This is the first year we have the process down*

*and funding secure and have more of a leg up on consistent messaging on timing.*

- *Comment: Honolulu recently passed energy code and Maui has EV mandatory in new construction. Must be EV charging ready. Not sure on required date.*

### **3:25 – Valuing Societal Benefits**

- EEM introduced the framing of the Societal Benefits discussion that will occur at a future meeting because we do not have time to address in this meeting.
  - We will discuss options for capturing and valuing societal benefits from PBF programs
  - Address what societal benefits to prioritize.
  - Group exercise and discussion tabled to a later date.

### **3:48 – Wrap Up**

- EEM led wrap up of meeting
  - No notes of action items
  - We will post notes on website.
  - Asked: What went well today? What could go better?
    - *Comment: If you want more people in the room, tell people there are snacks.*
    - *Comment: Splitting TAG and TWG meetings into two partial days is working.*
    - *Comment: I didn't see community resilience in your list of potential societal benefits. This is an important consideration.*
    - *Comment: A glossary slide for acronyms might be useful.*
  - Thanked all the speakers and adjourned the meeting.

### **3:51 – Adjourn**