State of Hawaii Public Utilities Commission
Energy Efficiency Portfolio Standard ("EEPS")
Technical Working Group ("TWG")

Meeting Summary
October 26, 2023
9:00 to 11:00am Hawaii Standard Time
Hawai'i Energy Offices with Teams Web Conference Option

9:00 – Welcome

- Attendees (16 in person and 23 virtual) were welcomed.
- Commissioner Naomi Kuwaye welcomed all attendees, thanked the attendees for coming, and encouraged attendees to actively engage in the meeting.

9:05 – Agenda

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

9:10 – EEPS Update

- The EEM team members presented the key findings to be included in the 3rd EEPS Report to Legislature.
    - Based on the original 195 GWh per year goal in terms of first year savings, interim goals are reached (and exceeded).
    - Based on the original 195 GWh per year goal in terms of CPS, 1st period interim goal reached (and exceeded), but 2nd period falling behind, as measure savings starts to drop off.
    - Reviewed cumulative persisting savings.
        - Since 2015, the Solar PV no longer counts for first year savings. When talking about cumulative savings, we carried those solar PV benefits out to 2021.
        - For cumulative persisting savings, in later years, we are falling behind goals because the savings have fallen off.

- The group was invited to ask questions.
    - *Question: Can you clarify who comprises the other contributing entities?*
        - *Answer: The military, University of Hawaii, county, and state agencies are considered contributing entities. We reached out to those entities and found that most have worked with Hawai'i Energy on their efforts, so we are careful to not double count those. Those are already credited to Hawai'i Energy.*

- *Question: What is methodology used to calculated contribution to codes and standards?*
    - *Answer: This is estimated periodically in the market potential study. We will get into some discussion into what we are counting. The savings included in these calculations is just on what can be measured.*
- *Question: From the slide regarding cumulative persisting savings and looking at the 59% performance measurement from 2016 to 2020 – If the code had not been rolled back, were we on track to match prior year savings? Does actual performance change from 2009 to 2019 based on what was rolled back?*
    - *Answer (Provided in these meeting notes post-meeting): Since we are now including lighting market effects in EEPS savings accomplishments, there is no difference in EEPS savings whether the code was rolled back or not. The only change was that the savings was moved from the C&S category to lighting market effects.*

- Discussed the outlook forward to 2030 and the impact of shifting EISA lighting standards on MPS.
    - The roll back of Tier 2 of the EISA standards shifted C&S savings into the Naturally Occurring (N.O.) category.
    - Tier 2 was reinstated effective 2023 (and after the 2020 MPS was published), so some of those savings shift back into C&S.
        - If we count lighting program / C&S market spillover towards EEPs, then we are closer to meeting the 2023 target and may be able to meet them under a business-as-usual scenario.
        - If we don't allow the lighting spillover savings (553 GWh), then we need to increase annual targets going forward.

        - *Comment: Regarding lighting standards, EISA and building codes are way behind the times regarding lighting standards. We have a 37% naturally occurring savings. Argue that they should be included.*

    - Asked AEG to tell us, if we moved the savings back to Codes and Standards, how much do we move? There is a gap from 2019 to mid-year 2023 of this N.O. savings that can be attributed to that EISA savings. That savings effects all the savings going out to 2030 and impacts how we reach that standard. We call it "lighting spillover savings."
    - If you don't include the 3 years of spillover savings in EISA, we have to move into high achieving goal.
    - The question to the group is, should we make an exception or should we call out in the framework that capturing the N.O. savings count towards the EEPS target.

- *Question: I am trying to understand the impact, can you outline the pros and cons?*
    - *Answer: One of the cons is that it is a market effect of the codes and standards, and it is something that has to be estimated in a model. Pro- we believe the savings did occur, looking at market effect of all the activity. The market had been preparing for the standard to take place, the market and customers got ready for it even though the standard was rolled back. The program continued to incentivize as well.*
- *Question: Why would naturally occurring savings not be included in EEPS?*
    - *Answer: Naturally occurring is something you do not pay for, and it is challenging to measure.*

- Should we change the language in the EEPS framework to add N.O. savings? The three years with the EISA standards really impact the measurement.
- We are finding every agency measures this different and structures them differently. We will do a little looking to find a jurisdiction that is structured the same way.
- It is generally recognized to have happened. We will be doing ourselves a disservice to not count it and who gets credit for it. Is it worth spending the money to capture this bit?

    - *Suggestion: Look at net to gross ratios and prescribe a net to gross for what we see. Projecting out from those who took the incentive and those who did it without the incentive.*
    - *Comment: Rollback occurred 2019 and in 2022 Biden administration put the regulation back in place. It was 3.5 years.*
    - *Comment: In codes world we call it market transformation. Provided an example where new standard was set in one area and manufacturers followed suit by meeting standard and that was then the new offering in all markets. Another example was states requiring Energy Star appliances and finally manufacturers only produce Energy Star appliances.*
    - *Comment: It would be good to add to the graphics on the slides to show actual sales from Hawaiian Electric and KIUC so it can be put in perspective. Look at total sales net of PV generation. Solar PV generation is locked in time, and we know significant "behind the meter" solar has gone in driven by consumer demand. Would be good to see what has actually come in general sales figures. Will see it in actual consumption.*

- Even if we count lighting spillover, we need to account for the fall off of the savings. As we look forward, we need to increase the savings goals going forward.
    - Have a sense for what those look like from the MPS and what it will take to get to goal.

    - MPS baseline study is done approx. every 5 years to update and refresh these numbers.
- Does the TWG agree that this EISA savings between 2019 and 2023 should be counted towards the EEPS target as lighting spillover (programs/C&S)?
    - No participants disagreed.

- *Question: I am trying to understand the timing. Does that decision have to be made today? Where is this going? Where are the impacts?*
    - *Answer: Reach out to the EEM Team if you have questions or comments. Because we have a report due in December, if you have questions or perspective, please contact us and provide additional feedback by next Friday, November 3, 2023.*
- *Question: For Solar PV was there any discussion around how it is currently being counted in cumulative persistent savings? Has it been considered to not include it? What is the measure life?*
    - *Answer: This was a discussion when the EEPS framework was developed. Agreed we would only include installations through 2014. The decision to include in cumulative persisting savings was by definition. The Measure life is something like 20 to 25 years, as defined by AEG. This was an engineer's estimate.*
- *Comment: Going back to naturally occurring, I am all for including it but benchmark it to actual generation and have an acceptable deviation percentage. Want to ensure we are not over or undercounting it in a way. I encourage you to look at some sort of benchmark and acceptable deviation.*
    - *Answer: We need to be practical. We have asked, how do we measure this? We want to sanity check the number and make sure those savings are real.*

- The realignment of the goals is a reality. We cannot stick with 195 and hit target.
- Question to all: Are there any additional savings that should be captured in this current Report to Legislature?
    - Are we capturing everything? Let us know if you are aware of anything in addition.

- *Comment: Lighting efficacy, tubular lumens are being phased out.*
- *Comment: All the states and counties are at 2018 IECC and all shooting to get to the 2021 standards.*

10:10 – Break

10:15 – EEPS Legislation and Framework Update, HPUC Staff

- We are looking to support a refresh on the bill for the 2024 session. It almost failed once, and we are working hard to get it to the finish line.
- Bill's intent is to cover 2030 to 2045. No demand response component yet at this time. There is the 6,000 GWH target for 2045 time frame which was a extrapolation from 2030.
- General update to the bill for now. Demand flexibility will be included in the details later. At this point we are trying to get extension first and foremost for the time being. Where things stand is based on outcome of subgroups. We can keep the legislation itself clean and then details come out later.

    - *Question: Why did it die previously?*
        - *Answer: We don't have specific clarity. I think they had concerns about definition.*
    - *Comment: Demand flexibility feels like it is an important and should be part of the bill.*

- The PUC has not yet secured sponsors. Will have between now and January to do that.

    - *Comment: I believe demand flexibility and the recognition of it in this current situation when low energy loads are causing system operational problems is important. Sometimes that situation makes it hard to operate.*

- We want the bill to focus on EEPS. If we add other factors, we are going to change the definition. Is this a fit? Bringing in demand flexibility piece, that is going to take more conversation than something like naturally occurring energy savings. We need to give it more thought.
- We felt it would be premature to shove it into the bill. We are supportive of the extension. With RPS and IGP, they are being counted too and we need to make sure it is not being double counted. This requires more conversation and more time with IGP results before we could put in the bill.

10:15 – Market Potential Study (MPS)/Baseline Study Saturation and Market Potential Studies

- The EEM team provided the background for and an update of the planning for the Saturation and Market Potential Studies.

    - *Question: How are the adoption rates being modeled?*
        - *Answer: The vendor has not been selected yet, but they are often estimated using Delphi panels and other similar methods. We want to explore this closely this time around. Sometimes there is a disconnect between what a model says you can do and what is achievable. We*

may do some sensitivity testing. Someone has to make a judgement call and doing some sensitivity testing could help with this.

- *Question: Is the plan to do the MPS up to 2045?*
  - *Answer: Yes, definitely. Typically, it is refreshed about every 5 years. The MPS was done and then EEPS update to the legislature was in about 4 years. Looking to move the MPS update, and the legislature update closer together.*
- *Question: How will some of the incentives established through the Inflation Reduction Act (IRA) be accounted for in the future MPS? What savings categories will be impacted most by incentives of IRA?*
  - *Answer: We are setting up the study. The saturation study happens first and will give us time to see which bucket the incentives will come from. It is a big factor we are keeping in mind.*
- *Comment: I was at the EPA conference, and they were looking at low-income households and replacing water heaters with Heat Pump water heaters. They come in with mountains of money and instant onsite rebates such that for low-income households the cost is zero. If that comes to pass, that is a major impact right there.*
- *Question: You have documented incentive segmentation of the market. Can we look at building size, building age, and income distribution? Is there a way to work on that to move IRA money to low-income households in most efficient way possible?*
  - *Answer: When they do the survey, they asked for income and number in the household and then slot it into the definition provided. In terms of MPS report, the report is produced by island and income breakouts and multifamily and single family. We will make sure we talk about it so that definitions align.*

- We would like to create a tool to be able to filter data as needed. We will gather input from stakeholders on data wants and needs.
- We want to strike a balance between being able to track data over time and adding new data. Is there data that should be added? What are your data wants and needs?
  - Provide your feedback on Saturation Study/MPS to Tami Rasmussen by Friday, December 1, 2023.

- *Question: Could HECO data be made available for your study?*
  - *Answer: We were providing exactly what the MPS data is. The Consumer Advocate could have access to that.*

10:35 – Valuing Benefits to Society

- The EEM team presented options for valuing societal cost benefits.
- Discussed two options:

- Adjusting the discount rate used to determine the avoided costs in the Technical Reference Manual (TRM).
- Adding a second societal cost test (SCT) in addition to the TRC.

    - *Comment: Is this more of an appropriate question for TAG? Maybe it is both? If it is more about Informing planning decisions, should we tee this up at TAG? It all seems interrelated.*

10:50 – Wrap Up

- Discussed action items and next steps.
    - TWG supports including that slice of naturally occurring savings tied to EISA standards. If there are any objections, reach out to the EEM team by next Friday, November 3rd.
    - Think about uses for MPS or saturation study. Share requests for data or how you would like to use that data with the EEM team by December 1st.

11:00 – Meeting Adjourned