

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

Meeting Summary

June 6, 2023

1:00 – 4:30pm Hawaii Standard Time

Hawaii Energy Offices with Teams Web Conference Option

1:00 – Welcome and Meeting Objectives

- Attendees (16 in person and 19 virtual) were welcomed.
- The Energy Efficiency Manager (EEM) thanked the attendees for coming and provided an overview of the meeting agenda as well as the meeting objectives.
- The EEM provided background information regarding legislative outcome:
 - There was proposed legislation (HB193) that would extend EEPS to 2045 and increase the target commensurately:
 - The legislation was not passed in the 2023 legislative session.
 - HPUC was looking to TWG for recommendations on how to execute the proposed changes.
 - The February 9th TWG meeting participants identified three policy objectives that to explore:
 - Equity
 - Demand (peak demand reduction, demand response & demand flexibility)
 - Time and locational value of energy savings/total system benefit (TSB) metric
 - Reviewed Working Group Charters, Members, and Goals
 - Today’s Workshop Objectives
 - Review and discuss each working group’s recommendation for EEPS modifications.
 - Agree on the final recommendation to the HPUC.
 - Begin to discuss upcoming activities that are eligible to be counted towards EEPS.
 - Identify next steps to determining whether it’s feasible to capture/claim these savings.

1:15 – EE + DR Working Group Report Out

- The EEM presented the EE + DR working group recommendations for EEPS:
 - Current EEPS Legislation

- The energy-efficiency portfolio standards shall be designed to achieve four thousand three hundred gigawatt hours of cumulative persisting electricity savings statewide by 2030.
 - Peak Demand Reduction Target Recommendation
 - In addition, cumulative persisting 2030 peak demand targets are set for each island. Island targets include residential, commercial, and industrial customers.
 - The peak demand targets can be met through a combination of energy efficiency measures and capacity decrease demand response including efficiency measures that support load flexibility.
 - Eligible capacity decrease demand response and efficiency measures that support load flexibility must be capable of providing a minimum of 2 hours of load shifting/curtailment.
 - Strengths of Recommendation
 - Demand reductions through EE, DR & flexible load will directly support RPS goal.
 - Will provide flexibility in execution since goal can be met through EE, DR & flexible load.
 - All data is already being captured/tracked.
 - Could add/call out other eligible contributors in the future (i.e., managed EV charging).
 - Weaknesses of Recommendation
 - Adds on additional layer of complexity to EEPS reporting.
 - Will need to work with HECO to report capacity decrease DR accomplishments.
- The group was invited to ask questions.
 - *Question: Would this become part of EEPS legislation?*
 - *Answer: It does not have to be and the working group agreed we can do this without legislation. We want the legislation to support equity and demand metrics but leave the target values for the EEPS Framework to allow flexibility in adjusting goals.*
 - *Question: Question about the 2-hour stipulation. Is the 2 hours averaged across the four-hour period?*
 - *Answer: The peak period doesn't have to be four hours, 5 to 9. You do have to worry about snap back if running shorter periods. The first step is 2 consecutive hours as a requirement to count, but the numeric goal is about four hours.*

2:00 – TSB Working Group Report Out

- Applied Energy Group (AEG) presented the recommendations from the Total System Benefit (TSB) working group:

- TSB is an expression, in dollar terms, of the lifecycle energy, capacity, and GHG benefits, expressed on an annual basis.
 - Represents the total benefits, or “avoided costs,” that a measure provides to the electric and natural gas systems.
 - Calculated by multiplying the DER load shape by the hourly avoided costs through the DER’s effective life.
 - To the extent the avoided costs account for the various benefits of energy savings across time, the TSB will capture all the system benefits of the DER.
 - TSB captures the full suite of policy benefits that DERs provide (to the extent they are captured in the avoided costs) Can provide a common unit of valuation to compare all DERs.
 - Initial Observations from Analyzing HECO Data Provided:
 - Primary benefits to using a TSB structure are that, when using robust avoided costs, it can drive investments that align with policy goals.
 - Not able to use the data as 8760 but can use at day-type level:
 - Would need to assess whether using it at a day-type level is beneficial.
 - The more the data is aggregated, you lose the variation.
 - All we're getting is the time value; we'll get this from the demand recommendation in the EE + DR WG.
 - Geographic diversity is by island.
 - Adding complexity to something that may not need that much complexity.
 - Only goes to 2032 so it doesn't support EEPS to 2045.
 - Doesn’t include GHG impacts.
 - Recommendation:
 - The TSB working group recommends that the Commission (via the TWG) continue to explore the value of adopting a TSB metric in the future.
 - Specifically:
 - The TWG should monitor the robustness of the hourly data in future IGP updates; and
 - Conduct analysis on available data to determine whether the data allow for the use of hourly costs instead of day types.
 - Assess the level of effort to add in GHG impacts to the hourly values and the impact that the addition of GHG avoided costs have on the hourly values and the resulting portfolio decision drivers.
- The group was invited to ask questions and provide comments:
 - *Comment: Suggest that we re-evaluate hourly data at next IGP update.*
 - *Comment: There are other environmental externalities including land use that would be important to consider. TSB does provide a useful framework to assess*

such externalities. We're still going to need thermal generation. Agreed, we should keep the working group open for now.

- *Suggestion: Should look at prior years to make sure we'd get the same results from other years. Noted that you can look at different years but on average the measure have been fairly consistent over time.*
- *Question: How many more years do we need to look at to get people comfortable?*
 - *Answer: TSB as a metric is only valuable if there is a big difference in value by measure. We need to look at marginal GHG emissions.*

2:30 – Equity Group Report Out

- The EEM presented the recommendations from the Equity working group:
- EEPS Legislation:
 - The energy-efficiency portfolio standards shall be designed to achieve four thousand three hundred gigawatt hours of cumulative persisting electricity savings statewide by 2030
 - Potential Recommendation
 - Residential single and multifamily LMI customers should contribute no less than 9% of the total statewide EEPS savings
- LMI Definition
 - The LMI definition to be developed by the Hawaii PUC within the Energy Equity and Justice Docket (No. 2022-0250)
- Strengths
 - Tied to data supported by the MPS
 - Can potentially be applied across contributing entities vs. budgets which effectively limits to PBFA and KIUC
 - HE BHTR & RHTR is ~30% of the budget
 - HE BHTR & RHTR is ~15% of first year savings
- Weaknesses
 - Leaves out business customers
 - For practical purposes program definitions may not align with LMI target
 - i.e., LMI and HTR might be different
 - Income eligibility can be challenging
- Combined Recommendation
 - EEPS Legislation
 - The energy-efficiency portfolio standards shall be designed to achieve four thousand three hundred gigawatt hours of cumulative persisting electricity savings statewide by 2030
 - Equity Target Recommendation
 - Residential single and multifamily LMI customers should contribute no less than 9% of the total statewide EEPS savings
 - The definition of LMI shall be developed by the Hawaii PUC within the Energy Equity and Justice Docket (No. 2022-0250)

- Peak Demand Reduction Target Recommendation
 - In addition, cumulative persisting 2030 peak demand targets are set for each island. Island targets include residential, commercial, and industrial customers.
 - The peak demand targets can be met through a combination of energy efficiency measures and capacity decrease demand response including efficiency measures that support load flexibility
 - Eligible capacity decrease demand response and efficiency measures that support load flexibility must be capable of providing a minimum of 2 hours of load shifting/curtailment
- TWG recommendation will include the following:
 - Any updated legislation should include language that supports:
 - The equitable achievement of savings across low income and other hard-to-reach groups
 - Peak demand reductions and demand flexibility
 - However, the subtargets and other details will be memorialized in the EEPS Framework:
 - This will allow the Commission to update the target values
 - Equity and peak demand subtargets can be added to the Framework to support the current 2030 EEPS target
 - The TWG will review updates to the MPS and other sources and recommend updates, when needed
- The group was invited to ask questions:
 - *Question: Can you speak to space heating?*
 - *Answer: LMI low income is more likely to have space heating.*
 - *Question: How do you define regular income?*
 - *Answer: 80% of Median income. From defining LMI slide.*
 - *Question: Why does it double in RI Own vs. LMI Own?*
 - *Answer: Likely because far more owned homes by regular income home owners. This chart is not showing per capita.*
 - *Question: What would be a good EEPS target?*
 - *Answer: 10% seems like a reasonable level to attribute to LMI for 2045.*
 - *Question: How would you report on the 9% at the EEPS level?*
 - *Answer: Have a and take the data from the baseline year and move it forward. To report out at EEPS level, have to do a survey.*
 - *Question: Should we be looking at something other than LMI? Something that is not income based?*
 - *Answer: Seems like good guidance right now regarding disadvantaged communities. What the Fed has put out is consistent with what we know to be true. Could be advantageous to look at from the perspective of future grants.*

- *Question: There are different definitions of equity and how would they fit in with program view for Hawaii?*
 - *Answer: We have one Justice40 area on the island, out there on the North Shore. It is hard to try to align it with these other definitions. Might be an issue to bring into the equity document, how do we define these populations? We noted that the order stated that they may redefine these populations. Key question is do we wait? Do we recommend putting something forward now or do we wait until there is more work done to define the population? Seems we need to be pretty vague in general. Start with Hud and expand. Make sure there is flexibility to update as changes occur. Like putting something in because it sets a policy direction.*
- *Question: When will MPS be updated?*
 - *Answer: Should start in 2024. Took 18 months last time but included a full baseline study. Will be up for discussion of what the scope will be for that study.*
- *Question: Our office has been raising questions about equity and low income in programs, especially energy efficiency – Energy efficiency cost of programs are recovered from customers. How are those costs recovered. Low income customers may not have the same opportunity to reduce kWh - can there be a more equitable way to recover costs from customers?*
 - *Answer: This is a good point. There have been prior discussions about this too. Most people in this room are familiar with how programs are funded. For equity can we also look at how LMI customers contribute to programs. Do we know who is contributing what? Spent a lot more money in direct install, don't have more access. Trying to rectify that by keeping LMI program available.*
- *Question: Can we vote on if we advance these recommendations? Vote on Peak demand vs. Equity components?*
 - *Answer: Still want to learn more about the equity target. What survey data was used and the characteristics behind that. We can dig into that. (couple deliverables on that). Want to send a recommendation to the commissioner no later than the end of this month.*
- *Question: What about voting on peak demand piece and Island-level targets? Any objections to advancing that as a recommendation? We would recommend those numbers. That would be in the framework and not the legislation. In the framework, could you tie it to where you are siting it from rather than an actual number? That could inform the scope for the MPS as well. Would be great to get MPS and EEPS on same window but right now they are off by a year.*
 - *Answer: Can we ditch the minimum of 2 hours? We have two programs that are 1 hour and don't want to confuse that. For adequacy of supply it is a 4 hour window. If it can align with other programs, we could change the hours. We do not run any programs more than one hour. We run our programs for one hour. Minimum of one hour duration rolling military into Oahu.*

- *Question: What about voting on equity target recommendations or do we wait?*
 - *Answer: I am having a hard time with the 9%. Not sure it is based on something we really feel confident about. Justice40 has a federal definition and feels like forthcoming guidance. I think it should be defined by energy equity docket. Equity is not as well developed. Similar to TSB we can recommend they keep a working group open and reconvene and re-evaluate. Or should we say it should be included but recommend the framework be updated when the equity docket is finalized. Do those timelines track? Is there enough of a definition to force alignment between the Docket and our recommendation. We are not certain what the timeline will be. Align the next study definition of LMI and support the development of an equity target in the future.*
- *Question: In terms of your E and A programs now, based more on level of spend than savings. Could there be a target set based on that? We have prioritized having the level of funding needed as compared to the level of savings. Our definition is much broader and self-designated or declared need. How we collect data and initiate programs is bigger than this target. was looking for a proposal that would have a hedge. Use the existing definitions and a little bit of stretch from what you are doing now.*
 - *Answer: Income eligibility or verification is just not possible. Right now, our definitions are very different from the docket. We could abandon all of this and say it is specific to an administrator. Could do what they did in NY, i.e. at least 30% with a target of 35%. We do want this potential to exist. Maybe it is reasonable to set a target based on funding. Higher percentage of funding than a percentage of savings.*
- **Agreement on Next Steps** - Think we should make the recommendation that when they scope the next study LMI they tie to the docket and they keep the recommendation open.
 - No objections were made.

3:35 – Potential New EEPS Savings Sources

- The EEPS Framework includes a variety of potential savings source.
- To date, EEPS savings have primarily come from PBFA and KIUC program savings.
- Two new efforts may generate eligible savings in the future:
 - HECF TOU Pilot
 - City and County of Honolulu Benchmarking Program
- Hawaiian Electric, Presented on the Time-of-Use (“TOU”) Rates Pilot
 - Desired End State: TOU rates for residential and commercial customers, on an opt-out basis with gradual implementation of TOU rates
 - Policy Goals
 - Improve grid resilience
 - Promote reliability
 - Reduce environmental impacts

- Provide cost savings to customers
 - Provide customers the opportunity to better influence and control their bills
 - Approved Rate Design – 3 components
 - Customer Charge – recover metering and billing costs
 - Grid Access Charge - \$ per kW to recover customer related service connection costs.
 - TOU Energy Charges – Recover all other costs, including generation, transmission, distribution
 - The Company will rollout TOU rates on July 1, 2023, via selection of customers to a TOU Study. One year study period.
 - Importance of the TOU Study
 - Assess impacts from customers in the TOU Study
 - Track, report, evaluate, change, and improve all elements of the TOU rate rollout in response to findings and clearly incorporate these learnings into future rate design initiatives.
- The group was invited to ask questions:
 - *Question: When do you plan to notify those who have been selected to participate?*
 - *Answer: Tied to commission approval of TOU rates. Have asked for up to 60 days in advance of TOU rates being implemented. We would start to communicate with customers 60 days in advance of start date. 60 days is ideal period. Commission may choose to adopt a shorter notice period. Will be an advance notice period before rates go into effect.*
 - *Question: I love the energy portal. I have a smart meter. Allows you to break down hourly usage. I would love to see daytime, peak and overnight usage. Help me see if it makes sense for me and look at my usage and educate me - helpful and necessary from a public perspective.*
 - *Answer: We agree with you, we are working on how to implement that now.*
 - *Question: What are you reporting to the commission? Hope that based on your reporting, we can show what TOU customers are saving per year. Would like to claim value per customers. Are you trying to estimate savings with the TOU? Reduction in overall energy use?*
 - *Answer: We certainly are going to examine that. You can hear the hedge in my voice. We can probably do that for our residential customers. Our sample of commercial customers is so small we are not sure we can get meaningful results from that group. This is a pilot and we don't know how long the rates will be in place and if we bring those rates into a post pilot - concerned that any changes to rates will impact the savings. Not sure they will be persistence, projectionable or sustainable. If rates from pilot change then pilot estimates are not valid.*

- *Question: In your education component, do you give specific examples of what the homeowner can do to maximize savings? And have qualified installers?*
 - *Answer: Our message does describe the particular activities of what customers can manage. Our message does not describe how to enable those. That next level is not in our message. Timers have been brought up. Time management of appliances makes sense. think about the equipment and what it can do to assist. Want to be really thoughtful about message we are giving. Don't want advice we give now to be problematic 3 years from now. Also, what is the cost of timers vs. The savings on the bill. Do you still end up ahead? Where is the cost vs. The benefit. In consideration and want to be really thoughtful and what is the end game.*
- *Question: Any expectations around overall conservation vs. Load shifting?*
 - *Answer: We do not have any good expectations. Because the price differentials are significantly different than what we currently charge in retail rates. Hard for us to assess how customers will choose to manage their bills. Hope to distinguish between shifts based on rates and what is actually conservation. We do not know what that will look like.*
- *Question: What are the key things you are trying to study?*
 - *Answer: Look at all three, primarily interested in energy uses and the time of use periods and how their bills change and assessing customer satisfaction review too.*
- *Question: Are you considering a control group? From the opt out group?*
 - *Answer: The 15,000 residential and 1,700 commercial, will have equal sized groups that will have AMI meters and will not be on TOU rates.*
- City & County of Honolulu, presented information about their Benchmarking Program
 - **City-wide: Ordinance 22-17**
 - Large commercial and multi-family buildings on O'ahu required to benchmark and report their energy and water usage annually.
 - **Municipal: Ordinance 20-47**
 - City and County of Honolulu required to benchmark the energy and water use of municipal buildings larger than 10,000 sqft in total floor area.
 - Benchmarking Program Components
 - Benchmarking – Tracking and reporting energy and water use of a building over time
 - Reporting – Sharing a building's utility data with the City to improve existing programs and services
 - Transparency – Making building benchmarking data publicly available
- The group was invited to ask questions:

- *Question: If someone were trying to gather information for EEPS is there way to do a download from the map?*
 - *Answer: We can provide data if you reach out.*
- *Question: For buildings that are condos are you going to report on individual units?*
 - *Answer: There are some privacy concerns to get responses from each tenant and publishing online so will not be reporting on individual units.*
- *Question: Are we separating out buildings that have electric vehicle charging stations?*
 - *Answer: We are not accounting for those. You can add notes for your building that will allow building owners to place notes in.*

4:15 – 3rd EEPS Report to Legislature

- Schedule for delivering the next EEPS update to legislature is due this year. Due every 5 years.
- Need to collect program accomplishment from Hawai'i Energy, collect information from contributing entities, document findings and develop report to legislature.

4:25 – Wrap Up

- Next Steps

4:30 – Adjourn

- The EEM concluded the meeting and welcomed follow up questions and comments from participants.
 - Meeting materials will be posted on www.HawaiiEEPS.org.