

State of Hawai'i Public Utilities Commission

Energy Efficiency Portfolio Standard (EEPS) Technical Working Group (TWG) Meeting

Meeting Notes

Friday February 1, 2019
10:00am to 11:30am Hawai'i Time
Via Zoom Teleconference

10:00 Welcome – Ted Pope, EEM team

- Attendees (~ 40) welcomed and advised that the meeting was being recorded.
- Meeting materials, including presentation, notes and recording, will be posted at www.hawaiiieeps.org on February 1, 2019 TWG meeting page.
- Meeting goals:
 - Discuss EEPS Review Research Report findings.
 - Update on Baseline Study progress and review overall EEPS research schedule.
 - Discuss EEPS and Hawai'i Energy metrics in view of changing policy context.
 - Mention legislation related to EEPS.

10:05 EEPS Review Research Schedule – Ted Pope, EEM team

- Reviewed key research and evaluation items on EEPS Review schedule slide.
- Next TWG in person meeting likely to be in March.

10:10 Baseline Study Update – David Lineweber, AEG

- Provided an update on the Baseline Study approach and presented survey timeline.
- Surveys will be in the field by the end of March.
- Noted that tricky part is getting people to respond.
- One attendee asked whether Baseline Surveys are going to be done on all the islands. Answer: baseline surveys will not be conducted on Kauai.

10:15 EEPS Review Research Report – Kelly Marrin and Ingrid Rohmund, AEG

- Presented high-level summary of findings from First and early part of Second EEPS Performance Periods.
- The interim EEPS goal was met. Appear to be on track to meet Second EEPS Performance Period goal through 2020.
- Contributing entities and their contributions were described.
- Summarized sources of Hawai'i Energy savings and other key findings.
- Described preliminary forecast for EEPS achievements through 2030 and noted the importance of tracking cumulative persisting savings.
- Business as usual program operations unlikely sufficient; more work will be needed to reach savings goal.

- Informal verbal poll of attendees demonstrated most attendees were not surprised that more work will be needed to meet EEPS goals in future years.

10:37 EEPS and PBF Metrics – Commissioner Jennie Potter; followed by Ted Pope, EEM team

- Commissioner Potter was invited to share her views for future EEPS and PBF programs. [Commissioner asserted she is speaking for herself, not officially for the Commission.]
- Thanked the TWG for input to the Commission and confirmed that the PBF EE portfolio is a high priority and is a critical part of meeting EEPS goals.
- Noted that Commission is closely working with Hawai'i Energy to develop changes in program design to address changing environment for PY2019-2021 Triennial Plan.
- Described that the context for energy efficiency in Hawai'i has changed significantly since early 2012 when the EEPS Framework was adopted and described factors impacting energy efficiency in Hawai'i:
 - New important Hawai'i policy goals, including Carbon Neutrality and Resiliency.
 - Technologies are evolving (e.g., grid-edge and smart devices).
 - Customer-sited, distributed energy resources (DERs) are proliferating.
 - Variable generation sources are providing larger share of utility generation mix every year.
 - Increasing attention to low and moderate income and hard to reach communities.
- Described these factors as a catalyst for evolving the Hawai'i Energy program offerings and expanding solutions to address grid needs to address broader state mandates while also contributing to the EEPS goals.
- Customer solutions that provide grid services, including controls and demand response (DR) technologies, smart buildings, and grid integrated water heaters are of interest.
- In order to incentivize and encourage current programs to address these broader policy objectives it may be necessary to enhance the EEPS metrics, such as:
 - Consider cumulative persistent savings as primary EEPS metrics.
 - Capture location-related EE impacts. Could be island specific or perhaps even at zip code, census block, or circuit levels. This would offer transparency into how the grid is impacted by demand side management programs.
 - DR enabled or smart appliance penetration. Important to allow for measures that move beyond just energy efficiency and incorporation of controls that can be used by aggregators or IOUs in DR programs. Hawai'i Energy could create list of DR-ready customers.
 - Hawai'i Energy progress into integrated program framework.
 - Time-related EE impacts. Coincident Peak Demand (monthly or annually) would help Hawai'i understand need for ramping generation resources.
 - Reduction in fossil fuel. Captures direct impact of EE and DSM as it relates to fossil fuels.

- Net greenhouse gas reductions to address state policy, including recent carbon neutrality legislation.
- Income constrained communities. One challenge is that work in hard to reach and low- and moderate-income communities is more expensive. Need metrics that support Hawai'i Energy to target these groups.
- Encouraged attendees to provide feedback on her suggestions.
- One attendee thanked Commissioner Potter for her comments and sensitivity to this work. He asked about the role for storage in the context of energy efficiency because he doesn't understand storage as a load shifting energy efficiency measure given that there are battery cycling losses, not energy savings. "How do you see storage fitting within energy efficiency goals?" Commissioner Potter clarified that storage does involve small losses and that she wasn't saying that it was an energy efficiency measure per se. She noted that we can't do just renewables and that customers – whether or not they have solar – should still be seeking out ways to be efficient. We must think - in the context of the portfolio – about optimal use of energy. The attendee agreed it is smart to help people to be efficient when they contemplate their energy systems. Commissioner Potter agreed and described that energy storage deployment requires an education campaign and Hawai'i Energy is good at such outreach.
- Another attendee supported metrics to address the location and time component on energy efficiency and would like to see all hours of the day addressed by the metrics.
- Ted noted that a California study is coming up with detailed work on load shapes. Ted to share details on this in future.
- Ted reviewed current EEPS & Hawai'i Energy Metrics. The EEPS program has essentially one metric: anytime-kWh.
- EEM shared examples of possible EEPS and Hawai'i Energy metrics (see slide for list).
- EEM proposed development of metrics concepts with Commission and AEG in advance of a live TWG meeting tentatively planned for March.

11:00 Potentially EEPS-impacting Hawai'i Legislation – Ted Pope, EEM team

- Many energy-related bills are being considered in the legislature. A handful of bills related to EEPS and PBF were noted.
- The Appliance Standard bills generate the ability for the State to adopt State appliance standards. A number of states are active in setting standards for appliance categories that are not federally regulated. The measures in the Hawai'i bills include: a requirement on high color rendering index fluorescent lamps (this fills a loophole for lower performance T8 and T12s), faucets, shower heads and sprinkler spray bodies. Ted described estimated product savings as being roughly 30% of PBF impact, at negligible cost to the state agency.
- The Benchmarking bills allow the State to do similar things in commercial buildings as was done for residential buildings. The bills have disclosure requirements, and

starting in 2020, utilities need to report out on historic performance to support benchmarking process.

- There is also a Training bill that would allow University of Hawai'i to provide training to help building inspection officials inspect and enforce adopted building codes.

11:08 Wrap-up – Ted Pope, EEM team

- Attendees were invited to comment on any part of the meeting discussions and were encouraged to reach out and share thoughts about this meeting and related issues in the weeks ahead.
- EEM noted plan for March TWG and TAG meetings.
 - EEM will provide metrics ideas, including preliminary thinking on specific units of measurement, data sources, and possible phasing of complex metrics
 - EEM will send materials out before the meeting.
 - There are two sets of metrics: for EEPS and for Hawai'i Energy. Hawai'i Energy metrics will need to be set soon. There is more time for thinking about EEPS metrics.
 - Stakeholder suggestions relating to metrics were encouraged in advance of the March meeting.
- Summary of this TWG meeting to be posted and the EEM will notice the date for the next TWG meeting to the TWG distribution list.
- Presenters and attendees were thanked and the meeting concluded.