



# **Technical Advisory Group Hawai'i PBFA Programs**

September 6, 2018

# TAG Topics

- Welcome and Introduction of New Independent EM&V Contractor Team - Ted Pope, EEM
- Overall Schedule Review - PBFA EM&V, EEPS Review, and PY2019 PBF portfolio planning activities - Ted Pope, EEM
- PBFA EM&V Ongoing and Upcoming Activities Review – Steve Schiller, EEM
- PY18 TRM Update and TRM Framework – Independent EM&V Contractor, AEG and Tetra Tech
- Group Discussion/Q&A – Ted Pope and Steve Schiller, EEM



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# Introductions

Ted Pope, EEM

# Introductions - New Independent EM&V Contractor Team

- Thank you to Opinion Dynamics Corporation for their work
- Applied Energy Group (AEG) started new contract in May after a very competitive selection process
- Principal in charge is Ingrid Rohmund ([irohmund@appliedenergygroup.com](mailto:irohmund@appliedenergygroup.com))  
Project Manager is Kelly Parmenter ([kparmenter@appliedenergygroup.com](mailto:kparmenter@appliedenergygroup.com))
- AEG team includes Tetra Tech, Brattle Group and Ward Research
- Primary Scope covers:
  - Verification of PY17 and PY18 Hawaii Energy portfolio
  - Review and update of the Technical Reference Manual (TRM)
  - Research and analysis to support preparation of EEPS report to the legislature
  - Baseline studies via residential saturation surveys (RASS) and commercial end-use saturation studies (CEUS)
  - Energy Efficiency Potential Study )

# AEG Project Team

HPUC  
EEM



Project Director  
Ingrid  
Rohmund, AEG



Project  
Manager  
Kelly Parmenter,  
AEG



## Verification

Task Lead  
Rich Hasselman,  
Tetra Tech



## TRM Framework

Task Co-Lead  
Sue Hanson,  
Tetra Tech

## TRM Updates

Task Co-Lead  
Michael  
Daukoru,  
AEG



## EEPS Review

Task Lead  
Kelly Marrin,  
AEG



## Baseline Studies

Task Lead  
David  
Lineweber, AEG



## Potential Study

Task Lead  
Ingrid  
Rohmund, AEG



# Status of PBFA and EEPS Planning, Evaluation and Reporting Activities

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Ted Pope, EEM

*PBFA EM&V*

*EEPS review schedule*

*High level PY2019-2021 schedule*

# PBF & EEPS Fall Calendar

## [Most dates are provisional]

- PBFA Program Planning
  - PY2018 Plan Wrap Up -- Budget Order, PBFA Contract Amendment, etc., [Sept/October]
  - PY2019-PY2021 Planning Stakeholder Meeting [Mid-November]
  - Draft PY2019-2021 Plan submittal [April 2019]
- PBF EM&V
  - One or two TAG meetings [end of year and/or beginning of 2019]
  - Topics
    - PY2017 Verification memo
    - TRM Framework and PY2019 TRM Update
- EEPS Review Research
  - Savings data collection - non-regulated contributing entities [September]
  - Analysis of first EEPS Period EE impacts [early November]
  - Baseline Study Sample Design and Research Design [Late September]
  - TWG Meeting #1 – webinar [~2<sup>nd</sup> week of October]
  - Potential Study – Preliminary analysis and approach to EE & DER interaction [~Mid-November]
  - TWG Meeting #2 (Possible) – webinar [later November]
  - Draft 2019 Legislative Report to Commission [Mid-November] ... Final to Legislature late December.

# PBFA EM&V Ongoing and Upcoming Activities Review

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Steve Schiller, EEM



# Context

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## ➤ Hawai'i Perspective – balancing cost, time, value

- Appropriate approaches have been used given the scale, scope and nature of PBFA programs
- However some revisiting is in order with regards to the savings values assigned to measures because:
  - Longer than intended time since last major updates to key documents
  - Programs and markets have and are changing
  - Measures will likely become more complex and probably more expensive
  - Increased recognition of value of market transformation
  - The RPS has moved to 100% and EE's (and all DERs') roles are affected, perhaps with new primary metrics
  - Increased recognition of low-income and HTR markets



# PY17 Hawai'i Energy Portfolio Verification

## ➤ PY17 verification has started

- Tetra Tech is the lead for EM&V Contractor Team
- To be completed by end of December
- Focus - verification of energy (kWh), demand (kW), and total resource benefits (TRBs) stemming from Hawaii Energy's PY2017 activities.
- Additionally, the verification of market transformation (MT), customer/island equity, and customer satisfaction goals are included in the verification plan.

## ➤ Scope

- Verify that project documentation matches program records
- Verify that TRM values/methods are properly applied
- Verify, via a sample, custom energy and demand savings calculations using engineering reviews and about 30 site visits
- Verify MT, customer/island equity, and customer satisfaction results

# Other PBFA EM&V Activities

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## ➤ Peer Program

- Hawai'i Energy has selected a new implementer for Peer, the home energy reports program
- Peer is using new deemed savings values for PY18
- A control group has also been selected for analyses, for at least PY18 (about 10% of prior participants were randomly selected to stop receiving reports)

## ➤ Other Topics of Interest

- System Loss Factor
- Net to gross, baseline and measure lifetimes, particularly for LEDs
- Avoided costs and discount factors for cost-effectiveness analyses
- TRM and TRM Framework

# PY18 TRM Update and TRM Framework

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Independent EM&V Contractor:

Michael Daukoru, AEG

Sue Hanson, Tetra Tech

# AEG/Tetra Tech Slides



# Summary and Discussion

Steve Schiller and Ted Pope, EEM

September 2018 TAG Meeting



# For Feedback and Questions

## ➤ Fall Schedule

- For questions on the fall EM&V and PBF Planning schedule, please contact Ted Pope ([tedpope@2050partners.com](mailto:tedpope@2050partners.com))

## ➤ PBF EM&V

- We look forward to feedback on TRM Framework – contact Steve Schiller ([steve@schiller.com](mailto:steve@schiller.com)), Michael Daukoru, ([mdaukoru@appliedenergygroup.com](mailto:mdaukoru@appliedenergygroup.com)), and Sue Hanson, ([Sue.Hanson@tetrattech.com](mailto:Sue.Hanson@tetrattech.com))
- Other feedback welcome on other Program and EM&V topics for TRM or Peer evaluation - contact Steve Schiller ([steve@schiller.com](mailto:steve@schiller.com))

# Thank You!

Today's meeting materials will be posted on Meeting page of <http://www.hawaiiieeps.org/>

