



# METRICS & METHODOLOGIES TO EVALUATE TRANSPORTATION ELECTRIFICATION PROGRAMS

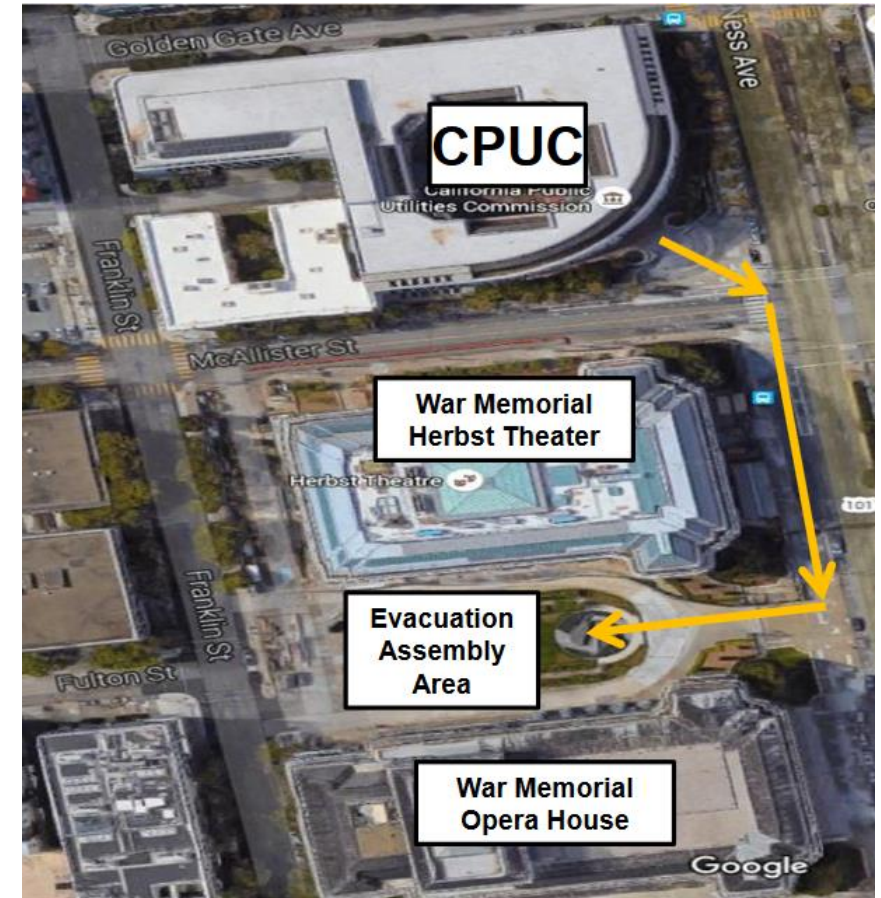
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CPUC Energy Division Workshop | May 9, 2019



# Safety & Logistics

- In case of an Emergency
  - Staff will call 911
  - To evacuate, proceed out of 1 of 4 exits to Civic Center Plaza
    - Exit toward Van Ness / McAllister
    - Walk past City Hall
    - Congregate in open area between Herbst Theater and the Opera House
- Bathrooms & fountain in the Lobby and across the courtyard
- During Discussion Sessions, always identify yourself and the organization you are representing before starting to speak
- Webex participants type questions/comments to 'Chat Me!' and they will be read aloud





# Workshop Objectives

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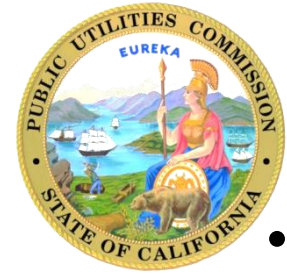
- Provide IOUs and TE program evaluators with information about other data collection and program evaluation strategies
  - Finalize data collection and reporting templates for priority review programs
  - Develop methodologies for broader IOU TE program evaluation going forward
- Leverage lessons learned from similar emerging technology programs' methodologies
  - Identify any key research questions that aren't asked in current CPUC TE data collection and reporting templates
  - Identify any data collection gaps and strategies to fill them
- Identify strategies to align data collection efforts and aggregate, compare, and share data and metrics across publicly-funded TE programs



# IOU SB 350 TE programs are currently being implemented

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- CPUC adopted specific IOU reporting requirements for SB 350 programs
  - Intended to help evaluate program success and identify priority sectors/ program types for future IOU TE applications
  - Will also inform the AB 2127 statewide TE infrastructure assessment being led by the CEC
- Priority Review Programs were initially intended to give the IOUs the chance to evaluate specific programmatic designs
  - Deploy programs specifically addressing identified barriers to TE
  - Deploying programs quickly
  - Learning from initial investments to improve implementation of larger-scale programs



# Examples of data fields currently required for IOU SB 350 TE programs

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- Summary data – totals reported by site type (residence, MUD, workplace, port, etc)
  - Number of sites
  - Number of EVSE (L2, DCFC, non-standard)
  - Average EVSE utilization rate
  - Number of EVs served by project infrastructure
    - Total
    - Incremental EVs adopted due to project
  - GHG emissions reductions
  - Criteria pollutant emissions reductions
  - Petroleum displaced
- Project cost data
  - Utility-side costs
  - Customer-side costs
- Project results during each reporting period
  - Site locations
  - kWh of electricity dispensed and number of charging sessions
  - Customer fuel savings
  - Average time for site installation



# Evaluation of TE programs must demonstrate progress toward ZEV adoption, GHG reduction, & air quality goals

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- Methodologies for evaluating IOU TE programs were left open in 2018 Decisions
  - ZEV adoption
  - GHG reduction
  - Criteria air pollutant impacts
  - Load impacts
- Premature to attribute incrementality to IOU TE programs
  - Data collection needed to develop methodology for measuring program's impact on the above
  - PRP program implementation still being implemented
- Today's workshop will:
  - Discuss whether current data collection efforts are adequate/appropriate
  - Identify strategies to ensure TE program evaluations can develop incrementality metrics



# Agenda

Topic	Presenter(s)	Time
Introductory Remarks	Commissioner Cliff Rechtschaffen	10-10:10AM
<b>Panel 1:</b> Review of California's existing TE metric collection & evaluation methodologies	Carrie Sisto, CPUC Ziga Ivanic, Energetics Joshua Cunningham, CARB Yachun Chow, CARB Noel Crisostomo, CEC	10:10-11:20AM
<b>Panel 1 Discussion</b>		11:30AM-12:30PM
Lunch		12:30-1:30PM
<b>Panel 2:</b> Learning from and leveraging evaluation methods from other emerging programs	Philip Kreycik, Cadmus Dan Bowermaster, EPRI Austin Brown, UC Davis Gil Tal, UC Davis	1:30-2:45PM
<b>Panel 2 Discussion</b>		3:00-4:15PM
Workshop wrap-up and next steps	Carrie Sisto	4:15-4:30PM



## Panel 1 Discussion Questions

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1. Are other state agencies currently collecting standard data/metrics to evaluate publicly-funded TE programs?
  1. If yes, do the CPUC SB 350 TE data collection templates collect similar data?
  2. If no, how are other state agencies developing new programs/regulations?
2. The 2018 SB 350 decisions direct the IOUs to work with CPUC and the selected evaluator to develop methodologies to measure incremental impacts. How can TE pilot program results and other early TE program results be used to fulfill these evaluation requirements?
3. Should data from publicly-funded TE programs and funding opportunities be centrally aggregated to better inform the development of future TE programs?





## Panel 2 Discussion Questions

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1. Are there lessons learned from prior evaluations/data collection efforts that could improve the effectiveness of current and future IOU SB 350 TE program evaluations?
2. Is the data currently being collected through the SB 350 TE templates adequate to complete existing program evaluation goals?
3. Can other existing program evaluation strategies help address current SB 350 TE program data collection/evaluation barriers?



## Next Steps

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- Priority Review Project interim evaluations underway – next filing planned for January 2020
  - IOUs and evaluator(s) to use lessons learned today to finalize data collection and reporting template under consultation with Energy Division
  - January 2020 interim report should provide guidance on evaluation methodologies that could be leveraged for standard review programs
- Ongoing interstate agency alignment to support CARB regulatory development and CEC EV infrastructure assessments