

## DOCKETED

<b>Docket Number:</b>	17-EPIC-01
<b>Project Title:</b>	Development of the California Energy Commission Electric Program Investment Charge 2018-2020 Triennial Investment Plan
<b>TN #:</b>	217338
<b>Document Title:</b>	Michael J Klopfer Comments 17-EPIC-01 Plug Load Investigational Research
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Michael J Klopfer
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	4/27/2017 5:07:05 PM
<b>Docketed Date:</b>	4/28/2017

*Comment Received From: Michael J Klopfer*

*Submitted On: 4/27/2017*

*Docket Number: 17-EPIC-01*

## **17-EPIC-01: Plug Load Investigational Research**

Dear CEC Staff,

Based on the presentation by Bradley Meister at CalPlug on 4/11/2017, we offer the following considerations for funding opportunities for buildings with a focus on plug loads.

Under S1.5.1 (Strategies for low power and idle mode), we encourage consideration of innovative solutions for reducing idle time in devices in shared/public spaces, which pose unique challenges, and in devices requiring soft shutdowns or warmup times, in which a simple power-cut strategy would substantially impact usability. Such solutions would benefit from greater consideration into real-life patterns of device use.

Under S1.5.1 (Strategies for low power and idle mode), we encourage consideration of advanced strategies for integrating plug load control into building energy management or device-to-device control strategies. Testing is needed to evaluate the observed energy impact of energy savings in connected "smart" homes.

Under S1.5.1 (Strategies for low power and idle mode), we encourage consideration for investigation in user-plug load interface graphic design with a goal of making it easy to understand and to act on the reporting energy usage state and its annual energy usage (in the sense of saving money - not technical such as KWH). The design should provide feedback to users for engaging them in making decisions for energy saving and saving money.

Under S1.5.2 (Medical equipment), we encourage consideration of the impact of residential medical devices on energy use (and costs) in vulnerable populations. We suggest a target focus on low income and elderly populations, especially on the health supportive devices that allow for independent living, and strategies to improve energy management and control of these devices.

Under S1.5.3 (Large-scale demonstrations), we encourage a focus on field-testing not only the technical capabilities of devices but on user response to devices: especially, how efficiently users utilize the devices in real-life situations. In particular, research is needed on how the design of the user interface impacts user uptake, user persistence, and long-term effects on energy use.

Best wishes,

Michael Klopfer

California Plug Load Research Center

University of California, Irvine.