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Enervee comments on Draft 2019 California Energy Efficiency Action Plan

Additional submitted attachment is included below.



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VIA ELECTRONIC FILING

2019 IEPR Draft 2019 California Energy Efficiency Action Plan (19-IEPR-06)

Enervee Comments

Enervee appreciates the opportunity to provide input on the Draft 2019 California Energy Efficiency Action Plan (“2019 EE Action Plan”), following the series of Staff Workshops conducted by the CEC. In the US alone, Enervee has deployed data-driven, customer facing choice engines on behalf of utility clients that serve over 16% of all residential electric customer accounts (19.4 million households) and 5.7 million gas-only customer accounts in 9 states, including the Los Angeles Department of Water & Power, Pacific Gas & Electric, San Diego Gas & Electric, Southern California Edison, and Southern California Gas Company – which collectively serve roughly 35 million Californians.

Our comments include remarks made during the first CEC Staff Workshop on the 2019 EE Action Plan – where Enervee participated in the panel on “Innovative Approaches to Energy Efficiency Savings”¹. They address the need for the 2019 EE Action Plan to put Californians first and more fully address: 1) plug loads (achievements since 2016, opportunities, suggested actions), 2) innovation to benefit income-constrained households and 3) actions to eliminate barriers that perpetuate the significant gap between cost-effective and market potential.

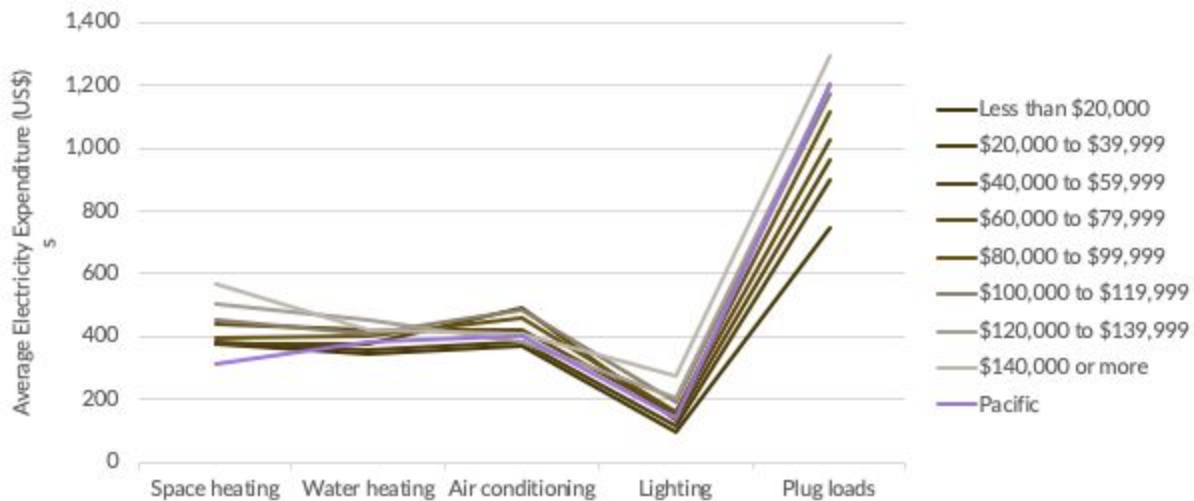
Lack of attention to plug loads

A key message Enervee sought to drive home at the Staff Workshop is the need to effectively address plug loads, which are the main driver of residential electric load growth and which already account for 30%–35% of residential energy bills and 40%–50% of electricity bills nationwide – and California is no exception (Figure 1).

Although it states in the SF residential section that “Plug loads such as appliances, electronics, and lighting...use most of the energy”, and that “...plug loads in existing buildings offer significant savings opportunities”, there are no actions related to this (except standards, but California’s hands are significantly tied by Federal pre-emption). With efficient lighting becoming baseline, there is more motivation than ever to finally tackle growth in plug load demand.

¹ Refer to [transcript of the workshop](#)

Figure 1. Electricity expenditures by end use and income (2015)



Data source: RECS, 2015. The Pacific census region includes AK, CA, HI, OR, and WA

During the workshop, Enervee also highlighted some of the exciting innovations linked to CPUC-mandated online utility choice engine platforms¹:

- Focus on barrier removal, rather than mass market incentives
- Focus on 1-time buying behavior, which locks in an energy consumption profile over the lifetime of the products (complementing other effective behavioral programs that seek to shift habitual behavior)
- Ability to influence shopping journeys and purchases, without incentives
- Technology to implement a market-based retail product approach to better serve the low-income segment
- Availability of the Enervee Score, a relative energy efficiency index² that can be used to define dynamic super-efficient benchmarks for products to simulate manufactures and retailers to focus on innovation, as called for in the Codes & Standards Action Plan (product complement to REACH building codes).

Since the 2016 update to the Existing Buildings Energy Efficiency Action Plan³ (“2016 EE Action Plan”) highlighted the importance of plug loads and market transformation approaches to address them – including AB 793 and online utility marketplaces – there has been significant innovation and progress, which is not reflected in the draft 2019 EE Action Plan.

On April 6, 2017, the California Public Utilities Commission (CPUC) adopted a Resolution regarding utility compliance with cutting edge legislative mandates included in AB 793 to raise awareness of energy management technologies (EMTs) among residential and small & medium business customers

² In addition to utilities serving 16% of residential electric customers, the American Council for an Energy Efficient Economy ([ACEEE](#)) relies on the Enervee Score available for their own consumer advice.

³ Existing Buildings Energy Efficiency Action Plan [2016 Update](#)

and to provide incentives to purchase them. This included the requirement that, by the end of 2017, Pacific Gas & Electric and San Diego Gas & Electric provide greater support to their online marketplaces ([PG&E Marketplace](#), [SDG&E Marketplace](#)) – which were highlighted in the 2016 EE Action Plan as a key plug load market transformation strategy – and that [Southern California Edison](#) and [SoCalGas](#) launch similar energy technology marketplaces that include energy efficiency, demand response and related energy management technologies. All IOUs complied, updating or launching their online platforms by the end of 2017 (refer to links above).

There has also been considerable progress documenting utility online marketplace impacts. Since PG&E launched the first California choice engine platform in March 2015, we have moved beyond theory to documented results from both randomized controlled trial experiments published in the academic literature⁴ and live deployments, including an independent impact assessment⁵ (which demonstrated that market and behavioral barriers can be eliminated, empowering shoppers to invest in technology that is cost effective and affordable for each individual).

In California, over 90% of residential electric and 5.7 million gas only customer accounts now have access to utility-branded choice engine platforms, which eliminate market and behavioral barriers and make the market work better for consumers, spanning over 20 product categories. According to the draft 2019 EE Action Plan, "While no single plug-load has major savings potential, in aggregate, the amount of energy consumed by plug loads in homes creates large savings potential." The fact that roughly 20 million of these devices are purchased annually in CA alone (excluding LEDs, also available on the site, of which 100 million are purchased annually) represents a huge energy savings and demand reduction opportunity going forward, recognizing that energy savings will accrue over the roughly 10-year average lifetime of the products. Online utility marketplaces have proven their ability to capture this potential, yet were not mentioned in the draft Action Plan.

Despite impressive engagement numbers to date⁶, this statewide platform is an underutilized asset in California's efforts to double the rate of efficiency savings, offering an unprecedented opportunity to transform consumer product markets at scale, and was not reflected in the 2019 Energy Efficiency Potential and Goals study or the Draft 2019 EE Action Plan. This oversight needs to be corrected.

Innovation to benefit income-constrained households

With respect to Goal 2 of the draft 2019 EE Action Plan, we would like to cross-reference [Enervee comments](#) submitted under docket 19-IEPR-05 on Energy Equity. Enervee was actively engaged in the finalization of the SB350 Low-Income Barriers Study, submitting several sets of written comments and participating in a workshop that addressed plug load energy efficiency. Key recommendation 5.e. in the Barriers Study was to:

“Ensure that low-income persons have product selection options and information necessary to avoid driving up their plug-load energy use, recognizing that low-cost

⁴ [Arquit Niederberger & Champniss \(2017\)](#)

⁵ [Assessment of PG&E's Online Marketplace \(2018\)](#)

⁶ [SDG&E recently celebrated 2 million visits](#) to their online choice engine platform.

appliance and consumer products are commonly less energy-efficient than other appliances and products.”

The draft 2019 EE Action Plan does not mention this plug load recommendation in the discussion of the Barriers Study and progress implementing its conclusions. And – despite the significant contribution of plug loads to energy bills (Figure 1) – neither the written materials provided (Report out on SB 350 Implementation Progress July 2019), nor the verbal comments made by CEC staff and commissioners at the Energy Equity workshop conducted on July 30th, 2019 addressed progress on this key recommendation.

Enveree therefore requests the California Energy Commission to provide an update on progress on key recommendation 5.e. and ensure that it is addressed as a matter of priority going forward. It would also be helpful to see the reporting on utility follow-up with customers having bill payment issues regarding potential energy management technology (EMT) solutions to reduce their energy bills and avoid disconnection (AB793/CPUC Resolution E-4820). This explicitly includes providing directions on how to access the utility’s updated energy technology marketplace website and understand the relevant product information that would be obtained there (product pricing, product rebates available, savings estimates for the products, customer reviews, etc).

One viable means of addressing Barriers Study key recommendation 5.e. is to augment current low- (and moderate-) income product efficiency programs with a retail product channel offering, capitalizing on high levels of smart phone use and modern shopping habits. Such a program could be delivered statewide, by expanding the online utility marketplaces already deployed by LADWP and all IOUs (see discussion above).

Given the constraints of the ESA program, however, it has not been possible to pilot a dedicated choice engine offering for the low-income segment, despite the fact that the data and technology are available to do so. We therefore urge the CEC to provide demonstration funding for this purpose. Such a program would empower income-constrained households to make better buying decisions on their own, as called for by key recommendation 5.e. of the SB350 Low-Income Barriers Study, while also providing special instant discounts on the very most efficient products only. This approach would be well aligned with CPUC guidance on incentives, which instructed utilities to address the specific needs of different customer segments and to reserve incentives for products that are incrementally efficient. Getting super-efficient products into the homes of customers with high energy burdens should be a top priority, as it would advance energy equity, while increasing market demand for cutting edge products.

A focus on addressing plug loads with a retail product approach would be well aligned with forward-looking State strategies (calling for market transformation and attention to income-constrained households) and represents a real opportunity to capture a greater share of economic potential cost-effectively at scale.

Putting Californians first by eliminating barriers to capturing cost-effective potential

The gap between market and cost-effective potential should be analyzed in depth. We continue to leave huge, cost-effective savings on the table, and the Action Plan should include a serious analysis of the remaining barriers and how the State will move forward to eliminate them and encourage investment into cost-effective energy efficiency opportunities.

It is no secret that utility regulation has not kept pace with State strategies and the transformation of the energy sector, and Enverve agrees with many of the thoughtful comments from others on the 2019 EE Action Plan draft that point to the need for fundamental reforms in a number of areas. The disconnect between ambitious strategic goals and how utilities are currently regulated is the elephant in the room that needs to be addressed head on and with a sense of urgency (e.g., silos that prevent customer-centric, impactful solutions, no clear framework for behavioral or market transformation, cost-effectiveness that does not reflect state priorities, fragmentation of energy efficiency offerings...)

In summary, the 2019 EE Action Plan should:

- Quantify potential plug-load savings and elaborate on the opportunity to scale savings achieved by the CPUC-mandated online utility marketplaces cost-effectively, in the discussion of the single-family and multi-family buildings markets
- Include the progress with online utility marketplaces since 2016, as outlined above, in the section on Updated Milestones and Outcomes.
- Include AB 793 in the listing of policy & action drivers
- Provide a thorough assessment of remaining barriers and actions to address them, including policy and regulatory barriers
- Provide for a suitable source of demonstration funding to pilot a dedicated retail product choice engine offering for the low-income segment.

Sincerely,



Anne Arquit Niederberger, Ph.D.
VP Market Development
anne@enverve.com | 707 590 8660