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# RFI IRA HEEHRA Phase II - Enervee Response

Additional submitted attachment is included below.



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January 10, 2025

California Energy Commission
Docket Number 23-DECARB-01

Submitted via e-commenting portal

# RE: Enervee Comments on Request for Information (RFI) Program Design of Inflation Reduction Act (IRA) Home Equipment and Appliance Rebates (HEEHRA) Phase II

Enervee is a California-based climate tech company that has been operating online ecommerce platforms in the State since 2015. Our platforms eliminate barriers and empower Californians, including those in traditionally underserved customer segments, to buy decarbonization technologies and enroll in demand response programs in the course of natural replacement cycles. The importance of such marketplaces has been called out by the California Energy Commission (CEC) in various documents, including the SB 350 Low-Income Barriers Study and the 2019 California Energy Efficiency Action Plan (refer to Appendix for details). And the positive equity profile of marketplace appliance purchases paid for with Eco Financing has been documented by a recent CPUC evaluation<sup>1</sup>.

Enervee welcomes the opportunity to respond to the CEC's RFI questions on the design of Phase II of the IRA Home Equipment and Appliance Rebates (HEEHRA). Question numbers correspond to the numbering in the RFI.

- 1) Eligible Equipment and Appliance Rebates
- a. Should all DOE eligible equipment (listed in Table 1) be available to single-family households and multifamily properties?

Enervee response. Yes, California's HEEHRA program should offer rebates for all upgrades eligible under IRA Section 50122. There are several reasons for this, not the least public expectation. It is particularly important to include the appliance categories

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<sup>&</sup>lt;sup>1</sup> https://pda.energydataweb.com/#!/documents/3962/view

eligible for 1-off, do-it-yourself (DIY) retail purchases – namely electric cooking appliances and heat pump clothes dryers – because there are no other programs or incentives available to help low- and moderate-income (LMI) households make efficient retail purchases of these appliances on their own. Finally, these incentives would be meaningful to both renters and building owners alike.

b. Should the rebate amounts be reduced to allow more households to receive a rebate? If yes, please provide recommended amounts and rationale.

Enervee response. While Enervee is neutral about reducing rebate amounts to extend the funds to more households, there may be benefits to requiring at least some co-pay to discourage fraud and avoid the stigma of government handouts. In addition, pairing HEEHRA rebates with financing could buffer the impact of reduced rebate amounts on the ability to pay, should the Commission choose to do so.

Our experience offering rebates in combination with point-of-sale Eco Financing via California marketplaces suggests that ensuring access to safe, affordable and low-friction financing to cover net projects costs under HEEHRA will be essential for a successful LMI rebate program, regardless of the rebate levels ultimately decided. It is important to keep in mind that the HEEHRA rebate may not cover the total project cost. The vast majority of heat pump clothes dryers, for example, cost at least \$1,000 (up to \$2,500), not including the cost of required accessories, professional installation and haul-away/professional recycling services, which can add more than \$100 to the total project cost, exceeding the maximum \$840 rebate by hundreds of dollars.

We would like to point out that the Department of Energy has issued a "Marketplace Rebate Workflow"<sup>2</sup>, aligned with Enervee's HEEHRA delivery platform solution, that makes this possible for eligible cooking appliances and clothes dryers. A consumer would be able to choose an eligible product on the marketplace, have the rebate (and other available incentives) applied at checkout and opt to pay for the balance of the project amount, if any, in affordable monthly installments with an Eco Financing microloan supported by California's GoGreen Home Energy Financing Program<sup>3</sup>. Eco Financing microloans and HEEHRA rebates can be delivered via the existing CPUC-approved statewide California Marketplace serving all electric IOU customers, as well as the LADWP Efficient Product Marketplace relaunching Spring 2025 – and can be extended to all Californians.

The importance of financing to achieve more equitable outcomes has already been demonstrated in California and can make rebate dollars go further. According to the

https://www.pnnl.gov/sites/default/files/media/file/WF-19\_50122\_Marketplace\_Rebate\_Workflow\_ph2-v1.pdf

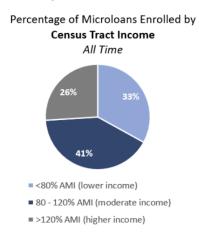
<sup>1</sup> 

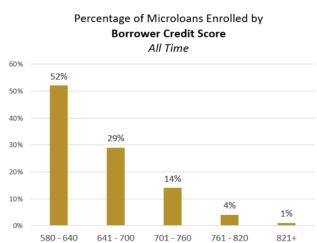
<sup>&</sup>lt;sup>3</sup> https://www.gogreenfinancing.com/energy-efficiency-home-loans-california/small-projects/

GoGreen Home Energy Financing Program Fiscal Year 2023-2024 Summary published by the State Treasurer's Office<sup>4</sup>:

"Microloans fulfill an important role in the suite of GoGreen Home financing offerings in terms of the types of borrowers served. For example, renters make up 39% of the all-time total borrowers who received financing via marketplace microloans. As seen in the graphs below, 74% of all-time microloans have been made to borrowers deemed underserved based on their residence in a low-to-moderate income census tract. And of particular note, 81% of all marketplace microloans enrolled were for borrowers with a credit score below 700. Per the GoGreen Home Regulations, borrowers within this credit score range are categorized as credit-challenged and generally experience greater difficulty when trying to obtain financing."

#### **How The Marketplace Microloan Product Serves Underserved Borrowers**





One-third of borrowers live in census tracts with an area median income below the HEEHRA low-income threshold of 80% of AMI, an additional 41% are below 120% of AMI and some share of those in the >120% of AMI bracket will also qualify as LMI for HEEHRA purposes. This is with utility rebates on only several gas appliance categories (no rebates on electric appliance categories).

The equity benefits of Eco Financing microloans for appliance purchases under \$5,000 were also underscored by Opinion Dynamics in their 2024 independent evaluation of the GoGreen Home Energy Financing program (GGH) conducted on behalf of the California Public Utilities Commission<sup>5</sup>. The evaluation concluded that: "The introduction of microloans expanded the GGH program to a greater number of underserved borrowers". According to the report, "nearly three-quarters (71%) of micro-loan borrowers resided in census tracts with a tract median income below 120% of the area median income..."

<sup>&</sup>lt;sup>4</sup> CAEATFA (2024), p. 11, https://www.treasurer.ca.gov/caeatfa/cheef/fiscal-year-summary/fy-23-24.pdf

<sup>&</sup>lt;sup>5</sup> https://pda.energydataweb.com/#!/documents/3962/view

To enable the bundling of Eco Financing microloans and HEEHRA rebates in real time at the online or in-store point-of-sale, the Commission will need to anticipate use of DOE's "Marketplace Rebate Workflow" under its HEEHRA program.

#### 2) Regional Allocation and Customer Engagement

a. To ensure fair geographic disbursement of funding and align with other energy equity programs, CEC allocated HEEHRA Phase I funding to three regions of California based on the proportion of underresourced communities.

This formula provides 23 percent of funding to Northern California, 19 percent to Central California, and 58 percent to Southern California. CEC is considering a similar allocation approach for HEEHRA Phase II funding. Should CEC consider other factors to ensure statewide distribution?

Enervee response. Funding available for retail DIY point-of-sale rebates under Phase II should not be subject to the same geographical allocation system as for Phase I; rather, the funds should be available on a first-come, first-served basis. Online retailers are capable of delivering statewide.

Consumers invariably turn to online research when they need to replace appliances, and a significant share of DIY purchases of eligible cooking appliances and dryers can be expected to be made online, based on a trend that accelerated during COVID and has continued to increase since – and which better serves consumers located in remote, rural areas. This is particularly the case when consumers learn through online research that instant rebates and affordable point-of-sale financing are available for online purchases, reducing or eliminating their immediate out-of-pocket cost. HEEHRA point-of-sale rebates available for DIY purchases by low- and moderate-income Californians should therefore be available across the state on a first-come, first-served basis, regardless of location. The CEC would have to ensure that digital marketing reaches in-market shoppers statewide, and Enervee's marketing experts would be happy to strategize on how best to achieve this.

b. Are there other active or past rebate programs in California or the United States with high uptake in underserved communities that CEC can learn from?

Enervee response. The Eco Financing microloans that Enervee facilitates via the statewide California Marketplace (electric measures spanning dozens of categories) and the SoCalGas Marketplace (gas measures) have demonstrated high uptake from underserved communities, including low- and moderate-income, DAC, renters, and credit-challenged consumers without access to capital (refer to references and data presented in our response to Q1b).

In the case of the SCG Marketplace, these loans were combined with rebates for certain categories, including clothes dryers and water heaters. There are currently no IOU rebates available in California for electric cooking and heat pump clothes dryers, so the equity outcomes achieved via the statewide California Marketplace with Eco Financing alone are noteworthy and point to the importance of offering both financing and rebates at the point of sale to empower the target consumers to make DIY appliance purchases. Evaluation results have also shown that the convenience of online shopping with integrated rebates and financing is highly valued by consumers.

Similar results were achieved through the NY Marketplace supported by the State of New York<sup>6</sup>. When asked which program features were most important, 100% of respondents who used Eco Financing highlighted the importance of affordable monthly payments, whereas only 38.5% mentioned rebates as a crucial factor. Additionally, two-thirds of respondents indicated they would have likely made their purchase without a rebate, if financing was available. This makes intuitive sense, because Eco Financing results in affordable monthly payments in the tens of dollars, while cost-effective rebates, even when applied at the point of purchase, still leave consumers with a sizable lump-sum price to pay.

#### 4) Point-of-Sale Methodologies

For HEEHRA Phase II, the CEC plans to require the program Implementers/
Administrator(s) to collaborate with various point-of-sale organizations – such as retail stores, wholesalers, online distributors, and registered installation contractors – to leverage the DOE-provided Home Energy Rebate Tools at https://www.pnnl.gov/projects/rebate-tools and DOE-certified vendor implementations for secure rebate processing.

a. How can CEC facilitate homeowners obtaining a rebate when shopping online? Are there any program design considerations or best practices unique to an online sales point?

Enervee response. The vast majority of DIY appliance shoppers, including those eligible for HEEHRA rebates, will begin their research and shopping journey online (as will the majority of those who ultimately buy in-store). In addition, the share of major domestic appliance purchases made online has continued to increase. According to Statista, "online sales are expected to contribute 58.9% of the total revenue in the Household Appliances market by 2025."<sup>7</sup> The online channel is particularly important for those in rural areas.

It is therefore critical for HEEHRA program success to prioritize online channels for DIY purchases. This was recognized by the US DOE early on, resulting in a "Marketplace

<sup>&</sup>lt;sup>6</sup> https://www.enervee.com/blog/driving-climate-action-by-individuals-with-eco-financing

https://www.statista.com/outlook/cmo/household-appliances/united-states#:~:text=Online%20sales%20are%20expected%20to.527.6m%20pieces%20by%202029

Rebate Workflow" that provides for quasi-real-time validation and instant rebates. Enervee worked closely with DOE on this tool, and it can be implemented for the existing statewide California Marketplace channel. The CEC would need to authorize certain procedures specific to this workflow and channel, which we are happy to elaborate on.

Operationalizing this DIY Marketplace Rebate Workflow is critical to enabling instant HEEHRA rebates at the online point of sale and to tap into digital marketing targeting in-market shoppers. This will drive program uptake, as pointed out by Opinion Dynamics in their November 2023 Energy Efficiency Residential Pulse Check Study conducted on behalf of the California IOUs, which recommended that residential programs prioritize investments in search engine marketing to reach customers in the market for new equipment<sup>8</sup>.

It can be expected that the vast majority of LMI shoppers who lack disposable income and access to capital will only begin researching a major appliance purchase when their existing appliance no longer functions properly – and then they need to act fast. Making the HEEHRA rebates and Eco Financing available via the ratepayer-funded California Marketplace in quasi real time will simplify and drive participation in emergency DIY buying situations that begin with online research. It will also leverage existing marketing budgets provided under utility programs and by Enervee marketplace manufacturer and retailer partners.

An online marketplace also ensures the best selection of appliances across participating retailers and manufacturers in one place, which alone can result in purchase price savings and stimulate competition before rebates and financing.

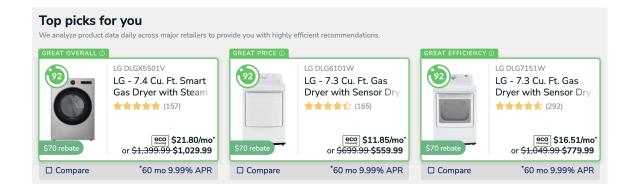
d. What are challenging elements with existing point-of-sale rebate programs and what are some solutions or best practices to minimize or eliminate the challenge?

#### Enervee response:

- There are currently no IOU energy efficiency rebates available in California on the DIY categories of electric cooking appliances and heat pump clothes dryers, because they are not viable under the current cost-effectiveness regime, based on CPUC regulations.
- Traditional rebate programs don't make it easy for customers to know what models are eligible, whether they qualify and how to get reimbursed. That is where online marketplaces have excelled. Instead of having to rely on qualified product lists and complex program eligibility and participation rules, the following screenshot from the SoCalGas Marketplace illustrates Enervee's frictionless solution that eliminates the guesswork for consumers.

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<sup>8</sup> https://www.enervee.com/blog/ca-energy-efficiency-study



Rebates only appear for eligible models, and Enervee performs all of the equipment, home and customer verification steps required by the rebate program, as well as offering integrated financing. This reduces friction for the consumer, something emphasized in a recent study conducted on behalf of the California IOUs<sup>9</sup>.

- Generally speaking, reporting requirements for individual appliance purchases in the context of energy efficiency resource programs set by the CPUC can be inconsistent from one utility to the next, impractical / extremely burdensome to implement and therefore result in prohibitive complexity and transaction costs, including for program participants. Clear, standardized validation and reporting guidance/templates, developed in cooperation with program implementers, and automation of approved processes (including use of APIs) can streamline implementation. The rebate API and HEEHRA workflows developed by the DOE are examples. And the CEC should work with implementers to streamline state-level processes, as well, including verification of eligibility and reimbursement flows.
- Another challenge is getting timely reimbursement of rebates applied at the
  point-of-sale, which leads to implementers having to carry large rebate costs, prior
  to reimbursement. Enervee has worked with some IOUs to set up rebate funds that
  the program implementer may draw from on an ongoing basis for each rebate
  applied at the POS, rather than having to request reimbursement in batches, with
  sometimes lengthy delays in repayment.
- Instant financing is critical to ensure that point-of-sale rebate programs benefit disadvantaged communities. Traditional utility rebate programs even point of sale rebates do not benefit those with the greatest financial barriers, because the consumer would still need to pay for the balance of the project cost at the time of purchase. Although the HEEHRA rebates will likely be significantly higher than traditional rebates, there is still likely to be an up-front net cost for many projects even for the low-income segment, where up to 100% of the project cost can be covered because of the rebate caps. We have good evidence from existing

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<sup>&</sup>lt;sup>9</sup> https://www.enervee.com/blog/ca-energy-efficiency-study

- programs in NY and CA that the availability of Eco Financing can be an enabler of rebate program participation by DAC/LMI consumers<sup>10</sup> (see response to Q 2.b).
- While the California Marketplace is available to serve all Californians with electric IOU service especially underserved customers with the greatest need for point-of-sale Eco Financing there is currently no marketing budget/effort to inform PG&E and SDG&E customers shopping for appliances of the availability of this offering. Channeling HEEHRA DIY rebates through the California Marketplace and marketing them to consumers statewide could drive much greater participation, by targeting in-market shoppers with digital advertising.

#### 5) Do-it-Yourself (DIY) Considerations

The CEC is considering allowing rebates for equipment that a homeowner can install themselves, like a stove or insulation. For other equipment requiring a permit home owners will need to work with professional, licensed installers. In both the DIY and professional contractor route, DOE requires homeowners to provide proof of a quality install. Examples of proof of a quality installation include proof of purchase or invoices plus before and after geo-tagged installation photos or county approved permit.

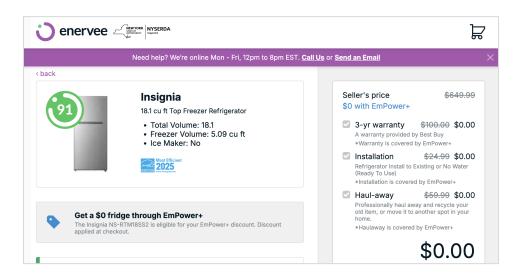
a. What are best practices to ensure a quality DIY install? What type of proof should be provided?

Enervee response. Proof of purchase must be provided by the retailer for DIY purchases. These invoices should include voluntary or obligatory professional installation services as a line item:

- Some DIY customers may opt to purchase installation services for cooking appliances and clothes dryers at the time of purchase. To date, 59% of clothes dryer purchases on Enervee's California marketplaces have included professional installation services, on a voluntary basis. Since installation costs can be covered by HEEHRA rebates, we would anticipate an even higher share of consumers opting for professional installation.
- Alternatively, the CEC could require professional installation services (as well as haul-away and recycling services, see response to Q6 below) for all DIY purchases that take advantage of HEEHRA rebates. Mandatory professional installation has already been operationalized via Enervee's marketplaces, such as the California Marketplace and the NY Marketplace (screen shot, p. 9), for appliance programs.

These HEEHRA installation services would cover both DIY categories (electric cooking, HP dryers), electrical upgrades from 120V to 240V, where needed, and capping the gas line, in cases where gas appliances are replaced by electric appliances.

<sup>&</sup>lt;sup>10</sup> https://www.enervee.com/blog/driving-climate-action-by-individuals-with-eco-financing



The statewide California Marketplace program generates the resulting invoices, including a line item for either voluntary or obligatory professional installation services – and these invoices should constitute "proof of quality installation" for HEEHRA DIY rebates.

If professional installation services are not mandatory, those who don't opt for this service at the time of purchase should certify that they acknowledge the installation requirements and could be encouraged to provide proof through other, consumer-friendly means (e.g., text/email a photo of the installed product and participate in a gift card drawing as an incentive). However, reimbursement of HEEHRA point-of-sale rebates must occur independent of the consumer providing proof of installation, as foreseen by DOE's Marketplace Rebate Workflow<sup>11</sup>.

b. What are some guidelines and best practices for a program that allows for DIY installation of eligible equipment?

Enervee response. The voluntary purchase of professional installation services for rebated appliances should be available at the point-of-sale to remove friction and discourage DIY installation, although some consumers (themselves, or by tapping into their personal networks) will have the skills to conduct a no- or low-cost quality install. We have found that this is a popular choice among those in the LMI segment.

c. Are there other successful rebate programs in California or the United States that have provided rebates for DIY installed eligible equipment?

<sup>11</sup> 

https://www.pnnl.gov/sites/default/files/media/file/WF-19\_50122\_Marketplace\_Rebate\_Workflow\_ph2-v1.pdf

Many successful residential rebates in California and other states have been provided for DIY-installed equipment. An example is the SoCalGas Marketplace market support program, with DIY rebates on clothes dryers, for example 12.

The ratepayer-funded California statewide GoGreen Home Energy Financing program also allows DIY purchases (with or without rebates) to be financed across many categories, including cooking appliances and clothes dryers<sup>13</sup>. Microloans for these DIY purchases are delivered exclusively via Enervee's California marketplaces.

In neither of these cases has proof of quality installation been required for DIY purchases.

## 6) Recycling Appliances and Refrigerants

The DOE does not provide funds for recycling of old equipment, appliances, or refrigerants. Recycling is important to the CEC's mission and may be considered a requirement where available for the HEEHRA Phase II program. Even where required by law, recycling and refrigerant recovery can be particularly challenging for disadvantaged, low-income, and rural communities, where facilities may not be available.

a. How can the CEC ensure proper recycling of old equipment replaced by HEEHRAfunded measures?

Enervee response. The ability of consumers to order online from virtually anywhere in the state and have appliances delivered to their homes, while at the same time taking advantage of installation and old appliance haul-away and recycling services is a major advantage of including digital retail channels in the Phase II program. To this end, the CEC can leverage the existing statewide California Marketplace to encourage shoppers to have their old appliances professionally recycled. Shoppers already have the option to include installation, haul-away and professional recycling services<sup>14</sup> on a wide range of residential purchases, including cooking appliances and clothes dryers (see screen shot, p. 11).

Since inception, 12% of clothes dryer purchases via Enervee's California marketplaces have included voluntary haul-away and recycling of the existing appliance. Enervee ensures delivery, haul-away and professional recycling via our retail fulfillment partners, such as Best Buy.

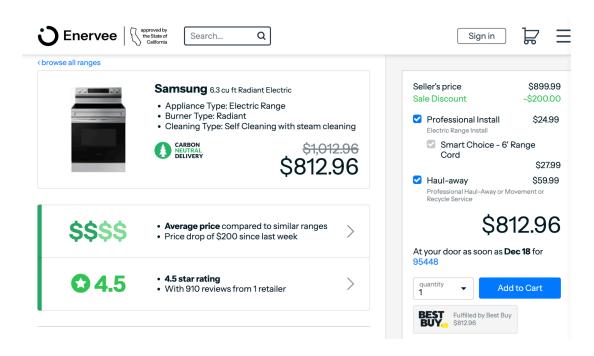
The CEC could also provide special recycling incentives for target audiences to ensure professional recycling of existing appliances. Under the income-qualified EmPower+ program in NY, for example, the State of NY (NYSERDA) pays the full cost of haul away/recycling of old cooling appliances when no-cost energy efficient refrigerators and freezers are ordered by income-qualified customers via the statewide NY Marketplace

<sup>&</sup>lt;sup>12</sup> https://marketplace.socalgas.com/gas-dryers/

<sup>&</sup>lt;sup>13</sup> https://www.gogreenfinancing.com/energy-efficiency-home-loans-california/diy/

<sup>&</sup>lt;sup>14</sup> Professional recycling is a component of the haul-away service.

(see screen shot on p. 9). When channeled through the California Marketplace, the program participant could be provided with haul-away and recycling services at no cost, assuming the CEC (or other source) would fund the cost of these services for the LMI target audience.



In conclusion, the CEC should take full advantage of the proven statewide California Marketplace as a priority channel for DIY rebates under the HEEHRA Phase II program. It unites all of the necessary market actors – from utilities and lenders to retailers, manufacturers and contractors – and has proven its ability to drive DIY participation by income-constrained consumers and those located in disadvantaged communities. This solution would cover both DIY categories (electric cooking, HP dryers), installs requiring an upgrade from 120V to 240V electricity and capping gas lines in the case of gas to electric fuel substitution.

In addition, the statewide California Marketplace would provide all residents with the opportunity to research appliance purchases in dozens of other categories<sup>15</sup>. Prior evaluations have demonstrated that the Enervee Score alone guides consumers to more efficient appliance choices, and Eco Financing is available on most categories. Finally, the marketplaces also make it easy for consumers to take advantage of Federal tax credits they may qualify for<sup>16</sup>.

<sup>15</sup> https://ca.enervee.com/

<sup>&</sup>lt;sup>16</sup> See this example from the SoCalGas Marketplace: https://shop.enervee.com/energy-star-tax-credits

The Energy Efficiency Residential Pulse Check Study cited above was undertaken to assist program planners and third-party implementers to develop more effective residential offerings for customers, and the report contains numerous recommendations that point to the need for an online marketplace and digital marketing solution with integrated rebates and financing to fill existing program gaps, especially for underserved customer segments. The CEC can advance these recommendations by designing the HEEHRA Phase II program to channel DIY rebates through the existing California Marketplace.

Sincerely,

/s/ Anne Arquit Niederberger, Ph.D. Advisor Enervee anne@enervee.com

#### **Appendix**

### 2019 California Energy Efficiency Action Plan – Excerpts of References to Plug Loads

#### Source:

https://efiling.energy.ca.gov/GetDocument.aspx?tn=231261&DocumentContentId=62916

Goal 1: Double Energy Efficiency Savings by 2030 Single Family Sector Opportunities in the Single-Family Market (p. 24)

Plug Loads: Plug loads are appliances or measures that plug into a building. While no single plug load has major savings potential, the aggregated amount of energy consumed by plug loads is large. Ongoing research into miscellaneous electrical loads in homes is uncovering the scale of potential savings. Marketplaces that provide consumers with energy efficiency scores for appliances, most prominently those supported by the IOUs, have a track record of success. Continuous support and expansion of such programs will result in more achievable savings from the growing plug-load demand.

# Multifamily Sector

Opportunities in the Multifamily Market (p. 29)

Plug Loads: As in single-family homes, plug loads are a major source of energy consumption in multifamily units. Since end uses like space and water heating may be maintained by owners rather than tenants, most in-unit energy savings that can be controlled by tenants are plug loads. Given the varied income levels of tenants, it is important that affordable and efficient products are available. Online marketplaces are an effective tool at making energy efficient products readily available and easily discounted.

Goal 2: Low-Income and Disadvantaged Community Energy Equity Component 1: Low Income and Disadvantaged Community Barriers Plug-Load Marketplaces (p. 73)

In 2017, the CPUC directed IOUs to create or expand online marketplaces for appliances and other plug loads, or do both, in response to Assembly Bill 793 (Quirk, Chapter 589, Statutes of 2015). The Barriers Study recommended that low-income households receive information and options for purchasing appliances or devices that draw electricity. Now, all IOUs offer marketplaces that collect incentives and educate customers on the most efficient plug loads. These marketplaces can continue to expand and be a resource for more than IOU program activities. Collaboration between utilities and government agencies could add more incentives and information for products that benefit low-income households. The marketplaces could provide a direct-to-consumer channel for incentives, which would enhance consumer choice and flexibility, improve program effectiveness and lower costs. The CEC continuously approves new appliances for sale in the state, and these marketplaces are updated to reflect that.