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Enervee comments on decarbonization Web Guide (SB 68) 22-DECARB-02

Additional submitted attachment is included below.



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Sep 14, 2022

California Energy Commission Dockets Office, MS-4 Re: Docket Number 22-DECARB-02 715 P Street Sacramento, CA 95814-5504 Docket@energy.ca.gov

RE: Enervee Comments on the Building Decarbonization and Electric Vehicle Charging Equipment Web Guide (22-DECARB-02)

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 2019 California Energy Efficiency Action Plan (refer to Appendix for details).

A recurring theme at the CEC Workshop on the Web Guide held on 8/30 was the importance of helping building decisionmakers invest in products that reduce load. With its SB68 Web Guide, the CEC has a unique opportunity to transform markets and scale decarbonization. Consumers making buying decisions face multiple market and other barriers, not the least a fragmented landscape of information and offerings. To overcome this challenge, Enervee pledges to stand up an energy efficient ecommerce platform that could be integrated into the Building Decarbonization and Electric Vehicle Charging Equipment Web Guide.

The ecommerce platform would feature proven functionality to eliminate barriers, including financial barriers, and provide actionable information on the "availability of electrical equipment for replacement of the common fossil-fuel-powered equipment within buildings, including high-efficiency options that can minimize electrical service capacity requirements" (as called for by § 25233.5(a) of SB68). The platform would include a statewide incentive engine to enable any incentives for which a consumer is eligible to be applied at checkout, and qualified borrowers

would have access to Eco Financing as a payment method. These benefits will be available to all Californians, either via utility marketplaces, where they are available, or directly via the statewide ecommerce platform. An ecommerce platform with incentive layering and validation capabilities would make the Web Guide an effective channel to deploy State and Federal funds to drive decarbonization, in concert with utility efforts.

Influencing retail buying decisions at scale is a strategic climate mitigation priority. Nationwide, hundreds of millions of appliances and other energy-related consumer goods are purchased annually, not including lighting. According to the U.S. long-term strategy to achieve net zero greenhouse gas (GHG) emissions, for the buildings sector, "...the priority in this decade is to rapidly improve energy efficiency and **increase the sales share of clean and efficient electric appliances**—including heat pumps for space conditioning, heat pump water heaters, electric and induction stoves, and electric clothes dryers—while also improving the affordability of energy and the **equitable access to efficient appliances**…"¹.

Integrating an energy efficient ecommerce platform into the Web Guide and influencing 5% of consumer buying decisions has the potential to reduce electricity consumption by over 90,000 MWh and drive 15,000 EV charger purchases annually. The Web Guide can be a trusted entry point that guides building owners, occupants and property managers on their journey to action. It is something that Enervee could stand up quickly in a public-private partnership.

To achieve equitable outcomes, we would like to reiterate several considerations relevant to the Web Guide that we made during the workshop:

- Nearly 60% of low-income energy efficiency potential is associated with plug loads (2021 California Low-Income Potential & Goals study) and plug-in devices are the largest component of residential electricity load/bills in California (2019 California Residential Appliance Saturation Study). This was also called out in the 2019 California Energy Efficiency Action Plan (see Appendix). Appliances and other plug loads therefore need to be integrated into the Web Guide in an effective way.
- Seventy-two percent of single-family renters have authority for appliance purchases, along with 26% of multi-family renters². The fact that many tenants have agency and make buying decisions, particularly for plug loads that don't require building owner authorization or installation by a licensed contractor, presents a largely untapped opportunity to drive decarbonization. Thirty-five percent of all California households are renters (2019 RASS), with an even higher share for low- and moderate-income households.
- Insufficient access to capital is a barrier to equitable decarbonization, as called out by the Public Advocats Office at the 8/30/2022 workshop. In order to drive clean and efficient retail purchases in an equitable way, financial barriers need to be tackled.

It is critical to take these points into account to ensure equitable access via the Web Guide. Integrating the proposed energy efficient ecommerce platform with incentive engine into the Web

¹ <u>The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050</u>

² Apex Analytics, <u>MCE Residential Market Assessment: Final Report</u>

Guide would be an effective way to tackle plug loads, serve renters and address financial barriers with rebates, other forms of incentives and financing.

It should be noted that the Web Guide will need to address several core use cases. An energy efficient ecommerce platform would support the retail purchase customer journey, which is very important for appliances and even accounts for about ½ of heat pump water heater purchases, according to an analysis of 2020 data performed by NEEA³, emphasizing the importance of retailers in helping to drive adoption of HPWH and other super-efficient technologies. In other cases, people begin their journey with a contractor in the context of a building upgrade. Both are important use cases that the Web Guide should serve.

Below, we respond to the CEC's specific questions.

1) Which building technologies (devices, appliances, and equipment) that advance or facilitate building decarbonization, electrification, and EV charging would you recommend be included on CEC's informational website?

The website should be comprehensive. In the case of technologies intended for residential or small business use, we recommend that the following be included, at a minimum:

- Energy-consuming devices
 - Electronics
 - Heating & cooling equipment (space, water)
 - Home & office devices (incl. lighting)
 - Kitchen & laundry appliances
 - Lawn, garden & pool equipment
- Energy control devices
- Vehicles & EV supply equipment
- Solar and storage devices (ideally as part of a marketplace concierge experience)
- Safety & preparedness devices

All of these categories are needed to drive building decarbonization and the transition to clean energy and electric vehicles. As Enervee mentioned during the workshop, the largest component of residential electricity bills in California is appliances and other plug loads, and the 2021 California Low-Income Potential & Goals study also found that nearly 60% of low-income energy efficiency potential is associated with plug loads⁴, which are typically bought at retail by individual consumers. The importance of plug loads was also underscored in the 2019 California Energy Efficiency Action Plan (see Appendix) and is increasing, according to the 2019 California Residential Appliance Saturation Study⁵. It is therefore important to include these categories in the Web Guide.

Over 40 categories of consumer products spanning the above technology groups are already available via Enervee's online marketplaces. We also have data on the individual product models,

³ Northwest Heat Pump Water Heater Market Progress Evaluation Report #6

⁴ Guidehouse Inc. (2021)

⁵ DNV GL Energy Insights USA, Inc. (2021)

including the best retail prices (updated daily) and range in prices across all models, average annual energy consumption, each product's relative energy efficiency, size/capacity, and Effective Useful Lifetime.

Information on refrigerants is not always readily available, but products with low GWP can be incentivized, as can products that draw fewer amps, reducing the need for expensive panel upgrades. Providing consumers with such information directly may not be particularly effective at driving product uptake, but tying incentives to them in an online shopping experience can be.

To make the site the natural "go-to" resource for building decarbonization, it is important to provide building owners, tenants and property managers with a comprehensive, up-to-date offering, so they know they can readily obtain the information they need when they need it.

2) What tools, software, or resources that advance or facilitate building decarbonization, electrification, and EV charging would you recommend staff review for inclusion on CEC's informational website?

To serve people making retail purchases, including homeowners, renters, individual multi-family property owners, and property managers – whether they are residential or commercial – the website should include an energy efficient ecommerce platform that empowers people to take the following actions (further details on this functionality are provided below in response to specific sub-questions):

- Identify and purchase efficient equipment
- Switch from gas to electric devices
- Invest in solar, storage, electric vehicles and EV chargers
- Enroll in demand-response programs at the online point-of-sale
- Take advantage of stacked incentives at the online point-of-sale
- Finance retail purchases, so they can be paid for with affordable monthly payments.

This requires a focus on consumer decisionmaking and barrier removal. Enervee's platform has proven its effectiveness through a series of academic research papers⁶ and independent evaluations⁷. We share information on successful existing programs in our response to Question 3.

• Explain how the recommended tool, software, or resource facilitates the installation of EV chargers and reduces GHG emissions in buildings.

The energy efficient ecommerce platform empowers building owners, tenants and property managers to reduce greenhouse gas emissions by purchasing efficient electrical equipment; switching from gas to electric devices; investing in solar, storage, electric vehicles and EV chargers; and enroll in demand-response programs at the point-of-sale. The ecommerce platform eliminates market, cognitive, psychological, and financial barriers that prevent people from investing in decarbonization. Information on decarbonization technologies is presented to consumers in a way

⁶ See, for example: <u>Arquit Niederberger (2022a)</u>, <u>Arquit Niederberger & Champniss (2017)</u>

⁷ See, for example: <u>Arquit Niederberger (2022b)</u>

that reflects behavioral science insights on purchase decisionmaking, making it quick and easy for them to choose the best products.

GHG reductions in buildings

The energy efficient ecommerce platform advances equitable access to clean and efficient products by serving as an online retail channel for online point-of-sale incentives and direct install programs supported by State and Federal funds, as well as by allowing people to pay with Eco Financing, a loan product under the GoGreen Home Energy Financing Program.

Key information for purchasing decisionmakers embedded in the platform includes:

- Daily updated listing of currently available products and best retail prices spanning over 40 categories of consumer products
- Enervee Score to identify the most efficient products available for purchase each day
- Personalized energy bill savings and total cost of ownership estimates at a glance (no spreadsheet needed!)
- Personalized product recommendations, taking into account user preferences, such as price range, size/capacity and other features
- Ability to purchase efficient products directly (via utility marketplace, if customer is eligible, or ecommerce platform on the Web Guide site)
- Ability to bundle products, accessories, installation and recycling services in the purchase transaction
- Stacked State, Federal, utility, and partner financial incentives (rebates, discounts) available at point-of-sale to reduce the up-front purchase price. We can accommodate novel decarb incentives, such as on low-amperage technologies or for products using low-GWP refrigerants.
- Pre-enrollment of flexible load devices (e.g., thermostats) in demand-response programs
- Ability to pay with affordable monthly payments with integrated Eco Financing (backed by a loan loss reserve via the GoGreen Home Energy Financing program).

In Q4 2022, we are rolling out a new heat pump water heater program, integrating TECH incentives, in cooperation with contractors, to provide fixed-price professional installation.

As part of offering a turnkey energy efficient ecommerce platform, Enervee orchestrates all of the market actors and reporting needed to provide a simple and compelling shopping experience for consumers:

- Fulfillment partners, including nationwide and regional retailers and contractors
- Manufacturers
- GoGreen Home Energy Financing Program administrator
- Capital providers (FDIC-insured bank, green banks)
- DERMs providers
- TECH program administrator
- Utilities, which may provide relevant rebates via their online marketplace and DR programs and support marketing efforts.

The energy efficient ecommerce platform can also facilitate investments into rooftop solar and battery storage, by offering concierge services. Various vendors like Electrum and EnergySage have developed solar and storage marketplaces that provide a SaaS platform and industry experts to walk people through the unfamiliar process of scoping the project, soliciting comparable bids from reliable installers and choosing the best offer for the customer. These vendor offerings can be seamlessly integrated into the ecommerce platform user experience.

Installation of EV chargers

An energy efficient ecommerce platform can help people make the switch from internal combustion engine vehicles to electric vehicles (EVs), as well as to purchase a suitable home EV charger and arrange to have it professionally installed⁸. To speed market uptake of EVs, it is important that the marketplace raise awareness and peak the interest of people who are not yet in the market to buy an EV, which can only be done by providing an overview of the entire vehicle market. This approach allows people to explore the benefits of EV models comparable to the internal combustion engine (ICE) vehicle they may have been shopping for, which has proven effective⁹. This approach applies equally to encouraging consumers to go electric in other categories.

The main consumer value of Enervee's Cars platform (based on participant surveys) are the following features, most of which are not available elsewhere:

- Side-by-side comparison of ICE and EV models
- Enervee Score (efficiency rating)
- CLEARCOST (5-year cost to own/operate)
- EV chargers near you (map view)

The vehicle shopping experience is an important time to provide information on home EV chargers and installation services, particularly for those new to EVs. We have seen that the majority of traction to the EV charger category comes from people clicking through from a specific EV product page that they are viewing. Consumers can now finance the purchase and installation of EV chargers, taking advantage of instant point-of-sale incentives, including for enrolling in time-of-use or demand response programs. Incentives could also be offered on EV charger models that draw less amps, to avoid the need for expensive panel upgrades as homes are fully electrified.

An example of this platform is provided in our response to Question 3.

All of the functionality noted in response to this question is already operational in California via Enervee's platform, but is not available statewide. An energy efficient ecommerce platform with incentive engine embedded in the Web Guide would be an ideal channel for IIJA and IRA decarbonization funding that will be flowing to California via the CEC, as well as the direct install and incentive programs under the Equitable Building Decarbonization Program to be administered by the CEC.

⁸ From 2% to 36% in under 60 seconds? Online utility choice engines create a level playing field for EVs – and car buyers go electric

⁹ See, for example, <u>this presentation</u> at the AESP 2020 Annual Meeting.

• Explain how the recommended tool, software, or resource would assist building owners, local governments, or contractors.

Consistent with PRC §25233.5 (a), integrating an ecommerce platform into the Web Guide would provide ready access to actionable information on the "availability of electrical equipment for replacement of the common fossil-fuel-powered equipment within buildings, including high-efficiency options that can minimize electrical service capacity requirements", so people can immediately purchase their preferred products.

The Enervee platform spans all categories of residential electrical end-uses, including:

- Those that can serve as alternatives to their gas counterparts, including heat pumps, water heaters, cooking equipment, clothes dryers, pool heaters, electric vehicles.
- Dozens of other electric end uses with the ability to buy the most efficient products. The marketplace features a zero to 100 energy efficiency index (the Enervee Score), which has been scientifically proven to result in more energy efficient purchases among all available models.
- Controls like smart thermostats, with integrated pre-enrollment in demand response programs.

Independent evaluations have documented that people using Enervee's platform find it easier to choose efficient products, save time making purchases and reduce their energy consumption (see reference cited in Footnote 7). The energy efficient ecommerce platform will assists those making buying decisions in the following ways:

- Easy identification of clean and efficient products with the Enervee Score
- Hub for automated incentive layering, so participants do not have to compare complex eligibility requirements across multiple programs and only need to enroll once to receive instant point-of-sale incentives available from various sources, including retailers/manufacturers, and for various purposes, including EE, DR and electrification.
- Special incentives only available to people who buy on the platform (via utility marketplaces or directly on the statewide platform)
- Bundling of installation, haul away/recycling, warranty, and other services in the purchase transaction
- Inclusive Eco Financing as one payment option, to reduce the up-front purchase price barrier
- Information on available tax credits (available as a result of the Inflation Reduction Act).

The platform also includes other decarbonization technologies and functionality relevant to the residential and SMB sectors (refer to response to previous question for details).

Our fulfillment partners, including retailers like Best Buy and contractors like Water Heater Warehouse, benefit from increased sales of cutting edge products and leads for their products and services.

Does the recommended tool, software, or resource offer additional benefits or value?

The buildings in which the clean and efficient technologies are installed will see non-energy benefits, including reduced energy bills and, when fuel switch or gas efficiency is involved, site greenhouse gas and pollutant emission reductions, having health benefits.

With its incentive engine, the platform can serve as the online point-of-sale delivery channel for TECH incentives, the \$300M California decarbonization rebate program, any incentives that might be funded with Federal IIJA allocations and \$4.5B federally funded High-Efficiency Electric Home Rebate Program, regardless of whether the purchase is made via a utility marketplace or the Web Guide.

We could also integrate low-cost capital available from revolving loan funds, if available. This would provide a return on investment and could lower interest rates for Eco Financing to consumers.

• Please indicate if the tool, software, or resource is fee-based or free to users to access.

The energy efficient ecommerce platform will be free of charge to users, which is how we operate all of our programs.

 Incentive and Financing: Provide recommendations of successful or innovative financing and incentive programs or models - proposed, past, or active programs - that advance building decarbonization, electrification, and EV charging.

Enervee is proposing a dedicated energy efficient ecommerce platform with integrated rebate engine and financing.

• Explain the program/model and how it advances the installation of EV chargers and reduces GHG emissions in buildings. This includes, but is not limited to, incentive or financing being offered, eligible parties and equipment, market segment, geographic region, and administrator.

Enervee is proposing a dedicated energy efficient ecommerce platform, implemented under a public-private partnership with the CEC. Enervee can draw on successful incentive and financing programs operated by Enervee in partnership with utilities and State Energy Offices and green banks in California and across the country since 2015 (see examples below). Key aspects of the model are as follows:

Geographic region: California, statewide

Market segment and eligible parties: All Californians (spanning building owners, tenants and property managers) can use the ecommerce platform. Eco Financing is currently not available to businesses, except sole proprietorships.

Eligible equipment: Product category scope and eligibility requirements to be mutually agreed between the CEC and Enervee. This also applies to eligibility to take advantage of various incentives, such as being located in a disadvantaged community. Enervee's rebate engine and validation process can accommodate multiple incentives with varying product, participant or other requirements.

Partners: Under this model, Enervee orchestrates a wide variety of market and government actors to present consumers with a simple and compelling ecommerce experience that belies the complexity behind the scenes:

- Enervee hosts and operates the ecommerce platform with incentive engine and functions as marketplace merchant and as an agent of an FDIC-insured banking partner enrolled in the GoGreen Home Energy Financing Program to originate, underwrite and service Eco Financing loans. We also conduct digital marketing and perform reporting tasks.
- The California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) within the State Treasurer's Office administers the GoGreen Home program, GoGreen Home began as a utility ratepayer-funded loan loss reserve program supporting the contractor/building upgrade market, but has since expanded to support microloans for retail purchases through online marketplaces and has the authority to credit enhance loans to all Californians.
- Marketplace sellers deliver the purchased products and provide related services, such as installation, haul-away/recycling and warranty services. Sellers include a mix of retailers (such as Best Buy) and contractors (including Water Heater Warehouse) to fulfill orders across dozens of product categories.
- Incentive providers, including utilities, the TECH initiative, State governments, and various private sector partners
- Manufacturers
- Other partners include DERMs providers (e.g., EnergyHub, Resideo) and solar/storage marketplace vendors.

Incentives and financing offered: As mentioned above, the ecommerce platform is a channel for both incentive layering and Eco Financing.

Our responses to Question 2 explain how the ecommerce platform model advances installation of EV chargers and building decarbonization.

If the program is ongoing or concluded, what were/are the program results?

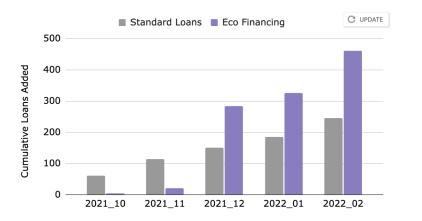
Enervee has been operating online marketplaces since 2015. We launched our Online Retail Eco Financing program in California in Q3 2021, and initial results have documented its effectiveness as a California GoGreen Home loan product¹⁰. The equity outcomes are particularly noteworthy: Of those using Eco Financing loans to pay for their purchases, 85% have been underserved borrowers, as defined by GoGreen Home, including:

¹⁰ Refer to Arquit Niederberger (2022a) in Footnote 6 for further details.

- 70% who qualify as low- and moderate income (LMI)
- 50% who are considered to be "credit-challenged" (with a credit score below 640)
- Over a third, who are both LMI and credit-challenged.

Other takeaways are the following:

- Participant surveys have shown that "low monthly payment" is the top most attractive loan characteristic, followed by "online application process" and, tied for third: "fixed monthly payments" and "spreading out payments over 60 months".
- Eco Financing results in more efficient purchases than those paid for with a credit or debit card and, since 85% of financed purchases are going to underserved borrowers, we are empowering LMI and credit-challenged consumers to invest in highly efficient equipment on their own, which they otherwise would have been unable to do. Over 96% of participants agreed that "Eco Financing made it possible for me to buy the efficient product I did" (87% "strongly agree", 10% "somewhat agree").
- Eco Financing drives more renter participation. The share of renters making efficient purchases with Eco Financing is roughly 25%, three times higher than the share of renters paying for a purchase with a credit or debit card.
- Eco Financing can operate in tandem with financial incentives.
- Eco Financing is a great complement to standard loans offered by credit unions for home upgrades. There was a gap in GoGreen Home financing that microloans were able to fill, namely access to consumer credit for online purchases. As a result, the number of microloans enrolled has outpaced growth in standard loans. Microloans are so far being used mostly to purchase major domestic appliances, like ranges, washers and dryers, while HVAC systems and building shell improvements have been the top measures for standard loans.



Standard loans

- Launched 2016
- 8 credit unions
- 1,804 loans through 02/2022
- \$16,966 average loan
- 5% loans to credit-challenged

Eco Financing

- Launched end Q3 2021
- 1 utility marketplace with limited categories
- 475 loans through 02/2022
- \$1,428 average loan
- 51% loans to credit-challenged

How does your program or model advance energy equity and reduce energy burden?

Energy efficient products save energy and cut energy bills over the average lifetime of the products, which has been found to be over 10 years. The SB350 Low Income Barriers Study recommendations called out the importance of ensuring "...that low-income persons have product selection options and information necessary to avoid driving up their plug-load energy use." Our energy efficient ecommerce platform does just that, ensuring equitable access to these technologies as follows:

- Eco Financing empowers people to pay for electrification and decarbonization purchases in affordable, fixed monthly payments. A loan for an \$800 appliance at current interest rates, for example, would cost about \$20 per month (or lower, with available incentives). It has been particularly successful reaching underserved consumer segments, including low-and moderate-income, people without access to capital and renters (roughly 25% of loans have gone to renters¹¹). Eco Financing is only available on energy efficient purchases.
- All available incentives are automatically layered and applied at check-out, reducing consumer effort and the up-front purchase price, for example: TECH Clean California incentives, utility energy efficiency and demand response rebates and private sector promotional dollars only available to site users.
- The platform's sophisticated rebate engine can readily integrate targeted incentives for underserved Californians, in partnership with the CEC, such as instant rebates to reduce the total purchase price or interest rate buy-downs. The capability to present special incentives for qualified customers is critical to delivering programs to income-qualified customers, such as the Equitable Building Decarbonization Program that will be administered by the CEC (AB209) and the \$4.5 billion Federal High-Efficiency Electric Home Rebate program (Inflation Reduction Act of 2022).
- The platform can be a new channel for no-cost direct-install programs that affords participants with greater choice and convenience. In our partnership with the NY State Energy Research & Development Authority, participants in the EmPower NY direct-install program receive a credit that can be applied to their online purchase. The credit is set at a level that allows participants to purchase models at no cost, but offers them the flexibility to buy models that might exceed the credit amount, with a co-pay covering the difference. NYSERDA is also covering the cost of installation, recycling and extended warranty.
- Which existing program website or websites would be helpful templates and models for the CEC to see and to potentially consider linking to the proposed webpage discussed here?

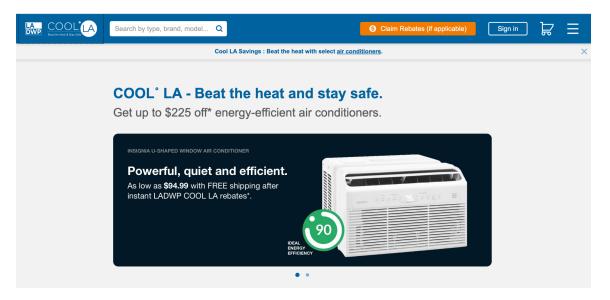
We would stand up a new energy efficient ecommerce platform under a public-private partnership for this purpose. Here are several examples of existing deployments:

• A statewide marketplace operated by Enervee in partnership with the New York State Energy Research & Development Authority (NYSERDA) can be found at <u>Enervee/NY</u> <u>Marketplace</u>. This site initially targets low- and moderate income customers and

¹¹ Refer to Arquit Niederberger (2022a) in Footnote 6 for further details.

disadvantaged communities, but is open to all New Yorkers. It will serve as a hub for retail purchase financing and rebates, as well as an online channel for the EmPower NY direct-install program¹². We layer in all available incentives to buy down the up-front purchase price, and NYSERDA is covering various costs, such as the cost of recycling. The statewide marketplace also serves as a new channel to scale the EmPower direct-install program by offering greater choice and convenience for income-qualified households – while reducing program costs. Utilities will be invited to participate in the program and consulted on a go-to-market strategy.

To help Angelenos save on their energy bills and be more comfortable during extreme heat conditions, while keeping demand as low as possible, LADWP launched a four-month Cool LA campaign on September 1, 2022 to drive 50,000 efficient air conditioner purchases. Enervee stood up the <u>Cool LA Marketplace</u> (which complements the existing <u>LADWP</u> <u>Marketplace</u>) within a matter of weeks to enable eligible customers on discounted rate plans to buy online with a total \$225 instant rebate deducted at checkout, thereby avoiding out-of-pocket costs (the standard post-purchase rebate available to all customers is \$75). The same functionality can be used to validate eligibility for targeted incentives like those that will be available through the California Equitable Building Decarbonization and Federal High-Efficiency Electric Home Rebate programs.



• The <u>APS Marketplace</u> and <u>APS Cars</u> are delivering decarbonization through a combination of efficiency, electrification and grid flexibility. This screen shot shows stacked EE, DR and manufacturer incentives that allow a customer to obtain a smart thermostat for free.

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² Enerve	1000 Here Lar to 650 Hotor 45	Google Nest GA02081-US GA02081-US Programmable: Yes Touch Screen: No Occupancy Sensor: Yes	\$120.00 \$0.00	Buy now \$0 MSRP Cool Rewards rebate APS instant rebate Additional discount	Claim Rebate for a past purchase \$129.00 -\$86.00 -\$30.00 -\$14.00 \$0.000
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Thermostats delivered 80 MW of load relief for the Arizona utility in the summer of 2021. According to Kerri Carnes, Manager of Product Development and Strategies at APS: "The main driver was our marketplace provider, a company called Enervee. We instituted demand-response pre-enrollment so customers could have a more seamless experience when they visited the APS Marketplace online where they could automatically enroll at the point of purchase. As a result, we saw tremendous uptake. In the first year, we sold about forty thousand thermostats through the marketplace at a rate of ninety-seven percent pre-enrollment, so that's tremendously successful."

Note that none of these deployments features all of the functionality that would be available via the proposed energy efficient ecommerce platform, as outlined above.

We are happy to provide further information or respond to questions that might arise – and are looking forward to partnering with the CEC and other stakeholders on an impactful Building Decarbonization and Electric Vehicle Charging Equipment Web Guide.

Sincerely

/s/ Anne Arquit Niederberger, Ph.D. SVP Market Development Enervee anne@enervee.com

Attachment: Appendix

Appendix: 2019 California Energy Efficiency Action Plan Excerpts of References to Online Marketplaces

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.