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Sealed Comments on CA HOMES Workshop

Additional submitted attachment is included below.

Sealed

April 5, 2024

California Energy Commission (CEC)
Docket No. 23-DECARB-01

Re: Sealed Response to CEC Inflation Reduction Act Home Efficiency Rebates Workshop

Dear California Energy Commission Staff and Commissioners:

Sealed greatly appreciates the opportunity to provide comments on the CEC's Staff Workshop (workshop) on the IRA Home Efficiency Rebates (HOMES) Program.

These comments are provided by Sealed, a climate tech company on a mission to stop home energy waste and electrify all homes. Sealed has over 10 years of experience with measured savings (also referred to as pay-for-performance). Sealed is an aggregator in California residential energy efficiency programs, and we are excited about the opportunity to participate as an aggregator in California's HOMES and Home Electrification & Appliance (HEAR) Rebate Programs.

We look forward to working with California to successfully implement these important programs.

Sincerely,



David Kolata
Vice President of Policy
Sealed

Summary

The California Energy Commission (CEC) is set to receive \$292 million for the Inflation Reduction Act HOMES Program. There is a significant opportunity to use this funding to transform the energy efficiency market—turning every home that participates in the program into a Virtual Power Plant (VPP) that improves grid reliability.

Sealed greatly appreciates the opportunity to provide comments on the CEC's HOMES Workshop. **Sealed is supportive of the CEC's proposed approach to use 60% of the HOMES funding for the Equitable Building Decarbonization (EBD) Direct Install Program via the HOMES modeled savings pathway, and 40% of the funding for a performance-based program aligned with the HOMES measured savings pathway.**

For the pay-for-performance program, we recommend that the CEC include an uncalibrated modeled option. This would allow homes without sufficient energy usage, solar, electric vehicles, and other individual energy circumstances to qualify for a HOMES rebate, and therefore allow more households to be eligible to participate in the program.

A performance-based HOMES Program can help accomplish CEC's programmatic goals, including supporting environmental justice, demand flexibility, grid reliability, and other decarbonization goals. California's existing pay-for-performance programs are national leaders in driving market transformation, and Sealed is encouraged that California is building on this leadership with federal IRA funding. By including a pay-for-performance approach, the CEC will support sustained market transformation in California by targeting the highest impact energy, and therefore carbon, savings opportunities.

Sealed encourages the CEC to strongly consider implementing the pay-for-performance HOMES Program through local program administrators. We believe this approach would allow the CEC to more quickly deploy HOMES funding, reduce complexities for program participants (including contractors, households, and aggregators), minimize administrative costs, and more effectively reach households. In addition, this approach is consistent with the complementary statewide policy being implemented today across the state based on the California Public Utility Commission (CPUC) Decision [21-12-011](#) that requires all program administrators to implement Market Access Programs that include many of the same requirements as the HOMES measured savings pathway.

A local implementation approach could allow the CEC to more quickly deploy HOMES funding through existing pay-for-performance programs, while also providing opportunities for Community Choice Aggregators (CCAs), Regional Energy Networks (RENs), and/or Investor-Owned Utilities (IOUs) to set up new pay-for-performance programs. This “local” administration approach should also include local community organizations in program planning and outreach, as well as leveraging local, complementary residential funding and programs.

Equity should be a primary focus for the CEC in setting up the pay-for-performance HOMES Program. **The CEC should value savings based on time, location, and/or greenhouse gas emissions to increase rebates for low-income households.** This approach, coupled with stacking / braiding other rebates like the TECH and Market Access Programs, should be designed to be able to cover the full project cost for low-income households in many cases. We recommend that HOMES rebates be stacked first to better align home energy retrofit projects with TRC requirements.

To further bolster equity, the CEC should reserve at least 50% of HOMES pay-for-performance funding for projects in disadvantaged communities (DAC) or low-income (LI) households while also minimizing barriers for low-income households to access the programs by using categorical eligibility for income verification whenever possible. Sealed also supports the flexibility to shift funds between the HOMES pay-for-performance Program and the EBD Program if LI / DAC targets are not being met.

During the workshop, several participants brought up the unique challenges for retrofitting multifamily buildings. As a result, **Sealed recommends that the HOMES performance-based program focus on single-family buildings.** Since multifamily buildings have been incorporated into the EBD’s framework, Sealed recommends that the EBD Program therefore prioritize multifamily buildings via the HOMES modeled pathway.

Scale and Market Transformation

1. Residential P4P programs in CA have been small. How can a P4P approach scale to move tens of millions of dollars in residential decarbonization incentives quickly?

Pay-for-performance programs in California are well suited to scale to move tens of millions of dollars in incentives. Given the market-based structure of pay-for-performance programs, aggregators and other market actors are incentivized to scale high-quality retrofit projects. For example, since entering the 3C-REN Program in July 2023, Sealed has helped contractors access over [\\$1 million](#) in rebates. For reference, the program's 2023 budget was \$2,065,000, meaning that Sealed is helping move a significant portion of the Program's budget to contractors and households. Similarly, a Pacific Gas and Electric (PG&E) pay-for-performance program run by Franklin Energy provided [\\$1.1 million](#) in rebates to households, resulting in energy savings of 17,959 MMBTU and a 20% reduction in peak summer savings.

The 2021 CPUC [Decision 21-12-011](#) authorized \$150 million to establish Market Access Programs, which are essentially measured savings programs, to reduce peak demand. In 2023, the CPUC [Decision 23-06-055](#) required that portfolio administrators use normalized metered energy consumption (NMEC) i.e. measured savings as the default for energy efficiency programs, as well as requiring the IOUs and MCE to expand their Market Access Programs. Program administrators are in the process of gearing up to meet the requirements of the CPUC Order, and are therefore as ready as ever to move HOMES funding to the market.

In addition, federal HOMES funding will help scale ratepayer funding. The main constraint facing the California's pay-for-performance programs is the cost effectiveness test i.e. TRC. With the addition of HOMES funding, these programs will be more cost effective which will help them scale.

2. Can existing residential P4P programs adjust to incorporate HOMES requirements?

Existing pay-for-performance programs can be adjusted to incorporate the federal HOMES requirements. Notably, the audit and certification requirements can be incorporated into the existing programs. Below is a chart that compares the data collection requirements between the HOMES and 3C-REN Programs, with most non-overlapping data requirements being fairly minimal additions.¹

¹ Note: BPI 1100/1200 audit requirements not included.

Data collected in the home	HOMES	3C-REN
Number of people in household	X	
Income Bucket	X	X²
Disadvantaged Community	X	X
New or Existing Construction	X	N/A (only applied to existing contraction)
Building address	X	X
Building Type	X	N/A (only applied to single-family buildings)
If MF, number of units in building	X	N/A (only applied to single-family buildings)
If MF, percent of units that meet <80% AMI bucket	X	N/A (only applied to single-family buildings)
Year Built	X	X
Conditioned Floor Area of Home	X	
Utility bill company(ies)	X	X
Utility Account Number(s)	X	X
Unique Identifier(s) for Utility Account(s)	X	X
The 12 months of utility usage data prior to upgrade AND the 12 months of utility usage data post-upgrade (measured)	X	X

² 3C-REN uses categorical eligibility to qualify hard-to-reach customers. For example, if a household is enrolled in CARE / FERA, they are automatically income eligible for 3C-REN.

Is contractor eligible?	X	X
Contractor company name	X	X
Contractor company phone number	X	
Contractor company email	X	X
Original component(s) details	X	X
Home component(s) to be upgraded	X	X
Proof of quality installation and installation at designated address	X	X
Amount of rebate deducted upon proof of installation	X	X
Final Project Cost	X	X
Equipment & Materials Cost	X	
Installation costs	X	
Project Completion Date	X	X
Project Invoices	X	X
Signature or electronic signature confirming that the improvements were made at the address on the coupon	X	X
Written	X	X

acknowledgement from the consumer of the amount they will owe not covered by the rebates		
Software used to estimate energy savings	X	X
Estimated energy savings (at the time of the project)	X	X
Measured energy savings	X	X
Measured energy savings (across all fuel types)	X	X
Measured electric energy savings	X	X
Measured natural gas energy savings	X	X
Measured delivered fuel energy savings	X	X

3. How can the unique needs of multifamily properties be addressed through a residential P4P program?

Sealed recommends that CEC look to the New York State Energy Research & Development Authority’s (NYSERDA) [Multifamily Performance Program](#) (MPP) for an example of a pay-for-performance program that serves multifamily properties. MPP provides incentives for income-qualified multifamily retrofit projects that achieve at least 15% energy savings. Building owners are required to work with MPP service providers known as Multifamily Performance Partners that guide them through the program, create a customized energy reduction plan to identify opportunities for improvement, and evaluate energy savings. However, the MPP is a bit different from the HOMES requirements as performance payments are only provided if the project meets its energy reduction goals, as opposed to providing incentives based on the energy savings as is the case of the HOMES Program.

The multifamily sector is often complex given split incentives and requires programs tailored to serving unique needs. Given that existing pay-for-performance programs in California focus on single-family retrofits, Sealed recommends that the CEC utilize the Equitable Building Decarbonization (EBD) Program to retrofit multifamily

households. The EBD Program requires that at least 10% of funding go towards multifamily properties.

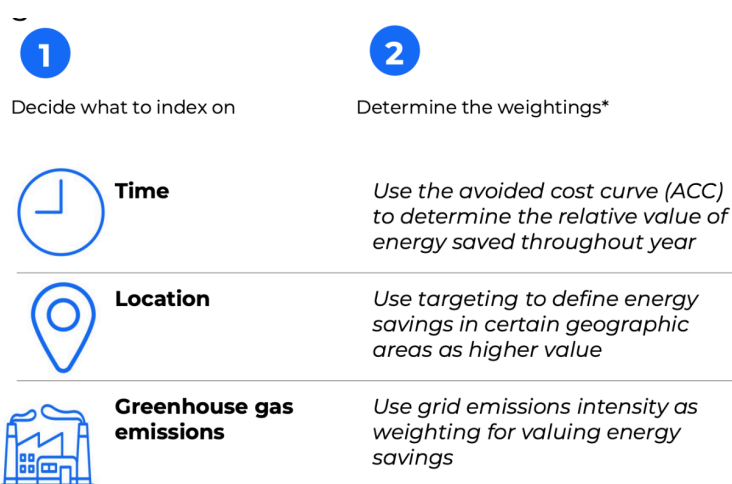
Incentive Structure

1. How should HOMES incentive structure related to kWh reduction be aligned with CPUC policy around the Total Systems Benefit (TSB) and Avoided Cost Calculator (ACC)?

The HOMES incentive structure can be aligned with the TSB and ACC by adding the values together. HOMES rebates are calculated based on the kWh and therm impact of retrofit projects. Similarly, the TSB is relative to the value tied to kWh and therm impacts of projects, making them easy to incorporate together. The ACC value can be added on top of this to calculate the total incentive for projects on an individual or portfolio basis. Sealed believes it's important for the CEC to leverage the ACC to send price signals to the market that reflect today's peak as well as tomorrow's peak.

2. What is the best way to incentivize projects in grid-constrained locations?

Incentivizing projects in grid-constrained locations is critical for maintaining grid reliability and affordability going forward and should be a priority for the HOMES Program. Sealed recommends that the CEC work with the IOUs and CCAs to determine the grid constrained locations in their service territories. Knowing these locations, the CEC can value savings based on time and/or location to incentivize projects in these areas. Below is an example of how to utilize savings based on time, location, or greenhouse gas emissions reductions. We defer to the CCA, RENs, and IOUs on which approach is most feasible for them.



(*) Examples only. Not exhaustive list of possible options.
NOTE: The above represents Sealed's interpretation of the IRA statute and will require DOE approval

Illustrative example: targeting peak electric savings

Category	Weighting factor
Summer morning peak <i>Jun-Aug; 6-9a</i>	10x
Summer evening peak <i>Jun-Aug; 4-8p</i>	100x
Winter evening peak <i>Sept-Apr; 4-8p</i>	10x
All else	1x

Flexibility to choose weightings (which months, hours) and factors

Sealed recommends that the CEC value savings based on one or multiple of these factors to achieve equity goals. For example, in addition to the \$200 installation incentive available to aggregators and contractors for verified projects in disadvantaged communities (per program guidance), the CEC should consider weighting rebate values to be higher for projects in DACs. This will help direct additional funds into low-income areas with higher energy burdens.

Furthermore, Sealed believes that at least 50% of HOMES funding should be set aside for projects in disadvantaged communities or low-income households. We believe it's important for the funding to be able to go to moderate-income and market-rate households to catalyze market transformation in those markets, especially to allow equity contractors to build their businesses by serving diverse markets. Ensuring funding is available across incomes can help balance the goals of equity, market transformation, and accessibility.

For example, [3C-REN's](#) Single Family Residential Program offers targeted incentives to disadvantaged communities with streamlined kicker incentives for both electrification and efficiency improvements. 3C-REN program incentives are roughly three times higher for these customers, and when this funding is stacked with [TECH Clean California](#) funding, contractors are able to offer a zero cost install to many customers and also receive bonus payments based on the actual energy performance of the project. To further focus on equity, the 3C-REN Program is planning to set aside 40% of program funding for hard to reach households.

3. How can federal funding help navigate some of the constraints with Total Resource Cost (TRC) requirements for residential projects?

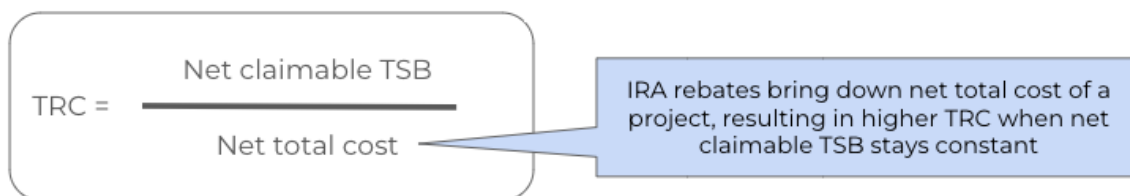
In the short term, HOMES funding will help relieve some of the constraints associated with TRC requirements as the federal funding will not be subject to cost effectiveness testing.

Additional rebates like HOMES bring down the net total cost of a given project. Because TRC is defined as net claimable TSB divided by net total cost, a lower net total cost for the same net claimable TSB amount results in a higher TRC value. See the below picture for an example. The CEC should work closely with the CPUC to establish clear guidelines for allowing HOMES funding to increase cost effectiveness to help more projects receive rebates.

In the long term, many retrofit projects will not meet TRC requirements once IRA funding is expended, which will continue to discourage the uptake of deep retrofit

projects that may be expensive but provide immense value. To overcome this issue, the CPUC could suspend the cost test for performance-based programs that already have embedded ratepayer protections (e.g., a cap on payments beyond the system benefit delivered). This approach was done for the summer reliability emergency.

How IRA rebates can help navigate TRC constraints



4. How does P4P work when interval meter data is not available?

OpenEEmeter, the most broadly used open source implementation of the CalTrack measurement methodologies, supports hourly, daily, or monthly energy usage data formats. When interval data is not available, monthly utility bills are effective for savings measurement, enabling pay-for-performance programs.

5. How should the program control for the risk of contractors underestimating savings and retaining excess savings?

Question 12 of the DOE's HOMES sample application states that "If savings are higher than what was projected, these rebate amounts will be capped at 120% of the original rebate request based on estimated savings at the time of installation."³ Therefore, Sealed recommends that the CEC cap rebate amounts at this level, on a portfolio basis, to prevent contractors and/or aggregators from over or underestimating savings.

In addition, market forces will further prevent aggregators and/or contractors from over or undervaluing savings. For example, households have multiple options when choosing which contractor to work with. If a contractor offers a "lowball" rebate estimate which underestimates savings, the households will go with a contractor that offered the more accurate, higher rebate estimate. Similarly, a market of aggregators will allow contractors multiple options for accessing rebates, thus the market will discourage aggregators who purposefully underestimate savings.

³ Source:

<https://www.energy.gov/scep/articles/home-efficiency-rebates-program-sample-application-r esponses-and-guidance>

The CEC can further mitigate this risk by increasing the amount of upfront, advanced payment for aggregators/contractors that accurately predict energy savings (assuming this is allowed by DOE rules).

Administration and Implementation

1. What are the tradeoffs between a statewide and locally-administered HOMES program(s)?

Sealed encourages the CEC to consider the following tradeoffs when deciding between a statewide or local implementation of the HOMES Program:

- **Speed to market:** A local implementation approach will allow the CEC to more quickly deploy HOMES funding through existing pay-for-performance programs, while also providing opportunities for CCAs, RENs, and/or IOUs to set up new pay-for-performance programs. Existing California pay-for-performance programs are “shovel ready” to broadly deploy HOMES rebates to support their communities and customers. On the other hand, a statewide approach would likely require the CEC to go through lengthy procurement processes that could delay the timeline for Californians to access HOMES rebates. However, ensuring broad access to the program throughout the state through a local approach will require some centralized support around program integration to support those standing up new programs in short order.
- **Consistency among programs across the state:** A local implementation approach is consistent with the complementary statewide policy being implemented today across the state based on the California Public Utility Commission (CPUC) Decision [21-12-011](#) that requires all program administrators to implement Market Access programs that include many of the same requirements as the HOMES measured savings pathway. Ultimately, implementing the HOMES rebates through these programs via a local approach will make it easier for aggregators and contractors to stack rebates from HOMES and Market Access Programs. If the CEC implemented HOMES through a statewide approach, aggregators would have to participate in two separate programs which would add complexity for consumers, contractors, and aggregators. Furthermore, a local approach will ensure that program rules for pay-for-performance programs across California are consistent with HOMES, which would further reduce friction.
- **Community trust:** RENs and CCAs are trusted by their communities, and investor-owned utilities have strong brand recognition, making them effective at reaching disadvantaged communities and low-income households through

a local implementation approach. Regardless of the approach adopted, the CEC should also include local community organizations in program planning and outreach to ensure that disadvantaged and low-income communities are reached.

Sealed encourages the CEC to strongly consider implementing the pay-for-performance HOMES Program through local program administrators. While we recommend a local implementation approach, the CEC has a greater knowledge of procurement timelines and other factors associated with delivering the HOMES Program that would best meet the state's needs. Overall, Sealed recommends that CEC implement the pay-for-performance HOMES Program through whichever implementation model can reach California households the soonest.

2. What does layering of incentives look like with multiple P4P funding streams?

How incentive layering works will depend on if the CEC chooses a local or statewide implementation approach.

For a local approach, HOMES funding can be integrated into ratepayer funding streams and can be packed into one rebate for consumers. This will send a single price signal to the market. The existing pay-for-performance programs as well as the Market Access Programs stand ready to integrate HOMES funding into the programs. For example, CPUC [Decision 23-06-055](#) states: "If IRA funding becomes available directly to [Program Administrators (PAs)], the PAs may be able to use both IRA and ratepayer funding in a market access-style program, without impacting the cost effectiveness calculations of the program. Instead, the PAs may be able to simply add extra funds to the budgets seamlessly."

Under a statewide approach, incentive layering will result in two price signals sent to the market, with one being HOMES and the other being the additional incentive which could be rebates from the TECH program and/or existing pay-for-performance programs. Aggregators will therefore be critical for stacking the various rebates together for households and contractors.

3. Which entities are best poised to fill the various HOMES requirements that are not currently part of Market Access Programs?

Aggregators will be a critical component of helping contractors and consumers access HOMES pay-for-performance rebates. The U.S. Department of Energy's guidance for the IRA Home Energy Rebate Programs [defines](#) an aggregator as: "An entity that engages with multiple single-family homes and/or multifamily buildings

for the purpose of combining or streamlining projects as allowed by the State.” In other words, aggregators are entities that make it easier for contractors to participate in rebate programs by:

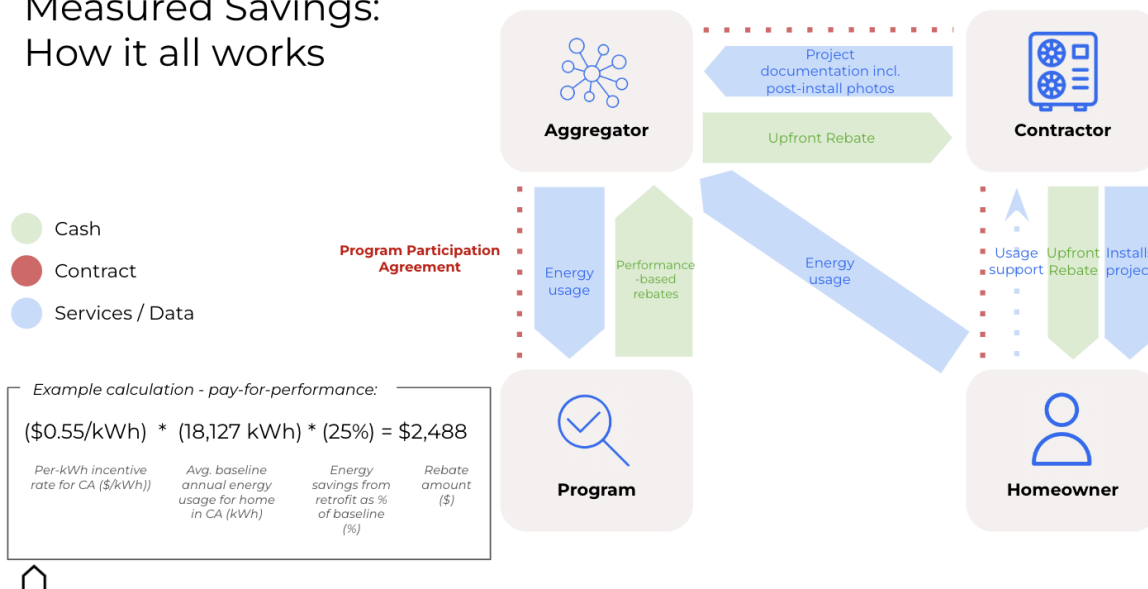
- Providing upfront and immediate rebates
- Marketing to customers and/or contractors
- Collecting customer energy data (both before and after energy upgrades)
- Predicting energy reductions
- Submitting project information to government programs and market administrators
- Taking project performance risk in the measured pathway

Under pay-for-performance programs, rebates are based on the actual, measured energy savings of a project. While it takes approximately 12-months to measure actual energy savings, aggregators pay contractors and households their estimated rebate upfront and take on the performance risk of the project over the measurement period—meaning that in the measured pathway contractors and households do not have to wait for their rebate.

Aggregators are not program implementers and therefore should not be paid through the administrative funding. Many aggregators such as Sealed are paid by charging contractors for their services. Aggregators offset many of the administrative burdens contractors face to participate in energy efficiency and electrification programs, and their prices must be aligned with the value they are offering to contractors and the market.

Aggregators can be helpful in educating, recruiting, and maintaining robust contractor participation in the HOMES Program—which will be especially important as the rebates will flow from contractors to households. For example, as an aggregator in the 3C-REN Program, Sealed partners with the program administrators to provide educational materials to contractors. In addition, Sealed helps recruit new contractors to participate in the program and works to ensure that contractors remain in the program. (See [this blog post](#) for more on Sealed’s participation as an aggregator in the 3C-REN Single-Family Residential Program.) In addition, aggregators can help market the program to consumers if the CEC wishes.

Measured Savings: How it all works



4. What are the best options to minimize and allocate financing costs during the 9 to 12-month M&V period prior to when the HOMES rebate can be paid?

It is standard industry practice to provide a partial upfront payment of rebates to aggregators to minimize carrying costs during the M&V period. The CEC should continue to work with the DOE to clarify if this is allowed under federal rules. However, it should be noted that carrying costs are common with incentives such as tax credits and it will not diminish the value of the pay-for-performance program for consumers, contractors, and the grid.

If upfront payments to aggregators are not allowed under DOE rules, the CEC can help reduce carrying costs by:

- Borrowing from other sources of state funding such as the Equitable Building Decarbonization Program to provide a portion of the rebate upfront to aggregators. The CEC can then pay back those funding sources using HOMES funding once the measurement period is over.
- Leveraging low-cost financing options, such as California's GoGreen financing, for aggregators and/or contractors to take advantage of during the M&V period.