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North American Insulation Manufacturers Association Comments

Additional submitted attachment is included below.

January 25, 2024

California Energy Commission Docket Unit,
1516 Ninth Street Sacramento, California 95814-5512
docket@energy.ca.gov
Docket No. 23-DECARB-01

Re: Request for Information on the Inflation Reduction Act Home Efficiency Rebate Program (HOMES) Docket No. 23-DECARB-01

The North American Insulation Manufacturers Association (NAIMA) is the trade association for manufacturers of fiber glass, rock wool, and slag wool insulation products. Its role is to promote energy efficiency and environmental preservation using fiber glass, rock wool, and slag wool insulation, and to encourage the safe production and use of these materials. Several of our members own and operate fiber glass manufacturing facilities in California.

The intent of the Home Efficiency Rebates (HOMES) and the Home Electrification and Appliance Rebates (HEEHRA) programs funded by the Inflation Reduction Act (IRA) is to support building improvements that achieve utility bill savings and greenhouse gas emission (GHG) reductions in lower- and middle-income households while improving indoor air quality, resiliency, and grid reliability. These outcomes are best achieved, and participating home occupants are best protected against rapidly increasing utility bills, by combining heat pump heating and cooling equipment upgrades with air sealing and the installation of attic insulation.

Insulation and air sealing reduce building energy use for the life of the building without the need for replacement. Most insulation materials are domestically manufactured, readily available and easily installed. Basic air sealing and insulation upgrades to existing homes often result in energy savings of 10-45 percent, depending on the climate zone.[1] These upgrades can translate into substantial homeowner savings and meaningful GHG reductions.

Insulation is not driven by the "break and replace" cycle typical of heating and cooling systems. Yet insulation and air sealing are critically important in ensuring proper heating and cooling system operations. A home must be well-insulated to be truly "heat pump ready." Installing a heat pump in a poorly insulated home could expose the occupant to dramatically increased heating and cooling costs. Such an outcome worsens the energy burden already shouldered by low- and moderate-income households. Additionally, improving envelope efficiency sometime after new heat pump installation can result in an oversized HVAC system, reducing its projected efficiency and adversely affecting occupant comfort. It is imperative that envelope efficiency upgrades and heat pump replacement are coordinated and contemporaneous to maximize the

[1] ICF, *Insulation Industry Opportunity Study*, (August 25, 2022) https://www.insulationadvocacy.org/_files/ugd/bb658f_fa77af9cf52e4329bbcfd28cc1c20a35.pdf.

energy efficiency and rate payer cost savings benefits of both investments. The average residential customer who adds insulation and air sealing to HVAC electrification can expect to save between $150 and $1200 per year, with much of the savings appearing in the $500–$800/year range.

DOE's policy guidance on two rebate programs encourage States to adopt an "envelope first/envelope only" approach. DOE's website states:

> "Envelope upgrades are the longest lasting energy savings measures. A home's envelope will outlast several lifecycles of HVAC equipment and savings will persist regardless of the performance of the mechanical equipment or the behavior of the occupants. Additionally, compared with furnace upgrades, weatherization doesn't depend on consumer behavior or rely on proper ongoing maintenance, making it a reliable, robust source of long-term savings."

Prioritizing a highly efficient building envelope for both rebate program is the best policy for meeting the decarbonization goals of the state and the country, and will likely be necessary to achieve future, more stringent iterations of California's Title 24 building energy efficiency standards. An envelope first policy also protects lower income Californians by ensuring that mandatory mechanical electrification measures deliver utility bill savings through increased building efficiency.

Therefore, where an energy audit determines that a home's attic lacks adequate insulation and air sealing, NAIMA asks that the CEC impose an attic and air sealing requirement as a condition for heat pump heating and cooling equipment eligibility under both the Inflation Reduction Act funded Home Efficiency Rebates and the Home Electrification Rebate programs.