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Rewiring America Recommendations re IRA Rebates

Please see attached document.

Additional submitted attachment is included below.

Memo: Deploying Inflation Reduction Act Home Rebates in California to Reduce Energy Bills and Pollution

Executive Summary

The 2022 Inflation Reduction Act (IRA) establishes $4.5 billion in point-of-sale Electrification Rebates (HEEHRA) for income-eligible households to install electric appliances and $4.3 billion in whole-home Efficiency Rebates (HOMES) for households to perform energy-saving retrofits. California will receive $292 million for Electrification Rebates and $290 million for Efficiency Rebates, which is estimated to reach 26,000 and 45,000 households, respectively.[1]

To meet its climate goals, California must swiftly ramp up electric appliance installations this decade. California can use the IRA rebates to jumpstart these efforts. IRA rebates will likely only last a few years, but California can maximize their impact by directing rebates to the households and retrofits that will yield the most benefits in terms of pollution reductions and bill savings.

RECOMMENDATIONS

1. **Target the households for whom the rebates will make the biggest difference.**
   - They are **low-income or live in a disadvantaged community**. These households spend proportionally more of their income on energy bills, so upgrading their appliances to reduce monthly bills is particularly impactful.
   - They are **dependent on fuel oil, propane, or electric resistance heating**. These households are often able to maximize monthly bill savings and pollution reductions.
2. **Maximize pollution reductions** by ensuring all the rebate money funds efficient electric machines, not gas appliances.

RECOMMENDATION #1

Target the households for whom the rebates will make the biggest difference.

California Energy Commission should target low-income households dependent on fuel oil, propane, or electric resistance.

→ Low-income households or residents of disadvantaged communities

IRA Rebates are estimated to reach only 1 percent of the 5,340,000 low-income households, those with incomes less than 80% of Area Median Income (AMI), in California (Figure 1).[2]

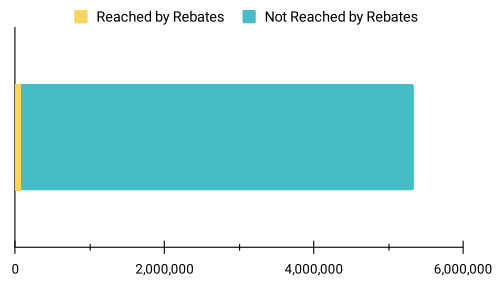


Figure 1. Number of households in California <80% AMI, and number that IRA Rebates are estimated to reach

It would be more equitable to direct all rebate funds to lower-income households than to deplete them on higher-income households already eligible for IRA tax credits under IRA sections 25C and 25D that lower-income households can't fully utilize.[3] Without income requirements, energy incentives don't reach many low-income households[4] nor those living in disadvantaged communities.[5] The Electrification Rebates are statutorily limited to households making less than 150 percent of Area Median Income (AMI), with full costs covered for households making less than 80 percent AMI. California should direct the Efficiency Rebates toward households under the 80 percent AMI threshold. Then it could use existing means-tested programs to determine categorical eligibility[6] for both rebates, such as Low Income Home Energy Assistance (LIHEAP), Weatherization Assistance Program (WAP), Supplemental Nutrition Assistance (SNAP) — and possibly also utility rate discounts. California could use the Climate and Economic Justice Screening Tool[7], or its own set of criteria, to identify disadvantaged communities.

→ Households dependent on fuel oil, propane, or electric resistance heating

IRA funds will have the most impact if California directs them to the households who will benefit most in reduced monthly bills and pollution. Households burning propane and fuel oil for heat face high prices[8], sometimes devastating price spikes[9], and more local air pollution and GHG emissions. Heat pumps are at least twice as efficient as electric resistance heat. The average low-income California household using propane, fuel oil, or resistance heat would save money on their monthly bills and reduce their emissions by upgrading to a heat pump.

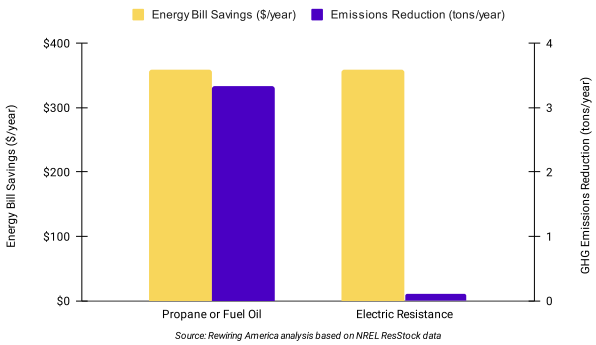


Figure 2. Annual bill savings and emissions reductions an average <80% AMI household in California could achieve by upgrading to a medium-efficiency heat pump from propane, fuel oil, or resistance heat

RECOMMENDATION #2

Maximize pollution reductions.

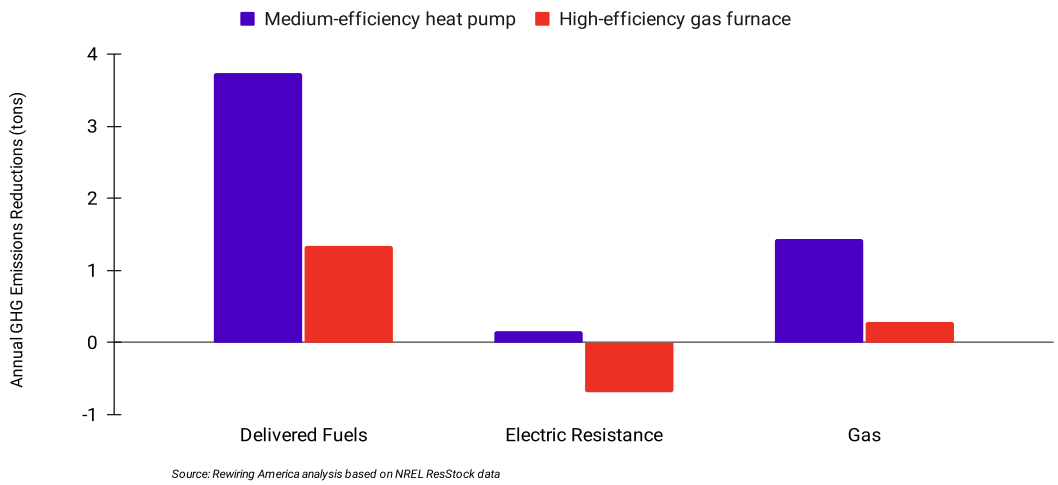
California Energy Commission should direct all rebate money to efficient electric appliances that will maximize pollution reductions, and avoid subsidizing fossil-fuel appliances.

Regardless of their existing space heating system, the average California household would reduce more pollution by converting to a medium-efficiency heat pump than by converting to a high-efficiency gas furnace (Figure 3).[10] The GHG benefits of heat pumps will grow as California's electrical grid gets cleaner over the average 15-year lifespan of a heat pump.

Excluding fossil-fuel appliances from the Efficiency Rebates could also reduce the program's administrative burden by enabling California to publish just one list of eligible appliances — those certified by ENERGY STAR — for both the Efficiency Rebates and the Electrification Rebates.[11]

Of California's 129,000 low-income households using propane or fuel oil, 79 percent would save money by upgrading to a medium-efficiency heat pump.

California households would reduce more pollution by converting to an electric heat pump than a gas furnace



Source: Rewiring America analysis based on NREL ResStock data

Figure 3. Annual GHG reductions from converting an average California household's space heating from propane or fuel oil, electric resistance, or gas furnace to high-efficiency gas or to medium-efficiency heat pump

CALIFORNIA'S TRAJECTORY TO ELECTRIFICATION

To reach California's climate goals of net-zero GHG emissions no later than 2045, California will need to aim for all homes to be heated with heat pumps by 2050, a trajectory shown on the right side of Figure 4.[12] Because home heating systems last 10 to 15 years, California must pick up the pace in the 2020s to ensure 100 percent of home heating retrofits and installations are heat pumps by 2035, shown in purple on the left side of Figure 4. This means ramping up annual sales from a mere 48,000 at present, to more than 754,000 per year by 2035.

California can use the IRA rebates to install electric machines in the households that need them most, jumpstarting its journey up the adoption curve to-

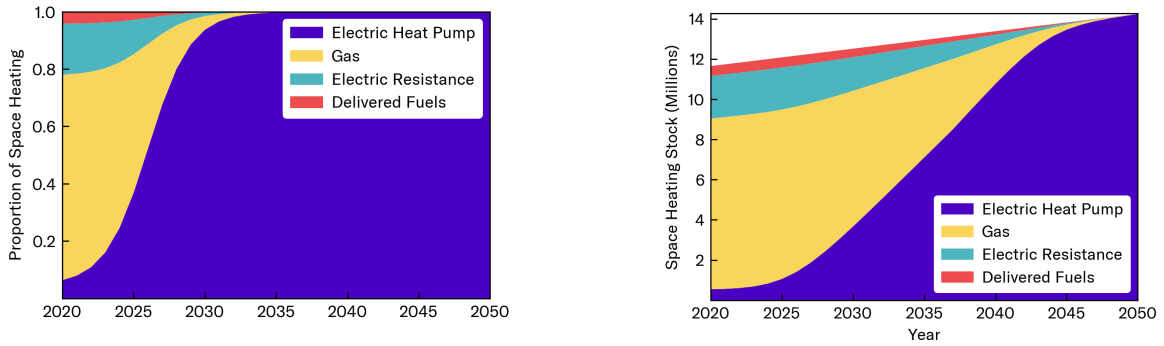


Figure 4. Space heating adoption curves for California to reach 100 percent electric by 2050

Endnotes

1 Assuming the average household utilizes 80 percent of total potential per-household rebates, meaning $11,200 in Electrification Rebates, or $6,400 in Efficiency Rebates.

2 Assuming the average household utilizes 80 percent of total potential per-household rebates, meaning $11,200 in Electrification Rebates, or $6,400 in Efficiency Rebates.

3 Treasury has also found that tax credits in general are mostly utilized by white households. Tax Expenditures by Race and Hispanic Ethnicity: An Application of the U.S. Treasury Department's Race and Hispanic Ethnicity Imputation, Office of Tax Analysis (January 2023)

4 In 15 years, Maryland's EmPOWER program only reached 8% of the state's limited-income households. Energy Efficiency for Everyone, Maryland PIRG Foundation (Winter 2023). Toward More equitable Energy Efficiency Programs for Underserved Households, ACEEE (May 2023). A meta-analysis of 66 untargeted energy efficiency programs found that they disproportionately benefited individuals who were white (72% versus 39% of the state population), had annual household incomes over $100,000 (53% versus 28%), or had attained a college degree (74% versus 39%).

5 According to the TECH Working Data Set, only 7% of TECH Clean California's heat pump and heat pump water heater installations are located in DACs.

6 Frictionless Income Verification Methods for the Electrification Rebates, Rewiring America (December 2022)

7 CEJST mapping tool

8 See ORNL's 2020 Statistics on Low Income Energy Use.

9 See Rewiring America's Energy Bill Security report.

10 Note that the negative bar in Figure 3 means converting an electric resistance home to a high-efficiency gas furnace would actually *increase* emissions.

11 The IRA gives states the statutory authority to direct Efficiency Rebates funding to electric appliances, and explicitly encourages states to value energy savings "based on ... greenhouse gas emissions." IRA Section 50121(b)(3)

12 See Rewiring America, Pace of Progress (June 2023)