

# Woodsmoke Reduction Program

## Program Guidelines

FISCAL YEAR 2018-2019 APPROPRIATION

April 29, 2019



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## EXECUTIVE SUMMARY

The Woodsmoke Reduction Program is part of California Climate Investments (CCI), a statewide program that puts billions of cap-and-trade dollars to work reducing greenhouse gas emissions, strengthening the economy and improving public health and the environment—particularly in disadvantaged communities. The cap-and-trade program also creates a financial incentive for industries to invest in clean technologies and develop innovative ways to reduce pollution. CCI projects include affordable housing, renewable energy, public transportation, zero-emission vehicles, environmental restoration, more sustainable agriculture, recycling and much more. Statute establishes investment minimums for disadvantaged and low-income communities and low-income households. For more information, visit [California Climate Investments](#).<sup>1</sup>

Senate Bill 563<sup>2</sup> establishes the Woodsmoke Reduction Program (Program) to be administered by the California Air Resources Board (CARB) to promote the voluntary replacement of old wood-burning stoves with cleaner and more efficient alternatives. The bill also authorizes money from the Greenhouse Gas Reduction Fund (GGRF) to be allocated for incentives offered as part of the Program. The State Legislature committed \$5,000,000 in fiscal year 2016-2017<sup>3</sup> and \$3,000,000 in fiscal year 2018-2019<sup>4</sup> to CARB to incentivize replacement of old, uncertified wood-burning devices with cleaner options. The Program, administered by CARB, is being implemented by the California Air Pollution Control Officers Association (CAPCOA) in coordination with local air pollution control districts or air quality management districts (Districts). CAPCOA will determine how much funding will be available to each District participating in the Program. The Program implemented in each participating District is considered a Project. CARB developed Program Guidelines (Guidelines) to help CAPCOA and Districts set up Projects that meet the State's statutory requirements and policy objectives for appropriations from GGRF. The first set of Guidelines, addressing the 2016-2017 appropriation, were published on September 9, 2017.<sup>5</sup> The current Guidelines address the 2018-2019 appropriation. The Program is designed to help households replace an uncertified wood stove, wood insert, or fireplace used as a primary source of heat with a cleaner burning and more efficient device. The replacement devices emit less greenhouse gases (GHG) and other air pollutants; they also are less likely to start fires than old stoves that may have been improperly installed. The Program will offer incentives towards the purchase and installation of the qualifying device. California residents using uncertified wood stoves or wood inserts, manufactured before July 1, 1988, or fireplaces as a primary heat source in Districts awarded Program funds are eligible for this Program. The incentive amount will vary

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<sup>1</sup> <https://ww2.arb.ca.gov/our-work/programs/california-climate-investments>

<sup>2</sup> Lara, Chapter 671, Statutes of 2017.

<sup>3</sup> Assembly Bill (AB) 1613, Committee on Budget, Chapter 370, Budget Act of 2016, Item 3900-101-3228, Section 10, Provision 4.

<sup>4</sup> Senate Bill (SB) 856, Committee on Budget, Chapter 30, Budget Act of 2018, Item 3900-101-3228, Section 36, Provision 2.

<sup>5</sup> [https://www.arb.ca.gov/planning/sip/woodsmoke/reduction\\_program.htm](https://www.arb.ca.gov/planning/sip/woodsmoke/reduction_program.htm).

depending on the location of the residence and the household income, with some households qualifying for full replacement cost. The Program will include an outreach and educational component to ensure that households make informed decisions about how to burn and what to burn in order to maximize the efficiency of the device and minimize pollution. This Program will further the goals of California Health and Safety Code Division 25.5,<sup>6</sup> reduce GHG emissions, improve air quality, and protect the health, safety, and well-being of California residents.

These Program Guidelines apply to the Fiscal Year (FY) 2018-19 GGRF appropriations and will be updated in future years if the Program is reauthorized with additional funds. The replacement of existing wood burning devices with cleaner technologies provides an important opportunity to secure the co-benefit of reduced regional and near-source exposure to woodsmoke. Therefore, contingent on reauthorization and funds, future guidelines will continue to maximize GHG reductions and also prioritize particulate pollution reductions, while still addressing the need to provide applicants within low income communities or households funding for cleaner home heating options. This includes considering opportunities to include applicants from urban areas that exceed particulate matter air quality standards where wood burning may not be a primary heat source. Future guidelines can also consider administrative streamlining based on the experience gained through implementation.

## **I. PROGRAM GOALS AND OBJECTIVES**

The Program furthers the goals of Health and Safety Code Division 25.5 and reduces GHG emissions by offering incentives toward the replacement of existing uncertified residential wood burning devices used for space heating with cleaner options. For the purpose of this Program, a stove refers to a permanently installed free-standing wood stove, pellet stove, natural gas stove, propane stove, or electric stove or one installed in a masonry fireplace cavity or other enclosure (commonly referred to as an insert). The Program will be funded through the appropriation of \$3,000,000 in the FY 2018-2019 from the Greenhouse Gas Reduction Fund.<sup>7</sup> The Program, administered by CARB, will be implemented by CAPCOA in coordination with Districts. CAPCOA will determine how much funding will be available to each District participating in the Program. To be eligible for the Program, a homeowner or renter, for the purpose of this document referred to as an Applicant, must currently use an uncertified wood stove, wood insert, or fireplace as a primary heat source. The incentive amount will depend on where the property is located and Applicant's household income, with some households qualifying for full replacement cost. The Program will maximize benefits to households in disadvantaged or low-income communities and low-income households and has as a

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<sup>6</sup> Appropriations from the GGRF must further the purposes of Health and Safety Code Division 25.5, added and amended by AB 32 (Global Warming Solutions Act of 2006, Pavley and Nuñez, Chapter 488, Statutes of 2006), SB 32 (Pavley, Chapter 249, Statutes of 2016), AB 197 (E. Garcia, Chapter 250, Statutes of 2016), and AB 398 (E. Garcia, Chapter 135, Statutes of 2017).

<sup>7</sup> Item 3900-101-3228 of the Budget Act of 2018, as amended by SB 856 (Committee on Budget, Chapter 30, Budget Act of 2018).

goal to distribute 75 percent of the total funding to these priority populations.<sup>8</sup> Applicants residing in a census tract identified as a disadvantaged<sup>9</sup> or low-income<sup>10</sup> community can qualify for higher incentives. Applicants residing outside of a census tract identified as a disadvantaged or low-income community, who can demonstrate low-income eligibility based on household income, can also qualify for higher incentives.<sup>11</sup> All other Applicants are eligible for lower incentives. Benefits to disadvantaged and low-income communities and low-income households will be evaluated using criteria listed on the CCI Quantification, Benefits, and Reporting Materials website.<sup>12</sup> Projects are expected to meaningfully address an important community need by reducing exposure to local environmental contaminants, such as toxic air contaminants and criteria air pollutants.

The existing uncertified wood stove, wood insert, or fireplace must be replaced with a certified wood stove, pellet stove, natural gas stove, propane stove, electric stove, or ductless mini-split heat pump. The Program will achieve GHG emission reductions from the increased efficiency and reduced emissions of the newly installed devices. Older, uncertified wood stoves are often inefficient, high-polluting, and may pose a fire risk. United States Environmental Protection Agency (U.S. EPA) certified wood stoves burn more cleanly and efficiently, thereby reducing greenhouse gas and particulate matter emissions. Replacing an uncertified wood stove, wood insert, or fireplace with a qualified replacement home heating option will reduce the overall GHG emissions. Co-benefits include significant and long-term reductions in emissions of criteria pollutants and toxic air contaminants, along with reduced fire risk.

The replacement device must be installed by a professional, appropriately licensed stove installer (Installer) and meet local fire and building codes. A professionally installed device will improve the health, safety, and comfort of all residents. To ensure reductions in emissions are permanent, any stove removed through this Program must be rendered permanently inoperable and recycled, if recycling is available in the area. The Program will include outreach and educational components to both inform residents

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<sup>8</sup> Priority populations include residents of: (1) census tracts identified as disadvantaged by California Environmental Protection Agency (CalEPA) per SB 535; (2) census tracts identified as low-income per AB 1550; or (3) a low-income household per AB 1550.

<sup>9</sup> Disadvantaged community census tracts are identified by CalEPA per [SB 535](#) (De León, Chapter 830, Statutes of 2012), and available at <http://www.calepa.ca.gov/EnvJustice/GHGInvest/>

<sup>10</sup> Low-income communities are defined as census tracts with a median household income at or below 80 percent of the statewide median household income or with a median household income at or below the threshold designated as low-income by Department of Housing and Community Development's State Income Limits adopted pursuant to the Health and Safety Code Section 50093 ([AB 1550](#) (Gomez, Chapter 369, Statutes of 2016)). Maps of low-income communities are available at <https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm>

<sup>11</sup> Low-income households are those with household incomes at or below 80 percent of the statewide median household income or with household incomes at or below the threshold designated as low-income by the Department of Housing and Community Development's list of state income limits adopted pursuant to Section 50093. ([AB 1550](#) (Gomez, Chapter 369, Statutes of 2016)) Districts will be responsible for verifying household income eligibility.

<sup>12</sup> Available at: <https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials>

about the benefits of switching to cleaner burning home heating devices and train them on the proper operation and maintenance to maximize the device efficiency and minimize pollutant emissions.

The Program implemented in each participating District will be considered a Project. The Project will comprise all of the change-outs, for which Program funds are being used, within the District's jurisdiction along with the administrative work required to implement them.

## II. STOVE ELIGIBILITY AND PERFORMANCE STANDARDS

### A. Existing Wood Stove

To be eligible for the Program, Applicant must be currently relying on a stove or insert that is uncertified, operational, and used as a primary source of heat in the residence. An uncertified stove or insert is one that has not been certified by the U.S. EPA to comply with the performance and emission standards as defined in Title 40 Code of Federal Regulations, Part 60, Subpart AAA, February 28, 1988, or any subsequent revisions. In order to determine if the existing stove is uncertified, Applicant may do the following:

- Determine when the stove was installed. Stoves installed before July 1, 1988 do not comply with the particulate emission standards and therefore qualify for this Program.
- Check the stove model against the U.S. EPA current<sup>13</sup> and historical<sup>14</sup> list of certified wood heaters. If the stove's manufacturer and model is not on the current and historical lists, the stove is considered uncertified.
- Check the back of the stove for a certification label. Stoves which do not have any label describing particulate matter emission standards qualify for this Program. Wood stoves certified by the U.S. EPA to comply with any of the particulate emission standards are not eligible for replacement through this Program. These stoves will have a label, similar to that pictured in Figure 1, permanently affixed to them stating that the stove is certified to comply with the 1988, 1990, 2015, or 2020 U.S. EPA standards.

Applicants will determine the eligibility of their current wood stove. Applications will be reviewed by the District to determine if preliminary qualification requirements have been met. The stove's eligibility will be verified by the District or an Installer during an in-home estimate.

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<sup>13</sup> Current list of U.S. EPA certified wood heaters: <https://www.epa.gov/compliance/list-epa-certified-wood-stoves>

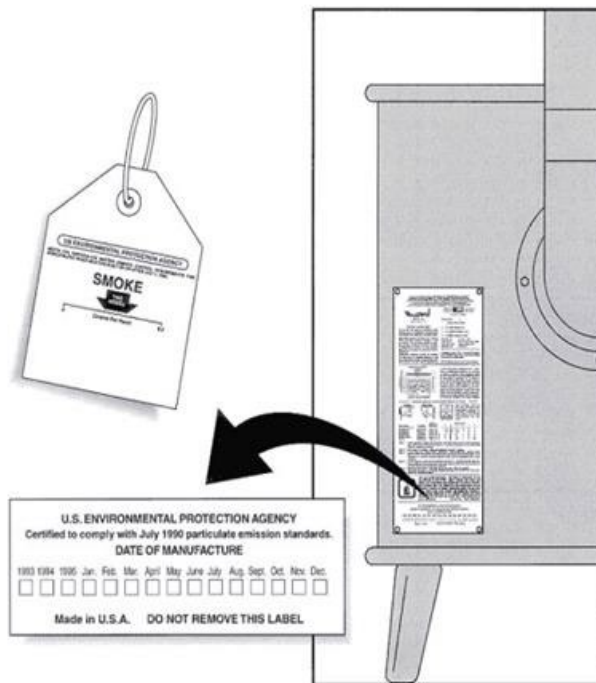
<sup>14</sup> Historical list of U.S. EPA certified wood heaters: <https://www.epa.gov/compliance/historical-list-epa-certified-wood-heaters>

To qualify for this Program, Applicants must document using a fireplace as a primary source of heat. Section III, Eligible Home Heating Replacements, includes more information on how to qualify for this type of change-out.

Only operational devices, currently installed in a residence, and used as a primary source of heat qualify for this Program. Applicants who remove the device prior to an in-home estimate will be disqualified.

Figure 1. U.S. EPA Stove Certification Label

EPA certification label circa 1988 to present



## B. Replacement Device

The uncertified wood stove or fireplace must be replaced by a cleaner-burning and more efficient alternative. Table 1 lists Program-eligible replacement devices. Prior to May 15, 2020, wood heating devices with particulate matter emission rates not exceeding 2.0 grams/hour (g/hr), that are certified to either U.S. EPA “Step 1” or “Step 2” New Source Performance Standards (NSPS) qualify for the Program.<sup>15</sup> Starting on May 15, 2020, only wood heating devices with particulate matter emission rates not exceeding 2.0 grams/hours, that are certified to U.S. EPA “Step 2” NSPS, will

<sup>15</sup> Both Step 1 and Step 2 stoves with certified particulate matter emission rates of no more than 2.0 grams/hour are eligible. The list of U.S. EPA certified wood heaters can be found at <https://www.epa.gov/compliance/list-epa-certified-wood-stoves>



be eligible for the Program.<sup>16</sup> The non-wood burning devices listed in Table 1 are eligible for the duration of the Program.

Table 1. Replacement devices eligible for the Program

Before May 15, 2020	On or after May 15, 2020
Wood stove, wood insert, pellet stove, or pellet insert with particulate matter emission rates not exceeding 2.0 g/hr, that are certified to either U.S. EPA “Step 1” or “Step 2” NSPS <sup>17</sup>	Wood stove, wood insert, pellet stove, or pellet insert with particulate matter emission rates not exceeding 2.0 g/hr, that are certified to U.S. EPA “Step 2” NSPS <sup>18</sup>
Natural gas stove or insert	
Propane stove or insert	
Electric stove or insert	
Ductless mini-split heat pump	

The replacement device must be permanently installed by a professional, appropriately licensed Installer participating in this Program. A list of participating Installers will be established by CAPCOA or each participating District. Self-installation of heating devices will not be allowed under this Program. Portable home heating devices, not permanently affixed to the home structure, are not eligible replacement options. Any building permits or other required approvals shall be obtained per local or State ordinances and shall be the responsibility of the Installer or the Applicant. Districts will be responsible for verifying that each change-out is permitted and inspected in accordance with State or local ordinances before payment is issued to the Installer or the Applicant.

### III. ELIGIBLE HOME HEATING REPLACEMENT PROJECTS

Applicants interested in upgrading their uncertified wood stove or wood insert to a U.S. EPA certified wood stove or other cleaner, more efficient heating device qualify for this Program if they meet all of the requirements listed below:

<sup>16</sup> The list of Step 2 compliant heaters can be found at <https://www.epa.gov/compliance/list-epa-certified-wood-stoves>. U.S. EPA has requested comment on postponing the compliance deadline for retail of non-Step 2-compliant heaters and pellet stoves and inserts (83 Fed. Reg. 61,574 (Nov. 30, 2018)). Regardless of any postponement of the compliance deadline, the Woodsmoke Reduction Program will only offer incentives toward change-outs with Step 2-compliant devices after May 15, 2020.

<sup>17</sup> Both Step 1 and Step 2 stoves with certified particulate matter emission rates of no more than 2.0 grams/hour are eligible. The list of U.S. EPA certified wood heaters can be found at <https://www.epa.gov/compliance/list-epa-certified-wood-stoves>.

<sup>18</sup> The list of Step 2 compliant heaters can be found at <https://www.epa.gov/compliance/list-epa-certified-wood-stoves>. U.S. EPA has requested comment on postponing the compliance deadline for retail of non-Step 2-compliant heaters and pellet stoves and inserts (83 Fed. Reg. 61,574 (Nov. 30, 2018)). Regardless of any postponement of the compliance deadline, the Woodsmoke Reduction Program will only offer incentives toward change-outs with Step 2-compliant devices after May 15, 2020.

- Currently use wood as a primary fuel;
- Use an uncertified wood stove, currently operational, as a primary source of heat;
- Select a replacement device which meets stove eligibility in Section II;
- Plan to have the replacement device professionally installed by a participating Installer;
- Agree to receive training on proper wood storage and wood burning practices (if applicable) and device operation and maintenance; and
- Surrender their old wood stove or insert to the Installer who will render it permanently inoperable and recycle it, if recycling is available in the area.

This Program provides incentives for one replacement per household. The replacement device must be a primary source of heat in the house. The Program is available to both homeowners and renters. In the case of rental properties, formal approval from both the property owner and the renter will be required as part of the approval process. In order to qualify for an incentive, the owner will have to agree to not raise the rent of the unit for a period of two years or evict the unit's residents because of increased value of the unit due solely to the newly installed home heating device. Retroactive rebates are not available under this program, so Applicants who remove the old device or purchase a new replacement device prior to being approved for this Program will be disqualified. The old, uncertified device must be rendered permanently inoperable and recycled, if recycling is available in the area, before payment can be issued to the Installer.

Burning wood in a fireplace is very inefficient for home heating purposes; fireplaces are therefore not typically used as a primary source of heat. In rare situations, when an Applicant uses a fireplace as a primary source of heat, the Applicant may qualify for the Program. If the existing fireplace is structurally sound, the Program may offer an incentive to be used towards purchase and installation of a fireplace insert utilizing wood, natural gas, propane, or electricity. However, if the fireplace is lacking structural integrity, the incentive could be used towards the purchase of a free-standing home heating device. In this case, the fireplace and chimney must be rendered permanently inoperable to prevent use of the fireplace. Verification of inoperability would be the responsibility of the District.

Installers interested in participating in this Program must agree to the Program's terms and conditions by signing an agreement with CAPCOA or the District. Each District will establish their own requirements, but at a minimum, in order to participate in the Program, the Installer will be required to agree to the following:

- Abide by the terms and conditions of the Program;
- Unless verified by the District, verify that the old device and the replacement device qualify for the Program;
- Conduct professional installation of the qualified device in compliance with all applicable State, county, or city codes/ordinances;
- Provide residents with training on device operation and maintenance and, if applicable, for wood burning devices, best practices in wood storage and wood burning; and

- Render the old device inoperable and recycle it, if recycling is available in the area.

Only Installers who have a signed agreement with CAPCOA or the District will be eligible to participate in the Program. Installers will be responsible for ensuring that all installations are done in accordance with any applicable State, county, or city codes/ordinances, including obtaining any applicable permits and having the installation inspected. Agreements must include the components required by this document and should include key milestone dates and participant requirements for maintaining eligibility prior to Project completion.

#### **IV. ELIGIBLE COST**

Eligible project costs include the cost of the new device including sales tax, installation including any parts, materials, permits, or labor required for the safe and legal installation of the new device, and removal and disposal of the old wood stove or insert. The Installer will be required to provide a base estimate for the installation of a basic model that will be safe, clean-burning, and efficient. Upgrades above the base estimate will be paid by the Applicant. The incentive structure will be determined by CAPCOA or each individual District. Districts will pay the Installer (voucher model) or Applicant (rebate model) the approved incentive amount. Any additional balance due will be paid by the Applicant.

Applicants who remove the high-polluting device or purchase a new device prior to being approved for this Program will be disqualified from obtaining compensatory funds. Wood stoves or inserts designed exclusively for aesthetic and decorative use are not eligible for this Program.

All eligible costs must be supported by appropriate documentation. Costs incurred outside of the performance period, indirect/overhead costs, and cost of food or beverages (e.g., served during outreach events) are not eligible for reimbursement. Indirect/overhead costs are expenses of doing business that are of a general nature and are incurred to benefit two or more functions within an organization. Examples of indirect costs include salaries and benefits of employees not directly assigned to work on the Program, functions such as personnel, business services, information technology, and salaries of supervisors. Examples of overhead costs include rent, utilities, and supplies.

The total cost of administering the Program (i.e., the total administrative costs incurred by both CAPCOA and Districts) cannot exceed \$300,000, which is 10 percent of the total 2018-2019 appropriation.

## V. ELIGIBILITY

Households using uncertified wood stoves, wood inserts, or fireplaces as a primary heat source are eligible for an incentive towards replacing their old heating device with a cleaner option. The incentive amount will be determined by each District in coordination with CAPCOA, but the general structure of incentives must adhere to the following rules:

- Low-income households and households located in disadvantaged or low-income communities will be eligible to replace their heating device for little or no cost. They will qualify for a higher incentive (Enhanced Incentive). CAPCOA, in coordination with the District, will determine the maximum allowable Enhanced Incentive level;
- All other households, regardless of their income, will qualify for a smaller incentive (Standard Incentive) to be applied towards the purchase and installation of the new device. CAPCOA, in coordination with the District, will determine the maximum allowable Standard Incentive level; and
- CAPCOA, in coordination with the District, will implement the Program with the goal of directing 75 percent of the funds for Enhanced Incentives to help low-income households and households in disadvantaged and low-income communities replace their old wood stoves for little or no cost. This goal could be accomplished in a variety of ways and Districts are encouraged to explore different options to assist in meeting this Program-wide goal. Examples of two possible scenarios could include:
  - Conducting a District-wide solicitation during which all applications would be collected and reviewed and priority would be given to those Applicants qualifying for Enhanced Incentives.
  - Implementing the Project in two phases. During the first phase, only applications from low-income households and households in disadvantaged and low-income communities would be accepted. During the second phase, the Project would be open to all Applicants.

Every Applicant using an uncertified wood stove or fireplace as a primary source of heat for their home qualifies for a Standard Incentive without any need for income verification. To qualify for the higher Enhanced Incentive, the Applicant must reside in a disadvantaged or a low-income community or demonstrate a household income not exceeding a low-income threshold specified below. Income verification will not be required for Applicants residing in disadvantaged or low-income communities.

Applicants residing outside of disadvantaged and low-income communities wishing to be considered for Enhanced Incentives are required to demonstrate that their household income does not exceed one of the following thresholds:

- 1) 80 percent of the Statewide Median Household Income (MHI);<sup>19</sup> or
- 2) County-specific California Department of Housing and Community Development (HCD) low-income limits.<sup>20</sup>

Districts will be responsible for verifying household income eligibility. Districts can qualify an Applicant based on the higher allowable maximum income (80 percent MHI or HCD low-income limits).

For purposes of the Woodsmoke Reduction Program, there are multiple methods to demonstrate household income eligibility. Applicants may demonstrate eligibility by presenting pay stubs or tax returns for each person living in the residence to District personnel for verification and, if qualifying using the HCD low-income limits, reporting the number of people in the household.

Eligibility may also be established through proof of participation in an existing federal or State low-income assistance program, several examples of which are listed below. In cases where an Applicant chooses to demonstrate eligibility through participation in an alternate low-income program, Districts will work with CARB staff to verify that the alternate program's income limits do not exceed Enhanced Incentive income limits for their area.

- U.S. Department of Agriculture Women, Infants and Children (WIC) Program;
- U.S. Department of Health and Human Services Low Income Energy Assistance Program (LIHEAP);
- California Alternate Rates for Energy (CARE) Program with a participating California utility company.

## **VI. APPROVAL PROCESS**

In order to participate in the Program, Applicants will be required to complete an application. Applicants must agree to provide information to the District and allow the District and/or Installer to verify that information. Applicants must agree to receive training on proper wood storage and wood burning practices (if applicable) and device operation and maintenance. The District will be responsible for verifying the following:

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<sup>19</sup> U.S. Census Bureau, American Community Survey , 5-year Estimates available at: <https://www.census.gov/quickfacts/table/PST045215/06>

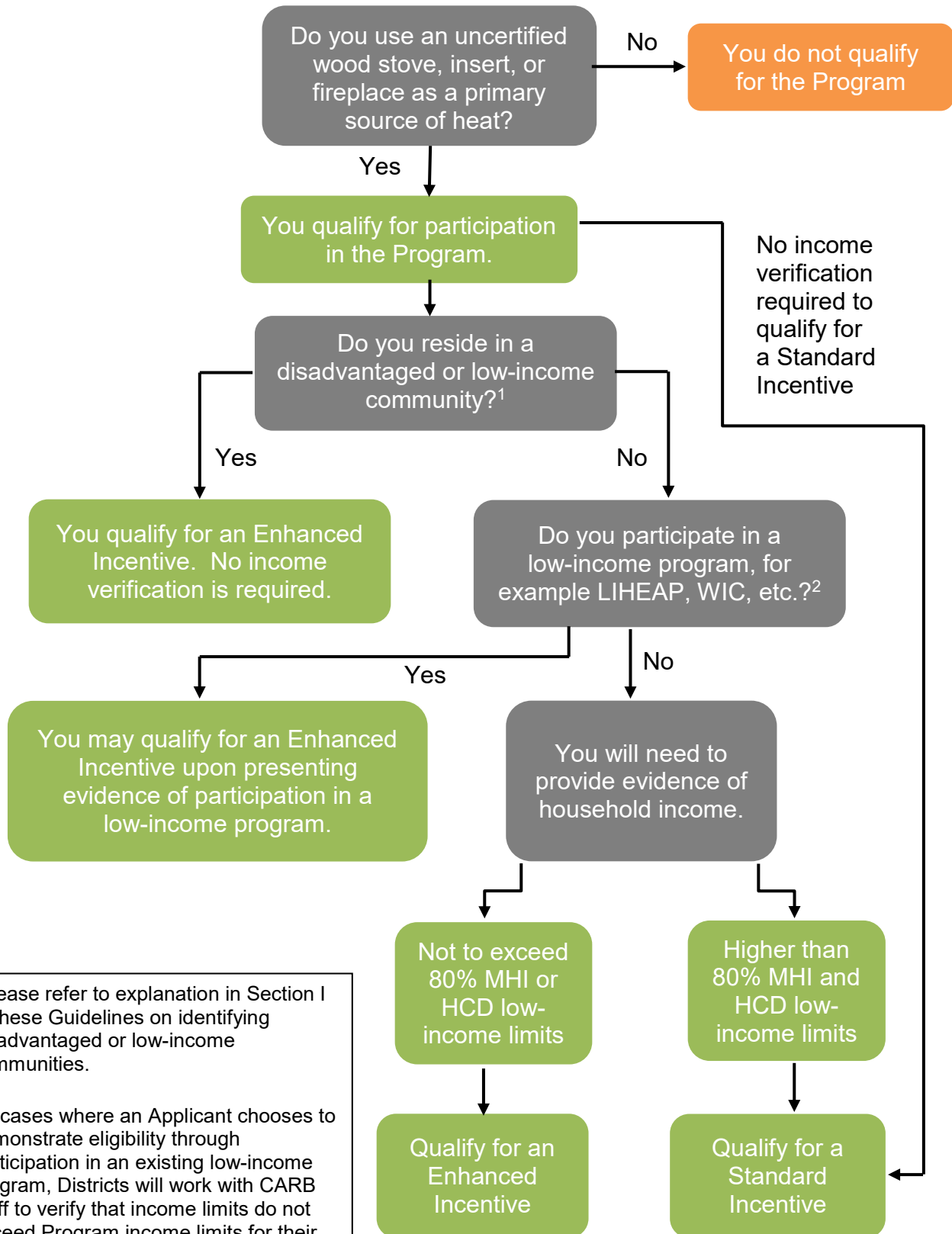
<sup>20</sup> California Department of Housing and Community Development Official State Income Limits available at: <http://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits.shtml>.

- Eligibility of the existing device - ensuring that the existing wood stove, wood insert, or fireplace is uncertified, operational, and used as a primary heat source in the house;
- Eligibility of the replacement stove – ensuring that the replacement device is eligible for the Program as described in Section II; and
- If applying for the Enhanced Incentive, eligibility as a resident of a disadvantaged or low-income community or a low-income household.

The application will be reviewed to determine if the preliminary qualification requirements have been met. Figure 2 illustrates the approval process and helps determine Program eligibility. The District will notify the Applicant whether the application was approved for participation in the Program. Districts must inform Applicants that applications will be treated in accordance with Public Records Act requirements and that certain information, subject to those requirements, may be publicly disclosed.

Once approved, the Applicant will schedule an in-home estimate with a participating Installer. The Installer will verify the stove's eligibility and present an estimate to the Applicant. The District will have the flexibility to run the Program as a voucher or a rebate model. If a Program follows a voucher model, qualified Applicants are issued vouchers that provide an instant discount of the cost of purchase, installation, and disposal of a qualifying device. If a Program follows a rebate model, qualified Applicants are issued rebates after they submit the required documents showing that they have purchased a qualifying device, had it installed by a participating Installer, and properly disposed of their old appliance. Districts must verify that the old device was deemed permanently inoperable and recycled, if recycling is available in the area, before issuing payment for the change-out. Districts choosing to follow a rebate model must ensure that low-income households and households in disadvantaged and low-income communities are able to participate. This may require offering vouchers in lieu of rebates or administering the Project with a combination of rebates and vouchers.

Figure 2. Approval Process



<sup>1</sup>Please refer to explanation in Section I of these Guidelines on identifying disadvantaged or low-income communities.

<sup>2</sup>In cases where an Applicant chooses to demonstrate eligibility through participation in an existing low-income program, Districts will work with CARB staff to verify that income limits do not exceed Program income limits for their area.

## VII. GHG REDUCTIONS

Switching from an uncertified wood stove or a fireplace to a U.S. EPA certified wood stove reduces GHG emissions as certified stoves are cleaner burning and more energy efficient. Design features in newer wood stoves promote more complete combustion, reducing emissions of methane, a GHG pollutant.<sup>21</sup> They also typically use a third less wood to produce the same amount of heat as an uncertified stove.<sup>22</sup> A one-third reduction in wood burning will further reduce GHG emissions by approximately the same amount. Switching from an uncertified wood stove to a natural gas, propane, or electric heater will typically reduce GHG emissions. In the absence of a mechanism to verify that the wood burned in an Applicant's primary heating device is waste material harvested pursuant to an approved timber management plan prepared in accordance with the Z'berg-Nejedly Forest Practice Act of 1973 or other locally or nationally approved plan and harvested for the purpose of forest fire fuel reduction or forest stand improvement, biogenic CO<sub>2</sub> is included in the calculation of GHG benefits for these devices.

## VIII. OUTREACH AND EDUCATION

CAPCOA and the Districts will be responsible for promoting the Program and helping households understand the benefits of changing from an uncertified wood stove to a cleaner home heating device. Since the Program-wide goal is to distribute 75 percent of total funding to residents of disadvantaged and low-income communities and low-income households, the outreach should focus on reaching this segment of the population.

The Program requires an educational component to ensure that the new home heating devices, particularly wood stoves, are properly operated and maintained to maximize energy efficiency and achieve the lowest possible emission rates. With proper burning techniques and properly seasoned wood, the amount of wood used could be significantly reduced. While a new wood stove typically pollutes less than an old one, user operation is important for achieving estimated reductions. CAPCOA and the Districts will be required to ensure that each change-out is supplemented with a training component. This could be accomplished by having Installers train homeowners following the installation. Districts will be required to obtain verification of training.

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<sup>21</sup> Residential wood stove emissions are in AP 42, Fifth Edition, Volume I, Chapter 1, External Combustion Sources, Section 1.10, web link: <https://www3.epa.gov/ttn/chief/ap42/ch01/final/c01s10.pdf>

<sup>22</sup> U.S. EPA Burn Wise Publication, How to Implement a Wood-Burning Appliance Changeout Program, September 15, 2014; web link: <https://www.epa.gov/sites/production/files/2015-08/documents/howtoimplementawoodstovechangeout.pdf>



## IX. CO-BENEFITS

In many communities throughout the State, uncertified wood stoves are a major source of air pollution. Replacing these highly polluting and inefficient stoves with cleaner home heating options can significantly reduce emissions of fine particulate (PM2.5), black carbon, and toxic air contaminants. These emission reductions will vary depending on the type of the replacement device, with the natural gas, propane, or electric devices offering the greatest reductions. Certified wood stoves or inserts have significantly lower emissions compared to uncertified stoves. These emission reductions, however, could diminish due to improper operation or lack of proper maintenance. Reductions in black carbon, PM2.5, and toxic air contaminants will reduce the impacts of climate change and improve indoor and outdoor air quality and visibility. In some parts of the State, the PM2.5 co-benefit reductions could have a significant impact on a region's ability to attain ambient air quality standards.

Reductions in PM2.5 pollution will have significant short- and long-term health benefits. Short-term exposures to PM2.5 can aggravate lung disease, causing asthma attacks and acute bronchitis, and may also increase susceptibility to respiratory infections. Long-term exposures have been associated with reduced lung function and the development of chronic bronchitis and even premature death.

Consumers should be able to save approximately 20 percent of their annual fuel cost through the use of professionally installed, certified, high efficiency wood stoves.<sup>23</sup> Many old stoves are improperly installed, posing significant safety concerns, including health impacts and potential fires. Professional installation required under this Program will ensure that newly installed stoves meet local fire and building codes. If a replacement device is installed in a residence that does not have functional smoke and carbon monoxide detectors, the Program may pay for purchasing and installing new detectors. The Program may support the local economy and job creation by increasing demand for, and installation of, certified wood stoves and other clean heating devices.

## X. KEY DATES AND DEADLINES

CARB posted the Program Guidelines for public review and comments on December 5, 2018. The public comment period closed on December 21, 2018 and comments were reviewed and incorporated into the Program Guidelines where appropriate. As a next step, CARB will draft grant agreements with CAPCOA and/or individual Districts. These agreements must be signed and fully executed before funds can be released. If CAPCOA acts as an intermediary between CARB and the Districts, it will be required to enter into separate agreements with the Districts. These separate agreements must ensure compliance with these Program Guidelines and any agreement between CAPCOA and CARB. Any work done prior to a District grant agreement being fully signed and executed will be ineligible for funding. The deadline

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<sup>23</sup> Based on the difference in efficiency between uncertified and certified stove: <https://www3.epa.gov/ttn/chief/ap42/ch01/final/c01s10.pdf>

for executing all grant agreements is June 30, 2020 and the deadline for submitting requests for payment to CARB is April 1, 2022.

## **XI. REPORTING AND GHG QUANTIFICATION**

CCI Funding Guidelines set tracking and reporting requirements for agencies that administer GGRF programs, such as CARB. Each District participating in the Program will be responsible for recordkeeping and providing CAPCOA and/or CARB with information necessary to fulfill Program reporting requirements. CAPCOA will be responsible for compiling the reports and submitting them electronically to CARB. All reports must be consistent with the CCI Funding Guidelines,<sup>24</sup> quantification methodologies,<sup>25</sup> reporting guidance,<sup>26</sup> and the requirements established in these Program Guidelines. The Program implemented in each participating District will be considered a Project with most of the reporting done on a Project basis. The Project will be comprised of all change-outs for which Program funds are being used, within the District's jurisdiction, along with the administrative work required to implement them. Some reported Project information will be publicly available on the CARB website, including the amount of funding spent on Projects that benefit disadvantaged communities, low-income communities, and low-income households.

In order to document and calculate reductions in GHG, black carbon, and PM2.5 emissions, and document other co-benefits and benefits to disadvantaged communities, low-income communities, and low-income households, CAPCOA and/or Districts will be responsible for collecting and maintaining the following information for each change-out:

- Tracking number for each change-out;
- Location of change-out;
- Incentive amount and, if applicable, verification that Applicant qualifies for an Enhanced Incentive based on the location of the property in a disadvantaged or low-income census tract or Applicant's household income;
- Documents proving the change-out benefits a disadvantaged community, low-income community, or low-income household and description of how the change-out meets respective community need(s);
- Type of wood burning device being replaced (stove, insert, or fireplace);
- Replacement device type and model;
- Quantity of wood burned annually before replacement;
- Replacement device emission rates and efficiency (if available);
- Installation date;
- Copy of final permit (City, County, or State);

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<sup>24</sup> <https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/2018-funding-guidelines.pdf>

<sup>25</sup> Available at [www.arb.ca.gov/cci-quantification](http://www.arb.ca.gov/cci-quantification)

<sup>26</sup> *ibid.*

- Verification of destruction of uncertified stove (including recycling if available locally) or, where applicable, verification of rendering fireplace and chimney permanently inoperable;
- Verification that the resident was trained on device operation and maintenance and, if applicable, following best practices in wood storage and wood burning for residential space heating;
- GGRF dollars spent; and
- Information on jobs and training opportunities created and whether employees are residents of disadvantaged or low-income communities or low-income households.

Documentation of each wood stove replacement must include all of the parameters above, which are necessary for quantifying the reductions. Record keeping and tracking will be retained by CAPCOA or the District for three years after the Project Closeout report is submitted.

Net GHG reductions from wood stove replacement will be calculated using the CARB approved GHG Quantification Methodology for Fiscal Year 2018-2019 available at the [Cap-and-Trade Auction Proceeds Quantification Materials](#) webpage.<sup>27</sup> CARB will also develop methodologies to quantify some additional Project co-benefits. CAPCOA will be responsible for performing calculations and reporting results to CARB as part of the reports outlined above.

## **XII. DISBURSEMENT OF FUNDS**

Funds cannot be disbursed until there is a fully executed grant agreement between CARB and CAPCOA and/or the individual District. Only those actual and direct Program related costs incurred during the approved term of the grant agreement and as specified in the grant agreement budget will be eligible for payments.

Each District shall maintain an accounting system that accurately reflects fiscal transactions with the necessary controls and safeguards. The accounting system must retain itemized receipts and invoices for all Program funds for at least three years after final payment is made by CARB.

## **XIII. AUDITING**

The State of California has the right to inspect all work and associated records at any time over the Project life. This right shall extend to any subcontracts, and CAPCOA and/or Districts shall include such access in all their contracts or subcontracts.

CARB shall review a sufficient number of Projects each year to ensure proper Program implementation. The District responsible for the Project selected for audit will be

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<sup>27</sup> <https://www.arb.ca.gov/cci-quantification>

contacted at least 30 days in advance. The audit should include all books, papers, accounts, documents, photographs, and other records related to the Project for which Program funds were used. The District will be expected to assign an employee familiar with the Project and accounting procedures to assist the State auditor and have the Project records, including cancelled warrants, readily available for inspection.

If the audit reveals that the District did not follow these Program Guidelines and/or the grant agreement, does not have proper documents to demonstrate following Program Guidelines and/or the grant agreement, or violated any State or federal law or policy, a corrective action plan will be put in place. The District will have three months to implement the corrective measures. A follow-up audit will be conducted to verify that the deficiencies are fully mitigated. If the corrective actions were not implemented or new problems were discovered during the follow-up audit, a second corrective action plan will be established. If the second follow-up audit is less than satisfactory, the grant agreement with that District will be terminated immediately and the District will be prohibited from receiving any future funding from this Program. The District may be required to fully or partially repay Program funds spent in violation of these Program Guidelines and/or the grant agreement.

The following are examples of Program deficiencies:

- Replacing a wood stove, wood insert, or fireplace not eligible for the Program;
- Installing a device not eligible for the Program;
- Issuing an Enhanced Incentive to an ineligible Applicant;
- Failing to properly document each change-out;
- Failing to properly dispose of the old stove; and
- Allowing an Applicant to install his/her replacement device.

If deficiencies are identified during an audit, CARB will be responsible for communicating them to the District, giving the District an opportunity to respond, and, if necessary, assist in drafting a corrective action plan. Districts must make every effort, including requesting assistance from CARB, if necessary, to ensure that the deficiencies are fully mitigated.