

EPA's Guide to Financing Options for Wood-burning Appliance Changeouts

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1 INTRODUCTION

This paper provides guidance on resources available to assist states, tribes and local organizations to investigate and create financing options for a wood-burning appliance changeouts. While all resources outlined may not be appropriate for all organizations, the resources listed are the programs that appear to be most likely candidates to fund a wood smoke reduction initiative. This paper is not intended as an exhaustive inventory of all possible financing tools but rather as a guide for state, tribal and local organizations to learn more about the financing options readily available to assist homeowners with wood-burning appliance changeouts.

According to the U.S. Census Bureau, about 2.5 million households (2.1 percent) across the country use wood as the main fuel for home heating, up from 1.9 million households (1.7 percent) in 2005. An additional 9 million households (7.7 percent) use wood as a secondary heating fuel.¹ As the cost of alternative fuels – most notably heating oil and propane – have increased, many low-to moderate-income households have turned to lower-cost alternatives for heat, including wood. While there are environmental benefits from using a renewable resource like wood as a heating source, the improper burning of wood and other biomass materials can cause air quality concerns. Smoke from residential wood-burning devices contains fine particle pollution, also known as fine particulate matter or PM_{2.5}, along with other pollutants including carbon monoxide, volatile organic compounds, methane, black carbon, and air toxics, such as benzene. Residential wood smoke can increase particle pollution to levels that pose serious health concerns, and in some areas constitutes a significant portion of the fine particle pollution problem. The U.S. Environmental Protection Agency (EPA) estimates residential wood burning emits more than 390,000 tons of PM_{2.5} into the air throughout the country each year – mostly during the winter months.²

Since 1988, the EPA has required manufacturers to certify that wood stoves manufactured for sale in the United States comply with the EPA particulate emissions limits in the new source performance standards (NSPS) for residential wood heaters. On January 3, 2014, the EPA Administrator signed proposed revisions to the NSPS that would strengthen the standards for new wood stoves, while establishing federal air standards for other new wood heaters, including outdoor and indoor wood-fired boilers (also known as hydronic heaters). These proposed rules, published in the Federal Register on February 3, 2014, address health concerns associated with the release of fine particulates from burning wood. The proposed rule would require the manufacturers of affected wood heaters to design new units to meet specified particulate limits. The rule will also result in increased efficiency levels of new wood-burning equipment. The rule would not affect existing wood stoves and other wood-burning heaters

¹ U.S. Census Bureau, 2005 and 2012 American Community Survey.

² Environmental Protection Agency, Residential Wood Heaters Basic Information, <http://www2.epa.gov/residential-wood-heaters/residential-wood-heaters-basic-information#why>.

currently in use in people's homes or new indoor fireplaces.³ The final rule is expected to be signed on February 3, 2015.

While the proposed rule does not cover existing wood stoves, hydronic heaters and fireplaces, state, tribal or local governments may wish to address them through local measures. The EPA, through its Burn Wise program, has developed a number of tools to help local governments address and replace existing wood-burning appliances including "Strategies for Reducing Residential Wood Smoke," at <https://www.epa.gov/burnwise/strategies-reducing-residential-wood-smoke>, is a comprehensive document covering local regulations, voluntary programs, funding mechanisms and best burn practices – all of which can help reduce particle pollution from existing wood-burning appliances.

The EPA's Burn Wise website <https://www.epa.gov/burnwise> offers the most comprehensive list of tools and resources for wood smoke reduction initiatives. Additional financing resources can be found in Appendix 5.1.

Funding for successful wood-burning appliance changeout programs can come from many sources. The Seeley Lake, Montana community initially funded its program with a U.S. Forest Service/ Glacierl and RC&D grant. The community secured additional funds from other sources to replace a total of 162 stoves:

*The Seeley Lake Community Foundation
Missoula City-County Health Department
Montana Department of Natural Resources Commission
Montana Department of Environmental Quality
Roseburg Supplemental Environmental Project
The Steele-Reese Foundation*

<https://www.nescaum.org/documents/march-2018-residential-wood-heating-workshop/seeley-lake-mt-changeout-and-partnerships.pdf>

³ For additional detail on the proposed revision, visit the Environmental Protection Agency's Proposed New Source Performance Standards for Residential Wood Heaters at <https://www.regulations.gov/document/EPA-HQ-OAR-2009-0734-1677>

2 HOW TO USE THIS GUIDE

Whether funded by a homeowner, a government entity or a non-profit organization, replacing an inefficient wood stove, hydronic heater or fireplace with a cleaner burning alternative requires capital. There are a variety of potential funding sources available at the local, state, tribal and federal level, but finding them can involve some searching. Local, state and tribal air quality offices and health departments are often good places to start, because their staffs are often familiar with grant programs designed to improve public health, reduce pollution and help the community meet air quality attainment standards.⁴ This guide provides an overview of existing programs and funding sources that appear to be the most appropriate for a wood-burning appliance changeout program. Some programs are already in existence, others have potential for future development. Although this document is primarily focused on changing out old wood burning devices, many of the funding option do allow for weatherizing a person's home which in affect helps meet the overall goal of reducing emissions by using less fuel. This should be kept in mind as you consider implementing your program.

2.1 METHODOLOGY

The methodology used to identify viable financing options for this paper involved reviewing key documents and websites, analyzing state and federal databases, and carrying out a series of interviews with stakeholders. For the purposes of this report, the types of stakeholders are broken down into the following categories and discussed in more detail later in the report:

1. Federal Organizations
2. State, Tribal and Local Organizations
3. Financial Institutions and Third-Party Lenders
4. Foundations, Industry Groups and Non-Profit Organizations

⁴ A list of state air agencies can be found at <https://www.epa.gov/states-and-territories>

2.2 WOOD-BURNING APPLIANCE CHANGEOUT FINANCE OPTIONS AT-A-GLANCE

Program Title	Type of Program*	Low Income	Previous Wood Initiative	Shared Goals
Federal Energy Efficiency Tax Credit	I		X	Energy Improvements
U.S. Environmental Protection Agency				
Supplemental Environmental and Mitigation Projects	S,C		X	Air Quality, Human Health
National Indoor Environments Program	C		X	Air Quality
Tribal Air Quality Grants	C		X	Air Quality, Human Health
Clean Air Act - Sections 103 and 105	S,C		X	Air Quality
New Source Review / Emission Offsets	I,C		X	Air Quality
Regional Applied Research Effort Grants	C		X	Environmental Research
Science to Achieve Results Grants	C			Air Quality, Human Health
U.S. Department of Agriculture				
Rural Utilities Service Energy Efficiency and Conservation Loan Program	C		X	Energy Improvements
Rural Repair and Rehabilitation Program	I	X	X	Human Health
Housing Preservation Grant	S,C	X		Housing Rehabilitation
U.S. Department of Energy				
Weatherization Assistance Program	S,C	X	X	Energy Improvements
State Energy Programs	S,C		X	Energy Improvements
Better Building Neighborhood Program	S,C		X	Energy Improvements
Tribal Energy Program	C			Energy Improvements
Weatherization Innovation Pilot Program	C			Energy Improvements
Sustainable Energy Resources for Consumers	C	X		Energy Improvements
U.S. Department of Health and Human Services				
Low Income Home Energy Assistance Program	I,S,C	X	X	Energy Improvements
Community Services Block Grant	C	X	X	Human Health
Social Services Block Grant	S,C			Human Health
U.S. Department of Housing and Urban Development				
PowerSaver Loans	I		X	Energy Improvements
203(k) Rehabilitation Mortgage Insurance Program	I		X	Energy Improvements
Energy Efficient Mortgage Program	I		X	Energy Improvements
Community Development Block Grant	C		X	Human Health
Indian Community Development Block Grant	C	X		Human Health
Indian Housing Block Grant	C	X	X	Energy Improvements
State, Tribal and Local Programs				
State Tax Credits	S		X	Energy Improvements
Property Assessed Clean Energy	S,C			Energy Improvements
State Renewables Portfolio Standards	S		X	Energy Improvements
Qualified Energy Conservation Bonds	S,C			Energy Improvements
Financial Institutions and Third Party Lenders				
Commercial Banks	I		X	Energy Improvements
Credit Unions	I		X	Energy Improvements
Community Development Financial Institutions	I	X	X	Energy Improvements
New Market Tax Credits	C	X		Energy Improvements
Social Impact Bonds	C			Energy Improvements
Utility Funded Programs	I		X	Energy Improvements
Industry-Supported Programs	I		X	Energy Improvements
Foundations	I,C			Human Health, Energy

* Types of Programs: I = Individual, C = Community, S = Statewide

3 WOOD-BURNING APPLIANCE CHANGEOUT FINANCE OPTIONS

This guide identifies financial options with the most potential for assisting wood-burning appliance owners to replace inefficient wood stoves, hydronic heaters and fireplaces with cleaner alternatives. Preference is given to options that have been used for wood stove replacements in the past or for which wood stove replacements have been identified as a potential use of funds, however there are many new options that are worth consideration. Finance options are grouped into general categories based on the sponsoring entity or type of institution as follows:

1. Self-financing in which the owner pays for the appliance replacement using funds on hand in a checking or savings account or through a home equity product;
2. Federal programs, such as grants or subsidized loans provide by the U.S. government;
3. State, tribal and local programs, such as grants or subsidized loans provided by state governments;
4. Loan programs available through third party financial institutions;
5. Utility-sponsored programs;
6. Hearth industry discounts and rebates; and
7. Foundations and other non-governmental programs.

3.1 SELF-FINANCING

Many wood-burning appliance owners will at least consider self-financing replacements with cash or short-term debt that they plan to pay off within one or two years. Homeowners with little outstanding debt and sufficient cash reserves are likely to self-finance improvements, while homeowners with limited reserves, including many low-income households, are less likely to have this option available. If cash is not available, some homeowners might consider home equity loans and lines of credit as a financing vehicle – taking advantage of the equity that is in their home. Since many of the households that are most in need of a wood-burning appliance replacement are low- to moderate-income households, it is assumed in this guide that self-financing is not always a viable option.

3.2 FEDERAL PROGRAMS

The federal government offers a vast array of financing programs ranging from grants to subsidized loans to tax incentives to credit enhancements. However, federal-level energy programs available to subsidize wood smoke reduction programs are often focused on energy efficiency and weatherization, and may not be applicable to all wood-burning appliance replacements. In this guide, we highlight some federal energy programs with the highest likelihood of being utilized for a wood smoke reduction initiative for all impacted owners of wood stoves, hydronic heaters and fireplaces as well as some financial assistance programs that we believe can provide support to low-income households.

3.2.1 FEDERAL ENERGY EFFICIENCY TAX CREDIT

In 2012 and 2013, the federal government offered a tax credit for residential energy efficiency improvements in existing homes and for the purchase of high-efficiency heating, cooling and water-heating equipment. Taxpayers were entitled to a \$300 tax credit for the purchase of wood and pellet stoves or biomass boilers and furnaces that were at least 75% efficient and purchased in 2012 or 2013. In 2020 the IRS introduced a new tax credit under Sec. 25(D) of the tax code for wood and pellet heaters. This new credit covers 26 percent of purchase AND installation costs (with no limit) in 2021 and 2022 and 22 percent of purchase AND installation costs (with no limit) in 2023. The Hearth, Patio and Barbecue Association’s website provides more details at <https://www.hpba.org/Advocacy/Biomass-Stove-Tax-Credit>. The contact for the Internal Revenue Service hotline is (202) 317-6853 and leave a message for Jennifer Records or fax your question to (855) 591-7868.

3.2.2 U.S. ENVIRONMENTAL PROTECTION AGENCY

The U.S. Environmental Protection Agency (EPA) was established to protect human health and the environment and has developed many programs aimed at clean water, clean air and other health and environmental missions. In March 2013, the EPA’s Office of Air Quality Planning and Standards Outreach and Information Division revised a guide to provide information and tools for states, tribes, and communities interested in developing strategies for reducing fine particle pollution from residential wood smoke. The “Strategies for Reducing Residential Wood Smoke” guide includes several funding case studies and can be found here: [https:// www.epa.gov/sites/default/files/documents/strategies.pdf](https://www.epa.gov/sites/default/files/documents/strategies.pdf). More case studies can be found at <https://www.epa.gov/burnwise/case-studies-and-reports-related-residential-wood-heat>

3.2.2.1 Supplemental Environmental and Mitigation Projects

Settlement agreements for violation of federal and state environmental laws may include Supplemental Environmental Projects (SEPs) and/or mitigation projects. While SEPS are not an EPA program or “funding source” as that term is traditionally understood, SEPs implementing a wood-burning appliance change out program have been an effective way to significantly improve public health and the environment in some cases. These types of projects can be used to address various types of pollutants including PM_{2.5}, CO, volatile organic compounds, and hazardous air pollutants. Over the last 6 years, state and federal settlement agreements have included more than \$5.5 million for wood-burning appliance change out projects.

Many communities use state and local air enforcement settlement agreements to obtain changeouts. Work with your state, tribal or local enforcement office to identify opportunities.

- A **supplemental environmental project** is an environmentally beneficial project that is not required by law and that a violator of an environmental law voluntarily agrees to undertake in the settlement of a civil enforcement action. Where appropriate in the context of a particular case, SEPs can provide environmental or public health benefits that would otherwise be unavailable through EPA's enforcement authorities.
- A **mitigation project** is injunctive relief sought by the government to remedy, reduce or offset past (and in some cases ongoing) harm caused by alleged violations in an enforcement action. The project will usually be related to the same media (e.g. air, water, waste) and should have a tight nexus to the alleged violations.

Additional program information can be found at <http://www2.epa.gov/enforcement/supplemental-environmental-projects-seps>.

For guidance on how to use a SEP for a wood-burning appliance changeout program: https://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/20070428_oaqps_epa-456_x-07-001_wood_stove_changout_guidance.pdf

Several wood stove replacement SEP/mitigation projects have been implemented throughout the country, including a \$750,000 mitigation project for a coal-fired power plant that was administered by a health organization. The project replaced 425 old wood stoves with pellet, gas and EPA-certified wood stoves and included education on proper burning and appliance operation. A list of states with current SEP settlements can be found in the Enforcement and Compliance History Online (ECHO) database: <http://echo.epa.gov>.

Case Study: Swinomish Indian Tribal Community Wood Stove Change-Out Program

In 2002 and 2005, the Swinomish Indian Tribe in La Conner, Washington, implemented a wood stove change-out program as a SEP. Upon completion of the SEP, the program has been funded by the Swinomish Housing Authority and the EPA. See https://19january2017snapshot.epa.gov/sites/production/files/2015-09/documents/case_study_swinomish.pdf

3.2.2.2 National Indoor Environments Program

The goal of EPA's Indoor Environments Program is to reduce the environmental health risks posed by contaminants in indoor environments. The program helps to reduce exposure to indoor air contaminants – including indoor environmental asthma triggers like fine particle pollution from wood-burning appliances – by funding demonstration, training, outreach and/or education projects that achieve national scale impacts. Funding opportunities can be found at <https://www.epa.gov/grants/air-grants-and-funding>

3.2.2.3 Tribal Air Quality Grants

The EPA provides grant assistance to Tribes to identify problems, educate staff and communities, implement strategies to reduce air pollution, and work with EPA and states to protect air quality and human health. Grant opportunities may be available through the program— Information and resources can be found here: <https://www.epa.gov/tribal-air>

3.2.2.4 EPA Clean Air Act

Under the Clean Air Act, the EPA Administrator has the authority to provide funding for projects to study or investigate the causes and prevention of air pollution as well as funding to implement programs.

- **Section 103** outlines the Administrator’s authority to establish a national research and development programs for the prevention and control of air pollution:
<http://www.law.cornell.edu/uscode/text/42/7403>.
- **Section 105** outlines the Administrator’s authority to provide grants to air pollution control agencies to help with the cost of implementing programs for the prevention and control of air pollution or implementation of national primary and secondary ambient air quality standards:
<http://www.law.cornell.edu/uscode/text/42/7405>.

EPA has funded several Section 103 wood stove changeout projects in the past and has also funded Section 105 projects. Contact your EPA Regional Office air quality planning contact or EPA’s Burn Wise Program (www.epa.gov/burnwise) for more information.

Case Study: Keene Woodstove Changeout Campaign

In 2009, the New Hampshire Department of Environmental Services (DES) partnered with the Town of Keene, NH to develop a woodstove changeout campaign. Using \$35,000 in Section 105 Air Program funds, DES was able to hire an intern to coordinate the campaign and administer grants to woodstove owners. See <https://www.epa.gov/burnwise/case-studies-and-reports-related-residential-wood-heat>.

3.2.2.5 Nonattainment New Source Review / Emission Offsets

Nonattainment New Source Review (NSR) is a preconstruction permitting program established as part of the 1977 Clean Air Act Amendments. It was designed to help ensure that air quality is not significantly degraded from the addition of facilities such as new and modified factories, industrial boilers and power plants where the air quality is currently unhealthy to breathe (nonattainment areas) or where the air quality is currently clean (attainment areas). The nonattainment NSR program applies to new major facilities located in areas not attaining the National Ambient Air Quality Standards (NAAQS). All nonattainment NSR programs require the issuance of permits that in turn require sources to (1) install technology that achieves the lowest achievable emission rate, (2) obtain emission offsets,

(3) ensure statewide facility compliance and (4) allow for the opportunity for public involvement during the permit issuance process.

Offsets are emission reductions obtained from existing sources, including wood-burning appliances, usually located in the vicinity of the new proposed facility. The purpose for requiring offsetting emissions reductions is to allow a nonattainment area to move towards attainment of the NAAQS while still allowing some industrial growth. In general, facilities would be able to increase their emissions one ton for every one ton of particulate reduced through woodstove removal. For more on emission offsets from nonattainment NSR programs, please visit <https://www.epa.gov/nsr/nonattainment-nsr-basic-information>.

Case Study: Klamath Falls, Oregon, PM_{2.5} Attainment Plan

In 2009, with the adoption of a fine particulate (PM_{2.5}) matter standard, EPA changed the legal status of the Klamath Falls Area from attainment (meeting air quality standards) to nonattainment (not meeting air quality standards) for PM_{2.5}. To bring the area back into compliance with particulate standards the State of Oregon's Department of Environmental Quality and community representatives developed a particulate emission reduction plan, known as the Klamath Falls PM_{2.5} plan. This plan includes a proposal to allow new industrial facilities to obtain particulate emission offsets and reduce air pollution by working with homeowners to remove and destroy dirty uncertified wood stoves. Currently the only offsets available in Klamath Falls come from other industries, with limited availability. The proposal would provide a dual benefit of removing uncertified woodstoves from the community and providing an additional opportunity for economic growth. <https://www.oregon.gov/deq/FilterDocs/KFallsAttPlan2012.pdf>

3.2.2.6 Regional Applied Research Effort Grants

The Regional Applied Research Effort (RARE) grant is an EPA Office of Research and Development program that responds to the high-priority research needs of EPA Regions. RARE has funded more than 200 high-priority research projects including a grant to the Institute of the Environment at Dine' College to develop an alternative energy feasibility study and investigate alternative heating options in an effort to reduce exposure to harmful pollutants from residential coal stoves in Navajo Nation. Annually, a network of 20 regional scientists work with EPA's ten regional offices and the Agency's Office of Research and Development (ORD) to identify RARE projects in order to answer key environmental questions that are important to communities and address regional and national research priorities. Additional program information and regional contacts can be found at <https://www.epa.gov/research>.

3.2.2.7 Science to Achieve Results Grants

The EPA's National Center for Environmental Research (NCER)'s Science to Achieve Results (STAR) program funds research grants and graduate fellowships in numerous environmental science and engineering disciplines through a competitive solicitation process and independent peer review. At

present, the STAR program is focused on children's health, hazardous substances, particulate matter, and estuarine and coastal monitoring. Additional program information can be found here: http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/recipients.welcome/displayOption/grants.

3.2.2.8 Other EPA Funding Opportunities

The EPA regularly releases Requests for Applications (RFAs) for a variety of health and environmental programs. The list may change periodically and may not specifically address wood smoke issues. <https://www.epa.gov/grants/find-current-funding-opportunities>.

3.2.3 U.S. DEPARTMENT OF AGRICULTURE

The U.S. Department of Agriculture (USDA) offers programs focused on rural communities including housing, energy efficiency and conservation assistance. Rural development loan assistance can include direct or guaranteed loans, grants, and technical assistance.

3.2.3.1 Rural Utilities Service Energy Efficiency and Conservation Loan Program

The USDA's Rural Utilities Service (RUS) launched the Energy Efficiency and Conservation Loan program in December 2013 to expand the ability of rural utilities to make loans for energy efficiency activities. While the RUS loans are to utility borrowers and not directly to homeowners, the utilities can in turn choose to develop an energy efficiency program for its service territory, possibly using on-bill financing, a financial mechanism unique to utilities where loan payments are repaid directly through a customer's utility bill. Eligible activities include building weatherization, HVAC upgrades, energy audits, small scale renewable generation and wood stove replacement with an EPA-certified wood stove. Additional program information can be found here: <https://www.rd.usda.gov/programs-services/electric-programs/energy-efficiency-and-conservation-loan-program>. Other potential USDA grant programs that reduce residential wood smoke are at the following link: <https://www.fs.usda.gov/science-technology/energy-forest-products/wood-innovation>.

3.2.3.2 Rural Repair and Rehabilitation Loans and Grants

The Rural Repair and Rehabilitation program provides loans and grants to very low-income homeowners to repair their home or to remove health and safety hazards. To obtain a loan, homeowners must be unable to obtain affordable credit elsewhere and must have very low incomes, defined as below 50 percent of the area median income. The program requires that homeowners must need to make repairs and improvements to make the dwelling more safe and sanitary or to remove health and safety hazards. Grants are only available to homeowners who are 62 years old or older. Loans of up to \$20,000 and grants of up to \$7,500 are available. Loans are for up to 20 years at 1 percent interest. Loans and grants can be combined for up to \$27,500 in assistance. Additional program information can be found here: <https://www.rd.usda.gov/programs-services/single-family-housing-programs/single-family-housing-repair-loans-grants>

3.2.3.3 *Housing Preservation Grant*

The Housing Preservation Grant (HPG) program provides grants to sponsoring organizations for the repair or rehabilitation of low- and very low-income housing. Those assisted must own very low- or low-income housing, either as homeowners, landlords, or members of a cooperative. Very low income is defined as below 50 percent of the area median income (AMI); low income is between 50 and 80 percent of AMI. Eligible sponsors include state agencies, units of local government, Native American tribes, and nonprofit organizations. Additional program information can be found here:

<https://www.rd.usda.gov/programs-services/single-family-housing-programs/housing-preservation-grants>

3.2.4 *U.S. DEPARTMENT OF ENERGY*

The U.S. Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy (EERE) offers many weatherization and energy efficiency programs to residential homeowners – some specifically designed to help low- to moderate-income households upgrade their homes to reduce energy use and save money. While wood stove and other wood-burning appliance replacements may not be an eligible use of funds in all programs, the following programs are worth considering as a funding option, particularly if the program wants to replace wood-burning appliances with alternative heating such as heat pumps and natural gas stoves. Programs are listed in order of potential applicability.

Communities should consider weatherizing homes when addressing wood smoke. Weatherizing the home will help decrease the need for firewood, resulting in improved savings and air quality. Look for opportunities with your state energy office.

3.2.4.1 *Weatherization Assistance Program*

The DOE's Weatherization Assistance Program (WAP) provides grants to states, territories, and some Indian tribes to improve the energy efficiency of the homes of low-income families. These governments, in turn, contract with local governments and nonprofit organizations to provide weatherization and home energy upgrade services to those in need. All weatherization services are provided by local weatherization agencies and program and income guidelines will differ depending on the state.

WAP's weatherization services consist of cost-saving measures for existing low-income residential and multifamily housing including a wide variety of energy efficiency measures that encompass the building envelope, its heating and cooling systems, its electrical system, and electricity consuming appliances.⁵ While the program does not specifically list wood-burning appliances as heating systems that are

⁵ U.S. Department of Energy, Office of Renewable Energy and Energy Efficiency, Weatherization Assistance Project, "What is Weatherization?" <http://energy.gov/eere/wipo/what-weatherization>.

covered by the program, a homeowner should contact his/her local weatherization agency to learn more. State contacts can be found at the Weatherization Assistance Program Technical Assistance Center website: <https://www.energy.gov/eere/wap/weatherization-assistance-program>

Case Study: Sacramento Metropolitan Air Quality Management District

In 2007, the Sacramento Metropolitan Air Quality Management District implemented a low-income wood stove change-out program. The installation cost for the new appliances was paid for using weatherization funds.

https://www.epa.gov/sites/default/files/2015-09/documents/case_study_sacramento.pdf

3.2.4.2 State Energy Programs

The DOE State Energy Program (DOE SEP) provides funding and technical assistance to state and U.S. territory energy offices to help them advance their clean energy priorities. State energy offices can use DOE SEP funds to develop state plans that identify opportunities for adopting renewable energy and energy efficiency technologies and implementing programs to improve energy sustainability which, in some states, might include a wood smoke reduction initiative. Each state develops its own plan and the DOE uses a formula to determine the amount awarded. As of May 2014, at least 37 states have active energy plans and 18 states are updating or developing new state energy plans. Operational plans and status of new plans can be found on the National Association of State Energy Officials (NASEO) website: <http://www.naseo.org/stateenergyplans>. Contact the local state energy office about your interest in supporting a statewide or community changeout initiative. Make sure to emphasize the potential energy efficiency improvements along with the co-benefits (e.g., improved air quality, health and safety) of replacing older appliances.

3.2.4.3 Better Buildings Neighborhood Program

The Better Buildings Neighborhood Program (BBNP) is helping over 40 state and local governments develop sustainable programs to upgrade the energy efficiency of more than 100,000 buildings. Some of the programs – specifically Maine, Vermont and Boulder, Colorado – include financing options for wood stoves. A list of all programs can be found here: <http://energy.gov/eere/better-buildings-neighborhood-program/better-buildings-neighborhood-program-partners>.

3.2.4.4 Tribal Energy Program

The Tribal Energy Program (TEP) promotes tribal energy sufficiency and fosters employment and economic development on America's tribal lands. The program offers financial and technical assistance to tribes to help them evaluate and develop their renewable energy resources and reduce their energy consumption through efficiency and weatherization. The TEP is not currently seeking applications for funding opportunities. A list of the program's past grants and opportunities can be found here: <https://www.energy.gov/indianenergy/office-indian-energy-policy-and-programs>

3.2.4.5 *Weatherization Innovation Pilot Program*

In 2010, the DOE launched the Weatherization Innovation Pilot Program (WIPP) to invest in innovations in whole-house weatherization for low-income families that were not included in the Weatherization Assistance Program (outline above). These innovations include the use of new materials, technologies, behavior-change models, and processes for whole-house weatherization. One of the main focuses is on “Green and Healthy Homes,” which combines health and safety home improvements with standardized weatherization services. For example, the Coalition to End Childhood Lead Poisoning received a grant of nearly \$1.3 million to weatherize homes and reduce health hazards like mold and lead paint. Although there are no current grantees that specifically cover wood-burning appliance replacements, it is an option worth pursuing by a qualifying state or non-profit organization. A list of the WIPP funded programs can be found here: <http://energy.gov/eere/wipo/wipp-projects>.

3.2.4.6 *Sustainable Energy Resources for Consumers*

A program complementary to the WIPP program outlined above is the Sustainable Energy Resource for Consumer (SERC) grant program. In 2007, the Energy Independence and Security Act included a provision that in any year for which WAP funding exceeds \$275 million, up to two percent of the funding can channel through to SERC to pay for “materials, benefits, and renewable and domestic energy technologies” that are not traditionally allowed under WAP. The purpose of the program is to test and quantify the energy savings and cost-effectiveness impact of new technologies on low-income families. These technologies have included funding for cool roofs, ductless heat pumps, solar and home energy monitors. Wood-burning appliances have not been included in the past. A list of the SERC-funded programs can be found here: <http://energy.gov/eere/wipo/serc-projects>.

3.2.5 *U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES*

The U.S. Department of Health and Human Services (HHS) offers many programs that help to protect the health and ensure that essential human services are provided to all Americans. Through the Office of Community Services, there are a number of programs that are designed to assist low-income households with energy, health and housing needs.

The Low Income Home Energy Assistance Program (LIHEAP) may help replace home heating devices and may also help subsidize fuel (e.g. propane, pellets or wood). Contact your state program for more information.

3.2.5.1 *Low Income Home Energy Assistance Program*

The Low Income Home Energy Assistance Program (LIHEAP) assists low income households with energy costs through utility bill assistance, energy crises weatherization and energy-related minor home repairs. The assistance is always free to qualified households – generally households that are

at or below 150 percent of the federal poverty level or 60 percent of the state median income. LIHEAP is allocated as a block grant which means that state and tribal grantees may, within statutory parameters, operate their programs as they see fit, based on their budgets, program delivery structures, client demographics, and other factors. As a result, there are many variations in state programs. A few states – notably Montana, New Mexico, California and Idaho – have run pilot wood stove change-out programs or have coordinated with other government funded programs (including DOE and the EPA) to help subsidize the wood stove changeout. Montana has incorporated wood stove changeouts as a component to the state program.

Each state can change both the income and the eligible uses guidelines for their unique programs, therefore a wood smoke reduction program could be added at any time at the discretion of the state with approval by HHS. A summary of LIHEAP programs for the 22 states most impacted by wood smoke can be found in Appendix 5.2. A more detailed description of all state LIHEAP programs can be found at the LIHEAP Clearinghouse website: <https://www.acf.hhs.gov/ocs/low-income-home-energy-assistance-program-liheap>.

Case Study: Montana Low Income Wood Stove Changeouts

The Montana Department of Public Health and Human Services (DPHHS), which administers LIHEAP in Montana, participated in a wood stove changeout pilot study in 2007. DPHHS received an EPA grant of \$100,000 to replace at least 74 wood stoves and leveraged the EPA funds with \$95,133 in LIHEAP weatherization funds. The proposal can be found here:

<https://liheapch.acf.hhs.gov/sites/default/files/webfiles/docs/WoodStoveChangeouts.pdf>

The Community Services Block Grant (CSBG) provides funds to reduce the causes and effects of poverty in communities. Traditionally used to address the needs of low-income individuals including the homeless, migrants and the elderly, CSBG funds can be used to improve living conditions and might be a consideration for a wood smoke reduction program. Additional program information can be found here: <https://www.acf.hhs.gov/ocs/programs/community-services-block-grant-csbg>

3.2.5.3 Social Services Block Grant

Social Services Block Grants (SSBG) enables a state or territory to meet the needs of its residents through locally relevant social services support programs. These programs allow communities to achieve economic self-sufficiency to eliminate dependency on social services including health-related and housing services, which in some cases might include wood-burning appliance replacements. Additional program information can be found here: <https://www.acf.hhs.gov/ocs/programs/ssbg>

3.2.6 U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

The U.S. Department of Housing and Urban Development (HUD) administers many government programs for a variety of housing needs including programs that address the energy needs of the residential and multi-family housing market. These programs include utility assistance, home repair and energy efficiency loan programs backed by the Federal Housing Administration (FHA).

3.2.6.1 *PowerSaver Loans (No longer available)*

3.2.6.2 *203(k) Rehabilitation Mortgage Insurance Program*

The FHA's 203(k) Rehabilitation Mortgage Insurance program encourages homebuyers and homeowners to finance home energy improvements into a new or the refinance of an existing mortgage. For less extensive retrofits (up to \$35,000), a homeowner can apply for a streamlined 203(k) which reduces the time and paperwork. Loan repayment terms can be up to 30 years and replacing a wood stove is an eligible use of loan proceeds. Unlike the PowerSaver program, which has a minimum credit score requirement, 203(k) loans have no minimum credit score. Additional program information can be found here: https://www.hud.gov/program_offices/housing/sfh/203k/203k--df

3.2.6.3 *Energy Efficient Mortgage Program*

The FHA's Energy Efficient Mortgage program (EEM) enables homebuyers and homeowners to finance the cost of adding energy efficiency features to new or existing housing as part of their FHA insured home purchase or refinancing mortgage. Although EEM was designed to incent energy efficiency investment and help homeowners save money on utility bills, it has only received minimal use by lenders because of the loan requirements and terms. Instead, lenders prefer to use the 203(k) loan program outlined above. However, the EEM does enable the homeowner to include amounts for energy efficiency improvements in a new purchase or refinance including heating systems like wood stoves. Additional information can be found here:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/eem/energy-r

3.2.6.4 *Community Development Block Grant*

The Community Development Block Grant (CDBG) program provides communities with resources to address a wide range of unique community development needs – including energy conservation and renewable energy resources – with priority given to activities which benefit low- and moderate-income persons. In entitlement communities (those with populations of at least 50,000), HUD awards grants to carry out a wide range of community development activities directed toward revitalizing neighborhoods, economic development, and providing improved community facilities and services. These activities include those that have a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community where other financial resources are not available to meet such needs. A wood smoke reduction initiative might meet these criteria and could be investigated by the participating community. Tribes that received Indian Community Development Block Grant

funds in fiscal year 2008 are eligible to compete for a portion of the CDBG funds. Additional program information can be found here: <https://www.hudexchange.info/programs/cdbg/>

Case Study: Pendleton, Oregon Wood Stove Replacement Program

The City of Pendleton, OR used CDBG funds for the initial funding of a wood stove replacement program that offered low interest loans and rebates to retrofit existing wood-burning fireplaces or convert from wood to gas heat.

<https://pendleton.or.us/publicworks/page/wood-stove-replacement-program-summary>

3.2.6.5 Indian Community Development Block Grant

The Indian Community Development Block Grant (ICDBG) Program provides eligible grantees with direct grants for use in developing viable Indian and Alaska Native Communities, including decent housing, a suitable living environment, and economic opportunities, primarily for low and moderate income persons. Although there are no specific wood stove change-out programs, HUD may set aside 5 percent of each year's allocation for a noncompetitive, first come-first served, funding of grants to eliminate or lessen problems which pose an imminent threat to public health or safety. Additional program information can be found here:

https://www.epa.gov/sites/default/files/2015-09/documents/case_study_pendleton_or.pdf

3.2.6.6 Indian Housing Block Grant

Tribes typically receive funding on an annual basis under the Indian Housing Block Grant (IHBG) program and have a great deal of discretion on how they spend these funds. If a tribe includes upgrading appliances like wood stoves in their annual Indian Housing Plan (IHP), the tribe can then use those IHBG funds to changeout old wood stoves. Consideration should be given to weatherizing the house to help reduce fuel usage (e.g., the amount of wood burned). Additional program information can be found here: http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/ih/grants/ihbg.

In addition to the IHBG grant, HUD offers the Title VI loan guarantee program to assist IHBG recipients who want to finance eligible affordable housing activities, but are unable to secure financing without the assistance of a federal guarantee. A federal guarantee is a pledge by the U.S. Government to repay all or a portion of the unpaid principal balance and accrued interest for an obligation by a borrower to a lender in the event of a default under the terms of the repayment agreement. Additional information on the loan guarantee program can be found here:

https://www.hud.gov/program_offices/public_indian_housing/ih/grants/ihbg

3.3 STATE, TRIBAL AND LOCAL PROGRAMS

In addition to the many federal programs outlined above that could potentially be used to help finance a wood stove replacement, many states, tribal territories and some local municipalities have programs that

are designed to assist residential homeowners with home energy improvements. Some programs, like LIHEAP, State Energy Plans and CSBGs, are federally funded programs that give the state discretion over the types of programs to offer. Others, like the ones listed below, are state, tribal or local government specific programs that are funded through other means.

3.3.1 STATE TAX CREDITS

A few states - notably Idaho and Montana – offer residential tax payers a tax credit or deduction for the purchase and installation of alternative energy systems that include EPA-certified wood or pellet stoves. State tax credits come and go, so it is worth checking what may be available in your area. The Alliance for Green Heat has a webpage listing Tax-Credits & Incentives at:

<http://www.forgreenheat.org/incentives/index.html>. The Database of State Incentives for Renewables and Efficiency (DSIRE) offers the most comprehensive list of state tax credits available: <http://www.dsireusa.org/>.

3.3.2 PROPERTY ASSESSED CLEAN ENERGY

Property Assessed Clean Energy (PACE) projects are sanctioned by state law and provide local governments with the option to create a special purpose assessment for residential and commercial building clean energy improvements via assessments on the property tax bill. Modeled after other special purpose tax districts for public improvements ranging from sidewalks to sewage treatment plants, PACE allows local governments, state governments, or other inter-jurisdictional authorities to fund 100 percent of the upfront costs for improvements. Many state and local governments have passed bonds to offer low-cost financing in the five to seven percent range, quite competitive with alternative forms of debt. Property owners voluntarily choose to participate in a PACE program and repay the cost of improvements through property assessments, which are secured by the property itself and paid as an addition to the owners' property tax bills.

Nationally 31 states have enacted PACE legislation, including Maine, New York, Oregon, and Wisconsin. Although nearly \$56 million in commercial PACE projects have been completed for more than 200 projects nationwide, the activity has been centered in nine states – including California, Minnesota and Connecticut.⁶ Other states must pass further modifications to help lenders and local governments become more comfortable with the default risks and impacts on primary mortgage holders – particularly for residential mortgages. Still, this type of financing tool presents a unique opportunity for state and local governments to create a wood smoke reduction program using an assessment on the homeowner's property tax bill. Additional information on PACE can be found at <http://pacenow.org/>.

⁶ PACE Market Snapshot, December 2013, PACENow, <http://pacenow.org/wp-content/uploads/2013/12/12.17.2013-PACE-Market-Overview.pdf>.

Case Study: CaliforniaFirst

In August 2014, 17 California counties launched CaliforniaFirst, a PACE program that enables residential homeowners to receive upfront funding for energy efficiency, renewable energy and water efficiency improvements for their home and to repay the amounts through a property tax assessment over a term of up to 20 years. Eligible improvements include upgrades to more efficient heating systems.

<https://renewfinancial.com/californiafirst-pace-financing-california>

3.3.3 STATE RENEWABLES PORTFOLIO STANDARDS

Many states have Renewables Portfolio Standards (RPS) in place and may require electric utilities to meet certain compliance obligations from eligible renewable energy resources. If they do not meet their compliance obligations the utility may be required to make “Alternative Compliance Payments” similar to the State of Massachusetts: <https://www.mass.gov/service-details/massachusetts-energy-budgets-investments>. Massachusetts has used the funds to implement projects, including wood stove changeouts, to help meet the annual RPS requirements. Additional information regarding the details of each state’s RPS can be found here: <http://www.dsireusa.org/>.

3.3.4 QUALIFIED ENERGY CONSERVATION BONDS

In 2009, Congress authorized the allocation of \$3.2 billion of subsidizing bonding authority to states and large local governments to finance qualified energy projects through the issuance of tax credit bonds. Qualified energy conservation bonds (QECBs) are available to state, tribal and local organizations at low interest rates and can only be issued for qualified conservation purposes. Qualifying projects include implementing green community programs (including loans, grants, or other repayment mechanisms) such as loan programs for residential energy efficiency improvements and developing rural capacity, specifically involving the production of electricity from renewable energy resources. Today, many states still have funds available for QECB qualifying programs. Weatherization projects could include stove replacements to help reduce fuel usage, encourage renewable energy and improve the home. Additional information on QECBs can be found here: https://www.energy.gov/sites/prod/files/2017/08/f36/QECB-FAQ_final.pdf.

3.4 Financial Institutions and Third-Party Lenders

In addition to government funded programs, homeowners have a number of options for borrowing money from banks, credit unions and other third-party lenders to finance the replacement or a wood-burning appliance. The terms of the debt will depend on multiple factors including the characteristics of

the borrower (homeowner), the security for the debt, the term (short-term, long-term), and the financing entity providing the loan. This section describes some of the types of loan programs offered by commercial (non-governmental) institutions. From the lender's perspective, one of the most important factors is the homeowner's ability to repay the loan. Some low-income homeowners with marginal credit scores or low cash balances may find this a difficult option to pursue without some type of outside organization's credit enhancement or loan guarantee (see section 3.4.5).

3.4.1 COMMERCIAL BANKS

Commercial banking institutions – both at a national and regional level – have an extensive branch network and established loan programs within the residential market, including home mortgages, home equity loans or home equity lines of credit, with loans that are secured by a lien on the homeowner's primary residence. However, those secured mortgage loans are quite different from the small consumer-oriented unsecured loans that in many cases support wood stove replacement programs. The bank departments that are most likely to be comfortable with unsecured residential energy efficiency and renewable energy lending programs are the consumer finance departments that work with unsecured lending rather than the mortgage or home loan departments. Although a locally-focused wood smoke reduction program might not be an option for most large commercial banks, some banks with a regional focus have made commitments to fund green loan programs and have also offered green grants in the communities that they serve.

3.3.5 CREDIT UNIONS

Credit unions are nonprofit organizations with a charter to serve the financial needs of specific parts of a community, whether it is an employer group, a group of graduates of a particular university, or some other defined group of people. Because of their small size and local market focus, credit unions tend to be highly community focused, but they lack the broad geographic reach of larger financial institutions. Credit unions typically focus on lending as a way to support the community or members for which they operate. In addition, because they are exempt from federal taxation, and do not have to deliver profits to shareholders, they have a tendency to offer loans at lower rates. Credit unions thus are often very well-suited candidates for lending programs that have a local or community focus like a wood smoke reduction initiative.

3.3.6 COMMUNITY DEVELOPMENT FINANCIAL INSTITUTIONS

Community Development Financial Institutions (CDFIs) are nonprofit lenders that accumulate capital from non-local sources and lend to targeted groups in their communities – frequently underserved markets and populations. A partnership with a CDFI could leverage public funds (a USDA Rural Services grant for example) to create a wood smoke reduction program tailored to a specific target market or geographic location. For example, Washington-based Craft3, a CDFI with a mission to strengthen economic, ecological and family resilience in Pacific Northwest communities, administers

two loan programs to assist homeowners with energy efficiency upgrades and septic system replacement. Craft3 works with local organizations, including tribal organizations, to develop loan programs to meet community needs. Other CDFIs have started to offer energy efficiency and other specific energy loan programs for their respective regions and target markets. A list of CDFIs can be found here: <http://ofn.org/cdfi-locator>.

3.3.7 *NEW MARKET TAX CREDITS*

New Market Tax Credits (NMTC) encourage investment in low-income communities across the U.S. by providing a 39 percent income tax credit for equity investments in Community Development Entities (CDEs). CDEs must then invest the equity into financing projects in certain designated low-income communities and can finance projects ranging from financing for-profit and non-profit businesses for equipment purchase to rehabilitation, construction, or acquisition financing for commercial, industrial, and residential real estate. Many CDFIs have utilized NMTC to fund programs in low-income communities. While a wood smoke reduction program would be eligible for finance under the NMTC program, projects must both have access to an eligible CDE and be located in a qualified census tract as designated by the US Treasury. Additional information on NMTC can be found here: <https://www.cdfifund.gov/programs-training/programs/new-markets-tax-credit>

3.3.8 *CREDIT ENHANCEMENTS*

One way for financial institutions to lower the cost of capital or credit underwriting criteria is to use outside funds (public funds or non-profit grants) to create credit enhancements that lead to reduced interest rates or longer borrowing terms than otherwise available. Many state and local governments have used some of their CSBG or State Energy Program funds to create energy efficiency and renewable credit enhancement programs. States and local governments establishing a loan loss reserve fund have used public funds to create a pool of funds that banks can draw from if their loans go into default. Other credit enhancements include using funds to buy-down interest rates or lower credit underwriting criteria to help more low-income households become eligible for loans.

3.3.9 *SOCIAL IMPACT BONDS*

Despite the name, a Social Impact Bond (SIB) is not a bond and not a registered financial instrument. It is a partnership or a “pay-for-performance” (PFP) contract, in which one entity pays for a service based on defined criteria and previously agreed-upon goals. This usually involves government agencies working together with private capital and the non-profit sector to fund cost effective solutions for alleviating social problems. The PFP mechanism is defined as a contract, whereby a government entity pays a return to investors only if the implemented program meets or exceeds previously agreed upon impact performance targets. SIBs have never been used for wood smoke reduction programs, but properly structured, it could be an alternative to traditional bank financing programs. Additional information on SIBs can be found here: <http://mckinseysociety.com/social-impact-bonds>.

3.4 UTILITY FUNDING PROGRAMS

Electric and natural gas utilities offer a variety of financing programs and incentives for homeowners including rebates, low interest loans, and auditing services. These incentives are generally offered to homeowners with the intention to upgrade or switch to an electric or natural gas heating appliance. Therefore, this option would only be used by a homeowner seeking to replace a wood-burning appliance with a cleaner burning electric or natural gas alternative. Many utilities also offer utility bill assistance for low-income homeowners. This assistance is often used in conjunction with LIHEAP heating bill assistance (see Section 3.2.3.1 for more on LIHEAP). The most comprehensive list of residential utility programs can be found on the DSIRE website: <http://www.dsireusa.org>. Many utility programs can also be found on the LIHEAP Clearinghouse website: <http://liheap.ncat.org>.

3.5 INDUSTRY-SUPPORTED PROGRAMS

Industry trade organizations, including the Hearth, Patio and Barbecue Association (HPBA) and the Alliance for Green Heat, work with the wood stove manufacturing companies and retail dealers to encourage the use of cleaner burning wood stoves. Some manufacturers have offered rebates and incentives to support wood stove changeout programs. More information can be found on HPBA's Wood Stove Changeout website: <http://woodstovechangeout.org/index.php>.

Case Study: Jøtul North America

In 2013, Jøtul North America became the first manufacturer to implement its own changeout program, encouraging wood stove owners to replace older models with more environmentally friendly options by offering a \$300 credit toward an EPA-certified Jøtul model when replacing an old wood stove. You can find additional information at: <https://news.cision.com/jotul-north-america/Index/completion-of-subsequent-offering%2C216406> and <https://www.jotul.com>

3.6 FOUNDATIONS AND NON-PROFIT ORGANIZATIONS

In the United States, there are over 81,000 private foundations that give over \$42 trillion annually to designated grantees on subjects ranging from education to health to the environment and animals.⁷ Many of the top 100 funders, including the Robert Wood Johnson Foundation and the W.K. Kellogg

⁷ Foundation Center, Aggregate Fiscal Data of US Foundations, 2011, <https://fconline.foundationcenter.org> or <https://www.causeiq.com/directory/private-foundations-list/>

Foundation, have programs that specifically address health and environmental issues.⁸ An up-to-date list of foundations and grant opportunities can be found at the Foundation Center’s website, and is available for free at a network of libraries and other community organizations through the Foundation Information Network: <http://grantspace.org/Find-Us>.

4 SUMMARY FINDINGS AND RECOMMENDATIONS

There are wide ranges of existing finance options that might be appropriate for residential wood smoke reduction initiatives. Some programs currently exist and can be adapted and combined by homeowners to reduce the cost of their wood-burning appliance replacement. Other programs might be investigated by a state, tribe or local agency to develop a wood-burning appliance replacement loan or grant program. The following appear to be the most promising current options or options that should be considered for future collaborative programs.

- **Supplemental and Mitigation Projects** – Using SEP funds, several state, tribal and local governments have successfully implemented wood stove changeout programs including Ohio, Massachusetts and Washington. In 2013, over \$2,070,000 in SEP settlements were issued.
- **State LIHEAP programs** – Many states already offer heating and weatherization assistance for low-income households and some states already include wood stove replacement as an eligible use. For example, Montana has incorporated wood stove changeouts into their LIHEAP program. Although each state sets its own income and use guidelines, the program can be easily adapted to include the replacement of wood-burning appliances as an eligible use.
- **PowerSaver Loans** (No longer available)
- **USDA Rural Utilities Energy Efficiency and Conservation Loan Program** – This recently launched rural utilities loan program is an opportunity for a group of utilities to borrow low cost funds to support an on-bill financing program for wood stove replacement with an EPA-certified wood stove.
- **State Energy Plans** – The Department of Energy usually announces its “State Energy Program Competitive Awards” in the Spring. The program can include opportunities for innovative energy efficiency and renewable energy practices which might include wood stoves. The 2014

⁸ Foundation Center, Top 100 Funders by Asset Size, <https://blog.temboo.com/environmental-grants/>

Notice of Intent can be found here: <https://www.energy.gov/eere/wipo/state-energy-program-competitive-award-generated-resources>

- **PACE programs** – Although residential PACE programs have had a slow start, more states and local governments are starting to move forward with residential programs. For local governments with a need to develop a wood smoke reduction program, a properly designed PACE program offers a good, low-cost solution for homeowners. <https://www.pacenation.org/>
- **Community Development Financial Institutions** – CDFIs are mission-based and focused on particular geographic markets and target sectors. In areas designated as highly impacted by wood smoke, a local CDFI might be able to provide a local air agency or other community organization with a specific wood-burning appliance replacement loan program.

None of the finance options described in this paper are “silver bullets”, but with research and proper planning, state, tribal, and local governments may find resources to help homeowners replace older, inefficient wood stoves with cleaner burning appliances. In addition, homeowners may be able to find resources on their own to replace older, inefficient wood-burning appliances with cleaner burning alternatives. While the number of stakeholders contacted for this project was sufficient to uncover basic financing trends, it was not of sufficient size to fully describe each state’s specific programs. Appendix 5.2 is a summary of some of the programs available in the 22 states most affected by residential wood smoke. More intensive research or direct advising with local, tribal and state organizations will be necessary to develop more detailed finance strategies for specific regions.

5 APPENDICES

5.1 RESOURCES

U.S. Environmental Protection Agency

Strategies for Reducing Residential Wood Smoke:

<https://www.epa.gov/burnwise/strategies-reducing-residential-wood-smoke>

Supplemental Environmental and Mitigation Projects:

<http://www2.epa.gov/enforcement/supplemental-environmental-projects-seps>

Guidance for Using State Supplemental Environmental Projects to Implement Wood Stove Changeout Programs: https://www.epa.gov/sites/default/files/2015-09/documents/guidance_for_using_state_supplementals_042807_0.pdf

National Indoor Environments Program: <https://www.epa.gov/grants>

Tribal Air Quality Grants: <https://www.epa.gov/r10-tribal/region-10-clean-air-act-tribal-program-funding#:~:text=Clean%20Air%20Act%20grant%20funding,levels%20for%20fiscal%20year%202021>

EPA Clean Air Act Section 103: <http://www.law.cornell.edu/uscode/text/42/7403>

EPA Clean Air Act Section 105: <http://www.law.cornell.edu/uscode/text/42/7405>

New Source Review / Emission Offsets: <https://www.epa.gov/nsr>

Regional Applied Research Effort (RARE) Grants: <https://rarediseases.org/for-clinicians-and-researchers/research-opportunities/research-grant-program/>

Science to Achieve Results (STAR) Grants:

http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/recipients.welcome/displayOption/grants

U.S. Department of Agriculture

Rural Utilities Service Energy Efficiency and Conservation Loan Program:

<https://www.rd.usda.gov/programs-services/electric-programs/energy-efficiency-and-conservation-loan-program>

Rural Development Loan Programs: <https://www.rd.usda.gov/programs-services/electric-programs/energy-efficiency-and-conservation-loan-program>

Rural Repair and Rehabilitation Loans and Grants: <https://www.usda.gov/reconnect>

Housing Preservation Grant: <https://www.rd.usda.gov/programs-services/single-family-housing-programs/housing-preservation-grants>

U.S. Department of Energy

Weatherization and Intergovernmental Programs Office:
<http://energy.gov/eere/wipo/weatherization-and-intergovernmental-programs-office>

Weatherization Assistance Program Technical Assistance Center:
<https://nascsp.org/wap/waptac/>

Weatherization Pilot Programs (WAPP and SERC):
<https://www.energy.gov/eere/wipo/weatherization-pilot-projects>

State Energy Program: <http://energy.gov/eere/wipo/state-energy-program>

National Association of State Energy Officials (NASEO):
<http://www.naseo.org/stateenergyplans>

Tribal Energy Program: <https://www.energy.gov/indianenergy/office-indian-energy-policy-and-programs>

Better Building Neighborhood Program: <http://energy.gov/eere/better-buildings-neighborhood-program/better-buildings-neighborhood-program>

U.S. Department of Health and Human Services

Low Income Home Energy Assistance Program: <https://www.acf.hhs.gov/ocs/low-income-home-energy-assistance-program-liheap>

LIHEAP Clearinghouse: <https://liheapch.acf.hhs.gov/>

“Wood Stove Change-outs at LIHEAP,” December 2013:
<https://liheapch.acf.hhs.gov/sites/default/files/webfiles/docs/WoodStoveChangeouts.pdf>

Community Services Block Grant: <https://www.acf.hhs.gov/ocs/programs/community-services-block-grant-csbgr>

Social Services Block Grant: <https://www.acf.hhs.gov/ocs/programs/ssbgr>

U.S. Department of Housing and Urban Development / Federal Home Administration

PowerSaver and Streamlined 203(k) Rehabilitation Mortgage Insurance Programs:
https://www.hud.gov/program_offices/housing/sfh/203k/203k--df

203(k) Rehabilitation Mortgage Insurance Program:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/203k/203k--df

Community Development Block Grant Program:

<https://www.hudexchange.info/programs/cdbg/>

Indian Community Development Block Grant Program:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/ih/grants/icdbg

Indian Housing Block Grant Program:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/ih/grants/ihbg

State, Tribal and Local Programs

Property Assessed Clean Energy: <http://pacenow.org/>

State Renewables Portfolio Standards: <http://www.dsireusa.org/>

Qualified Energy Conservation Bonds:

https://www.energy.gov/sites/prod/files/2017/08/f36/QECB-FAQ_final.pdf

Financial Institutions and Third Party Lenders

List of CDFIs: <http://ofn.org/cdfi-locator>

Community Development Financial Institutions Fund: <https://www.cdfifund.gov/>

New Market Tax Credits: <https://www.cdfifund.gov/programs-training/programs/new-markets-tax-credit>

Social Impact Bonds: McKinsey & Company “From Potential to Action: Bringing Social

Impact Bonds to the U.S. May 2012. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/from-potential-to-action-bringing-social-impact-bonds-to-the-us>

Utility Programs

Database of State Incentives for Renewables and Efficiency (DSIRE):

<http://www.dsireusa.org/>

LIHEAP Clearinghouse: <https://www.ncat.org/low-income-energy-assistance/>

Federal and State Tax Credits and Incentives

Database of State Incentives for Renewables and Efficiency (DSIRE):
<http://www.dsireusa.org/>

Industry-Supported Programs

Hearth, Patio and Barbecue Association's Wood Stove Changeout Program:
<http://woodstovechangeout.org/index.php>

Foundations and Grant Opportunities

Top 100 U.S. Foundations: <https://www.forbes.com/lists/top-charities/#138ae7645f50>

Funding Information Network: <https://learning.candid.org/find-us/>

5.2 SUMMARY OF STATE FUNDING OPPORTUNITIES

Each state has different Low Income Home Energy Assistance Programs (LIHEAP), State Energy Programs (SEPs), state incentives and tax credits. The following is a summary of applicable programs for the 22 states most impacted by wood smoke. For an up-to-date listing of all energy efficiency and weatherization programs available in each state, please visit the LIHEAP Clearinghouse at <https://liheapch.acf.hhs.gov/>. Many utilities also offer programs and can be found using the Database of State Incentives for Renewables and Efficiency (DSIRE) at <http://www.dsireusa.org/>.

ALASKA

LIHEAP: Available to households whose incomes are at or below 150 percent of the federal poverty level. The Heating Assistance Program (HAP) provides one-time financial assistance to help offset an eligible household's energy costs. <http://dhss.alaska.gov/dpa/Pages/hap/default.aspx>.

State Energy: There is no current state energy plan for Alaska. The 2010 Alaska Energy Pathway aims to achieve 20% energy efficiency and conservation improvements by 2020 and generate 50% of its electric needs from renewable and alternative energy sources by the year 2025. It does not mention wood stoves. <http://www.naseo.org/Data/Sites/1/documents/stateenergyplans/AK.pdf>

Other: Alaska's Weatherization Assistance Program provides qualified homeowners free home weatherization in order to bring their homes up to safe, healthy and energy-efficient standards. <https://www.benefits.gov/benefit/1842>

The Alaska Housing Finance Corporation offers Home Energy Rebates of up to \$10,000 for eligible energy efficiency improvements. This might include inefficient wood-burning appliances. <https://www.ahfc.us/efficiency/energy-programs>

CALIFORNIA

LIHEAP: Available to households whose incomes are at or below 60 percent of state median income. The Home Energy Assistance Program (HEAP) provides one-time financial assistance to help offset an eligible household's energy costs. LIHEAP Weatherization provides free energy efficiency upgrades to low-income households to lower their monthly utility bills, while improving the health and safety of the household's occupants. <https://www.csd.ca.gov/Pages/LIHEAPProgram.aspx>

State Energy: California's 2012 Integrated Energy Policy report outlines the state's goals for energy policy including suggested actions to support renewable development and help the state meet its Renewables Portfolio Standard. It does not mention wood stoves. <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report>

Other: The Energy Savings Assistance Program provides no-cost weatherization services to low-income households who meet the [CARE](#) income guidelines. CARE is funded through a rate surcharge paid by all other utility customers. Services provided include attic insulation, energy efficient refrigerators, energy efficient furnaces, weather-stripping, caulking, low-flow showerheads, water heater blankets, and door and building envelope repairs which reduce air infiltration. <https://www.cpuc.ca.gov/consumer-support/financial-assistance-savings-and-discounts/energy-savings-assistance>

CONNECTICUT

LIHEAP: Available to households whose incomes are at or below 150 percent of the federal poverty level (200 percent of the federal poverty level for seniors, disabled or families with young children). Connecticut's Energy Assistance Program provides billing assistance for qualifying households for many types of heating sources including wood. Households eligible for the winter heating program may also be eligible to receive weatherization assistance. <https://portal.ct.gov/dss/Economic-Security/Winter-Heating-Assistance/Energy-Assistance---Winter-Heating>

State Energy: Connecticut's Comprehensive Energy Strategy offers an analysis of the state's current energy circumstances and a set of recommendations designed to move Connecticut toward a cheaper, cleaner, and more reliable energy future. This Strategy covers all fuels in all sectors with a planning horizon out to 2050. <https://portal.ct.gov/DEEP/Energy/Comprehensive-Energy-Plan/Comprehensive-Energy-Strategy>

Other: The Connecticut Housing Investment Fund offers low-interest for installing qualified energy efficiency improvements and equipment replacements. Wood stove replacements are not included as eligible uses. <https://www.capitalforchange.org/>

The Connecticut Department of Energy and Environmental Protection (DEEP), under the Good Deals for Good Neighbors program, is offering funding to qualified residents for the removal, or removal and replacement, of older, dirtier

outdoor wood-fired furnaces with newer, cleaner units.

http://www.ct.gov/deep/cwp/view.asp?a=2684&q=547400&deepNav_GID=1619

IDAHO

LIHEAP: Available to households whose incomes are at or below 150 percent of the federal poverty level. LIHEAP Idaho provides a one-time utility payment on behalf of qualified households. It does not allocate funds for weatherization.

<https://www.capai.org/liheap>

State Energy: Idaho Energy Landscape 2021 - The strength of Idaho's economy and the quality of life in Idaho depend upon access to affordable and reliable energy resources.

<https://oemr.idaho.gov/wp-content/uploads/Idaho-Energy-Landscape-2021.pdf>

Other: Residential Alternative Energy Tax Deduction – Idaho allows residential taxpayers to take an income tax deduction of 40% of the cost of certain biomass energy devices (including pellet stoves and EPA-certified wood stoves) used for heating or electricity generation. Taxpayers can apply this 40% deduction in the year in which the system is installed and can also deduct 20% of the cost each year for three years thereafter. The maximum deduction in any one year is \$5,000. The total maximum deduction is \$20,000.

<https://programs.dsireusa.org/system/program/detail/137>

ILLINOIS

LIHEAP: Available to households whose incomes are at or below 150 percent of the federal poverty level. LIHEAP Illinois provides billing assistance for qualifying households. It does not allocate funds for weatherization.

<http://www.illinois.gov/dceo/Bureaus/EnergyAssistance/Pages/Liheap.aspx>

State Energy: There is no current state energy plan for Illinois.

Other The Supplemental Low-Income Energy Assistance Fund (SLEAF) was authorized through electric utility restructuring legislation. The law directed gas and electric utilities to assess a monthly surcharge from customers and deposit it into a state fund, which the General Assembly appropriates yearly to the state Department of Commerce and Community Affairs, the LIHEAP and weatherization grantee.

The Illinois Home Weatherization Assistance Program (IHWAP) is designed to help eligible households conserve fuel and save money, while increasing the comfort of their homes. For eligible households, this might include upgrades to an inefficient heating

system. <https://www2.illinois.gov/dceo/CommunityServices/HomeWeatherization/Pages/default.aspx>

Energy Impact Illinois offers low-interest home energy loans for energy efficiency improvements including heating system upgrades.

<https://www.elevatenp.org/energy-impact-illinois/>

INDIANA

LIHEAP: Available to households whose incomes are at or below 150 percent of the federal poverty level. LIHEAP Indiana provides a one-time utility payment on behalf of qualified households. It does not allocate funds for weatherization.

<https://www.in.gov/ihcda/homeowners-and-renters/low-income-home-energy-assistance-program-liheap/>

State Energy: Planning efforts are currently underway for the release of a new comprehensive state energy plan in spring/summer of 2014.

<http://www.naseo.org/stateenergyplans-state?State=IN>

Other: Energizing Indiana provides an energy audit and home weatherization for households with annual income at or below 200% of the poverty guidelines.

<https://energizingindiana.com/programs/income-qualified-weatherization/>

MAINE

LIHEAP: Available to households whose incomes are at or below 60 percent of the median state income level. LIHEAP Maine includes weatherization and utility bill assistance for qualified homeowners.

<http://www.mainehousing.org/programs-services/energy/energydetails/LIHEAP>

State Energy: Maine's State Energy Plan is designed to help guide the state towards an energy future with affordable, reliable and clean energy supplies that are environmentally responsible and economically beneficial to Maine energy consumers and utility rate payers. Although wood stoves are not specifically mentioned, the state plans to weatherize 100% of all Maine residences and 50% of all Maine businesses in the next twenty years. During the 2013 session, the legislature amended specific energy plan language to be included in the early 2015 update of the state energy plan.

<https://www.naseo.org/stateenergyplans-state?State=ME>

Other: Efficiency Maine is offering incentives ranging from \$250 to \$500 for qualified supplemental heating systems for the highest efficiency ductless heat pumps, pellet stoves, and wood stoves. Whole-house heating systems that run on natural

gas, oil, or propane, or ducted air source heat pumps may be eligible for a \$500 rebate. <http://www.energymaine.com/at-home/home-energy-savings-program/>

Maine Housing's Central Heating Improvement Program (CHIP) provides grants to repair or replace central heating systems that serve low-income households. CHIP funds may be used only to repair or replace dangerous, malfunctioning or inoperable heating systems that pose a threat to health and safety. The maximum grant for a heating system repair or replacement is \$3,000 for owner-occupied homes. Limited CHIP benefits of up to \$300 may be available for rental properties occupied by LIHEAP-eligible tenants.

<http://www.mainehousing.org/programs-services/energy/energydetails/CHIP>

Maine's Rural Housing Repair Loans and Grants gives loans and grants to very low-income homeowners to repair, improve, modernize, or to remove health and safety hazards in their rural homes. Loans are for up to 20 years at 1% interest. Grants (free) may be for people who are 62 years of age or disabled. Loan/grant combinations may be arranged for applicants who can repay part of the cost. The program defines 'very low-income' as below 50 percent of the area median income. <https://www.rd.usda.gov/programs-services/single-family-housing-programs/single-family-housing-repair-loans-grants/me>

MARYLAND

LIHEAP: Available to households whose incomes are at or below 175 percent of the federal poverty level. Maryland EAP provides billing assistance for qualifying households. Limited assistance is also available to replace broken or inefficient furnaces. <https://dbm.maryland.gov/employees/pages/eap.aspx>

State Energy: EmPOWERing Maryland promotes affordable, reliable and clean energy, by also helping to reduce household bills, create new green collar jobs, address global climate change, and promote energy independence. The plan includes energy efficiency and renewable energy initiatives. <https://energy.maryland.gov/pages/facts/empower.aspx>

Other: Maryland's Clean Energy Wood Stove Grant Program provides grants of up to \$700 for grants to install clean burning wood stoves that displace electric, non-natural gas fossil fuel heating systems or old woodstoves. <https://energy.maryland.gov/Documents/MEA%20Wood%20and%20Pellet%20Stove.pdf>

The Maryland Clean Energy Center offers many different types of financing for energy efficiency improvements including heating system upgrades.

<https://www.mdcleanenergy.org/>

MASSACHUSETTS

LIHEAP: Available to households whose incomes are at or below 60 percent of the state's median income. LIHEAP Massachusetts provides billing assistance for qualifying households. It does not allocate funds for weatherization <http://www.mass.gov/hed/community/energy/low-income-home-energy-assistance-liheap.html>

State Energy: There is no current state energy plan for Massachusetts.

Other: MassCEC, in coordination with the Massachusetts Department of Environmental Protection and the Department of Energy Resources, launched a third round of the Woodstove Change-Out Program on Feb. 18, 2014. The program offers financial incentives to assist Massachusetts residents in replacing non-EPA-certified woodstoves with cleaner, more efficient wood or pellet stoves. Applications were accepted through March 4, 2014, however the program is listed here in case it is offered again in the future. <https://www.masscec.com/about-masscec>

MASS SAVE offers Early Heating Equipment Replacement rebates for homeowners looking to replace a functioning boiler (30+ years old) or furnace (12+ years old). Wood stoves replacements are not included.

<https://www.masssave.com/saving/equipment-guide>

The MASS SAVE Heat Loan Program offers zero percent loans for qualifying efficient heating system upgrades (the program does not include wood stove replacements). <https://www.masssave.com/saving/residential-rebates/heat-loan-program>

MICHIGAN

LIHEAP: Available to households whose incomes are at or below 120 percent of the federal poverty level (heating) or 150 percent of the federal poverty level (crisis). LIHEAP Michigan offers billing assistance (heating) and funding for emergency home repairs (crisis). http://michigan.gov/dhs/0,4562,7-124-5453_5531-15420--,00.html

State Energy: There is no current state energy plan for Michigan.

Other: Michigan Saves is a non-profit that offers financing options for energy efficiency improvements throughout Michigan including new heating systems and wood gasification. <http://michigansaves.org/>

Michigan's Thaw Fund is a non-profit organization that helps low-income households with emergency energy needs. <http://www.thawfund.org/>

MINNESOTA

- LIHEAP:** Available to households whose incomes are at or below 60 percent of the state median income. LIHEAP Minnesota's Energy Assistance Program (EAP) helps pay home heating costs and furnace repairs for income-qualified households. <https://mn.gov/commerce/consumers/consumer-assistance/energy-assistance/>
- State Energy:** Minnesota's state energy goals include providing financial heating assistance and energy conservation improvements for income-qualified homeowners. <https://mn.gov/commerce/policy-data-reports/energy-data-reports/mn-action-plan.jsp>
- Other:** Minnesota offers low interest home energy loan program to residential homeowners interested in making energy improvements to their home. Eligible uses include high-efficiency natural gas, oil or propane heating systems (but do not include wood stoves). <https://mn.gov/commerce/consumers/consumer-assistance/energy-assistance/>
- The Weatherization Assistance Program (WAP) is federally funded through the U.S. Department of Energy and enables income-qualified households to permanently reduce their energy bills by helping to make their homes more energy efficient while protecting the health and safety of family members. <https://www.benefits.gov/benefit/1862>

MONTANA

- LIHEAP:** Available to households whose incomes are at or below 60 percent of the state median income or below 150 percent of the federal poverty level for households of seven or greater. LIHEAP Montana includes weatherization and utility bill assistance. <https://dphhs.mt.gov/hcsd/energyassistance/>
- State Energy:** Montana's Schweitzer Energy Policy outlines the state's energy policy themes including energy efficiency, conservation and renewable energy. <https://deq.mt.gov/energy/index>
- Other:** Energy Efficiency Tax Credit - Montana offers residential taxpayers who install an energy system (including low-emission wood stoves) using a recognized non-fossil form of energy in their home a tax credit equal to the amount of the cost of the system and installation of the system, not to exceed \$500. This cap is for individual taxpayers, so married taxpayers filing jointly can get a tax credit of up to \$1,000 per household. https://deq.mt.gov/files/Energy/Documents/Energy_Efficiency_Upgrades.pdf?ver=2017-10-18-131734-293

Alternative Energy Loan Program – This state-run revolving loan program provides a financing option to Montana homeowners who install alternative energy systems including low emission wood stoves.

<https://deq.mt.gov/energy/Programs/AERLP>

NEW HAMPSHIRE

LIHEAP: Available to households whose incomes are at or below 185 percent of the federal poverty level. LIHEAP New Hampshire provides a billing assistance for qualifying households. It does not allocate funds for weatherization.

<http://www.nh.gov/oep/energy/programs/fuel-assistance/index.htm>

State Energy: New Hampshire's Office of Energy and Planning, in coordination with the newly formed Energy Advisory Council is planning to develop an energy strategy for New Hampshire. The process began in the fall of 2013 and will conclude in September 2014. <https://www.nh.gov/osi/energy/>

Other: New Hampshire's Residential Bulk-Fed Wood Pellet Central Boiler and Furnace Rebate Program offers rebates of 30% of the system and installation cost, or \$6,000, whichever is less, for New Hampshire residents who invest in high-efficiency (80% or greater), bulk-fuel fed, wood-pellet central heating boilers and furnaces that become operational on or after May 1, 2012.

<http://www.puc.nh.gov/Sustainable%20Energy/RenewableEnergyRebates-WP.html>

New Hampshire's Weatherization Assistance Program is designed to reduce household energy use and costs in the homes of low-income persons throughout the state by installing energy efficiency improvements.

<http://www.nh.gov/oep/energy/programs/weatherization/index.htm>

NHSaves offers residential incentives for the installation of high efficiency natural gas and electric heating systems. <http://www.nhsaves.com/save-home/save-more/heating-cooling-water-heating-systems/>

NEW MEXICO

LIHEAP: Available to households whose incomes are at or below 150 percent of the federal poverty level. LIHEAP New Mexico provides a one-time utility payment on behalf of qualified households. It does not allocate funds for weatherization.

https://www.hsd.state.nm.us/lookingforassistance/low_income_home_energy_assistance_program/

State Energy: The New Mexico Clean Energy Plan outlines the state’s clean energy goals including energy efficiency; renewable energy and low-income energy assistance. <https://housingnm.org/home-repair-and-energy-efficiency/energymart-weatherization-assistance>

Other: Community Assistance Programs provide emergency assistance through six Community Action Agencies (CAAs) located throughout the state using money from the Community Service Block Grant (CSBG). The six Community Action Agencies provide a variety of services including weatherization and home repair and rehabilitation. https://www.hsd.state.nm.us/lookingforinformation/community_assistance_and_community_services_block_grant/

NEW YORK

LIHEAP: Available to households whose incomes are at or below 60 percent of the state’s median income. New York’s HEAP provides billing assistance for all fuel types and offers funds for equipment repair and replacement for qualifying households. <http://otda.ny.gov/programs/heap/>

State Energy: New York’s State Energy Plan contains actionable policy recommendations to advance new energy technologies that foster an innovative clean energy economy and addresses the state’s energy use. <http://energyplan.ny.gov/Plans/2014.aspx>

Other: The Assisted Home Performance Program provides grants to low-income home owners in 1-4 family buildings for up to 50% of costs for energy efficient improvements. The household income eligibility cut-off is set at 80% of the Median State Income or 80% of the Median Area Income (by county), whichever is higher. Subsidies of up to 50% of the project cost, up to \$5,000 per household are available for homeowners and renters. <https://www.nyserda.ny.gov/All-Programs/Assisted-Home-Performance-with-ENERGY-STAR>

New York exempts retail sales of wood used for residential heating purposes from the state sales tax. <https://www.tax.ny.gov/pdf/publications/sales/pub718r.pdf>

PENNSYLVANIA

LIHEAP: Available to households whose incomes are at or below 150 percent of the federal poverty level. Pennsylvania LIHEAP provides billing assistance for qualifying households. It does not allocate funds for weatherization. <https://www.dhs.pa.gov/Services/Assistance/Pages/LIHEAP.aspx>

State Energy: Pennsylvania’s State Energy Plan outlines its key energy initiatives including plans for energy efficiency and renewable energy.

<https://www.dep.pa.gov/Business/Energy/OfficeofPollutionPrevention/State-Energy-Plan/Pages/default.aspx>

Other: The Pennsylvania Low Income Usage Reduction Program (LIURP) is a statewide, utility-sponsored, residential usage reduction program, mandated by Pennsylvania Public Utility Commission regulations. It includes assistance for heating system upgrades, however eligible homeowners must be either gas or electric users.

<http://aese.psu.edu/research/centers/csis/liurp>

OREGON

LIHEAP: Available to households whose incomes are at or below 60 percent of state median income. LIHEAP Oregon program includes bill payment assistance, energy education, case management, and home weatherization services.

<https://www.oregon.gov/ohcs/energy-weatherization/Pages/utility-bill-payment-assistance.aspx>

State Energy: Oregon’s 10-Year Energy Action Plan provides strategies to meld workforce development initiatives, higher education opportunities, and local job creation with clean energy priorities. One of the state’s primary goals is to increase energy efficiency and conservation, however there is no specific mention of wood stove replacement programs. <https://www.oregon.gov/energy/Get-Involved/Documents/2018-BEEWG-Ten-Year-Plan-Energy-Burden.pdf>

Other: Residential Energy Tax Credit: Homeowners, renters and third-party owners who pay Oregon income taxes are eligible for an income tax credit if they purchase premium-efficiency heating systems including wood and pellet stoves.

<https://www.oregon.gov/energy/Pages/index.aspx>

Oregon HEAT is a statewide fund designed to prevent disconnection of utility service during inclement weather by providing bill payment assistance to low income households in emergency situations. Oregon HEAT also has a recovered oil program and helps households pay for all fuels such as propane, gas and wood. www.oregonheat.org/

UTAH

LIHEAP: Available to households whose incomes are at or below 150 percent of the federal poverty level. LIHEAP Utah provides a one-time utility payment on behalf of qualified households. It does not allocate funds for weatherization.

https://www.benefitsapplication.com/program_info/UT/LIHEAP

State Energy: Utah's 10-Year Strategic Energy Plan includes a goal to increase access to low cost energy (although it does not specifically discuss wood stoves).
<https://energy.utah.gov/about/state-energy-policy/>

Other: N/A

VERMONT

LIHEAP: Available to households whose incomes are at or below 185 percent of the federal poverty level. LIHEAP Vermont provides a billing assistance for qualifying households. It does not allocate funds for weatherization.
https://www.benefitsapplication.com/program_info/VT/LIHEAP

State Energy: Vermont's State Energy Plan addresses the state's energy future for electricity, thermal energy, transportation, and land use. Some of the goals of this plan are to obtain 90% of total energy from renewable sources by 2050, improve the energy performance of 80,000 homes by 2020, have 60% of new homes Energy Star rated by 2020. https://publicservice.vermont.gov/publications-resources/publications/energy_plan

Other: Vermont's Weatherization Program is designed to help lower income residents whose incomes are at or below 80 percent of Vermont's median income save fuel and money by improving the energy efficiency of their homes. Whole house retrofits include insulation, air sealing, attic insulation, heating system upgrades and replacements. <https://dcf.vermont.gov/benefits/weatherization>

Efficiency Vermont offers up to \$2,100 in incentives per household to help Vermonters pay for energy efficiency home improvements including up to \$500 for a heat system replacement. <https://dcf.vermont.gov/benefits/weatherization>

WASHINGTON

LIHEAP: Available to households whose incomes are at or below 125 percent of the federal poverty level. LIHEAP Washington primarily assists households by applying an energy assistance grant directly to the energy provider on behalf of the eligible household. In some situations, LIHEAP may also be able to help repair or replace an unsafe, dysfunctional, and/or inoperative heating system. Households who are eligible for LIHEAP may also qualify to have their homes made more energy efficient through the Weatherization Program.
<https://www.commerce.wa.gov/growing-the-economy/energy/low-income-home-energy-assistance/>

State Energy: The 2012 Washington State Energy Strategy reflects the state's commitment to be a leader in energy efficiency, sustainability and innovation and to build a clean energy economy. The plan does not specifically outline programs for wood stoves, however it does focus on energy efficiency and weatherization of buildings, particularly low income homes.

<https://www.commerce.wa.gov/growing-the-economy/energy/2021-state-energy-strategy/>

Other: Wood Smoke Reduction Fund (WA Dept. of Ecology): Wood Smoke Reduction Grants to local clean air agencies help people replace old wood stoves and other high-polluting heating devices with cleaner, more efficient heating equipment.

<https://ecology.wa.gov/About-us/Payments-contracts-grants/Grants-loans/Find-a-grant-or-loan/Wood-smoke-reduction-grants>

WEST VIRGINIA

LIHEAP: Available to households whose incomes are at or below 130 percent of the federal poverty level. West Virginia's Low Income Energy Assistance Program (LIEAP) assists eligible households with the cost of home heating through direct cash payments or payments to utility companies on their behalf. A crisis component is available for households without resources facing the loss of a heating source.

<https://dhhr.wv.gov/bcf/Services/familyassistance/Pages/Utility-Assistance.aspx>

State Energy: West Virginia's Energy Plan 2013-2017 is part of the state's comprehensive energy policy and plan for all forms of energy, including clean coal, coal liquefaction, natural gas, biomass, hydrogen, hydro, wind, solar power and energy efficiency. The plan includes a specific recommendation to promote the use of biomass (wood pellets) in residential and commercial buildings.

<https://www.energywv.org/state-energy-plan>

Other: N/A

WISCONSIN

LIHEAP: Available to households whose incomes are at or below 60 percent of the median state income level. The Wisconsin Home Energy Assistance Program (WHEAP) administers LIHEAP funds for billing assistance and emergency furnace repair and replacement. <http://www.homeenergyplus.wi.gov/>

State Energy: Wisconsin's Energy plan can be found at <http://www.homeenergyplus.wi.gov/>

Other: The Wisconsin Weatherization Assistance Program (WisWAP) uses energy conservation techniques to reduce the cost of home energy and correct health and

safety hazards and potentially life- threatening conditions.

<http://homeenergyplus.wi.gov/category.asp?linkcatid=819&linkid=118&locid=25>

Wisconsin's Focus on Energy program offers rebates for qualifying home energy improvements including heating systems. Eligible home must be at least 50% heated by natural gas or electricity. <https://focusonenergy.com/>

The American Lung Association, in partnership with Wisconsin Public Service, offers rebates to exchange old wood-burning hydronic heater or stove with a newer appliance. <https://www.wpha.org/page/resources>

To discuss details of your changeout program, contact:

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