



Re: Environmental and Climate Justice Block Grant Program - Request for Information (Docket No. EPA-HQ-OEJECR-2023-0023)

Summary

The Environmental and Climate Justice Block Grant (ECJ) program presents an opportunity to address marginalized communities who primarily heat with wood and experience excessive wood smoke that is a health hazard. The EPA has neglected wood heating technology and wood heating regulations, contributing to thousands of communities living with excessive indoor and outdoor wood smoke.

Wood heating communities include many tribes and also rural areas in the colder parts of the United States that have always relied on wood heat. The technology has stagnated, in part due to lack of attention by the EPA and DOE, who appear to regard wood stoves as an antiquated appliance relied on by poor households, and not worthy of development. A recent report from the EPA's Office of Inspector General found that the EPA wood stove certification program is broken, leaving consumers vulnerable to stoves that may have higher emissions than they should.¹ For decades, under administrations of both parties, the EPA's wood heater certification program has been underfunded and understaffed, jeopardizing those communities that rely most on wood heat, which include many of the poorest rural populations.

The OIG report recognized the environmental justice issue in poor communities that primarily heat with wood, but it used data that obscures the extent of the problem. The EPA looked at all households, including urban ones, rather than focusing on income levels of rural homes that use wood. A very flawed study commissioned by the EPA in 2010 found that "the average risk from residential wood smoke is lower for people living on Tribal Lands than for the general population."² Thus, the final 2015 NSPS, the updated wood stove regulations, found that there were no "disproportionately high and adverse human health or environmental effects on any population, including any minority, low-income or indigenous population."³

¹ "The EPA's Residential Wood Heater Program Does Not Provide Reasonable Assurance that Heaters Are Properly Tested and Certified Before Reaching Consumers", EPA Office of Inspector General, Report No. 23-E-0012 February 28, 2023

² "Analysis of Exposure to Residential Wood Combustion Emissions for Different Socio-Economic Groups", EPA Contract No. EP-D-05-085 Work Assignment No. 4-3 Prepared for: Gil Wood, Work Assignment Manager Office of Air Quality Planning and Standards U.S. Environmental Protection Agency, April 2010.

³ Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces, 40 CFR Part 60 [EPA-HQ-OAR-2009-0734; FRL-9920-50-OAR], 2015.

As our country electrifies and looks to the heat pump to decarbonize heating, wood stoves will likely remain popular for some time or even increase in popularity. In rural areas, power outages are becoming more, not less common, and people are wary of relying solely on electric heat. In addition, for millions of households wood is a free fuel and despite the efficiency of a heat pump, wood will always be cheaper than electricity. There still does not appear to be the political will at the EPA to address the needs of LMI communities that rely on wood to heat their homes.

We urge the EPA to consider funding programs that:

1. Change out old wood stoves for heat pumps or newer wood stoves, depending on the needs of LMI households.
2. Support Firewood Banks that help LMI households get seasoned wood, energy audits, repairs for dangerous wood stoves and ultimately trade up to cleaner heaters.
3. Explore the development of affordable, computerized wood stoves that drastically reduce PM and give households the chance to heat with a renewable without excessive air pollution.
4. Provide training to do health and safety inspections of wood stoves during energy audits. Currently, energy audits programs for LMI households are not equitable in inspecting wood stoves, as they do for fossil fuel heaters which are typically found in wealthier homes. Wood heaters should not be treated as a second-class appliance.

By funding such projects, the ECJ program will help achieve Justice40 Initiative objectives by investing in cleaner, renewable heating in rural, firewood dependent LMI communities.

Comment addressing item (2) types of actions related to President Biden's Justice40 Initiative

We recommend that the Environmental and Climate Justice Block Grant program consider how best to support the fuel poverty and resilience of wood heating populations due to their rural geographic location and socioeconomic status.

Lower-income households rely on wood heating more than higher-income households (Figure 1). The reasons for this range from accessibility to affordability. In our work, we hear stories of burning kitchen cabinets as a last resort for heating a home. Stories of elder community members making the choice of whether they should pay for heat, pay for their prescriptions, or pay for groceries is not uncommon.

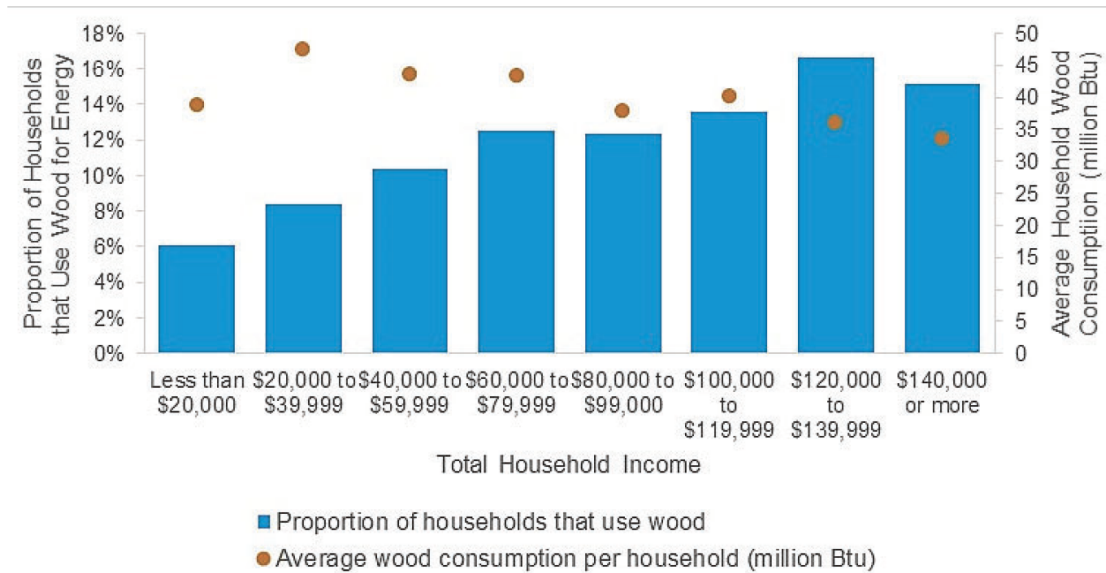


Figure 1. Data from 2015 OIG analysis of U.S. Energy Information Administration data.

The average household income of homes using wood as a primary heat source is \$76,490, the second lowest of any heating category (above homes that lack a primary heat source and just below homes that use electric heating) (Figure 2).

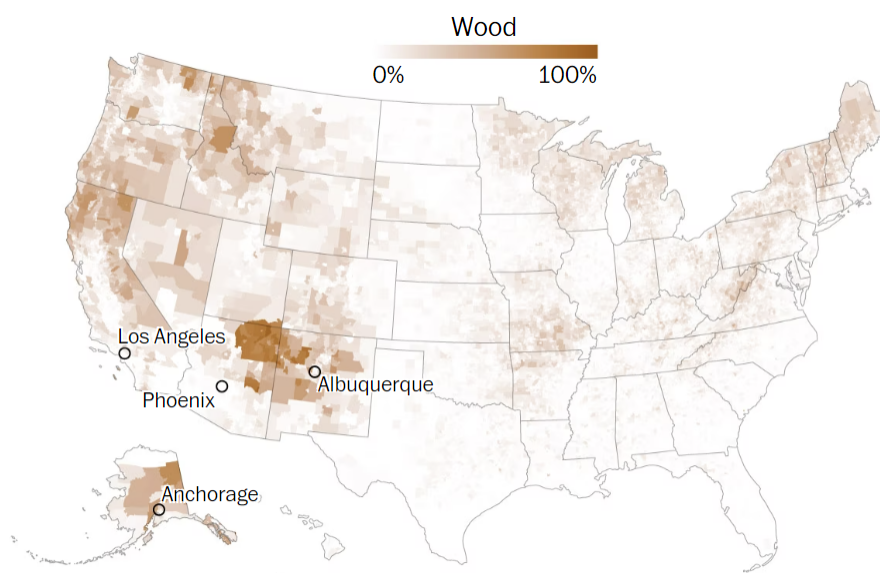
	<i>Utility gas</i>	<i>Propane</i>	<i>Electricity</i>	<i>Fuel oil</i>	<i>Coal</i>	<i>Wood</i>	<i>Solar</i>	<i>Other</i>	<i>None</i>
<i>No. homes</i>	58,643,017	5,961,261	48,468,896	5,426,218	111,521	2,022,868	255,514	575,782	1,337,827
<i>Average household income</i>	\$102,942	\$89,662	\$77,460	\$102,019	\$80,480	\$76,490	\$141,873	\$85,732	\$74,136

Figure 2. ACS 1-Year Estimates-Public Use Microdata Sample. Average of US household income in past 12 months.

Energy production and distribution have created archetypal cases of environmental injustice—mountaintop removal for coal mining in Appalachia, nuclear waste siting on Navajo reservations in the West, oil refineries in southern Louisiana. Another example is the incredibly high percentage of homes that still heat with wood in poor rural areas that have not yet become part of the fossil fuel age. Areas where the majority population identifies as Native American, particularly in the Southwest, are likely to either heat primarily with wood or find it as the second most popular heating fuel in the area. This further makes the case that regulating and supporting wood stove households is an environmental justice issue. For example, in Apache County, Arizona, nearly 54% of homes are heated with wood⁴ with 71% of people identifying as

⁴ U.S. Census Bureau. 2021. “Apache County, Arizona: B25040 House Heating Fuel.” [https://data.census.gov/table?q=Apache+County,+Arizona&t=Heating+and+Air+Conditioning+\(HVAC\)&tid=ACS DT1Y2021.B25040](https://data.census.gov/table?q=Apache+County,+Arizona&t=Heating+and+Air+Conditioning+(HVAC)&tid=ACS DT1Y2021.B25040).

Native American.⁵ In McKinley County, New Mexico, a similar story. Around 44% of homes heat with wood⁶ and 78% of people identify as Native American.⁷ In San Juan County, Utah, about 38% of homes are heated with wood⁸ as 50% of the population identify as Native American.⁹ These are not the only examples that represent the important role wood heating plays in Native American populations. Acknowledging that wood is used for primary heating by only 1.4% of homes nationally, this is a staggering rate of wood burners for a certain population and one that should not be overlooked when discussing funding to rectify environmental injustice.¹⁰ The map below illustrates the concentration of wood fuel users by highlighting the often rural geography of their location as well as the prevalence of wood fuel on Southwest reservations.



Muyskens et al. 2023. "U.S. home heating is fractured in surprising ways: Look up your neighborhood." Washington Post. https://www.washingtonpost.com/climate-environment/interactive/2023/home-electrification-heat-pumps-gas-furnace/?itid=hp_desktop-dont-miss_p005_f002.

Considering that there is legitimate concern over the capacity of our energy grid to handle increasingly harsh climate change-driven natural disasters,¹¹ wood stoves may help in some areas during the transition to electricity. Making sure wood stoves are safe to use in LMI households

⁵ U.S. Census Bureau. 2020. "Apache County, Arizona: P1 Race."

<https://data.census.gov/table?q=Apache+County,+Arizona&tid=DECENNIALPL2020.P1>.

⁶ U.S. Census Bureau. 2021. "McKinley County, New Mexico: B25040 House Heating Fuel."

[https://data.census.gov/table?q=McKinley+County,+New+Mexico&t=Heating+and+Air+Conditioning+\(HVAC\)](https://data.census.gov/table?q=McKinley+County,+New+Mexico&t=Heating+and+Air+Conditioning+(HVAC)).

⁷ U.S. Census Bureau. 2020. "McKinley County, New Mexico: P1 Race."

<https://data.census.gov/table?q=McKinley+County,+New+Mexico&tid=DECENNIALPL2020.P1>.

⁸ U.S. Census Bureau. 2021. "San Juan County: B25040 House Heating Fuel."

[https://data.census.gov/table?q=San+Juan+County,+Utah&t=Heating+and+Air+Conditioning+\(HVAC\)](https://data.census.gov/table?q=San+Juan+County,+Utah&t=Heating+and+Air+Conditioning+(HVAC)).

⁹ U.S. Census Bureau. 2020. "San Juan County, Utah: P1 Race."

<https://data.census.gov/table?q=San+Juan+County,+Utah>.

¹⁰ U.S. Census Bureau. 2021. "United States: B25040 House Heating Fuel."

[https://data.census.gov/table?t=Heating+and+Air+Conditioning+\(HVAC\)&tid=ACSDT1Y2021.B25040](https://data.census.gov/table?t=Heating+and+Air+Conditioning+(HVAC)&tid=ACSDT1Y2021.B25040).

¹¹ Climate Reality Project. 2022. "Our Grid Can't Handle Climate Change."

<https://www.climate realityproject.org/blog/our-grid-cant-handle-climate-change>.

should be paramount. Maintaining realistic expectations for the performance of our energy grid, given that U.S. households experienced more electric disruptions in 2021 than the previous high level of disruptions in 2020,¹² would ensure more energy resilient communities. In this way, wood stoves could play an empowering role for households that fear electric disruptions as well as the increasing costs¹³ and environmental concerns of natural gas.¹⁴

Proper wood stove inspections, referrals for possible wood stove change-outs, and heat pump installation consultations when wood heat does not best serve a household anymore are needed. Multiple firewood banks that we have worked with have expressed interest in offering these services if they could secure funding to train volunteers to properly inspect and then facilitate the next steps to address the household's needs. Firewood banks have an intimate view and partnership with fuel-poor households and are in a unique position to facilitate a more energy-equitable outcome. Because socioeconomic status and geography play such an intricate role in identifying environmental injustices, a mechanism to support firewood banks to provide these services would be of great help.

Providing households who struggle to keep their families warm with an emergency fuel source is one thing but ensuring that these families are using this fuel source in a safe wood stove appliance is another. We suggest that the ECJ grant funds programs address the reduction of indoor and outdoor air pollution, the prevention of house fires, and the repair or removal of wood stoves.

Signed By

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Koho4Hopi
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Petersham Community Wood Bank
Petersham, MA

Pikunivi Wood Haulers
Second Mesa, AZ

Rural Organizing and Resilience
Marshall, NC

Oglala Lakota Cultural & Economic
Revitalization Initiative (OLCERI)
Pine Ridge, SD

St. Michael & All Angels Episcopal
Church Wood Bank
Eureka, MT

Kootznoowoo, Inc.
on behalf of the village of Angoon, AK

¹² U.S. Energy Information Administration. 2021. "Table 11.1 Reliability Metrics of U.S. Distribution System." https://www.eia.gov/electricity/annual/html/epa_11_01.html.

¹³ U.S. Energy Information Administration. 2023. "Average cost of wholesale U.S. natural gas in 2022 highest since 2008." <https://www.eia.gov/todayinenergy/detail.php?id=55119#:~:text=The%202022%20average%20Henry%20Hub,2000%2C%202003%2C%20and%202021>.

¹⁴ Jordan, R. 2022. "Climate and health impacts of natural gas stoves." *Stanford Earth Matters*. <https://earth.stanford.edu/news/climate-and-health-impacts-natural-gas-stoves>.