Episode 56BH

Episode 56BH to 56BL, March 31, 2023. The escape issue.

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Residents Against Wood Smoke Emission Particulates (see RAWSEPresidents.wordpress.com and Scroll Down for PDFs of articles with U R L's to search on, and on the website are links to 10 minute Tiktok and Youtube videos and 30 minute podcasts on Spotify and Podbean).

#### Wisconsin

This winter I've been playing the song "I wish I had a river I could skate away on" by Joni Mitchell over and over. I grew up ice skating. I've always seen ice skating as the most beautiful part of winter. This song is poetic, and my problem of breathing wood smoke pollution was very prosaic last week when I had to shovel out 13 inches of snow while trying not to breathe in the wood smoke my neighbor was producing. "I wish I had a river" speaks to me, because I feel, from the poignant opening lyric "they're cutting down trees" to the beautiful, somehow uplifting refrain "I wish I had a river, to skate away on...." that the poet Joni Mitchell offers a tantalizing solution, escape from a problem by just leaving. Leaving is idealized and leaving is just out of reach, but maybe, just maybe, it can be done. Mitchell says over and over that escape is, emotionally, the only solution she can see. From a poet's point of view, there is some kind of resolution in feeling that escape can be the ultimate solution, and escape can be a beautiful solution. But "tantalizing" is defined as tormenting with the sight or promise of something unobtainable. I've decided to stay and fight. I watched Joni Mitchell receive the Gershwin Prize for Popular Song last night, so this song came back to me again.

In reality we can't leave a place and just leave air pollution behind. Air moves. We all share the air on our planet. But on a micro level, how can we obtain clean air when we live next to a wood burning neighbor? There is the real solution of just selling your house and leaving. Twelve years ago, I worked with others to pass an ordinance against Outdoor Wood Burners in the city of Madison, Wisconsin, where I live. I got to know a woman and her husband who had fought against an Outdoor Wood Burner next door to her, in a city neighboring Madison, in Monona, Wisconsin. The woman and her husband had been unsuccessful in their lawsuit to get the Outdoor Wood Boiler shut down. But the Monona woman was so happy for us in Madison when our ordinance against Outdoor Wood Boilers in Madison passed. We hugged at the Madison City Council meeting. I asked her how her ordinance was coming along. She said she had just moved out of her house and was able to sell it. She escaped, and maybe that was her only solution.

In 2022 I first heard the designation "sacrifice zones" for people who are living in high-pollution zones caused by pharmaceutical companies in the U S who release chemicals into the air as by-products of their industries. "Sacrifice zones" have caused generations of families to experience the same predictable types of industry-caused cancers over many years. Even after many years, industrial air pollution in these "sacrifice zones" has been allowed to continue. The people who lived in "sacrifice zones" and their resulting illnesses were deemed unimportant because the people were poor or minorities. Poor people and minority people were a sacrifice to industrial needs. President Biden is attacking this problem of "sacrifice zones", with federal funds. At the November 2022 White House Environmental Justice Advisory Council (WHEJAC) public hearing I attended to speak about wood smoke pollution, the majority of people spoke about living in a "sacrifice zone" and their plea was for funds to relocate. People in "sacrifice zones" just saw the best solution as escape, and they asked for federal funds to do that. President Biden has authorized funds for U S citizens to escape their air pollution problem of living in a "sacrifice zone", literally, by packing up and leaving. Maybe the best solution is for the "sacrifice zones" to become no-man's lands, and maybe more people will enjoy better health because of relocation. Generally, air moves, and air pollution moves. However, particulates fall to the ground eventually. So, the hyper-localized experience of living directly next to air pollution is the deadliest experience.

Even after Outdoor Wood Boilers were banned in Madison, Wisconsin twelve years ago, the problem of air pollution from INDOOR Residential wood burning emitting from my wood burning neighbor's stack coming into my yard and infiltrating my home continues. This particulate pollution persists for me, and for any near neighbor of a residential wood burner. I listen to this beautiful song, "I want a river to skate away on" and feel sad and hopeful and fed up and ready to leave. But I still don't want to leave yet. I feel hopeful more than anything. I live in a small, hyper-localized place that I dare to call a "sacrifice zone" where illness is more likely, where I am a canary in a coal mine, and where I live in a cloud of pollution that many others don't yet recognize as important enough to notice. But Residential Wood Burning has links to the larger world. Residential Wood Burning is allowed to continue justified by the lie that wood burning is Carbon Neutral. The lie of Carbon Neutrality also allows the larger clouds of pollution from biomass (wood) burning to

continue. By fighting against Residential Wood Burning, the same fighting words can be used to defeat Industrial Biomass (Wood) burning. The world can begin to see the light of scientific truth to follow. By telling people the scientific truth that wood burning produces more particulate pollution of 2.5 micrometer size, PM2.5, than the fossil fuel Coal burning. By telling people the scientific truth that wood burning produces more particulate pollution by 450 times than the cleanest fossil fuel Natural Gas burning. If we can acknowledge we have to stop burning wood, we have a chance to have a livable planet. It is tantalizing to think there is an easier solution, just leaving, but we can't leave our planet and the air we all share.

The hope I feel doesn't come only from a song which validates my feelings and makes me feel less alone. President Biden, through executive actions, and with funding from some legislative actions, is fighting air pollution. Funds will be allocated to help Residential Wood Burners move to alternate forms of heat, such as electric heat pumps fueled by wind, solar or geothermal energy on a new efficient electrical grid. Wood stoves can be replaced by cleaner or clean forms of home heating, through the Low-Income Home Energy Assistance Program (LIHEAP) or other monetary incentives just beginning. PM2.5 monitors, such as the PurpleAir resident owned PM2.5 monitors, can be used in the yards of near neighbors of residential wood burners to measure PM2.5 levels above the expected E P A PM2.5 levels of 8 micrograms per meter cubed annually and 25 micrograms per meter cubed daily. The Office of the Attorney General (O I G), "watchdog" of the E P A, in February 2023 issued a report saying that the E P A wood certification program is deeply flawed, allowing highly polluting wood stoves to continue to be sold, with the E P A even giving polluting wood stoves "safe" certification. This flaw in wood stove certification comes from loopholes to safety compliance that "advisers" to the E P A from the wood stove industry have insisted on. The Alaska legislature has recently tried to confuse the issue by blaming the EPA for certification of polluting wood stoves. The blame for polluting wood stoves is the wood stove industry lobbyists tainting E P A wood stove certification by industry interference and insistence on loopholes to compliance. The logical solution would be scientific recognition that home heating by any wood stove is more polluting than home heating by coal or by 450 times more polluting than home heating by natural gas. Residential wood burning should be banned, and the proof of pollution should come from PM2.5 monitors in yards of near neighbors. Any neighbor who complains of pollution from their wood burning neighbor should be given a PM2.5 monitor by the government, whether the government is local, state, or federal. The data from a PurpleAir PM2.5 monitor, collected every 10 minutes, is available to the general public, and to government officials for historic data download 24 hours a day, seven days a week. Data from even overnight and weekend residential wood burning can be collected during normal government working hours. Residences of wood burners would not have to be entered, nor certification of wood stoves checked, for residential wood stoves to be shut down because of their pollution affecting the health and lives of near neighbors, using evidence from PM2.5 monitors, NOT using certification of wood stoves. All residential wood stoves are unconscionably polluting.

Episode 56B i

## Maine

A Maine member of Residents against Wood Smoke Emission Particulates wrote recently that he has cataracts. I also was told I had cataracts a few years ago, but then a few years later another optometrist told me that I didn't. I use air purifiers constantly and am very careful to go outside into my yard only when I feel it is safer, in order to guard against cataracts. The Maine resident wrote that "Maine legislature poised to pass constitutional right to clean air and water. General in scope. Makes common law rights more visible. Constitutional rights are the highest law. From rights to life, health, safety. Details left out for now. It is what we have been working for behind the scenes for years. I have cataracts now too. I believe wood smoke is at least partially to blame. 2 big burners stopped but 1 more big burner started. Like an outdoor wood boiler. City still will not enforce the health nuisance laws or do anything. State will not stop the city crimes of not enforcing the law, willful blindness, and negligence. Existential Crisis not a hoax. Religious leaders all speaking out in general terms about climate and air pollution is the cause. Wood smoke is the worst of course."

**United States** 

Manufacturers Push Back on Harmful EPA Air Proposal Press Releases
National Association of Manufacturers

... National Ambient Air Quality Standards for Particulate Matter 2.5., ... PM 2.5 globally, including lower PM 2.5 levels than France, Germany, ...

#### Alaska

Legislature passes resolution supporting wood burning certification program for Fairbanks ...

Must Read Alaska

Studies identified wood burning as the greatest contributor of PM2.5 pollution, and efforts taken under the state DEC's moderate and serious state ...

Legislative resolution takes aim at EPA wood-stove certification in Fairbanks

Alaska Beacon

The mountains around Fairbanks create temperature inversions that trap cold air and particulate pollution. Much progress has been made in recent ...

#### Colorado

EPA and Colorado release final enforcement and compliance workplan to prioritize heavily polluted communities Issued: Mar 30, 2023 (1:00pm EDT)

EPA and Colorado release final enforcement and compliance workplan to prioritize heavily polluted communities DENVER (March 30, 2023) — The U.S. Environmental Protection Agency Region 8 and the Colorado Department of Public Health and Environment released their final workplan to implement the Memorandum of Understanding (MOU) on Advancing Environmental Justice through Enforcement and Compliance Assurance in Disproportionately Impacted Communities, which the agencies signed last year. The final workplan explains how the agencies will collaborate through enforcement and compliance to reduce pollution in communities overburdened by environmental and public health impacts.

"EPA is committed to doing more to reduce burdens in disproportionately impacted communities in Colorado by ensuring that enforcement actions result in tangible health and environmental benefits," said Suzanne Bohan, director of EPA Region 8's Enforcement and Compliance Assurance Division. "We are looking forward to coordinating with CDPHE in our enforcement and compliance assurance work to reduce pollution and protect people's health and quality of life."

"We are going to leverage every tool we have to make sure that everyone has a healthy environment to be in," said CDPHE Director of Environmental Health and Protection Trisha Oeth. "That means prioritizing areas that have more than their fair share of pollution to reduce negative environmental impacts."

The focus areas of the final workplan include:

Strategically targeting inspections in disproportionately impacted communities.

Collaborating with state, local, and federal partners on enforcement and compliance assurance actions to reduce pollution burdens.

Creating equitable opportunities for communities across Colorado to learn and engage with us about enforcement and compliance issues.

As an initial step in honoring the commitments outlined in the workplan, the EPA and CDPHE will host a virtual community engagement session on May 1st at 5:30 PM to discuss the workplan in more detail and foster an open dialogue with Coloradans about holding regulated entities accountable for compliance with state and federal environmental laws. Community members can <u>register here</u> for the meeting and find meeting information on CDPHE's <u>upcoming community engagement opportunities calendar</u>. The final workplan will help prioritize inspections and enforcement actions in communities of color and low-income communities.

#### Background

In Fall 2022, the two agencies sought community feedback before drafting the final workplan. The agencies received feedback on the draft workplan from more than 75 individuals, nonprofit organizations, and local governments. The EPA and CDPHE considered that feedback in the development of the final workplan. This effort is part of the broader Biden-Harris Administration priority of advancing environmental justice by engaging with and focusing on disproportionately impacted communities across the country.

For more information about environmental justice in Colorado visit:

# <u>CDPHE's environmental justice webpage</u> EPA's Region 8 environmental justice webpage

#### Massachusetts

## AG Campbell Calls on EPA to Adopt Strict Air Quality Standards to Protect the Public ... - Mass.gov

Mass.gov

Fine particulate matter – particles that are less than 2.5 microns in diameter (PM2.5) – is the largest environmental health risk factor in the ...

Michigan, Ann Arbor

## City of Ann Arbor implements new air-quality-monitoring technology - The Michigan Daily

The Michigan Daily

PM 2.5 (particulate matter at most 2.5 micrometers wide) levels are generally higher in N Main and Washington and Farmers Market than in Bryant ...

Michigan, Upper Peninsula

## DNR to offer smokeless campgrounds in future - Upper Michigan's Source

Upper Michigan's Source

Wood burning fires release lingering fine particles into the air. To combat that, the new areas will have no fire pits at all.

**New York** 

RAWSEP View: Are Residents Against Wood Smoke Emission Particulates being left out of this \$3 million for New York Climate Projects? When the words "renewable" and "economy wide carbon neutrality" mean that biomass (wood) burning (and residential wood burning) will be excluded from the \$3 million funds because in places like the U S Senate and House as of 12/22/2023 biomass is still designated as carbon neutral? Or will the funds for demonstrably clean energy like wind, solar and geothermal, and NOT biomass burning (and NOT residential wood burning) be given part of the \$3 million for "clean energy and energy efficiency" and "zero emission electricity". Even if wood burning is not considered a "greenhouse gas", will Biomass (wood) burning and residential wood burning fall by the wayside on this road to a clean future?

EPA Announces \$3 Million For New York to Plan Innovative Climate Projects Across the State Funds from EPA's New Climate Pollution Reduction Grant Program were made possible by President Biden's Inflation Reduction Act

Excerpts edited by RAWSEP for brevity and clarity.

Contact: Barbara Khan, (720)-595-8698, khan.barbara@epa.gov

NEW YORK (March 30, 2023) - Today, the U.S. Environmental Protection Agency (EPA) announced it will award \$3 million for New York to plan innovative strategies to cut climate pollution and build clean energy economies across the state. Earlier this month, EPA <u>announced</u> the availability of the funds, which represent the first funding going to states, local governments, Tribes, and territories from the Climate Pollution Reduction Grants (CPRG) program created by President Biden's Inflation Reduction Act.

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Later this year, EPA will launch a competition for \$4.6 billion in funding to implement projects and initiatives included in the plans. New York will be eligible to receive that implementation funding because it has opted in to receive the planning grant.

New York is among the 50 states, the District of Columbia and Puerto Rico that are eligible to receive \$3 million each in EPA Climate Pollution Reduction planning grant funds. New York will use the funds to augment climate planning in collaboration with municipalities statewide and to conduct meaningful engagement with communities, including with

overburdened communities throughout the state. New York State's Climate Act passed in 2019 is among the most ambitious climate laws in the nation. New York State's climate agenda ensures that at least 35 percent, with a goal of 40 percent, of the benefits of clean energy and energy efficiency investments are directed to disadvantaged communities. New York is on a path to achieving a zero-emission electricity sector by 2040, including 70 percent renewable energy generation by 2030, and economywide carbon neutrality by mid-century. New York's participation in the CPRG program will support its ongoing efforts to reduce economy-wide greenhouse gas emissions and ensure all communities equitably benefit in the clean energy transition.

About the Climate Pollution Reduction Grant Program

The CPRG planning grants will support states, territories, Tribes, municipalities and air agencies, in the creation of comprehensive, innovative strategies for reducing pollution and ensuring that investments maximize benefits, especially for low-income and disadvantaged communities. These climate plans will include:

Greenhouse gas emissions inventories;

Emissions projections and reduction targets;

Economic, health, and social benefits, including to low-income and disadvantaged communities;

Plans to leverage other sources of federal funding including the Bipartisan Infrastructure Law and Inflation Reduction Act;

Workforce needs to support decarbonization and a clean energy economy; and

Future government staffing and budget needs.

In program guidance released earlier this month, EPA describes how the agency intends to award and manage CPRG funds to eligible entities, including states, metropolitan areas, Tribes, and territories.

Next Steps

This funding for climate planning will be followed later this year by a national grant competition for \$4.6 billion in implementation grant funding that will support the expeditious implementation of investment-ready policies created by the CPRG planning grants, programs, and projects to reduce greenhouse gas emissions in the near term. Through the CPRG program, EPA will support the development and deployment of technologies and solutions that will reduce greenhouse gas emissions and harmful air pollution, as well as transition America to a clean energy economy that benefits all Americans.

By summer 2023, EPA Regional Offices expect to award and administer the funding agreements once all legal and administrative requirements are satisfied.

More information on the Climate Pollution Reduction Grants

**CPRG Planning Grant Program Guidances** 

Sign up for notifications about the Climate Pollution Reduction Grants

More information about New York's Climate Scoping Plan and New York's framework for reducing greenhouse gas emissions and achieving net-zero emissions.

Follow EPA Region 2 on <u>Twitter</u> and visit our <u>Facebook</u> page. For more information about EPA Region 2, visit our <u>website</u>.

### Vermont

RAWSEP View: A residential wood burner says that for economic reasons, he may continue burning wood, even though it pollutes and is not good for the planet. Logically, the economic argument for burning wood is a fallacy. Wood burning for heat is highly inefficient, so the pollution comes with very little actual heating benefit for all the wood consumed. He is probably continuing to burn wood out of tradition or even addiction to the questionable joys of burning wood. He may be halfway there to stopping wood burning, but halfway is not far enough.

Maybe the author is making a perverse threat that he will not follow through on, to make a point that wood burning is perverse. He seems to be indirectly saying that he would like to stop burning wood. Otherwise, is he saying he would like to pollute, as psychological retaliation for a rise in fuel oil and prices?

The Vermont author puts himself a little too far walking in a mile the shoes of the average Vermont wood burner. He has lived in Vermont among wood burners so long that he knows the audience he wants to reach, the Vermont wood burner. To the outside world, this Vermont wood burner point of view is obviously self-destructive and psychologically passive agressive. Burning wood hurts him and the planet, but he will do it for economic reasons. Those economic reasons are absurd.

How would RAWSEP rewrite this article, using active verbs and suggesting solutions to the obvious problem? Rewrite of a Vermont article "The Dirty Truth" by RAWSEP for brevity and clarity. The Vermont author was a retired school administrator, a new member of the Rockingham Selectboard in Bellows Falls, and a lifelong environmentalist.

## The lie of wood burning carbon neutrality.

Vermont's Act S.5, the Affordable Heat Act, pretends that burning wood is good for the planet. S.5, the current Vermont state plan for renewable energy calls for 35% of our thermal (heating) energy needs to come from wood by 2030. The Affordable Heat Act states that automated wood heat technology via pellets is the tool that will enable us to reach that goal. The Act states that Vermont will generate lots of electricity, expanding Vermont's fleet of wood-fired commercial electric generating stations beyond the McNeil and Ryegate, Vermont wood-fired stations already in operation. Vermont's Agency of Natural Resources Department of Forests touts wood heat as "sustainable," Vermonters are proud to call themselves "independent". Increasing Vermont's energy independence is appealing, but burning wood is not good for the environment. The Vermont author states that there are facts that prove that wood burning is more polluting than coal and other fossil fuels, but "sadly, none of these facts will impede S.5's passage or Vermont's expanding subsidies of wood burning appliances and power plants. The Vermont author does not mention that federal subsidies of alternatives to residential wood burning appliances now exist.

## Access to wood burning alternatives.

Vermont's Act S.5, The Vermont Affordable Heat Act, discourages the use of fuel oil and propane, but wood heat is far dirtier than coal, oil, and gas. Will Vermonters turn to wind, solar and geothermal energy to power a new electric grid sourcing the new electric Heat Pumps that can work at temperatures well below zero? Are those alternatives within the reach of the typical Vermonter? Federal programs offer help, if state agencies do not.

## Help for the poor.

As projected, the ironically named Affordable Heat Act will increase the already shocking cost (currently around \$4.50 per gallon) of fuel oil. This economic argument is powerful to the indigent if the intent of the law is not achieved, and if people do not choose clean alternatives to fuel oil and propane, but continue to burn fuel oil and propane in spite of incentives to change. This economic argument is not powerful if people turn to the unclean alternative of wood burning. Uneconomic wood burning inefficiency cancels out the economic cheapness of Vermont wood. More likely it is pride of using a local product for home heating, regardless of wood burning's cost and inefficiency and pollution that drives traditional use of firewood for home heating in Vermont. If there are not Vermont state programs to help the indigent obtain clean sources of home heating, Vermonters can turn to federal programs such as the Low-Income Home Energy Assistance Program (LIHEAP) for economic help in changing to, for instance, electrical Heat Pumps.

### Vermont is proudly primitive.

Perhaps Vermont is uniquely primitive among U S states, by historical choice, and does not have any infrastructure for home heating other than primarily fuel oil, propane, and wood.

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Perhaps Vermont has a primitive electrical grid, and no solar, wind or geothermal energy resources in the state. The solution is for Vermont to develop an electrical grid within the state and develop wind, solar and geothermal energy sources within the state. Vermonters who can look no farther than the forest and the trees need to look down into the ground for geothermal energy, up to the skies for wind energy and (not directly at the sun!) but in the general direction of the sun using solar panel mirrors, for their future energy. This is the way of the future, and Vermont should not be left behind. Residents of Vermont should not be left shivering in the winter around inefficient wood stoves for home heating. In the 21st century, the vision of everyone heating homes with polluting residential wood burning seems doubly pathetic, when it can be avoided, using alternatives for home heating. The Vermont author states "38% of Vermont homes are heated in part or full with wood". Hopefully, for their health and the health of their near neighbors, zero percent of Vermont homes will be heated with wood in the future. Hopefully a cleaner environment was one of the original aims of Vermont's Affordable Heat Act.

False economies.

Some Vermonters, citing "tradition" or "economy" may burn more firewood because of the Vermont Affordable Heat Act. S.5 is now cruising to legislative approval, without financial incentives for alternatives to wood burning. Incentives for changeouts of wood stoves for electric Heat Pumps are not included in this legislation. The intent of the bill seems to be to reduce pollution from home heating in Vermont and incentives for electric Heat Pumps seem to be one way to do that. But if the power plants in Vermont continue to burn wood, the electric heat from even non-polluting residential Heat Pumps is ironically coming from a polluting Biomass (wood) burning source, the wood burning power plant. The Vermont author wrote, implying his own helplessness "And most importantly for low-income rural Vermonters, wood heating costs far less to install and operate than oil, gas, or electrically powered systems." That statement might possibly be true without incentives, but there are local, state and federal incentives, many incentives not available only a year ago, to help the indigent obtain home heating sources that are alternatives to wood burning.

## Forgotten neighbors.

Residential wood burning doesn't just harm the health of the wood burners themselves. Emissions from the stacks of wood burners enter the yards and infiltrate the homes of near neighbors of wood burners. Wood smoke is 90% PM2.5, particulates of 2.5 micrometer size (PM2.5) PM2.5 is the perfect size to infiltrate the human lung and cause a cascade of human health problems and early deaths.

Lies Vermonters tell themselves to justify wood burning. What follows are some lies that Vermonters tell themselves, to justify residential wood burning.

The lie that residential wood burning creates Vermont jobs. The truth is that there is more to Vermont than trees. Vermont has to look to its citizens for brain power and ambition to rise above wood burning and the culture of wood to find what Vermont can offer its citizens for a clean future. Vermont's forests can serve as a needed forest sink, and that carbon sink already serves the Vermont tourist industry. Firewood is not a good source of income and the logistics of felling trees and transporting wood make using wood for heating a cost, not cost saving. The Vermont author stated with a sense of helplessness at coming up with any new ideas to generate income, "Much of Vermont — 74% — is forested and, unlike our heating oil and propane purchases, the money we spend on firewood stays in our state and provides jobs."

The lie that residential wood burning stoves emit "safe" levels of PM2.5 particulates. The February 2023 Office of Inspector General (O I G), "watchdog" of the federal Environmental Protection Agency (E P A) showed that the wood stove certification program is flawed and polluting wood stoves above current and future levels of PM2.5 safe levels (above 8 micrograms per meter cubed annually and above 25 micrograms per meter cubed daily) continue to be sold up to today. The Vermont author also stated, "Newer EPA-certified stoves produce less pollution but, given a replacement cycle of about 20 years, their installation will take a long time to reduce wood's total carbon dioxide emissions."

The lie that residential wood burning is inconsequential compared to industrial wood burning. Residential wood burning produces the same effects as industrial wood burning, except that wood burning occurs in hyper-localized areas for residential wood burning, and occurs over larger areas for industrial wood burning. But stopping residential wood burning can give an environmentalist the satisfaction of knowing they are doing the right thing for the environment, rather than harming the environment. Their neighbors will thank them for also doing something that spares the neighbors some severe health problems. It is true that wood burning power plants in Vermont remain a problem.

The lie that wood burning is renewable. Wood burning is not renewable in any reliably measurable timespan. The Vermont author wrote "And as to renewability, a tree that is cut down can't capture carbon. Reforestation creates vulnerable monocultures of fast-growing trees. Writing in <a href="Yale Environment 360">Yale Environment 360</a>, an online magazine of the Yale School of the Environment, Fred Pearce explains that "long-maturing natural forests will eventually store typically 40 times more carbon than a plantation harvested once a decade." And if insects don't kill them before they mature, the rows and rows of seedlings that pellet manufacturers plant over their clearcuts will never grow fast enough to keep up with the voracious appetite for natural resources that is the hallmark of our species."

The lie of greenwashing biomass (wood) burning and residentials wood burning. The Vermont author wrote "Research from other countries confirms the inconvenient truth that wood combustion releases large amounts of carbon dioxide, methane, and particulate pollution which accelerate global warming. A <u>study in Finland</u> confirmed that burning wood to

heat homes is a source of climate-impacting emissions of carbon dioxide and is the least environmentally friendly solution. French research looked at different ways to meet the growing demand for wood. All outcomes reduce the ability of forests to absorb carbon dioxide. Other studies in **Denmark** and **Australia** show that burning wood accelerates climate change. According to a senior scientist with Natural Resources Defense Council's (N D R C's) Climate & Clean Energy Program, "At the smokestack, wood emits more carbon dioxide than coal for every unit of electricity produced." The Partnership for Policy Integrity, a U.S.-based group, finds that biomass (wood) power plants emit 150% more carbon dioxide than those burning coal. A documentary "Burned: Are Trees the New Coal?" illustrates the damage done by the biomass energy industry and how it is greenwashed. In 2018 The American Conservation Film Festival Committee awarded the film its Audience Choice Award, noting that it "elicited a powerful and passionate response from our audience this year with many saying they had no idea about this issue and its devastating impacts." Just as Texans, Saudis, and Russians love their oil and gas and the Chinese and Indians won't let go of coal, we Vermonters are happily married to our firewood" The Vermont author ended his article by saying "I say this as a wood burner myself who will lay in another couple of cords next winter, if, as projected, the ironically named Affordable Heat Act will increase the already shocking cost (currently around \$4.50 per gallon) of fuel oil." RAWSEP has to conclude that this Vermont author is still part of the problem. The Vermont author recognizes the problem, but opts into continuing being part of the problem, for what he thinks are legitimate economic reasons, helpless to make any personal changes in his lifestyle.

## A dirty truth - Welcome to THE COMMONS -- News and Views for Windham County, Vermont

Welcome to THE COMMONS -- News and Views for Windham County, Vermont Excerpts edited by RAWSEP for brevity and clarity.

A study in Finland confirmed that burning wood to heat homes is a source of climate-impacting emissions of carbon dioxide and the least ...Other studies in Denmark and Australia have shown that burning wood produces methane and carbonaceous particles that, in turn, accelerate climate ...

Excerpts edited by RAWSEP for brevity and clarity.

By discouraging the use of fuel oil and propane, the Affordable Heat Act might drive more Vermonters toward heating with wood — a consequence that could well accomplish the exact opposite of the proposed legislation's intended effect Sadly, none of these facts will impede S.5's passage or Vermont's expanding subsidies of wood burning appliances and power plants.

Episode 56BL

Continuation of Vermont article excerpts.

Just as Texans, Saudis, and Russians love their oil and gas and the Chinese and Indians won't let go of coal, we Vermonters are happily married to our firewood. I say this as a wood burner myself who will lay in another couple of cords next winter if, as projected, the ironically named Affordable Heat Act will increase the already shocking cost (currently around \$4.50 per gallon) of fuel oil.

But unlike Act S.5's proponents, I don't pretend that my heat source is good for the planet.

Washington, DC

### On clean air standards, the EPA should be as tough as possible | The Hill

The Hil

These particulate matter, designated PM2.5, come from burning fossil fuels, and they are 30 times smaller than a strand of human hair.

United Kingdom

U K, Southampton

<u>UK city uses data to raise awareness of wood burner pollution - Cities Today</u> Cities Today Tom Hall, CEO at EarthSense said: "The evidence is clear that wood-burning smoke emissions are harming human health. Fine particulate matter from .. Southampton City Council is using data from air quality monitors to show the pollution from woodburning stoves and encourage people to choose more ...

Asia

India, Delhi

Bad air: 9 districts from Delhi among 37 flagged by NGT - Hindustan Times

**Hindustan Times** 

They were identified based on average annual PM 2.5 concentration. The tribunal was hearing a plea as part of a seven-year-old case in which the ...

India, Mumbai

Mumbai PM 2.5 was twice the limit on half of January-February days - Times of India

Times of India

PM 2.5 refers to fine particles that slip into the lungs easily and cause multiple health problems, including cancer.

MUMBAI: The city recorded 27 " ...

Mumbai recorded 27 bad air days in January & February - The Indian Express

The Indian Express

"Increase in PM2.5 levels has been observed in February 2023 as compared to 2022, with all the 16 of 21 AQMS recording higher PM 2.5 levels.