

Episode 57BE December 26 2024. Wisconsin HEAR Heat Pump rebate program launched 12/19/2024.

In Episode 57BE 1 World 2 United States 3 Arizona wood burning bans. 4 California wood burning bans. 5 Colorado 6 New Hampshire 7 New York 8 Pennsylvania 9 Rhode Island 10 Vermont 11 Wisconsin Launches Home Electrification and Appliance Rebates Program HEAR for Heat Pump Rebates December 19, 2024. 12 Canada 13 United Kingdom 14 Iceland 15 Sweden 16A Germany Hamburg. The Tiefstack formerly planned wood burning heating plant decides not to burn wood. And the organization Robin Wood is pleased. 17 China 18 India 19 Pakistan. Children's pictures asking for heroes to save them from air pollution put too much burden on children to spur action adults should be already taking to stop sources such as indoor residential wood burning. 20 South Korea 21 PM2.5 and human health. 21A PM2.5 outdoors and COVID. Main content. 1 World. Wood Stoves and Air Pollution. What's the Link? Earth.Org Wood smoke is a significant contributor of the toxic air pollutants particulate matter benzene formaldehyde acrolein and hydrocarbon. 2A United States. [RAWSEP View](#). This article shows the ways Trump intends to use his second presidency to threaten national security. A civil war based on transferring more wealth to the wealthy through tax breaks at the expense of the average American may be being signaled by Trump as a necessary civil war for the benefit of the already rich. Along with overt signals supporting civil war in a speech, weakening of the structure of the United States government in support of public health and planned capitulation of the democratic and strategically important country of Ukraine to the autocracy of Russia can also be viewed as threats to United States national security. Trump Previews Second Term in Sprawling Speech to Conservative Conference. [Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization](#). December 22 2024. Trump said we will end the occupation. Mr. Trump delivered a similar speech in Phoenix in July 2015 at the beginning of his quest for the White House. In his speech on Sunday Mr. Trump also promised not to allow the military to change the names of bases or ships that are named after Confederate leaders as it has done in recent years. The president elect's speech was not his first to Turning Point. In 2019 he gave a lengthy speech to the group in West Palm Beach Fla. just days after he was impeached by Congress the first time. 2B United States. Climate Change Is Making Homeownership Even More Unaffordable. [RAWSEP View](#). Nudging homeowners away from buying homes in disaster prone areas may lower insurance costs for all, but the real problem is climate change and the problem of leaving climate change caused by air pollution unsolved by government regulation of air pollution sources such as regulation leading to elimination of indoor residential wood burning. [Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization](#). December 23 2024.. Many homeowners complain that premiums have become unaffordable. Insurers in more and more parts of the country say they can't make a profit. Homeowners and insurers are both victims of something bigger and that's mostly climate change. The only way to keep the private homeowners insurance market from falling apart is to make it so rates can be affordable to homeowners and simultaneously profitable to insurers. And the only way to make that happen is to change the physical reality. In the long run by stopping the warming of the planet. congressional report issued this month found that the rate of non-renewals by issuers of homeowners insurance policies had tripled in more than 200 counties. a reinsurance company found in a survey last year that about half of homeowners who don't have insurance have a household income of less than \$40,000 a year. In other words the poorest homeowners are the ones most exposed to disaster. For the majority of homeowners whose mortgage rates are fixed annual principal and interest payments are predictable. But homeowners insurance premiums which are often bundled into the monthly payment are not. there's tension over how much if at all government should subsidize people at high risk of damage from natural disasters. Can subsidies ever be justified? Yes? Then what if the main beneficiaries are wealthy families who are more likely to buy in scenic areas that produce lots of claims? the two purposes of homeowners insurance and flood insurance actually conflict with each other. One purpose of homeowners insurance is of course to protect people from losses by paying their claims. The other purpose is to prevent those losses in the first place through higher premiums that nudge people away from risky places and practices. Generous and cheap policies will achieve the first objective but not the second one and vice versa. Related article headlines. subsidies for climate capture technology will ultimately be a waste. Australia shows the way on rooftop solar. 2C United States. Climatic variability and its influence on ozone and PM pollution in 6 non-attainment regions. ScienceDirect.com 2D United States. DIU Awards Heat Pump Contracts to Increase Installation Resilience. Defense Innovation Unit. 2E United States. \$8.8 billion in home renovation rebates are up for grabs. here's how to cash in. The Cool Down. Rebate Program to purchase eco-friendly technologies such as heat pumps induction stoves and insulation. If using the Inflation Reduction Act to help pay for your Cala heat

pump water heater it's best to do so sooner rather than later. 2F United States. Heat Pump Market Projected To Reach USD 147.29 Billion by. GlobeNewswire. A heat pump takes low quality heat from sources like air water or geothermal energy increases it and moves it to a specific place. \$142 Billion Heat Pumps Market Opportunities and Strategies. The global heat pumps market reached a value of nearly \$88.2 billion in 2023 having grown at a compound annual growth rate CAGR of 7.43% since 2018. 2G United States. Futuristic home heating system stuns experts with outstanding efficiency in sub-zero temperatures. Yahoo. As temperatures plummet your electricity bill rises but what if there was a way to keep your home warm while saving money? Modern heat pumps. 3A Arizona. no wood burning. az.gov The Maricopa County Air Quality Department has declared a No Burn Day for Monday December 23 due to elevated levels of PM2.5 smoke. Take Action. 3B Arizona Phoenix. High Pollution Advisory and No Burn Days issued for Thursday and Friday in Phoenix area. AZ Family. PM 2.5 levels can approach dangerous levels this time of year. This breaks down the air quality forecast into particulate matter PM2.5 High pollution advisory issued for Phoenix metro area through Friday. Here's what to know. AZ Central. The two types of particle pollution Phoenix is seeing an increase in this week are PM2.5 fine particles usually less than 2.5 micrometers. 4A California. Millions in California Warned About Exercising Outdoors. **RAWSEP View**. It is a threat to national security to allow preventable air pollution that prevents United States citizens from exercising outdoors. Directly regulating leading to elimination of unnecessary sources of air pollution such as indoor residential wood burning can create clean or cleaner air conditions that do not interfere with daily life and clean or cleaner air conditions that do not interfere with daily self-defense in case of a national security emergency. Newsweek. The no burn rule prohibits the use of wood pellets and manufactured fire logs in any indoor or outdoor wood burning appliance. The National Weather Service NWS warned. 4B California Comox Valley. Hot topic. Comox Valley residents concerned about impact of wood stove smoke on health. The Discourse.. The organization clarified with The Discourse that it does not advocate for wood burning as a source of heat. 4C California Los Angeles. Wood burning ban is in effect for most of Southern California. Los Angeles Daily News. A ban on indoor and outdoor wood burning will be in place Saturday in much of Southern California due to a forecast of high air pollution in the. 4D California Los Angeles. Wood burning ban in effect Saturday in much of Southland. NBC Los Angeles. A ban on indoor and outdoor wood burning will be in place Saturday in much of the Southland due to a forecast of high air pollution in the area. A ban on indoor and outdoor wood burning was extended through Monday for a large swath of Southern California. 4E California Palm Springs. Extended Wood Burning Ban in Southern California Amidst Elevated Air Pollution Levels. NBC Palm Springs. SOUTH COAST AQMD Residents within the affected areas are reminded that the use of wood burning fireplaces stoves or outdoor fire pits is prohibited 4F California San Francisco. Spare the Air day in effect Friday with wood burning ban. Almanac News. A Spare the Air alert has been issued for Friday banning wood burning in the Bay Area because of a forecast for unhealthy pollution levels. A Bay Area Spare the Air alert wood burning ban declared for Friday. CBS News. A Spare the Air alert has been issued for Friday banning wood burning in the Bay Area because of a forecast for unhealthy pollution levels. 4G California Santa Clarita. December 21. Residential No Burn Day in Santa Clarita Valley. SCVNews.com Smoke from wood burning can cause health problems. Particles in wood smoke also known as fine particulate matter or PM2.5 can get deep into the lungs. 4H California Sonoma and Napa counties. Spare the Air alert issued for Sonoma Napa counties. The North Bay Business Journal. wood stoves outdoor fire pits and other wood burning devices. wood smoke becomes trapped close to the ground. 4i California Southern. Wood burning ban in effect Saturday in Southern California. Audacity. The residential wood burning ban will be in effect for all those in the South Coast Air Basin including the non-desert portions of Los Angeles. A ban on indoor and outdoor wood burning will be in place Saturday in much of the Southland due to a forecast of high air pollution in the area. 4j California Southern. A Wood burning ban in effect for most of Southern California. Los Angeles Daily News. A ban on indoor and outdoor wood burning will be in place Saturday in much of Southern California due to a forecast of high air pollution. NBC Los Angeles. A ban on indoor and outdoor wood burning was extended through Monday for a large swath of Southern California. 5A Colorado. Rocky Mountain Institute RMI. How heat pumps can maintain their momentum in 2025 and beyond. Canary Media. Heat pumps have outsold fossil gas furnaces for the past two years but adoption is still not growing. Yet another reason why heat pumps are awesome. health benefits. Researchers found that replacing oil and gas furnaces would eliminate pollution in the home. 5B Colorado. Eco Integrity Alliance. Holy Cross Energy and Eagle Valley in Gypsum Colorado. **RAWSEP View**. The scientifically debunked theory of Carbon Neutrality of Wood Burning allows CO2 and PM2.5 emissions from wood burning to be ignored when calculating if any nation in the world is meeting its United Nations climate goals. This scientifically debunked theory trickles down to the United State level and allows industries to claim they are not polluting when in actuality wood burning emits 2.8 times the CO2 and

PM2.5 as the fossil fuel coal burning and wood burning emits 450 times the PM2.5 as the fossil fuel natural gas burning. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization. a letter to the editor in @boulderweekly According to the Aspen Colorado based Holy Cross Energy website in 2023 35% of its energy came from coal while 7% came from burning trees and parts of trees from logging public forests what the industry calls forest biomass energy. Not only isn't incinerating trees emissions free biomass facilities including Eagle Valley in Gypsum Colorado from which Holy Cross got electricity until the facility closed in April spew approximately as much CO2 per unit of energy generated as coal according to a December 2023 study of biomass emissions. Any increase in logging results in a permanent increase in atmospheric CO2 concentration according to other peer reviewed studies. That's not to mention particulate matter. Please don't misconstrue pointing out these facts as an endorsement of fossil fuels. To the contrary what I'm suggesting is we cannot decarbonize by switching out one climate busting energy source for another that's just as bad or worse. 6 New Hampshire. Peterborough PREP Talks. Busting the myths about heat pumps. Monadnock Ledger Transcript. Heat pumps are becoming the residential heating and cooling technology of choice. 7 New York. New York becomes first state to unlock massive upfront appliance rebates. 'Proud to be a model'. Yahoo. Some households may qualify for additional rebates of up to \$4,000 for electrical panel upgrades and \$2,500 for wiring upgrades. New Yorkers are getting help to pay for new energy efficient home upgrades thanks to fed funding. WAMC. The program provides up to \$840 in rebates for eligible New Yorkers to replace clothes dryers with heat pump powered alternatives and additional. 8 Pennsylvania Pittsburgh. How to save energy and make your home more comfortable this winter. The Allegheny Front. The two biggest items that contribute to home energy efficiency are usually the heating and cooling system and the building envelope. 9 Rhode Island. Data Shows More Heat Pump Rebates Going to Wealthy Zip Codes Rather than Low. ecoRI News. When Rhode Island officials announced a new heat pump rebate program two years ago they included a bold promise. 10 Vermont. The key to successfully deploying heat pump water heaters? Funding innovation. Smart Cities Dive. Chris Badger is a managing consultant at clean energy nonprofit VEIC. When people think of climate solutions heat pump. 11 Wisconsin Launches Home Electrification and Appliance Rebates Program HEAR for Heat Pump Rebates December 19, 2024. Department of Energy. Wisconsin's Home Energy Rebate Programs. RAWSEP View. In the first phase, launching today, contractors registered with the HEAR program will offer discounts for appliances that require installation. In the second HEAR phase, launching in 2025, eligible customers will receive instant rebates for appliances bought at stores. HEAR is for appliance rebates and HOMES is for insulation rebates. This December 19, 2024 United States Department of Energy announcement and Focus on Energy website December 19, 2024 in Wisconsin announcement is for HEAR Heat Pump Rebates and other appliance rebates. You may have noticed on the RAWSEP Website the August 2, 2024 announcement of the HOMES program in Wisconsin which provides rebates for home insulation. This December 19, 2024 announcement of the Federal HEAR program is for Heat Pump rebates of up to \$8,000 based on a sliding income scale, along with other rebates for other clean energy appliances for a total allowed of \$14,000 rebates based on a sliding income scale. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization. \$8,000 for an ENERGY STAR certified electric heat pump for space heating and cooling. \$4000 for an electrical panel. Wisconsin Launches Home Electrification and Appliance Rebates Program. Wisconsinites can save up to \$14,000 on energy-efficient home upgrades. Office of State and Community Energy Programs. December 19, 2024. With the launch of its Home Electrification and Appliance Rebates (HEAR) program, Wisconsinites can now take advantage of both Home Energy Rebate programs. Wisconsin launched its Home Efficiency Rebates (HOMES) program in August and is one of the first states to make both HOMES and HEAR Home Energy Rebate programs available to its residents. The \$8.8 billion investment in the Home Energy Rebate programs is enabling states like Wisconsin to help residents lower their energy bills. The HEAR program that Wisconsin is launching today will provide lower- and middle-income homeowners with up to \$14,000 per housing unit in rebates to upgrade equipment and appliances. It will cover up to 100% of costs for lower-income families (those earning up to 80% of their area median income) and up to 50% for moderate-income families (those earning between 80-150% of their area median income). They will be able to save up to \$8,000 for an ENERGY STAR-certified electric heat pump for space heating and cooling. Wisconsin is launching its HEAR program in two phases. In the first phase, launching today, contractors registered with the program will offer discounts for appliances that require installation. In the second phase, launching in 2025, eligible customers will receive instant rebates for appliances bought at stores. Rebates for multifamily buildings will be available in early 2025 as well. Rebate amounts are based on household income and the amount of estimated energy savings. For single-family

homes, rebates will range up to \$10,000 for those making less than 80% of their area median income (AMI). \$4,000 for those making between 80% to 150% AMI. \$3,000 for those making at or above 150% AMI. Wisconsin received nearly \$150 million from DOE for its Home Energy Rebate programs. Wisconsin's programs leverage infrastructure of the state's existing Focus on Energy program. For more information on Wisconsin's Home Energy Rebate programs, visit Focus on Energy's Home Energy Rebates website. For more information on what you can do to save energy and save money, visit www.energy.gov/save. About Home Energy Rebates The \$8.8 billion Home Energy Rebates provide two separate rebate programs to consumers: The Home Electrification and Appliance Rebates provide \$4.5 billion for high-efficiency electricity upgrades in homes. These rebates are administered by states, territories, and Tribes. For more information, sign up for our email updates and visit the Home Energy Rebates website and State Progress Dashboard. Home Electrification and Appliance Rebates. Ready to Make Your Home's Equipment More Energy Efficient? Let Home Electrification and Appliance Rebates HEAR start saving you energy and money. HEAR gives rebates to help low and moderate income families make their homes more energy efficient. Equipment MUST be purchased and installed by an IRA Registered Contractor. In 2025 you will be able to purchase equipment through participating stores. This simplified process shows what you can expect. IRA Home Electrification and Appliance Rebates Income Qualification IRA Home Electrification and Appliance Rebates Registered Contractor Selection. IRA Home Electrification and Appliance Rebates Equipment Installation. 1 Complete Income Qualification. All participating households must verify their total household annual income is less than 150% of the Area Median Income AMI. A household includes all individuals living in the home regardless of relation. You may be asked to provide documentation income. By reviewing the IRA Income Qualification Checklist you can have your documents ready when applying. We encourage online applications for quicker processing and results but have a print ready option too. This short video IRA Home Energy Rebates Income Qualification Process explains income qualification step by step. Online Income Application Income Application PDF. 2 Select your IRA Registered Contractor. Now that you know what you are qualified for you can find an IRA Registered Contractor. These trusted program partners help you choose the best qualifying equipment for your home. Note. When choosing an IRA Registered Contractor be sure to select a contractor that participates as an IRA HEAR Installer and offers the equipment you are interested in. 3 Equipment Installation. Have your new energy efficient equipment installed. Your rebate will be provided as an instant discount right on your invoice. No waiting for a check in the mail! Equipment Rebates. HEAR offers rebates for installing qualifying equipment. A single household cannot receive more than \$14,000 total in rebate dollars from this program. Maximum project rebates are based on income level. Qualified new or existing single and multi-family homes are welcome to participate. Income Eligibility. Maximum Project Rebate. Households below 80% AMI. 100% of project costs up to \$14,000. Households between 80% and 150% AMI. 50% of project costs up to \$14,000. Higher income households >150% AMI are NOT eligible for this program. Type of Home Energy Project/Qualified Technology. Rebate Max Per Product Category. Eligible for New Construction. ENERGY STAR electric heat pump for space heating. Up to \$8,000. ENERGY STAR electric heat pump clothes dryer. (Check to find if) rebates are available only when upgrading from a non-electric appliance. Retroactive rebates are not available for HEAR. Other Ways to Save. IRA Home Energy Rebates are not the only ways to save on your home energy projects. You may be eligible for other programs including Focus on Energy rebates and discounts, the Weatherization Assistance Program, and tax credits. Plus you can combine many of these with IRA Home Energy Rebates for even more savings! The Get Started tool will help you identify what you are eligible for. Check if you're eligible for exclusive discounts limited time offers and personalized deals tailored to your location by providing a few details below. **RAWSEP** Example of 12 Vendors within 10 miles of zip code 53716 in Wisconsin found on the Focus on Energy for Wisconsin website. 1) Accurate Airtight Exteriors. 3336 Commercial Ave Madison WI 53714 2) All Comfort Services. 5245 Voges Rd Madison WI 53718 3) Cardinal Heating Cooling Plumbing & Electric. 4) 3361 Brooks Dr Sun Prairie WI 53590. 5) Dun Rite Insulation L.L.C. 2508 County Rd. N Stoughton WI 53589. 6) Five Lakes Home Energy Audits LLC. 6001 Hammersley Rd Madison WI 53711. 7) Harker Heating and Cooling. 87 Nob Hill Rd Madison WI 53713. 8) Hovey Mechanical. 6225 Camino Way Madison WI 53719. 9) RG Heating & Air Conditioning. 1091 Uniek Dr Waunakee WI 53597. 10) Shackelford Heating & Cooling. 5555 Irish Ln Fitchburg WI 53711. 11) USA Insulation of Madison. 4709 Triangle St McFarland WI 53558. 12) Wohlers Heating & AC. 351 Progress Dr Cottage Grove WI 53527, 12A Canada. British Columbia Wood Smoke. Air pollution is a major contributor to health issues in Canada including lung cancer and there are many Canadians who die from air pollution related illnesses each year. Number of deaths. In Canada more than 15,000 people die each year from air pollution including 1,900 in British Columbia. This is more than the number of Canadians who die from unintentional injuries each year. Health impacts. Air pollution is linked to many

health issues including. 12B Canada Ontario Guelph. Heat pump rebates are back. A golden opportunity for homeowners. Guelph Today. Oosterveld Heating and Air Conditioning Can Help Homeowners Take Advantage of Government Incentives. 12C Canada Yukon. Feds Yukon gov't announce \$2.4M to spur heat pump uptake. CBC. Yukon homeowners can apply for a maximum of \$24000 per household. There are additional rebates available to install heat pumps in homes that use oil, 13 United Kingdom England. Just four fines issued for wood burning complaints in a year in England. The Guardian. Law around illegal wood burning in smoke control areas is not being enforced campaigners say. Over 5600 wood burning complaints led to just four fines. Air Quality News. New research by Mums For Lungs has exposed the ineffectiveness of complaining about the nuisance of domestic wood burning. 14A Europe. A novel spatiotemporal prediction approach to fill air pollution data gaps using mobile Nature. According to the European Environmental Agency EEA 2023 97% of the urban population in Europe is exposed to fine particulate matter PM2.5 14B Iceland. The New Climate Gold Rush. Scrubbing Carbon From the Sky. The New York Times. **RAWSEP View.** The carbon that is aimed at by carbon capture is Carbon Dioxide not PM2.5 particulate matter of 2.5 size the perfect size to infiltrate the human lung setting off a cascade of human health problems and early deaths. Wood burning emissions are 90% PM2.5 and wood burning emits 2.8 times the CO2 and PM2.5 as the fossil fuel coal burning. Wood burning emits 450 times the PM2.5 as the fossil fuel natural gas burning. This headline using the term Gold Rush emphasizes that Carbon CO2 Capture research by industry is being done to receive government monetary subsidies. Carbon CO2 capture does not pay for itself and is supported by government subsidies because it doesn't work and research into making it work has been going on for decades with no success. Receiving government subsidies for research on carbon CO2 capture subsidizes industries that at the same time spew carbon CO2 and PM2.5 into the air from fossil fuel burning and biomass burning. The solution to the polluting emissions that burning of fossil fuels and burning of biomass wood produces is to stop burning things. Carbon capture subsidizes continuing pollution emissions from burning because it excuses CO2 and PM2.5 emissions in the first place if attempts are made to capture CO2. **RAWSEP View** is that Instead of putting money into a technology that doesn't work instead subsidize development of more wind solar and geothermal the truly clean energy sources as well as subsidize developing batteries that can store the energy from wind solar and geothermal. From the article are attempts at carbon capture expensive in contrast to funding wind solar and geothermal? **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization.** A representative at Lowercarbon Capital a venture firm that has backed several of the carbon capture companies said you could be wrong 95 percent of the time and still look like a genius when you send a bunch of money back to your investors. **RAWSEP View.** Making profits while being subsidized by the government does not indicate that carbon capture is a going concern able to pay for itself. From the article Is it worthwhile to keep subsidizing carbon capture? **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization.** Former Vice President Al Gore a co-founder of Climate Trace which maps global greenhouse gas emissions said carbon CO2 capture not going to become available within the time frame we need to reduce emissions. In 2023 a United Nations panel cast doubt on carbon CO2 capture's ability to make a difference. Instead many scientists and activists say the most effective way to combat global warming is to end oil gas and coal burning **and RAWSEP interjects here biomass wood burning** which is heating the planet. Carbon dioxide removal is a distraction that will perpetuate the fossil fuel and biomass wood burning now causing the climate crisis. Carbon capture will increase fossil fuel production **and RAWSEP interjects here biomass wood burning** said a professor of civil and environmental engineering at Stanford University. It does not help climate one bit. The Mammoth Climeworks facility the largest operational direct air capture facility in the world located in Hellisheidi Iceland but owned by a Swiss company has raised more than \$800 million from investors including Singapore's sovereign wealth fund. According to this article there are a few dozen carbon capture facilities operational today including ones in Iceland and California. But the biggest of these capture only a sliver of the greenhouse gases humans produce in one day. Even if hundreds more such plants were built they would not come close to counteracting even 1 percent of annual carbon dioxide emissions. **RAWSEP View.** From the article does carbon capture pay for itself? **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization.** Pulling greenhouse gases out of the air is expensive. Today it can cost as much as \$1000 per ton to capture and sequester carbon dioxide. Many analysts say the price would need to drop to around \$100 a ton for the industry to take off. **RAWSEP View.** From the article who are the parties who perpetuate fossil fuel and wood biomass burning by asking for subsidies for carbon capture research that doesn't work? Who profits from subsidies for this failed technology? **Excerpts edited by**

RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization. Breakthrough Energy Ventures consisting of Bill Gates Amazon founder Jeff Bezos SoftBank founder Masayoshi Son and Prince al Waleed bin Talal of Saudi Arabia. Canada based Deep Sky. Svante a Canadian company in the carbon capture industry has received more than \$570 million from small venture firms as well as big energy companies like Chevron. RAWSEP View. From this article who purchased carbon credits? Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization. In 2024 Microsoft Google and British Airways committed a total of \$1.6 billion to purchase carbon dioxide removal credits. Stripe H&M J.P. Morgan and Meta have banded together to make more than \$1 billion in purchase commitments for carbon dioxide removal. Airbus Equinor and Boeing. Some see value in helping to develop a new industry they might one day profit from. RAWSEP View. The connection between the United States government and carbon capture subsidies. From the article. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization. December 22 2024. The United States Government Inflation Reduction Act I R A more than tripled the tax credit for capturing and storing carbon removed directly from the atmosphere to \$180 per ton. The bipartisan infrastructure law signed by President Biden in 2021 included \$3.5 billion for the creation of four demonstration carbon capture projects. Executives don't believe that the carbon dioxide removal industry will be knocked off course by President elect Trump. In November 2024 Senator Lisa Murkowski Republican of Alaska and Senator Michael Bennet Democrat of Colorado introduced legislation that would create additional tax incentives for the carbon dioxide removal industry. 15 Sweden. 'The Spotify of heat pumps'. The Swedish company offering sustainable heating with no upfront costs. Euro news. Buying and installing a heat pump comes to an eye watering €11500 – but this company aims to change that. . Heat pumps are gaining. 16A Germany Hamburg. The Tiefstack formerly planned wood burning heating plant decides not to burn wood. And the organization Robin Wood is pleased. Top RAWSEP Excerpt. Last Friday December 20, 2024 Hamburger Energiewerke announced in a press release that they would stop burning biomass in favor of a larger river water heat pump combined with the other heat mix previously planned. RAWSEP View. Robin Wood is a German environmental advocacy group. The group was founded in 1982 by former members of Greenpeace who desired a decentralized grassroots organization with greater autonomy to address specific local German issues. Robin Wood is based in Bremen and in 2008 was composed of fifteen mostly autonomous regional groups within Germany. Initially concerned with the conservation of German forests particularly the Black Forest the group's activism efforts later expanded to include rainforest conservation paper recycling reduction of acid rain and other related areas. Robin Wood stages attention grabbing demonstrations and peaceful public protests to raise awareness. The group publishes the quarterly Robin Wood Magazin. From the article. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization. ROBIN WOOD is pleased with this success and calls for the climate friendly heat transition to be further accelerated. December 22 2024. Forest. Energy. press release ROBIN WOOD sees the decision by Hamburger Energiewerke not to burn wood in the Tiefstack heating plant as a great victory for the forests. Last Friday Hamburger Energiewerke announced in a press release that they would stop burning biomass in favor of a larger river water heat pump combined with the other heat mix previously planned. The Tiefstack power plant has so far been fired with coal. It must be converted because Hamburger Energiewerke HEnW must implement the coal phase out by 2030 at the latest. The rejection of wood combustion at the Tiefstack site is a great success and an important step towards a climate friendly heat transition in Hamburg! We have been fighting for this for more than four years together with many other environmental activists says a delighted forest representative at ROBIN WOOD. Until now Hamburg Tiefstack was our prime negative example of biomass use nationwide. That has now changed. The decision by the Hamburg energy company will have an impact far beyond the region. Other cities should now follow Hamburg's example and also abandon their plans for wood fired power plants. Burning wood from forests that have grown over centuries in power plants in a very short time causes no fewer emissions than burning coal. ROBIN WOOD is committed to the economical material use of wood and fights for a consistent circular economy across all sectors. With the referendum on the repurchase of the energy networks which ROBIN WOOD won in 2013 the Hamburg Senate was obliged to pursue the goal of a socially just climate friendly and democratically controlled energy supply from renewable energies. In 2020 ROBIN WOOD initiated a protest by numerous actors from the environmental movement and science against the original HEnW plans to burn pellets from Namibian bushes in the Tiefstack heating plant. With statements reports open letters webinars fact sheets projector and banner protests as well as petitions with more than 100,000 signatures ROBIN WOOD and a growing network of supporters have kept the

issue in the public eye ever since. At the federal level ROBIN WOOD will continue to campaign for the adoption of a strong National Biomass Strategy NABIS. Increasing opposition is to be expected especially since the CDU has a good chance of becoming the strongest force in the next federal government. It has not only included a return to nuclear power but also the promotion of wood energy prominently in its current election manifesto. 16B Germany Hamburg. Lung cancer Asthma Cardiovascular diseases Premature death. Victory for the forests. Hamburg's Tiefstack coal fired power plant will not be converted to wood! 17 China Beijing. Spatiotemporal Analysis and Source Attribution of Severe PM2.5 Pollution Episodes in. ScienceDirect.com From October 20 to November 6 2023 Beijing BJ experienced a severe particulate matter PM2.5 pollution episode. 18 India Delhi. Air Pollution Responsible For 16.6 Million Deaths Over A Decade In India. Health Policy Watch. Air pollution settles on the leaves of this creeper in a south Delhi neighborhood with PM 2.5 at approximately 400 micrograms/cubic meter. 19 Pakistan. 'Trapped inside'. The children suffocating in the smog of Lahore. Air pollution has become a major problem in Pakistan and it is children who are paying the price. RAWSEP View. Pakistan. Children's pictures asking for heroes to save them from air pollution put too much burden on children to spur action adults should be already taking to stop sources such as indoor residential wood burning. Solve the problem of air pollution directly by regulation leading to elimination of sources of air pollution such as indoor residential wood burning and farmer's solid fuel similar to wood stubble burning. Traditional air polluting stubble burning can be replaced by recycling of stubble or simply leaving stubble in fields to decompose. Children address the air pollution problem indirectly by speaking about their suffering and the solution of finding a hero to save them rather than asking for government regulation of indoor residential wood burning and stubble burning directly in their childish drawings. It is too much to ask for the children to lead. RAWSEP Key Excerpt. So long as the government continues to lock down rather than cleanup it betrays its disregard for the future it claims to protect. Adults in Pakistan must act by passing regulation of air polluting wood burning and other solid fuel burning such as farmer stubble burning. The RAWSEP Keywords in this article are Children's Drawings and Superheroes. Also in this article COVID lockdowns before COVID vaccination and before widespread COVID regulations on mask wearing were imposed are compared to Air pollution lockdowns used instead of solving air pollution by regulation of air pollution sources directly. From the article. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization. 21 December 2024. Lahore Pakistan. Fourteen year old Fatima has woken up coughing with a fever in early November. My throat hurts and it feels like the smog is coming in through the rooftop she says while rubbing her left eye. Outside her window Lahore. Pakistan's second largest city and the cultural heart of Punjab. is wrapped in a thick grey haze which is suffocating its residents through the winter months. this year the air quality has become dangerously poor reaching levels far beyond what is considered safe for human health. The Air Quality Index AQI at Levels above 300 are considered dangerous. Stuff I could never even imagine going beyond. There is 2,000 Air Quality Index AQI. We're at 2,500 to 2,600. It's a Kabul to Calcutta problem. A yearlong regional public health emergency. we tend to think it's seasonal it isn't because the things causing air pollution today are the same things causing air pollution in June. It's just that hot air rises in June and you have the monsoon so for most of the year winds and rain dissipate the air pollution. Choked by a mix of industrial pollution, wood burning brick kiln fumes, and residue from solid fuel crop burning Lahore has earned the unfortunate distinction of being one of the world's most polluted cities. 'It's like a jail' On November 4 2024 Punjab's education authorities have closed all the primary schools in Lahore to protect children's health. Fatima is now confined indoors. She can only see the faint outline of neighboring houses their walls barely visible through the thick air. At first it felt like a holiday. now it's just boring. I can't even go outside to play. No cycling no playing on the street just staying inside all day. when we have smog they are screen bound. Drawn on green paper her work symbolizes hope. trees as a solution against pollution and calling for preserving nature to reclaim clean air. Full of childlike optimism these drawings are more than art. they're a window into a world in which children believe air pollution can be defeated. I worry about the long term effects of this. This constant sickness and the tiredness. It's not good. The fear is real. smog and air pollution cause much more than just coughing fits. They are linked to increasingly serious health problems especially in children. one of the reasons for developing lung diseases as adults is stunted lung growth during childhood. This is usually attributed to malnutrition and childhood infections with the added dimension of smog. Smog is likely to affect the windpipes causing swelling and inflammation which can lead to diseases such as asthma and chronic obstructive pulmonary diseases [COPD]. It leads to breathing disturbances disturbed sleep breathlessness during sport absences from school and the need for rescue medication. another lung disease which causes the air sacs tiny structures within the lungs to become abnormally dilated damaging the walls between them and reducing areas for gas exchange. This condition known as

emphysema is commonly linked to smoking. high levels of smog in Lahore could cause similar damage in children potentially leading to emphysema later in life. A 2018 study in the Polish Journal of Environmental Studies compared children from high pollution urban areas with those from less polluted regions. It found that children in polluted areas had significantly lower hemoglobin levels and red blood cell counts and were nearly four times more likely to develop anemia and other health issues. Unfortunately there isn't much that parents can do other than moving away from this part of the world. There are preventive measures parents can take such as ensuring timely flu shots and consulting experts if their children develop symptoms. In some cases starting inhalers early can prevent symptoms from progressing to the point where they start affecting the child's life. A study by the Children's Hospital reports a three time increase in the number of kids admitted because of respiratory diseases between 2008 and 2018. In January 2024 when we had the air pollution episode coming to an end there were at least 500 kids reported to have died of pneumonia in Punjab alone. That was just in January. These aren't abstract figures. Kids are going to get more sick. Kids are dying and the same pollution that affects them in January is the same in June and it's the same pollution right now. The thing about air pollution is that you don't just die. This takes weeks and months to gestate in your system and show itself as some problem he adds. It is COVID all over again but with extra pollution. Just 15 minutes from Fatima's home 16 year old Eshal is stuck at home in the northeastern suburbs of Lahore facing similar issues. The smog irritates my eyes she says. Eshal spends school closures attending online classes from 9am to 2pm. At first not having to wake up early and rush to school felt like a relief. But then I started missing my friends my teachers and the classroom environment. I enjoy my physics classes the most. The school closures remind Eshal of the COVID 19 lockdowns but this time it's not a virus. it's the air she breathes. Now frequent power outages with slow internet speeds across Pakistan make it difficult for children to keep up with their schoolwork. So long as the government continues to lock down rather than cleanup it betrays its disregard for the future it claims to protect. Previously in October 2023 an outbreak of conjunctivitis or pink eye led to the closure of more than 56,000 schools across the country. In October 2023 during last year's smoggy season Fatima also suffered from viral conjunctivitis triggered by bacterial infections allergens like pollen or dust and irritants such as smoke and harsh chemicals. My eyes were red and watery she recalls. Pakistan is not alone in facing these challenges. Countries including Bangladesh the Philippines and Sudan have also closed schools due to air pollution and other climate related crises. Unless there are air quality monitors at home the children are still going to get the same level of pollution inside their homes as they would be outside. So it's not actually improving the situation. The lack of data on pollution levels in Pakistan is also a major problem. There are very few air pollution monitors run by private individuals and they only monitor one or two types of air pollution. What we need is a robust network throughout the province if not the country so it can provide real time yearlong information on how bad the air pollution is where it is and what it's composed of. This would allow us to make appropriate policy responses. In countries where governments have committed to long term measures to reduce the use of fossil fuels and RAWSEP interjects here reduction in use of biomass wood burning air quality has improved he says proving that sustainable development and public health can go hand in hand. in Beijing China Today public schools are equipped with advanced air purification systems ensuring cleaner air for students in classrooms. Additionally all school buses are fitted with air filtration systems to protect children during their commutes. We need to foster the sense of community awareness because air pollution or improving air quality isn't really stuff you can do on an individual level. I don't think there are individual things that young kids can do on their own other than mobilize collectively socially and politically to ask for a clean air future from their elected representatives. With their drawings scattered around their home Fatima, Zainab and Khizar are piecing together sketches of superheroes and crying Earths to make their message clear. Save Us. But will policymakers finally act or will Lahore's youngest continue to carry the heaviest burden? Perhaps it's time to become the superheroes our children wish for. 20 South Korea. Association between fine particulate matter PM2.5 and violence cases in South Korea. PLOS. Several studies reported the roles of short term exposure to fine particulate matter PM2.5 on violent behaviors however existing findings had. 21A PM2.5 outdoors and COVID. Interpretable AI driven causal inference to uncover the time varying effects of PM2.5 and COVID. Nature. Outdoor PM2.5 is the focus of our study for two primary reasons. First COVID 19 infection rates may increase due to the potential deposition of viral. 21B PM2.5 and health risks. Effects of combined exposure to PM2.5 O3 and NO2 on health risks of different disease. ScienceDirect.com Along with the PM2.5 O3 synergistic control NO2 control should also be emphasized. Abstract. Air pollution adversely affects people's health.