

Episode 57AX December 10 2024. UK US China Terrifying cancer risk of trendy wood burning stoves

In Episode 57AX 1 World 2 North America 3A United States. Substack. Trump opposition to air pollution mitigation. 3B United States. A \$400 Billion Clean Energy Program Is Racing to Get Money Out the Door. 3C United States. Enumeration of Biden government investments in clean energy. 3D United States Heat Pump rebates. Inside The Heart Of The Magnetocaloric Heat Pump Of The Future. Department of Energy announces that eight heat pump manufacturers have passed inspection and will enter the market late 2024 to early 2025. 4 Alaska Fairbanks. Fairbanks Borough Assembly adopts stricter rules on chimney smoke. 5B California winter inversion calls for wood burning bans in Hollywood. 6 Colorado 7 Idaho 8 Minnesota 9 Oregon 10 Tennessee 11 Texas 12A Canada British Columbia. Air Pollution Exposure linked to Oncogene Driven Lung Cancer Diagnoses. Results demonstrate fine particulate matter poses health risks even for those with no smoking history. 13 Ireland. Ireland writer has one problem but not about air pollution or breathing. What can we do about constant hum from our neighbors' heat pump? 14C United Kingdom. Terrifying cancer risk of trendy wood burning stoves. 15 Denmark. Several grocery stores chimney sweeps firewood sellers and stove dealers reported for greenwashing. 16 Ukraine. Advancing Heat Pump Adoption in Ukraine's Low Carbon Energy Transition. 17 India Delhi. Delhi's November PM 2.5 Level Reaches Highest Monthly Average In 8 Years. 18 Taiwan. Turning up the heat pump the silent revolution in our basements. 19 Tibet 20 Wood burners speak out. 21 PM2.5 and human health. Main Content. 1 World. Survey reveals surging trend among homeowners with heat pumps. here's what 8 in 10 said. Yahoo. It included the experiences of 2,549 heat pump owners and over 1,025 gas boiler owners across multiple countries. 2 North America Heat Pump. Improved Insulation + Heat Pump HVAC Can Mean Big Savings. North American Precip Syndicate. If you are thinking about upgrading your home's heating and cooling system consider an ENERGY STAR certified heat pump. Heat pumps that have. 3A United States. Substack. Trump opposition to air pollution mitigation. Letters from an American. Heather Cox Richardson. **RAWSEP View.** Alternative realities with no basis in fact are now expected during any riff of lies from Trump. During a Trump interview Trump made what might be convincing statements to his followers but those are Trump statements which economic and scientific experts need to debunk constantly in order to protect American national security. The big takeaway from this recent Trump interview but which is not a surprise is the threat to his perceived enemies with jailtime. Liz Cheney took the opportunity to debunk any Trump claim to have acted legally or morally or in the national security interests of the United States on January 6, 2020. **RAWSEP** chosen most relevant fact is that tariffs would raise the price of electric cars and **RAWSEP** extrapolates that probably other clean energy commodities such as Heat Pumps will have their prices raised by tariffs. **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.** December 9 2024. Trump convincing people of an alternative reality might be harder with issues closer to home. Trump has vowed to place a tariff wall around the U.S. for example at the same time he has promised to bring down the price of consumer goods. Economists of all stripes say that ultimately consumers pay the price of tariffs Welker told him on Sunday. I don't believe that Trump answered. He might not believe it but producers do. Car manufacturers as well as major shopping chains have warned that tariffs will force them to raise prices. On other issues Trump will have a vocal and established opposition. After his threat to go after the members of the January 6th committee former representative Liz Cheney said in a statement that there is no conceivably appropriate factual or constitutional basis for what Donald Trump is suggesting. Here is the truth. Donald Trump attempted to

overturn the 2020 presidential election and seize power. He mobilized an angry mob and sent them to the United States Capitol where they attacked police officers invaded the building and halted the official counting of electoral votes. Trump watched on television as police officers were brutally beaten and the Capitol was assaulted refusing for hours to tell the mob to leave. This was the worst breach of our Constitution by any president in our nation's history. Cheney called for the release of the evidence and grand jury material special counsel Jack Smith assembled so all Americans can see Donald Trump for who he genuinely is and fully understand his role in this terrible period in our nation's history. Nobel laureates generally try to stay out of politics but today more than 75 of them in medicine chemistry economics and physics wrote a letter to senators urging them not to confirm Robert F. Kennedy Jr. Trump's pick for secretary of Health and Human Services. They object to Kennedy's stand against the scientists and agencies he would oversee. They noted that he has no credentials or relevant experience and that he has opposed life-saving vaccines promoted conspiracy theories and attacked the Food and Drug Administration the Centers for Disease Control and Prevention and the National Institutes of Health. Putting him in charge of the Department of Health and Human Services they write would put the public's health in jeopardy and undermine America's global leadership in the health sciences in both the public and commercial sectors. There is also the chance that the Fox media empire will not effectively push a right-wing narrative much longer. The Murdoch family is in a struggle over control of that empire after the death of the 93-year-old Rupert. 3B United States. A \$400 Billion Clean Energy Program Is Racing to Get Money Out the Door. Some fear Donald Trump could freeze the Energy Department's loan office which supports electric vehicles geothermal nuclear and other novel technologies. The New York Times. **RAWSEP View.** The investment of the Biden administration in clean energy is unprecedented and must continue in order to support human health and to slow climate change. Meeting both these goals would also strengthen United States national security. **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.** December 6 2024. At the heart of the Biden administration's efforts to advance clean energy is a \$400 billion lending program that has backed dozens of projects across the nation including battery factories in Ohio and Tennessee the revival of a shuttered nuclear reactor in Michigan and a novel rooftop solar expansion in Puerto Rico. Now the Loan Programs Office at the Department of Energy is hustling to get money out the door before Donald J. Trump returns to the White House. Under President Biden the office has announced roughly \$54 billion in loans or loan guarantees which is still just a small portion of its lending authority. Of that \$19 billion was announced in the weeks after the election including a conditional loan to help Rivian build an electric car factory in Georgia and a loan guarantee for an enormous power line in the Midwest. Yet the office has closed only \$13.5 billion of the deals to date. the rest are conditional commitments that could be delayed or halted by a new administration. EVgo an electric car charging company that was awarded a \$1 billion loan guarantee in October said in a statement that it was working diligently to close its deal. The election results loomed over an annual gathering convened by the loan program in Washington this week where 1800 people across the clean energy industry discussed everything from electric car charging networks to sustainable aviation fuels. If we have any sort of significant slowdown over the next four years China is going to have our lunch dinner and breakfast said James Calaway the chairman of Loneer a firm trying to open a lithium mine in Nevada with the help of a not yet final \$700 million federal loan. Mostly dormant during the first Trump administration the office was revived under President Biden. It initially had \$40 billion in loan authority

but that ballooned to more than \$400 billion in 2022 when Congress passed the Inflation Reduction Act. Jigar Shah an outspoken former solar entrepreneur who has called clean energy the largest wealth creation opportunity of our lifetime has led the office over the past four years and used its financial muscle to reshape the American energy landscape. A Swaggering Clean Energy Pioneer With \$400 Billion to Hand Out. May 11 2023. The program has access to thousands of experts at the Energy Department who can scrutinize novel technologies that commercial banks find too bewildering. In recent years it has focused on building up a domestic supply chain for electric vehicles to counteract China's stranglehold on battery production. More than half of the office's deals since 2021 almost \$34 billion have gone toward electric vehicle and battery factories or companies that produce key components like graphite. This week the office finalized a \$303 million loan guarantee to Eos Energy a Pennsylvania based firm that makes a zinc based battery for electric grids that can store power longer than conventional lithium ion batteries. The loan office is still reviewing 212 applications worth \$324 billion and has released detailed road maps written in conjunction with industry for scaling up technologies like smarter electric grids. Jigar Shah who has led the Loan Programs Office for four years received a letter from House Republicans demanding that the office cease its campaign to quickly distribute federal funding before the incoming administration takes office. That could mean less money for electric vehicles which Mr. Trump has bashed and more money for technologies like carbon capture or geothermal which some of Mr. Trump's energy advisers have supported. Mr. Shah said his office was not loosening its controls in the waning days. right now borrowers are sufficiently motivated to move more quickly. The loan office is profitable with losses of just 3 percent in line with commercial banks. Mr. Shah expects that much of the loan office's work will prove durable. Many of the 212 applicants still seeking hundreds of billions of dollars loans are in Republican controlled states and are pursuing solutions to problems that both parties are concerned about like the rapid growth in electricity demand. 3C United States. Enumeration of Biden government investments in clean energy. The White House Council on Environmental Quality CEQ is sharing this White House PR issued on December 09 2024. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. FACT SHEET. the U.S. government has invested over \$12 billion and launched thousands of projects to transition to electric vehicles clean construction materials and energy efficient buildings powered by 100% clean electricity. Federal sustainability progress by the numbers. Ordered nearly 82,000 zero emissions vehicles ZEVs for the Federal fleet and installed 10500 charging ports at Federal facilities nationwide with an additional 52500 charging ports in progress Supported the U.S. Postal Service's commitment to acquire 100% electric delivery trucks by 2026 the first of which have already started to roll through neighborhoods by leveraging an investment of \$3 billion from the Inflation Reduction Act Developed a clean electricity procurement pipeline with energy suppliers across 36 states that would move the Federal Government from its current 40% clean electricity match to 70% by 2027 on its way to 100% by 2030 Generated over \$8 billion in private sector funding to launch thousands of modernization projects that will deliver energy efficient climate resilient and all electric Federal buildings including at least 2700 net zero emissions buildings that are complete or underway today. Directed the nation's two million Federal employees to prioritize the use of sustainable transportation including electric vehicles EVs for business travel. installed new EV charging infrastructure to power its vehicle fleet which will soon include electric vehicles. White House buildings have also been upgraded to reduce energy use and costs. the Federal Government's 300,000 buildings 600,000 vehicles and \$750 billion in

annual procurement power will continue to be more sustainable and resilient while supporting good jobs cutting costs and saving taxpayers money. The Administration has proven net zero emissions buildings are cost effective through showcase projects at the Ronald Reagan Building and International Trade Center the largest building in Washington D.C. which is now 100% electric Fort Hunter Liggett the first U.S. Army base to achieve net zero energy designation and the Oklahoma City Federal Building which cut energy costs and is pioneering power grid resilience strategies. For the first time ever Federal agencies are required to link climate adaptation and sustainability planning efforts with advancing environmental justice and the Justice40 Initiative which seeks to ensure that 40 percent of the overall benefits of certain Federal investments flow to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution. The Administration also issued a final rule promoting sustainability equity and community engagement in decisions on where federal facilities are located. As part of President Biden's Investing in America agenda the General Services Administration announced \$23.8 million for 13 projects at federal buildings across 10 states through GSA's Good Neighbor Program. The 13 federal building improvement project sites were selected for their opportunity to make a positive impact on local communities.

3D United States Heat Pump rebates. Inside The Heart Of The Magnetocaloric Heat Pump Of The Future. The government is offering 'every American household' \$8,000 for home energy upgrades. United States Heat Pumps and cold climate. cold climate heat pumps on the market. PIRG. Department of Energy announces that eight heat pump manufacturers have passed inspection and will enter the market late 2024 to early 2025. The Downsides Of Heat Pumps. Are They Right For Your Home? Heat Pumps and electric rate. Electric Rates Can Help or Hinder Heat Pump Progress. RMI. Reforming these rates is an important strategy for accelerating the decarbonization of homes and encouraging the adoption of heat pumps. rebates designed to compensate for the way heat pump customers are overcharged on their electricity bills. Such a rebate could be offered. United States Heat Pump replacing a furnace. United States Heat Pump and the future. Inside The Heart Of The Magnetocaloric Heat Pump Of The Future. Clean Technica. Electric heat pumps have emerged as heroes of the 21st century decarbonization movement helping homes and businesses shake free of the fossil fuels. Improved magnetocaloric heat pump paves the way for more sustainable cooling and heating. Tech Xplore. Magnetocaloric heat pumps are a promising replacement for cooling and heating. They can eliminate refrigerant emissions. Southern Alliance for Clean Energy. Each state is on a different timeline for rolling out its rebate program. Air Source Heat Pump for Home Heating and Cooling. 4 Alaska Fairbanks. Fairbanks Borough Assembly adopts stricter rules on chimney smoke. Local News. Fairbanks Daily News Miner. The panel approved the ordinance in a 5 3 vote shortly after Supporters of the wood smoke regulations some of whom suffer from smoke. Borough considers fine for pollution from wood coal smoke Local News newsminer.com Fairbanks Daily News Miner. The plan was posted on the Fairbanks North Star Borough Web site Friday. The measure Ordinance 2010 17 is set to be introduced at the assembly. 5A California Heat Pumps. State offers rebates for purchase of green appliances. The Altamont Enterprise. The maximum rebates residents may qualify for depends on their income the cost of the heat pump clothes dryer and any necessary electrical upgrades. 5B California winter inversion calls for wood burning bans in Beverly Hills Hollywood Los Angeles Manhattan Beach Orange County Pasadena and Santa Clarita. California Beverly Hills. Wood Burning Ban In Effect In Beverly Hills Through Friday 12/6/2024. Patch. Residents are advised against burning wood in fireplaces or any indoor or outdoor wood burning device at any time during No Burn Days. Do your part. California Hollywood. Wood Burning

Ban In Effect In Hollywood Through Friday 12/6/2024. Patch. Wood Burning Ban In Effect In Hollywood Through Friday. Residents are advised to hold off on lighting up any indoor fireplaces or wood stoves. Patch. California Los Angeles wood burning ban at least 12/3/2024 through 12/6/2024. Got a fireplace? Keep it cold much of SoCal under wood burning ban. LAist. What it means. No cozying up by the fireplace or backyard fire pits. The ban includes wood as well as logs made from wax or paper. Why now? The South Coast Air Quality Management District extended the wood burning ban. Wood Burning Ban in Effect Through Wednesday 12/4/2024 in Much of Southland. Westside Current. LOS ANGELES A ban on indoor and outdoor wood burning was in place Tuesday 12/3/2024 and continuing through Wednesday in much of the Southland. Wood burning ban in effect across much of Southern California. Los Angeles Daily News. The residential wood burning ban will be in effect until at least 11.59 p.m. Wednesday 12/4/2024 for all those in the South Coast Air Basin. Millions in California Told To Limit Outdoor Activity As LA Alert Issued. Newsweek. Ban on burning wood on Thursday 12/5/2024 amid concerns about air quality. The ban prohibits the burning of wood pellets and manufactured fire logs both indoors and out. The mandatory wood burning ban has been extended throughout the South Coast Air Basin. Wood Burning Ban in Effect Friday 12/6/2024 in Much of Southland REAL 92.3 LA Local News. A ban on indoor and outdoor wood burning was extended Friday for much of the Southland due to a forecast of high air pollution in the area. California Manhattan Beach. Wood Burning Ban In Effect In Manhattan Beach Through Friday 12/6/2024. Patch. Residents are advised against burning wood in fireplaces or any indoor or outdoor wood burning device at any time during No Burn Days. California Orange County. Wood burning ban extended in most of Southern California. Orange County Register. wood burning device is prohibited as is burning manufactured fire logs such as those made from wax or paper. The residential wood burning ban will be in effect until at least 11.59 p.m. Wednesday 12/4/2024 for all those in the South Coast Air Basin. CBS News. California Southern. SCAQMD officials say that fine particles in wood smoke. California Pasadena. Wood Burning Ban in Effect Wednesday 12/4/2024 in Much of Southland. Pasadena Now. A ban on indoor and outdoor wood burning is in place Wednesday in much of the Southland due to a forecast of high air pollution in the area. California Pasadena. For Second Day Wood Burning Ban in Effect Thursday 12/5/2024 in Much of Southland. Pasadena Now. A ban on indoor and outdoor wood burning has been extended Thursday for much of the Southland due to a forecast of high air pollution in the area. California Santa Clarita. South Coast Air Quality Management Extends Mandatory Wood Burning Ban. KHTS Radio. 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. 6 Colorado Denver. PM2.5 and eye clinic visits. Denver Air Pollution Linked to Increased Eye Clinic Visits Study Says. News. CU Anschutz. PM10 and PM2.5 differ in size and penetration ability. PM10 being larger tends to irritate the ocular surface more directly especially in colder. 7 Idaho. PM2.5 and dementia. Study. Particle pollution from wildfires has 'markedly stronger' link to dementia than other sources. Boise State Public Radio. Researchers were looking at PM 2.5 pollution made up of particles with diameters at least 30 times smaller than human hair. 8 Minnesota Fillmore County. Fountain Looking for Smoke Solution. Fillmore County Journal. In recent discussion regarding external wood stoves/boilers within the city it was noted that Unnasch's wood boiler is not up to code. 9 Oregon Multnomah County. Wood Burning Restrictions Multnomah County. 10 Tennessee Heat Pump. TVA extends HVAC rebate program for customers in its service area News moultonadvertiser.com TVA will pay homeowners a \$50 rebate per heat pump or central air conditioning unit to get their HVAC system inspected by a TVA Quality. 11

Texas Austin. Heat pumps cut home based carbon emissions. But the market is a bit cold. Marketplace.org When it gets down to like 10 degrees or whatever the heat pumps are sufficient for heating said homeowner Nathan Wilcox. 12A Canada British Columbia. Air Pollution Exposure linked to Oncogene Driven Lung Cancer Diagnoses. Results demonstrate fine particulate matter poses health risks even for those with no smoking history. **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.** November 12 2024. Meeting News Risk Assessment and Reduction WCLC News. Outdoor air pollution is classified as a group 1 carcinogen and significantly impacts lung cancer risk in individuals especially among females including those with no smoking history. One of the most concerning parts of air pollution is PM2.5. These small particles can go deep into the lungs and even get into the bloodstream posing serious health risks for people even those who do not smoke. Dr. Chen presented the data during the 2024 World Conference on Lung Cancer in San Diego. Researchers collaborated with patients with no smoking history who were diagnosed with lung cancer at BC Cancer Center Vancouver to establish individual residential histories and assess PM2.5 exposures using detailed satellite and ground measurements as well as chemical transport models from 1996 onward. 12B Canada. PM names broadcaster Charles Adler as new senator. Conservatives say the move proves Trudeau is appointing his Liberal friends. **RAWSEP View.** Social influencer appointed by the government. **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.** August 19 2024. In 2016 Prime Minister Justin Trudeau instituted a new appointment process that relies on an independent advisory board to select senators and 84 have been chosen under that system. Prime Minister Justin Trudeau named a new senator on Saturday with broadcaster Charles Adler joining the ranks of members of Canada's upper legislative chamber. Adler a refugee from Hungary has been a broadcaster and writer for decades. An Emmy Award winner he has been a prominent political commentator throughout his career as a journalist. He will represent Manitoba in the Senate. In a statement on Saturday the Conservatives noted Adler's past criticism of Conservatives saying the appointments prove that Trudeau is appointing his Liberal friends to defend his policies. 13 Ireland. Ireland writer has one problem but not about air pollution or breathing. What can we do about constant hum from our neighbors' heat pump? The Irish Times. Full Coverage. 14A United Kingdom Chartered Institute of Environmental Health CIEH. New research raises concern about domestic wood burning the UK's biggest source of PM2.5 Envirotec Magazine. The Chartered Institute of Environmental Health CIEH has chimed in with concern about emissions of fine particulate matter PM2.5 caused by. 14B United Kingdom. WEB. Heat pump deployment. December 2024 Official statistics announcement. GOV.UK Heat pump deployment. December 2024. Quarterly statistical release on the number of heat pumps installed in the United Kingdom. From. Department. 14C United Kingdom. Terrifying cancer risk of trendy wood burning stoves. Daily Mail. The domestic burning of wood and other fuels accounted for almost a third of all PM2.5 emissions in 2022 the report discovered. Daily Mail. Terrifying cancer risk of trendy wood burning stoves as experts warn they are UK's biggest source of dangerous air pollution. Trendy wood burning stoves now the UK's biggest source of PM2.5, **RAWSEP View.** This article hits many targets. The trendiness of wood burning. The cancer risk of wood burning. The disparity of lung cancer hitting women in midlife at rates more than men. The Environment Act which includes a goal for curbing PM2.5 pollution by 2040 and Ella's Law mentioned as possible ways to regulate wood burning in the United Kingdom. There are also statistics from the United States and China. **RAWSEP Key Excerpt.** In August a

letter signed by more than 100 doctors warned that toxins generated by burning wood are an invisible killer. In its position statement the Royal College of Pediatrics and Child Health RCPCH urged the Government to phase out domestic wood burning in urban areas assist rural residents to transition away from wood as a primary heating source and support those in fuel poverty with (clean) fuel cost assistance. RAWSEP adds that providing free Heat Pumps in exchange for wood stoves might also help those rural and urban wood burners end wood burning. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. December 6 2024. wood burning stoves could be raising your risk of Britain's deadliest cancer research has shown. The home heating devices which have become a popular fixture in middle class homes have been shown to increase the risk of lung cancer. They are also said to be one of the main drivers of harmful air pollutants in UK cities. new research today found wood burning stoves are now the UK's biggest source of toxic PM2.5 particles. The domestic burning of wood and other fuels accounted for almost a third of all PM2.5 emissions in 2022. These particles are too tiny to be filtered out by our nose and lungs. PM2.5 particulates can enter the bloodstream where they cause serious illnesses such as heart disease and lung cancer. The only source of PM2.5 emissions that has increased since 2003 is domestic combustion according to the Institute of Fiscal Studies IFS report. 17 separate studies found an increase in exposure to PM2.5 raised the risk of lung cancer by eight per cent and dying from the disease by 11 per cent. Chinese researchers also discovered lung cancer mortality associated with PM2.5 was greatest in North America where the risk rose 15 per cent. Asia and Europe followed with an increase of 12 and five per cent respectively. Lung cancer incidence associated with PM2.5 was greatest in Asia with a raised risk of nine per cent. North America and Europe followed with rises of six and three per cent respectively. Last year one US study also found using an indoor wood stove or fireplace increases women's risk of developing lung cancer by 43 per cent compared with those that don't. Researchers who tracked over 50,000 Americans also found people who used their wood burner on more than 30 days a year saw their lung cancer risk increase 68 per cent. even occasional indoor wood burning from stoves and fireplaces can contribute to lung cancer in populations where indoor wood burning is not the predominant fuel source for cooking or heating inside the home. Lung cancer strikes around 50,000 people in the UK and 230,000 in the US every year. It is the world's biggest cancer killer. it kills four out of five patients within five years. Fewer than 10 per cent of people survive their disease for a decade or more. women between the ages of 35 and 54 are being diagnosed with lung cancer at higher rates than men in that same age group. Toxins generated by burning wood have been linked to a range of lung and heart problems including asthma and stunted lung development in children. Domestic combustion which includes wood burning also contributed to a third of the UK's total PM2.5 emissions in 2021. fresh research today warned that wood burning stoves are now the UK's biggest source of PM2.5. The report by the Institute of Fiscal Studies also found three quarters of domestic combustion emissions of PM2.5 came from woodburning in 2022. Symptoms of lung cancer are often not noticeable until the cancer has spread through the lungs to other parts of the body. The two largest sources of primary PM2.5 in the UK are domestic burning of wood and other fuels 29 per cent of total PM2.5 emissions in 2022 and road transport 17.9 per cent of total PM2.5 emissions in 2022. The only source of PM2.5 emissions that has increased over the period is domestic combustion. Three quarters of the domestic combustion emissions of PM2.5 came from woodburning in 2022. In August a letter signed by more than 100 doctors warned that toxins generated by burning wood are an invisible killer. In its position statement the Royal

College of Pediatrics and Child Health RCPCH urged the Government to phase out domestic wood burning in urban areas assist rural residents to transition away from wood as a primary heating source and support those in fuel poverty with fuel cost assistance. It also said it wanted to see Ella's law brought in and for the Government to commit to World Health Organization WHO air quality guidelines.

Environmental secretary Steve Reed has said he will deliver on the targets of the Environment Act which includes a goal for curbing PM2.5 pollution by 2040. The target requires a maximum annual average concentration of no more than ten micrograms of PM2.5 per cubic meter by then. Treating lung cancer. If the condition is diagnosed early and the cancerous cells are confined to a small area surgery to remove the affected area of lung may be recommended. If surgery is unsuitable due to your general health radiotherapy may be recommended instead. If the cancer has spread too far for surgery or radiotherapy to be effective chemotherapy is usually used. medicines known as targeted therapies target a specific change in or around the cancer cells that is helping them to grow. Targeted therapies cannot cure lung cancer but they can slow its spread. Source. NHS. 14D United Kingdom Worcester. Navigating the heat pump rebate maze. Worcester Telegram. The first step toward qualifying for heat pump rebates is a free energy assessment to ensure that heat pumps will operate at maximum efficiency. 15 Denmark. Green Transition Denmark. Several grocery stores chimney sweeps firewood sellers and stove dealers reported for greenwashing. RAWSEP View. It is past time to include wood burning along with fossil fuels in subjects that are misleadingly greenwashed. This article from Denmark in 2022 brought the pollution from wood burning front and center. Have there been any improvements in Denmark since 2022? Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. March 27, 2022. When a company calls wood burning environmentally and climate friendly heating it is misleading and leads consumers astray. Therefore the Green Transition Denmark has reported a number of chain stores chimney sweeps firewood sellers and stove dealers to the Consumer Ombudsman for greenwashing and false marketing. Firewood emits large amounts of CO2 harmful and cancer causing particles soot dioxins and tar substances when it is burned. In fact wood burning is the most health damaging form of heating in Denmark. Nevertheless several companies try to sell wood burning as a CO2 neutral environmentally and climate friendly solution. That is why the Green Transition Denmark has reported a number of retail chains chimney sweeps firewood sellers and stove dealers for greenwashing and false marketing. Burning wood is an extremely health and environmentally harmful form of heating which costs almost 300 Danes their lives every year and causes large costs for the healthcare system. Soot particles and CO2 from burning wood contribute to global warming. It is therefore highly problematic that some companies try to mislead consumers by marketing wood burning as a CO2 neutral environmentally and climate friendly solution. In this way business entices consumers to make health and climate damaging investments which in the end will cost both the climate and consumers dearly. It must be stopped says Kåre Press Kristensen senior advisor within air quality & climate at the Green Transition Denmark. Support our work to promote the green transition. As a consumer you are met by many companies with misleading messages such as that wood burning stoves are CO2 neutral and therefore do not pollute the environment or The wood burning stoves are Swan labelled which means that you get an environmentally friendly solution. Unfortunately that is far from the truth. In fact according to DCE at Aarhus University a new eco labelled stove emits over 20 times more particles than district heating from coal over 200 times more particles than heat pumps and approximately 20 times more particles than oil boilers. Newer eco labelled stoves also emit more soot

than old stoves. Green Transition Denmark has reported 32 companies to the Consumer Ombudsman for greenwashing and misleading marketing among other things. Unfortunately the 32 notified companies are not the only ones in the industry who adorn themselves with fake green feathers. many more advertise that their products are environmentally friendly. Nevertheless it is the Green Transition Denmark's assessment that the 32 selected companies are some of those that have gone the furthest in their misleading marketing in the attempt to entice consumers to choose wood burning rather than environmentally and climate correct heat sources.

16 Ukraine. Advancing Heat Pump Adoption in Ukraine's Low Carbon Energy Transition. MDPI. Full Coverage.

17 India Delhi. Delhi's November PM 2.5 Level Reaches Highest Monthly Average In 8 Years. Report. NDTV. In November 2016 the average PM2.5 level was recorded at 254 micrograms. India Delhi. India News. Business Standard. Delhi's Nov PM 2.5 level reaches highest monthly avg in 8 yrs despite Grap. A report by the Centre for Research on Energy and Clean Air CREA.

18 Taiwan. Turning up the heat pump the silent revolution in our basements. UBS Taiwan. Heat pumps extract heat from the surrounding air the ground geothermal energy water or factory waste heat. Unlike traditional gas boilers and.

19 Tibet. PM2.5 A Comparative Analysis on Indoor and Outdoor PM 2.5 and Their Hourly Associations with. ACS Publications American Chemical Society. In a panel study of 110 nonsmoking healthy college students in Lhasa Tibet indoor PM2.5 was monitored using calibrated low cost sensors for two.

20A Wood Burner. Reigniting the American Hearth. **RAWSEP View.** The case for ending wood stove use has been made and remade based on scientific facts. Crackling can be achieved by crumbling wrapping paper in your hand. Family gathering can be done without endangering the captive audience of women and children who breathe in the aroma of wood smoke and are sickened and their lives cut short. From the article headline. The Conservative Case for Modernizing Wood Stoves. Real Clear Energy. They represent a connection to our rural roots where the crackle of burning wood is the soundtrack of family gatherings and the aroma of wood smoke.

20B Wood burner letter. Old adage holds true. Mind your own business. **RAWSEP View.** Your polluting business becomes my health protection business when your wood burning air pollution enters my yard and invades my home. Like a drunk driver or car speeder or a cigarette smoker in the workplace sometimes regulations are fun for the pedestrian and easy for the coworker. It can also be fun and easy to stop indoor residential wood burning too because you will feel immediately more healthy and you will have improved relations with your neighbors. From the article. Letters Column thederrick.com It turned out that enclosing my wood burner with a metal shed makes it an indoor wood burner so I beat the ordinance. Some neighbors claimed to.

21A PM2.5 and atherosclerosis. New Mechanisms of PM 2.5 Induced Atherosclerosis. Source Dependent Toxicity and Pathogenesis. ScienceDirect.com This study found that PM2.5 exposure led to vascular oxidative stress and inflammation accelerated atherosclerotic plaque growth and altered.

21B PM2.5 and heart disease. Air Pollution Significantly Increases Inflammation in Those with Heart Disease Raising. Intermountain Health Newsroom. Some blood was drawn on days with low air pollution where ambient PM2.5 levels were under 7 micrograms per cubic meter  $\mu\text{g}/\text{m}^3$  of air those test.

21C PM2.5 and lung macrophages. Ambient PM2.5 Orchestrates M1 Polarization of Alveolar Macrophages via Activating. ScienceDirect.com The temporary explosive growth events of atmospheric fine particulate matter PM2.5 pollution during late autumn and winter seasons still.

21D PM2.5 and neurodevelopment. Association of early life exposure to PM 2.5 and its components with offspring neurodevelopment. ScienceDirect.com During the early postnatal period a  $5\mu\text{g}/\text{m}^3$  increase in PM2.5 was associated with higher adjusted odds ratios a ORs for developmental delays in gross.