

Episode 56BU to 56BY. April 7, 2023 Ep 56BU United States Ep 56BV Arizona to Washington State 1 of 2 Ep 56BW Washington State 2 of 2, to Australia 1 of 2 Ep 56BX Australia 2 of 2, to U K Lancet Ep 56BY U K Dementia to Ukraine

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).

Episode 56BU

United States.

RAWSEP View: The air pollution referred to in this Daily Beast article is PM2.5, particulate matter of 2.5 micrometer size, the perfect size to infiltrate the human lung setting off a cascade of human health problems. Wood burning emissions are 90% PM2.5 and PM2.5 from the stack of a residential wood burner enters the yards and infiltrates the homes of near neighbors. PM2.5 monitors such as PurpleAir can measure the PM2.5 pollution at the stack or at the fence line, the neighbor's yard. It is preferable to measure the actual emissions every 10 minutes and have historic data saved on PurpleAir online maps available to the general public and government authorities, to be used as evidence of pollution limits exceeded which should result in shutdown of the residential wood burning stove. Since the PM2.5 data for each resident owned PM2.5 monitor can be downloaded during normal government working hours, if laws were in place, residential wood stoves could be shut down without entering wood burning residences nor checking the certification of residential wood stoves. The Office of the Inspector General (O I G). "watchdog" of the Environmental Protection Agency (E P A) published a report in February 2023 stating that the certification program for residential wood stoves is flawed with loopholes for industry, so that wood stoves are being certified and sold while being highly polluting. The new E P A PM2.5 particulate "safe" levels are expected by 2024 to be 8 micrograms per meter cubed annually and 25 micrograms per meter cubed daily. Wood burning produces more particulates PM2.5 than fossil fuel coal burning and 450 times the PM2.5 as the cleanest fossil fuel natural gas burning for home heat. Even certified wood burning stoves are highly polluting, and the solution would be to ban residential wood burning to stop PM2.5 air pollution problem at its source. PurpleAir PM2.5 monitors, to be placed in yards of near neighbors of residential wood burners, should be handed out by the government to any neighbor of a residential wood burner who complains of air pollution from their neighbor's hyper-localized wood burning. PM2.5 harms the health of near neighbors and all who breathe it, and PM2.5 pollution contributes to climate change. Biomass (wood) burning and residential wood burning produce the same PM2.5 and wood burning is not Carbon Neutral. Replacement of trees after cutting them down to burn, are replaced only after many decades or even centuries, and in the meantime, the burning of wood contributes more PM2.5 to the air than, for instance, the fossil fuel Coal.

RAWSEP View: This Daily Beast article briefly describes how PM2.5 air pollution has been proven to 1)cause lung cancer 2)decrease athletic performance in running 3)decrease ability to play chess 4)increase lung inflammation 5)increase stroke and 6)cause death. This article also states that PM2.5 does NOT cause DNA damage, but can still cause lung cancer, and a new study pinpoints how PM2.5 causes lung cancer. Excerpt from the article "This new theory hinges on the notion that mutations that can lead to lung cancer may already exist in small numbers of a person's cells, having arisen on their own due to random change. **Pollutants like PM 2.5 then change the environment of the lungs** to make it easier for these cells to proliferate and grow into a fully-fledged tumor." "The idea is that exposures to carcinogens could **promote cancer without actually doing anything to the DNA,**". The team looked at nearly 33,000 instances of this lung cancer in the U.K., Canada, South Korea, and Taiwan; and gene-edited mice that developed lung cancer when **exposed to PM 2.5**. Based on these experiments, **they were able to confirm the existence of a second pathway that causes cancer:** widespread lung inflammation, resulting from air pollution. Their results were **published on April 5 in Nature.**" "As part of a multi-institutional study to pinpoint the causes of cancer called **TRACERx study**, the researchers focused on lung cancer with a **mutation in the EGFR gene**, which is involved in cell growth and survival." The conclusion of the article was "The best, and the only long-term solution, (to lung cancer caused by PM2.5) is to stop emitting air pollution."

The Daily Beast is an American news [website](#) focused on politics, media, and pop culture. Founded in 2008, the website is owned by [IAC Inc.](#)

[Why Air Pollution Could Cause Lung Cancer Cases to Explode - The Daily Beast](#)

The Daily Beast

Pollutants like PM 2.5 then change the environment of the lungs to make it easier for these cells to proliferate and grow into a fully fledged tumor.

Excerpts edited by RAWSEP for brevity and clarity.

Why Air Pollution Could Cause Lung Cancer Cases to Explode

HOLD YOUR BREATH

The way small particulate matter can encourage tumor growth is more insidious than we thought.

Apr. 05, 2023

PM2.5 effects on human health range from the [trivial](#) (but still bad) to the [very relevant](#) (and very, very bad.) Pro athletes and [chess players](#) perform worse when exposed to high levels of air pollution, and [toxic pollutants like PM 2.5](#) are linked to lung inflammation, strokes, and death. Most importantly, PM2.5 has a link to cancer: The European Environment Agency estimated last year that [more than 10 percent](#) of cancers on the continent are caused by exposure to pollution. In the U.K., a relationship between PM 2.5 and a type of lung cancer found in nonsmokers and light smokers was studied. 33,000 instances of this lung cancer were studied in the U K, Canada, South Korea, and Taiwan. A study of gene-edited mice that developed lung cancer when exposed to PM 2.5. confirms the existence of a second pathway that causes cancer: widespread lung inflammation, resulting from air pollution. results [published on April 5 in Nature](#). “The European Environment Agency estimated last year that [more than 10 percent](#) of cancers on the (European) continent are caused by (PM2.5) pollution.”

[Virtually Nowhere in the World Is Safe From Air Pollution](#)

[GASP](#)

“PM2.5 carcinogens that could promote cancer without actually doing anything to the DNA,” were found in the [TRACERx study](#). A mutation in the EGFR gene is involved in cell growth and survival. High levels of the PM2.5 was linked with increases in the cases associated with the mutation.

[The Horrifying Reason Why You Might Suck at Chess](#)

[BONGCLOUD ATTACK](#)

Genetically engineered mice possess a mutated human EGFR gene that could lead to lung cancer. 31 of these mice were exposed to two different levels of PM2.5 and cancer development was measured seven weeks later. The mice exposed to low and high concentrations of PM2.5 developed more lesions on their lungs compared to mice that were not exposed to the air pollution. Mice exposed to the highest levels of PM2.5 exhibited larger clusters of mutated EGFR cells in their lungs. Pollution was not causing their DNA to change. Researchers found increased numbers of immune cells called [macrophages](#) in the lungs of mice exposed to air pollution. These [immune cells release an inflammation-causing protein](#), and the resulting inflammation fuels the growth of pre-existing mutated EGFR cells.

[Your Football Team May Suck Because of Something in the Air](#)

[EXHALE](#)

A cancer geneticist at the University of California San Francisco, wrote [an accompanying commentary](#) stating research shows pollution interacts with lung cells to promote the changes that result in malignancy. “These results have major implications for how to think about cancer prevention,” because researchers showed that [mice treated with an antibody targeting the inflammatory protein prevented lung tumors from forming](#), even when exposed to air pollution. In the short term, cancer researchers can focus on [identifying foods or drugs that can protect](#) against the dangerous inflammation brought upon by noxious air pollution. However, to truly address this crisis for humankind, and not just individuals who can access these therapies, we need [widespread change](#) as soon as possible. [The best, and the only long-term solution, is to stop emitting air pollution.](#)

Episode 56BV

Arizona

[PM10 High No Burn Day issued for Tuesday, April 04 - Maricopa County](#)

Maricopa County

Wood burning in residential fireplaces, chimeneas, outdoor fire pits, and similar outdoor fires (including hotels and restaurants and individuals/ ...

Georgia, Charlton County

RAWSEP View: This sentimental Georgia State view of wood burning is easily contrasted with the rest of the articles in this Residents Against Wood Smoke Emission Particulates issue. The smell of wood smoke in the air is the smell of PM2.5 air pollution that is the perfect size to infiltrate the human lung, causing a cascade of human health problems. This is sentimentalization like the Marlboro Man commercials of the 1960's, that advertising was about cigarette smoking. Residential wood burning could be likened to cigarette smoking, except residential wood burning is not addictive, and residential wood burning affects a larger, but still hyper-localized area in the yards and infiltrating the homes of near neighbors of residential wood burners. There are alternatives available to home heating with wood. For the indigent, there is the federal Low Income Home Energy Assistance Program (L I H E A P), which operates nationwide. Residents Against Wood Smoke Emission Particulates (RAWSEPresidents.wordpress.com) may be likened to Mothers Against Drunk Driving (M A D D). M A D D promoted the use of breathalyzers to test drunk drivers to keep them off the road and keep them from maiming or killing the innocents who they would have encountered on the road, and RAWSEPresidents would like to monitor PM2.5 emitted by residential wood burning and keep wood burners from harming the health of their near neighbors or causing their near neighbors' early deaths.

[Learning to teach | Columns | charltoncountyherald.com](#)

Charlton County Herald

I started teaching in Dawsonville, a tiny town in the foothills of North Georgia. The smell of wood smoke filled the fall air as I drove to school ...

Idaho

RAWSEP View: Like agricultural stubble burning in India, burning on site is viewed as more convenient, but doing that brings the risk of health effects from PM2.5 emissions to near neighbors. Stopping the emissions in the first place is more effective and economical than putting up an "air curtain".

[Land commissioners to vote on burner on state land | Local - JHNewsAndGuide.com](#)

JHNewsAndGuide.com

Burning wood instead of carting it to Rexburg, Idaho, certainly cuts diesel emissions, but one company applying to put an air curtain burner on ...

Vermont

RAWSEP View: A Bristol, Vermont resident wrote a letter to the editor title "We have no choice but to stop burning things". The Vermont resident said. "I urge our lawmakers to stop claiming savings, **do what needs to be done to stop burning stuff, and implement real solutions to protect the most vulnerable, low- and lower-middle income and traditionally marginalized people.** Those of us who can afford to pay should pay; after all, we are undoubtedly the biggest emitters." The Vermont author seemed to be saying that it might be less economical in the short run to switch to heat pumps rather than wood burning, but if there are costs, the low income people in Vermont should have subsidies in order to make the switch, in order to stop burning things, and in order to stop pollution and slow climate change.

[Letter to the editor: We have no choice but to stop burning things - VTDigger](#)

VTDigger

Our experience with heat pumps and a wood stove is that we have reduced our oil usage by about 750 gallons this heating season.

Edited by RAWSEP for brevity and clarity.

Regarding [Robert Wood's post](#) March 23 in VTDigger: "What's not being said about heat pumps."

Claims of cost saving are inflated when ground-truthed by ongoing experience with the systems.

Our experience with heat pumps and a wood stove is that we have reduced our oil usage by about 750 gallons this heating season. At the present cost of \$3.90/gallon (for oil for an oil furnace, now shut down) we are **clearly saving money with the heat pumps if I don't factor in cost to purchase/rent and maintenance expenses**. And, our 1850s home is not as comfortable as it was when we just relied on our oil-fired radiator system.

Our solar panels were out for five months because the inverter broke down and no replacements were available and we had to spend \$850 to buy a new inverter from another supplier.

For me the bottom line is this: Because of the worsening climate crisis, we have no choice but to stop burning things, but claims that switching to all-electric will save money are just fairy tales.

I urge our lawmakers to stop claiming savings, **do what needs to be done to stop burning stuff, and implement real solutions to protect the most vulnerable, low- and lower-middle income and traditionally marginalized people**. Those of us who can afford to pay should pay; after all, we are undoubtedly the biggest emitters.

Bristol

U S Washington State

EPA announces \$4 million for Washington to tackle climate pollution.

EP A press office.

Apr 6, 2023

EPA announces \$4 million for (the state of) Washington to tackle climate pollution.

Funds from EPA's new Climate Pollution Reduction Grant Program were made possible by the Inflation Reduction Act SEATTLE (April 6, 2023) – Today, the U.S. Environmental Protection Agency announced \$3 million to develop innovative strategies to cut climate pollution and build clean energy economies across Washington. Additionally, the Seattle metro area was allotted \$1 million.

"This funding sends a clear message that everyone deserves a seat at the table as we tackle the climate crisis," said EPA Region 10 Administrator Casey Sixkiller. "This effort builds on an aggressive climate strategy already underway in Washington, providing additional resources to the state to engage urban and rural communities, and develop climate solutions."

EPA [announced](#) the availability of the funds through Climate Pollution Reduction Grants earlier this month. Washington submitted the state's intent to participate in the new program the notice March 1, the very same day the grant was announced. Washington will use the funds to update its existing climate action plan.

"Washington state is ready and excited to put the Climate Pollution Reduction grants to work," said Governor Jay Inslee. "These funds enable us to build upon the comprehensive clean energy and climate justice laws our state has enacted in recent years, like the Healthy Environment for All (HEAL) Act, the Climate Commitment Act, and our recent suite of transportation and building decarbonization policies. We look forward to partnering with the Environmental Protection Agency, as well as our local government, clean air district, and tribal leaders to power investments in Washington state and deliver meaningful emissions reductions to the communities that need it most."

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.

"We are grateful to EPA for this funding. The Climate Pollution Reduction Fund represents a significant opportunity to help catalyze Washington's clean, affordable, and just energy future," said Acting Commerce Director Kendrick Stewart. "This funding will ensure the benefits of transitioning to a clean energy economy are realized in communities that have been most harmed by the effects of pollution from greenhouse gas emissions."

"We are thankful for the unprecedented federal funding that the Inflation Reduction Act is unlocking for states to address the climate crisis," said Laura Watson, director of the Washington Department of Ecology. "This first wave of planning funding will help Washington create a Climate Action Plan that prioritizes additional projects that can quickly reduce the pollution that is heating the planet."

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.

“Thanks to the Inflation Reduction Act, states like Washington, local communities and Tribes have the funding they need to develop, improve and deploy climate action plans to reduce pollution, create green jobs and protect the environment,” said Congressman Rick Larsen. “Taken together with the bold, long-term investments in the Bipartisan Infrastructure Law, this critical funding will help build a cleaner and greener Pacific Northwest.”

“The Inflation Reduction Act continues to provide federal funding for projects that will help communities across Washington state,” said Congresswoman Marilyn Strickland.

Episode 56BW

“Reducing pollution and investing in our clean energy future is an equity issue. This federal investment from the EPA will help communities across our state that need it most.”

EPA Region 10 expects to award and administer the funding agreements in summer 2023.

[More information on the Climate Pollution Reduction Grants](#)

United States, Washington, DC

RAWSEP View: This article by the Industry Lobbyist CEI erroneously states that the E P A is rushing to lower PM2.5 safe limits, expected to change to 8 micrograms per meter cubed annually and 25 micrograms per meter cubed daily by 2024. These new safe PM2.5 limits would be higher than the World Health Organization (W H O) PM2.5 safe limits of 5 micrograms per meter cubed annually. Safe limits of PM2.5 have not been changed for over 10 years, although they are required to be reviewed every 5 years. This is no rush. The 2021 Dismissal of the CASAC members who were appointed by previous president Trump by the current E P A chief Michael Regan is mourned by this conservative think tank, which is probably led by polluting industry lobbyists. For background on this 2021 dismissal of Trump-appointed CASAC members see.

<https://www.washingtonpost.com/climate-environment/2021/03/31/epa-advisory-panels/> EPA dismisses dozens of key science advisers picked under Trump.

The Competitive Enterprise Institute is a non-profit libertarian think tank founded in 1984, in Washington, D.C., to advance principles of limited government, free enterprise, and individual liberty.

[The EPA's Premature Proposal on Particulate Matter: Highlights from CEI's Comment to the EPA](#)

Competitive Enterprise Institute

Instead, the EPA is rushing to revise the primary annual PM2.5 standards based on the old 2019 ISA and a very limited supplemental document. Similarly ...

Excerpts edited by RAWSEP for brevity and clarity. The EPA’s Premature Proposal on Particulate Matter: Highlights from CEI’s Comment to the EPA. In January 2023, the EPA published a [proposed rule](#) that would make the primary annual standards for fine particles (PM2.5) more stringent. My CEI colleague [Marlo Lewis](#) and I submitted a [comment](#) in response to the EPA’s proposed rule. Here are some highlights from the comment: The Purge of the Clean Air Scientific Advisory Committee (CASAC). On March 31, 2021, EPA Administrator Michael Regan [dismissed](#) all of the advisers from CASAC, as well as another statutorily required panel, the Science Advisory Board (SAB). This action was [initially](#) being [pushed](#) in 2020 by former EPA employees opposed to Trump administration policies. The E P A’s conclusions regarding PM that raise serious doubts about the lethality of PM2.5 at today’s historically low levels. Almost every country in the world has higher PM2.5 concentrations than the United States [U.S. levels are about [five times](#) lower than the global average], yet many countries especially in the developed world, do not have lower life expectancies than the U.S. This doesn’t disprove PM2.5 health effects because many socioeconomic factors influence all-cause mortality risk.

Canada

[Health Impacts of Air Pollution in Canada 2021 Report](#)

Canada.ca

These pollutants include fine particulate matter (PM2.5), ground-level ozone, and nitrogen dioxide (NO2). This is an update to previous health ...

Canada, British Columbia, Chemainus

[Letter: Wood smoke worse than car emissions, but let's reduce both - Chemainus Valley Courier](#)

the Chemainus Valley Courier

Both vehicle exhaust and wood smoke are harmful to our health – especially in places like the Cowichan Valley, where inversion layers can hold ...

Canada, British Columbia, Golden (Wildsight Golden)

RAWSEP View: In British Columbia, Canada, starting May 2023, rebates will be given to residents who transition from wood burning to a less polluting heat pump system for heating their homes. Called Wildsight Golden, six local Wildsight branches work at the grassroots level to build a conservation ethic in our communities and a culture of sustainability. These autonomous branches are as diverse as the towns they're located in: [Creston](#), [Elk Valley \(Fernie\)](#), [Golden](#), [Invermere](#), [Kimberley/Cranbrook](#) and [Revelstoke](#). All of our branches truly exemplify that small, local steps can make an enormous difference. Unfortunately, at this time rebates are also given for wood pellet stoves, which also unnecessarily pollute with PM2.5 at levels higher than coal burning and natural gas burning, and of course with higher PM2.5 emissions than heat pumps, which now work at temperatures well below zero.

[Ditch the wood burning heat system and get a rebate from Wildsight Golden](#)

the Golden Star

Particulate matter includes solids and liquids that are fine enough to be inhaled and thus create air quality issues. Exposure to fine particulate air ...

[Wildsight Golden Launches 2023 Wood Smoke Reduction Program](#)

Wildsight

Starting in May 2023, Wildsight Golden will be launching a new Wood Smoke Reduction Program for our area, including administering rebates for ...

Excerpt edited by RAWSEP for brevity and clarity.

Wildsight Golden Launches 2023 Wood Smoke Reduction Program

April 5, 2023 by [Wildsight Golden](#)

Starting in May 2023, Wildsight Golden will be launching a new Wood Smoke Reduction Program for our area, including administering rebates for residents of the Town of Golden who use wood as a primary source of heating and would like to transition to a **less polluting heat pump system**.

A limited number of rebates will be available in 2023. These rebates can be combined with other provincial and federal financial incentives designed to reduce energy consumption in our homes.

Canada, British Columbia, Okanagan

[Increased incentives to get rid of wood-burning stoves in the North Okanagan - Vernon News](#)

Castanet

Gas-fired and propane-fired appliances will no longer be accepted as replacements for wood-burning appliances. Incentives can also be combined with ...

Australia, Melbourne and Queensland

RAWSEP View: An image of an Australian woman's hand-written letter who is a near neighbor to a residential wood burner, to that wood burning neighbor, was printed and re-printed in the tabloids of the United Kingdom recently. The residential wood burner posted her neighbor's letter on her Facebook page, seeming to mock the neighbor whose family was adversely affected by the PM2.5 air pollution from the wood burner's fireplace. The tabloids' use of the image of the handwriting also seemed to use the letter to try to mock the letter-writer. The letter briefly states the real harm the wood burner's behavior is causing. If the letter writer had written about the physical effects of the neighbor's car hitting her children, the letter would seem an extremely mild reaction to harm done to the letter-writer's family. Because the harm is from wood smoke it seems to be trivialized by the Facebook poster and by the U K Tabloids. This says more about the lack of character, morals and ethics of the Facebook poster, and of the U K Tabloids, than it says about the

character of the righteously offended Australian woman. Why this has traction in the media is puzzling, except to appeal to wood burning tabloid readers who resent their "traditional" pastime being criticized, even in the face of the evidence of air pollution it causes. The words "polluting" and "toxic" are put in quotation marks in the tabloid stories as if it were not true that wood burning is polluting and toxic. PM2.5, particulate matter of 2.5 micrometer size, is the perfect size to infiltrate the human lung, causing a cascade of human health problems and early deaths. Wood smoke is 90% PM2.5, and in Australia, as in the U K, it is widely known that residential wood burning is harmful to human health.

RAWSEP agrees that wood burning stoves are objectively "stinking". Anger at being exposed to air pollution from wood burning is a natural human response and is defensive and self-protective of the near neighbor woman's kids. The wood burner is not a "target". The wood burner has been pinpointed as the source of air pollution, the near neighbor knows the source of air pollution, and the near neighbor is informing the wood burner that she knows the near neighbor is the source of air pollution. Melbourne is not as warm as Queensland, but the letter writer is not burning wood for heat herself but is only attempting to enjoy the good weather in Melbourne outside in her yard, foiled by her neighbor's wood burning.

Episode 56BX

The near neighbor wants quiet enjoyment of her property with her family but is denied going out in her yard because of unnecessary wood burning by her neighbor, even in good weather. The full letter reads: "Dear neighbor, have u thought about moving to Queensland? It's obvious it's not warm enough here for you that you have that stinking polluting wood fire burning all the time! "It beats us how people can so blatantly pollute and spoil the fresh air for others? While you sit in the warmth all the other houses downwind have to choke and splutter on the toxic smoke you pump out, step outside and take a look at your chimney! Last weekend was beautiful. Two glorious days that we'd hoped to spend in the garden with the kids... But your stinking smoke put paid to and instead we spent inside with doors and windows closed," "Word of warning.... Next time you b**** and moan of another person's selfishness impinging on your democracy just spare a thought that your ignorance and woodfire has impinged on ours.": "NOT HAPPY!"

RAWSEP View: If there were laws in place to regulate residential wood burning and shut down polluting wood burning above certain PM2.5 levels, as shown by fence line PM2.5 monitor readings the yard of a neighbor who complains about wood smoke to the authorities, a letter like this would not be dispatched, or not be needed to remind a wood burner that he or she is contributing to air pollution that is indeed toxic to her near neighbors.

[Wood burning stoves owner sent furious handwritten letter by neighbour - Leicester Mercury](#)

Leicester Mercury

The letter was to do with her 'stinking' wood burning stove and log burner.

Wood burning stoves owner sent furious handwritten letter by neighbor.

4 APR 2023

The homeowner was not happy after the note was posted through her door.

Excerpt edited by RAWSEP for brevity and clarity.

Everyone loves a good neighbor. They look out for you and your family when times get tough and are always on hand to look over your property if something is out of place. But for one homeowner - who owns a [wood-burning stove](#) - they were the target of a furious handwritten note which had been posted through their letterbox. The homeowner says it had been sent from her neighbor regarding her 'stinking' [wood-burning fireplace](#). The author of the angry letter sent from another homeowner in Australia - of all places.

[Neighbour's furious handwritten letter to 'selfish' woman using wood-burning fire - The Mirror](#)

The Mirror

A homeowner has shared the angry note she received from her next-door neighbors who expressed their rage at her using a wood-burning fireplace, ...

Excerpt edited by RAWSEP for brevity and clarity.

Neighbor's furious handwritten letter to 'selfish' woman using wood-burning fire. A homeowner has shared the angry note she received from her next-door neighbors who expressed their rage at her using a wood-burning fireplace, as it's 'polluting' the gardens outside.

United Kingdom

U K, Drax Wood Burning Plant

RAWSEP: It is good news that Drax, the U K's biggest biomass (wood burning) plant may lose U K subsidies paid by U K taxpayers, if it is only "greenwashing" by replacing coal by wood for burning. The argument for "greenwashing" is that Drax is burning wood from "ancient forests".

[UK's biggest 'renewable' power station could lose its funding over alleged 'greenwashing' - iNews](#)

iNews

Drax, which operates the UK's largest 'renewable' power station, has been accused of burning wood from ancient old growth forests in Canada to ...

One of the UK's biggest power plants could lose its Government funding due to an Ofgem probe into alleged "greenwashing". Drax, which produced 11 per cent of the UK's electricity in 2019, is under scrutiny by the regulator following allegations that it was burning wood from ancient forests to generate electricity.

U K, London

RAWSEP View: These studies pinpoint the mechanism by which air pollution can cause lung cancer. Nature is a British weekly [scientific journal](#) founded and based in [London, England](#). As a multidisciplinary publication, Nature features [peer-reviewed](#) research from a variety of academic disciplines, mainly in science and technology. It has core editorial offices across the United States, continental Europe, and Asia under the international scientific publishing company [Springer Nature](#).

[Air pollution's role in the promotion of lung cancer - Nature](#)

Nature

... particulate matter measuring less than 2.5 micrometres, termed PM2.5, ... exposed Egfr-mutant mice to PM2.5 and to an antibody against IL-1 β .

05 April 2023

Edited by RAWSEP for brevity and clarity.

Air pollution's role in the promotion of lung cancer

Air pollution is associated with the development of lung cancer. Analysis of clinical samples and mouse cancer models suggests that inflammation and a tumour-promotion process induced by polluted air are the major culprits.

The mechanisms underlying how air pollution can contribute to lung cancer have been hard to pinpoint. [Writing in Nature](#), Hill et al.¹ report studies of human lung samples and mouse cancer models that shed light on this issue.

U K, London

RAWSEP View: In conclusion, the study states "Future studies are warranted, using low-cost and portable air pollution sensors, to improve personalized monitoring" of the effect of PM2.5 air pollution reversing the benefits of outdoor exercise. Instead, exercising in PM2.5 polluted air may cause cardiovascular disease.

The Lancet is a weekly [peer-reviewed general medical journal](#) and one of the oldest of its kind. It is also the world's highest-impact academic journal.^{[1][2]} It was founded in England in 1823.^[3]

The journal publishes [original research](#) articles, [review articles](#) ("seminars" and "reviews"), [editorials](#), [book reviews](#), correspondence, as well as news features and [case reports](#). The Lancet has been owned by [Elsevier](#) since 1991, and its [editor-in-chief](#) since 1995 has been [Richard Horton](#).^[4] The journal has editorial offices in London, New York City, and Beijing.

[Long-term exposure to ambient PM2.5, active commuting, and farming activity and ... - The Lancet](#)

The Lancet

The extent to which long-term exposure to PM2.5 can offset the cardiovascular benefits of physical activity is unknown. We aimed to evaluate whether ...

Excerpts edited by RAWSEP for brevity and clarity.

Long-term exposure to ambient PM2.5, active commuting, and farming activity and cardiovascular disease risk in adults in China: a prospective cohort study

Increased physical activity is associated with a reduced risk of cardiovascular disease, but outdoor physical activity can be accompanied by increased inhalation of fine particulate matter (PM2.5). We aimed to evaluate whether the associations between active commuting or farming activity and incident risks of cerebrovascular disease and ischemic heart disease were consistent between populations with different ambient PM2.5 exposures.

For participants with long-term exposure to higher ambient PM2.5 concentrations, the cardiovascular benefits of active commuting and farming activity were significantly limited. Higher levels of active commuting and farming activity even increased the cerebrovascular disease risk among farmers with exposure to annual average PM2.5 concentrations of 54 micrograms per meter cubed or greater.

Most studies on the trade-off between physical activity and PM2.5 exposure have not observed a significant difference in the association of physical activity with cardiovascular disease risk between lower PM2.5 exposure and higher PM2.5 exposure.

In conclusion, based on this large prospective cohort of adults in China, among participants with exposure to lower PM2.5 concentrations, active commuting was associated with a reduced risk of cardiovascular disease among non-farmers, and active commuting and farming activity were associated with a reduced risk of cerebrovascular disease among farmers. However, for participants with long-term exposure to higher PM2.5 concentrations, the cardiovascular benefits of active commuting were attenuated to the null among non-farmers. Both active commuting and farming activity were even associated with increased cerebrovascular disease risk among farmers with exposure to higher PM2.5 concentrations. Our findings have policy implications for continuously improving air quality, with similar efforts put into rural and urban areas, to maximize the cardiovascular protective effects of physical activity in China. Future studies are warranted, using low-cost and portable air pollution sensors, to improve personalized monitoring.

Episode 56BY

U K, London

RAWSEP View: PM2.5 is associated with development of dementia, in a U K study.

[Experts call for stricter air pollution targets to tackle dementia risk - The Guardian](#)

The Guardian

... produced by the burning of fossil fuels – may also be a risk factor for dementia. ... Wood burning air pollution in UK has doubled in a decade.

Europe

European Union

RAWSEP View: The European Union deciding the future of Biomass (wood) burning as renewable energy, receiving subsidies, involves these players: 1) The European Union Parliament 2) Biomass (wood) burning industry lobbyists 3) The European Academies Science Advisory Council (E A S A C) 4) Brussels-based forest protection campaign group Fern and 5) Member states of the European Union.

[EU Weighs Up Future Of Wood-Burning As Renewable Energy - Indiatimes.com](#)

Indiatimes.com

The EU officially counts wood and other biomass as carbon neutral, based on the premise that CO2 emitted through burning will be reabsorbed by more ...

Excerpts edited by RAWSEP for brevity and clarity.

EU Weighs Up Future Of Wood-Burning As Renewable Energy

Apr 03, 2023

[Biomass, which includes firewood, plants and other organic materials, makes up 60% of the EU's renewable energy mix according to the European Commission](#) Because new trees can be planted after others have been chopped down,

[firewood gets the renewable seal of approval under EU law. The EU officially counts wood and other biomass as carbon neutral, based on the premise that CO2 emitted through burning will be reabsorbed by more trees in the future.](#)

The European Union's race to rid itself of dependence on Russian fossil fuels is well underway. The International Energy Agency says widespread bids to beef up energy security "turbocharged" growth of green power in 2022, and EU parliamentarians hope to ramp up renewables targets to reach 45% of bloc-wide [energy](#) consumption by 2030.

The word "renewable" often conjures up images of wind farms or solar panels — less so scenes of burning trees. But Biomass, which includes firewood, plants and other organic materials, makes up 60% of the EU's renewable energy mix according to the European Commission. As the bloc now reviews its landmark renewable power legislation, a political battle over firewood's future is playing out in Brussels.

[EU Accused Of Incentivizing Environmental Harm](#)

[Climate Impact Of Wood-Burning Under Debate](#)

[EU Institutional Showdown Over Future Of Firewood Subsidies](#)

[European Commission Promises Tighter Forest Sustainability Rules](#)

EU Accused of Incentivizing Environmental Harm.

A representative of Brussels-based forest protection campaign group Fern argues the subsidy setup is "insane" and its criteria are "not strict."

Climate Impact of Wood-Burning Under Debate.

The European Academies Science Advisory Council (EASAC) says scientific study suggests the trend to replace coal with wood pellets as a means of generating electricity actually increases "atmospheric levels of carbon dioxide for substantial periods of time." A 2019 EASAC report says the time it takes for [carbon](#) emissions associated with woodburning to be evened out can range from years to decades or even centuries, depending on conditions.

EU Institutional Showdown Over Future of Firewood Subsidies.

The European Parliament wants to limit subsidies for burning wood taken directly from forests, and instead restrict state support to secondary wood products like sawdust. Lawmakers also want to phase down the amount of wood that counts toward EU renewable energy targets. Nils Torvalds, one of the lawmakers working on the legislation, said the proposal is "the parliament's way of trying to limit the unsustainable and inefficient use" of wood.

EU member states, meanwhile, prefer a looser definition of which type of wood can be subsidized. Diplomats said "there's a feeling that with Russia's invasion of Ukraine, with the energy crisis, member states do think that bioenergy is an important [renewable](#) source of energy. It has an important contribution to the energy system and to reaching the climate goals."

Negotiations on the details of the legislation continue this month.

European Commission Promises Tighter Forest Sustainability Rules.

The European Commission has also put forward plans to tighten laws on which firewood qualifies for subsidies. A spokesperson said that proposals include barring wood sourced from ancient forests, and only greenlighting state support for lumber from "highly biodiverse forests."

Under the plans, all wood-burning power plants will also have to meet certain greenhouse gas saving thresholds.

But the track record on existing rules leaves room for concern. National authorities are supposed to transpose EU standards into domestic legislation, but the European Commission spokesperson said that the body launched legal action against all 27 member states in 2021 for failing to complete this process or failing to notify Brussels of completion.

Ukraine

RAWSEP View: (Russia's fourth offensive against Ukraine) was the attempt to blackmail European democracies into dropping their support for Ukraine by cutting off their supplies of natural gas. The author states that "much E U (success in face of Russian blackmail) reflects the fact that Europe already gets a large share of its energy from renewables." In RAWSEP's view unfortunately, presently, 60% of E U renewable energy comes from burning biomass (wood).

<https://www.nytimes.com/2023/04/06/opinion/putins-energy-natural-gas.html>

Putin's Energy Offensive Has Failed

April 6, 2023

Excerpts dited by RAWSEP for brevity and clarity.

Vladimir Putin invaded Ukraine on Feb. 24, 2022. Since then, Russia has launched four great offensives. Three were military; the fourth was economic. And while you don't hear much about that last offensive, its failure offers some very important lessons.

Russia's most important defeat has come not on the battlefield but on the economic front. Russia attempted to blackmail European democracies into dropping their support for Ukraine by cutting off their supplies of natural gas. Russia is a major oil producer, and both Russia and Ukraine were major [agricultural exporters](#) before the war — natural gas seemed like an especially serious pressure point.

Europe has weathered the loss of Russian supplies remarkably well. Euro area [unemployment](#) hasn't gone up at all; [inflation](#) did surge, but European governments have managed, through a combination of [price controls](#) and financial aid, to limit (but not eliminate) the amount of personal hardship created by high gas prices.

A turn came to other sources of gas, including liquefied natural gas shipped from the United States; and there were conservation efforts that have reduced demand. There was a temporary return to [coal-fired electricity generation](#); and much of it reflects the fact that Europe already gets a large share of its energy from renewables.

And yes, it was an unusually warm winter, which also helped. But as a report from the [European Council on Foreign Relations](#) states that "Moscow failed in its effort to blackmail E.U. member states through withholding gas." Europe has stepped up its military aid to Ukraine, notably by sending [main battle tanks](#) that may help the coming Ukrainian counteroffensive.

Fossil-fuel lobbyists have insisted that any attempt to reduce greenhouse gas emissions would be disastrous for jobs and economic growth. But Europe made an energy transition under the worst possible circumstances — sudden, unexpected and drastic — and handled it pretty well. A gradual, planned green energy transition will be far easier than pessimists imagine.

