

JEOPARTY!

THIS IS CLIMATE AND HEALTH JEOPARDY FROM WOOD BURNING

PASSED April 13, 2023. WI Conservation Congress Wisconsin government should provide citizen-scientist residents 2.5 micrometer Particulate Matter PM2.5 air quality monitors to end residential wood burning, which emits excessive hyper-localized PM 2.5 health harm to near neighbors. (requires legislation)

Category 1 \$200 PM2.5 size
Category 1 \$400 Current E P A "safe" annual level of PM2.5, in micrograms per meter cubed
Category 1 \$600 Current E P A "safe" daily level of PM2.5, in micrograms per meter cubed
Category 1 \$800 Environmentalists' suggested annual 365 day average "safe" limit of PM2.5, in micrograms per meter cubed
Category 1 \$1000 Environmentalists' suggested daily 24 hour average "safe" limit of PM2.5, in micrograms per meter cubed
Category 2 \$200 The percentage of indoor residential wood smoke burning emissions that are PM2.5
Category 2 \$400 The perfect size of particulate matter to infiltrate the human lung, in micrometers
Category 2 \$600 Two of the main health problems caused by indoor residential wood burning emissions
Category 2 \$800 Why near neighbors of indoor residential wood burners experience more wood burning pollution than other neighbors
Category 2 \$1000 Why near neighbors of indoor residential wood burners have to use air purifiers inside their homes.
Category 3 \$200 Residential heating method since 2019 has produced more PM2.5 pollution in the United Kingdom than vehicle exhaust
Category 3 \$400 Produces the most PM2.5 pollution in India during Diwali festival in December (not fireworks)
Category 3 \$600 What dirty heating devices NOT to supply to Ukraine, for humanitarian reasons (to prevent air pollution)
Category 3 \$800 What dirty heating devices NOT to supply to refugee camps, for humanitarian reasons (to prevent air pollution)
Category 3 \$1000 What dirty cooking devices NOT to supply to Africa, for humanitarian reasons (to prevent air pollution)
Category 4 \$200 Advanced technology that heats homes at down to 40 degrees below zero Fahrenheit
Category 4 \$400 European Country where wind energy recently, briefly, had a negative cost to consumers.
Category 4 \$600 Name of the lowest-cost industrial scale battery that can store 100 hours of energy at a time
Category 4 \$800 Wind and Solar energy price trajectory
Category 4 \$1000 Biomass (wood) burning economic viability without subsidies
Category 5 \$200 2 nd largest Biomass Plant in the World (receives subsidies from United Kingdom, and receives wood shipped from British Columbia and the U.S.)
Category 5 \$400 European Union cutback in 2022 of way of propping up Biomass (wood) burning economic viability
Category 5 \$600 Political theory that CO2 and PM2.5 emissions from Biomass (wood) burning don't count, although wood burning produces higher levels of emissions than Coal burning.
Category 5 \$800 Scientists' overwhelming opinion on whether Biomass (wood) burning is Carbon Neutral
Category 5 \$1000 Country that, as of April 2023, discloses amount of PM2.5 emitted from the stacks of its Biomass (wood) burning plants
Category 6 \$200 Maine Senator who was deciding vote to keep Carbon Neutrality in United States legal jargon in December 2022
Category 6 \$400 PM2.5 monitor brand that is used side by side with \$100,000 U. S. E P A PM2.5 monitors on Airnow Maps of Smoke and Fire
Category 6 \$600 How low-cost PurpleAir PM2.5 monitors are correlated with \$100,000 U.S. E P A monitors
Category 6 \$800 Low-cost technology that could measure fenceline PM2.5 emissions from indoor residential wood burning and store the data online for use by local government authorities
Category 6 \$1000 Local government department viewing data from hyper-localized PurpleAir PM2.5 monitors owned by near neighbors of indoor residential wood burners.

Category 1 \$200 2.5 micrometer
Category 1 \$400 12
Category 1 \$600 35
Category 1 \$800 8
Category 1 \$1000 25
Category 2 \$200 90
Category 2 \$400 2.5
Category 2 \$600 Lung Cancer and Asthma
Category 2 \$800 Hyper-localization of Emissions
Category 2 \$1000 Infiltration of PM2.5 into neighbors' homes
Category 3 \$200 indoor residential wood stoves
Category 3 \$400 agricultural stubble burning to clear fields.
Category 3 \$600 indoor residential wood stoves
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Category 4 \$200 Heat Pumps
Category 4 \$400 The Netherlands
Category 4 \$600 Iron-Air Batteries
Category 4 \$800 Price trajectory downward
Category 4 \$1000 No viability without subsidies
Category 5 \$200 Drax
Category 5 \$400 Cutback on subsidies for Biomass (wood) burning plants in European Union
Category 5 \$600 Carbon Neutrality
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Category 6 \$1000 Health Department
In February 2023 the Office of the Inspector General (O I G), "watchdog" of the Environmental Protection Agency (E P A) issued a report stating that the Wood Stove Certification program was deeply flawed and allowed highly polluting wood stoves to be certified and continue to be sold. The loopholes that the wood burning industry lobbyists have insisted on is the reason that the certification of wood stoves is deeply flawed. There needs to be a new way for PM2.5 pollution from wood stoves to be regulated, by hyper-localized measurement of actual PM2.5 emissions at the stack or the fence line (the yard of a complaining near neighbors of a residential wood burner). Indoor Residential wood burning needs to be shut down, stack by stack if necessary, for human health and to slow climate change.
Residents Against Wood Smoke Emission Particulates (RAWSEPresidents) https://RAWSEPresidents.wordpress.com videos on Youtube & podcasts on Spotify. More podcasts at: podcasts.google.com , Amazon Music Prime (free for Prime subscribers), Castbox, and PocketCast (only PocketCast Phone App is free. PocketCast works on Apple phones). Most Residents Against Wood Smoke Emission Particulates are near neighbors of Residential indoor wood burners who burn for aesthetic reasons or ambience. Wood smoke is 90% 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 & early death. Contact, join rawsepresidents@gmail.com
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Residents Against Wood Smoke Emission Particulates (**RAWSEPresidents**) <https://RAWSEPresidents.wordpress.com> videos on Youtube & podcasts on Spotify. More podcasts at: podcasts.google.com, Amazon Music Prime (free for Prime subscribers), Castbox, and PocketCast (only PocketCast Phone App is free. PocketCast works on Apple phones). Most Residents Against Wood Smoke Emission Particulates are near neighbors of Residential indoor wood burners who burn for aesthetic reasons or ambience. Wood smoke is 90% 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 & early death. Contact, join rawsepresidents@gmail.com
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	laws or ordinances are passed by others using PM2.5 level data instead of evidence of pollution from wood stoves.	If no laws exist using PM2.5 levels as evidence of pollution, you start to contact the government to get laws passed.	You contact your local city alder and your local health department to get certification to use PM2.5 data for wood stove burners.	You join your State Conservation Congress and submit a Citizen Natural Resources DNR Spring Hearing resolution.	Your citizen Conservation Congress resolution passes in your County with a few hundred votes.	You attend an American Lung Association Action Day at the State Capitol to talk to your State representatives.	You inform your State Senator and your State Assemblyperson that your Conservation Congress Resolution has passed on the County level.
Your PM2.5 monitor data shows levels above 8 P A PM2.5 "safe" levels at your & your neighbor's fence line.	<p>May 18, 2023. EndWoodSmokeMonopoly Brought to you by Residents Against Wood Smoke Emission Particulates (RAWSEPresidents) https://RAWSEPresidents.wordpress.com videos on Youtube & podcasts on Spotify. More podcasts at: podcasts.google.com, Amazon Music Prime (free for Prime subscribers), Castbox, and PocketCast (only Pocketcast Phone App is free. PocketCast works on Apple phones). Most Residents Against Wood Smoke Emission Particulates are near neighbors of Residential indoor wood burners who burn for aesthetic reasons or ambience. Wood smoke is 90% 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 & early death. Contact, join rawsepresidents@gmail.com</p>						But it requires legislation. You ask your State Senator & State Assemblyperson to sponsor a bill.
Using your historic data on PM2.5 levels at your fenceline, evidence to show pollution from wood stoves is collected.							You have already testified in February 2023 at EPA hearings on lowering PM2.5 "safe" limits.
Your PM2.5 historic data is collected overnight and on weekends when wood burners may burn more.							Limits from 12 to 8 annually and from 35 to 25 daily (measured in micrograms per meter cubed of PM2.5).
Your PM2.5 data is correlated to \$100,000 EPA PM2.5 monitors with a simple mathematical formula.							You help pass either a Federal, State law or Local ordinance to pass that makes the pollution from your neighbor's wood stove illegal and your neighbor's wood stove is shut down and replaced by a Heat Pump.
Your PurpleAir PM2.5 data is put on U.S EPA Airnow maps of smoke and fire.							That works at 40 below zero Fahrenheit subsidized by a Federal program like LIHEAP for low income individuals or by the American Lung Association or by an American Asthma Society.
Your PM2.5 data can be seen by the General Public on PurpleAir maps.							You invest in solar panels for your home because you can breathe in your own backyard now.
Your PM2.5 data on your neighbor of a wood burner is put on the online PurpleAir map for \$249.							START You have an indoor wood burning neighbor: take action to stop the pollution!
Your PM2.5 data on your neighbor of a wood burner is certified but highly polluting. You purchase a PurpleAir PM2.5 monitor for \$249.							
Your Neighbor's indoor stove is certified but highly polluting.							
You have your air ducts cleaned because of the PM2.5 buildup inside your home.							
You purchase multiple air purifiers as wood smoke infiltrates your home.							
You complain to your Health Department.							

EndWoodSmokeMonopoly
Brought to you by Residents Against Wood Smoke Emission Particulates (**RAWSEPresidents**)
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START You have an indoor wood burning neighbor: take action to stop the pollution!

1)You start in the brown squares.
You complain to your Health Department. You purchase multiple air purifiers as wood smoke infiltrates your home.

Your Health Department does nothing. You have your air ducts cleaned because of the PM2.5 buildup inside your home.

2)You arrive at the light blue squares.
Your Neighbor's indoor wood stove is certified but highly polluting. You purchase a PurpleAir PM2.5 monitor for \$249. Your PM2.5 data as near neighbor of a wood burner is put on the online PurpleAir map.

3)You arrive at the purple squares.
Your PM2.5 data can be seen by the General Public on PurpleAir maps. Your PurpleAir PM2.5 data is put on U.S EPA Airnow maps of smoke and fire. Your PM2.5 data is correlated to \$100,000 EPA PM2.5 monitors with a simple mathematical formula.

4)You arrive at the orange squares.
Your PM2.5 historic data is collected overnight and on weekends when wood burners may burn more. Using your historic data on PM2.5 levels at your fenceline, evidence to show pollution from the wood stove is collected. Your PM2.5 monitor data shows levels above EPA PM2.5 "safe" levels at your & your neighbor's fence line.

5)You arrive at the red squares.
Laws or ordinances are passed by others using PM2.5 level data instead of certification as evidence of pollution from indoor wood stoves. If no laws exist using PM2.5 levels as evidence of pollution, you start to contact the government to get laws passed. You contact your local city alder and your local health department to get an ordinance passed to use PM2.5 data for wood stove shutdown.

6)You arrive at the yellow squares.
You join your State Conservation Congress and submit a Citizen Natural Resources DNR Spring Hearing resolution. Your citizen Conservation Congress resolution passes in your County with a few hundred votes. You attend an American Lung Association Action Day at the State Capitol to talk to your State representatives. You inform your State Senator and your State Assembly person that your Conservation Congress Resolution has passed on the County level.

7)You arrive at the green squares.

You inform your State Senator and your State Assemblyperson that your Conservation Congress Resolution has passed on the County level but it requires legislation. You ask your State Senator & State Assemblyperson to sponsor a bill. You have already testified in February 2023 at EPA hearings on lowering PM2.5 "safe" limits from 12 to 8 annually and from 35 to 25 daily (measured in micrograms per meter cubed of PM2.5).

8)You arrive at the dark blue squares.
You help pass either a Federal, State law or a Local ordinance is passed that makes the pollution from your neighbor's wood stove illegal and your neighbor's wood stove is shut down and replaced by a Heat Pump that works at 40 below zero Fahrenheit subsidized by a Federal program like LIHEAP for low income individuals or by the American Lung Association or by an American Asthma Society. You invest in solar panels for your home because you can breathe in your own backyard now.