

MAY 2022: THE EUROPEAN UNION ENDS OR SLOWS “CARBON NEUTRAL” WOOD BURNING & ITS INCENTIVES. Did you know that the European Union voted in May 2022 to stop calling Biomass Burning “Carbon Neutral”? Biomass burning is usually wood burning. Now the European Union is counting wood burning emissions’ contribution to Climate Change with the same yardstick as it counts Fossil Fuel emissions’ contribution to Climate Change. Solid fuels like Biomass and the solid Fossil Fuels, such as Coal, emit significant amounts of particulates when burned. Biomass burning emits more particulates than Coal (a solid Fossil Fuel) emits. Scientists have not been able to ignore this, but politicians have since 2009 in the European Union designated Wood Burning as “carbon neutral” and provided incentives for wood burning to the Biomass industry. In May 2022 the European Union decided it couldn’t continue to promote the fallacy of clean Biomass burning because continued incentives for European Union Biomass burning would significantly contribute to climate change. Some European Union Biomass incentives will probably continue even in the face of reality because of continued political lobbying by the Biomass industry. **PM 2.5 & Covid 19, A DANGEROUS COMBINATION.** Wood smoke is 90% PM 2.5. Particulate Matter 2.5, of 2.5 micron size, usually called PM 2.5, is the perfect size to infiltrate the human lung, setting off a cascade of human health problems. PM 2.5 in research studies has been shown to exacerbate the health problems caused by COVID 19. **MAY 2022: THE UNITED KINGDOM HANDS OUT PM 2.5 SENSORS TO RESIDENTS TO COLLECT HYPER-LOCALIZED DATA.** Did you know that a 2021 study in London, England showed that 40% of the PM 2.5 pollution in London was caused by 9% of the population using domestic (residential) wood burning for heat, **surpassing the percentage of PM 2.5 caused by traffic in London?** In May 2022 11.6 million pounds sterling (around 14.55 million U.S. Dollars) was designated by the U.K. government to projects in municipalities around England to discourage domestic wood burning because of the PM 2.5 produced by domestic wood burning. Part of the money will be spent to hand out **new low-cost PM 2.5 sensors** to U.K. residents that can provide **hyper-localized** data about the particulate emissions from domestic (residential) wood burning, because of the health effects and climate change effects of wood smoke particulate emissions. **Search for the RAWSEP podcast on Spotify or Podbean** for more World news about PM 2.5.

RESIDENTS AGAINST WOOD SMOKE EMISSION PARTICULATES (RAWSEP) Website <http://RAWSEPresidents.wordpress.com> has resident members from Australia, Canada, New Zealand and the United States. The **RAWSEP Podcast** is found at <https://open.spotify.com/show/32hfC477jEeeDbQoTsu82I> (Spotify URL) or <https://rawsepresidents.podbean.com/> (Podbean URL) or you can **search for RAWSEP on Spotify or PodBean Podcast websites**. Some members of RAWSEP in Wisconsin helped pass **Outside Wood Boiler bans in municipalities across Wisconsin in 2011**. After the bans passed, near neighbors of wood burners in Wisconsin realized that **indoor wood burning** emits wood smoke emission particulates (90% PM 2.5) with no regulation except receiving assurances from the Wood Burning Industry that the appliances are clean burning. These assurances can be inaccurate, and the **appliances** can decrease in efficiency over time, with no monitoring. It is problematic for human health and for climate change, that wood burning appliances are being used for residential heating instead of relatively clean residential heating sources such as the bridge to clean energy sources of wind and solar, relatively cleaner **natural gas (which is not a solid fuel and emits thousands of times LESS PARTICULATES than wood burning)**. The actual pollution emitted from wood burning can now be measured by **low-cost residential PM 2.5 monitors** mounted outside in near neighbors' yards. The most used residential PM 2.5 particulate monitor is **PurpleAir**, whose monitor collects PM 2.5 level data every 10 minutes, and costs less than \$300. U.S. Environmental Protection Agency (EPA) monitors, which collect and weigh high density particulate matter PM 2.5 (called gravel density) and lower density PM 2.5 (called wood density) hourly cost over \$100,000 each and there are only around 15 in Wisconsin. There are approximately **55 Resident-owned PM 2.5 PurpleAir monitors** in Wisconsin. 15 EPA monitors and 55 PurpleAir monitors are used side-by-side on government **AirNow Fire & Smoke Maps**, which are used in Wisconsin for monitoring wildfires now. Since **PurpleAir** monitors use **new laser technology** to measure the number of particulates, a simple mathematical formula is used to correlate PurpleAir data with EPA data before PM 2.5 data is put on the AirNow map. Members of RAWSEP are also members of the PurpleAir Users Group. RAWSEP members would like to pass ordinances in Wisconsin using, as evidence of levels of particulates that harm human health, the data from residential PM 2.5 (PurpleAir) monitors. Wood smoke can infiltrate inside neighboring houses, as well as yards. Since PurpleAir monitors are now used to warn of dangerous wildfire particulate levels, they could, in the future, be used to monitor, regulate, and enforce ordinances against **hyper-localized** Wood Smoke Emission Particulates that violate EPA standards or World Health Organization (WHO) standards. RAWSEP members would also like to testify at EPA hearings on lowering the minimum level of PM 2.5 considered unhealthy, hearings they hope are held in 2023 or 2024. **Wood burners who live in poverty can find help for home heating, from other sources than wood, from the U.S. Low Income Home Energy Assistance Program (LIHEAP)**. PurpleAir monitors are a cost to near neighbors of wood burners. **Health problems are also a cost borne by near neighbors of wood burners.**