

Episode 35 California fire pits, California Assembly Bill, Idaho Wood Smoke compared to COVID 19, Niger Solar to replace Residential Wood Burning

September 15, 2022 Episode 35 A Wendy and Carmel, California ends wood-burning beach fire pits

Wendy noted that health was the most important consideration in ending use of wood burning fire pits on Carmel, California beaches. PM 2.5, particulate matter of 2.5 micrometer size is 90% of wood burning emissions. PM 2.5 is the perfect size to infiltrate the human lung, producing a cascade of human health problems. Pre-emptive control of fire pit wood burning is possible, and is much more possible than controlling wildfires. Wendy noted that, in Carmel, California, city leaders decided to get rid of wood burning fire pits and move forward with propane fires. During a board meeting on September 13th, 2022, Carmel City Council members decided to get rid of wood-burning fire pits and move forward with propane fires only. The city council considered several factors, some of them being the cost for clean-up, maintenance, and air pollution. "I think it's important to make a move forward, as far as humanity goes, to stop burning things. It's a vital step to the health and safety on our beautiful shoreline," a Council Member said during the meeting. But even with the designated fire pits, many locals argued for a total ban on the wood burning fires. During the meeting, one Carmel resident said, "Abolishing wood-fire will eliminate future damage to our white sand and ensure all people will enjoy the beach without health risks." Bonfires on Carmel beach have been controversial for years. Many nearby residents complained of smoke and debris left behind on the beach.

Episode 35 B Wendy and California Assembly Bill 2550 which would include community members and hearings in decisions about PM 2.5 Industrial Wood-Burning pollution

Wendy noted that, in a Fresno, California newspaper, the headline was "Valley has put up with bad air long enough, here's a way to loosen the grip of polluters". Wendy hoped that the article was about how local ordinances could be passed to stop residential wood burning, by using data from PM 2.5 fenceline monitors of near neighbors to prove the levels of PM 2.5 from indoor wood burning by nearby residential wood burners was causing PM 2.5 levels above the WHO standard of 5 micrograms per meter cubed or above the expected-after-November 2022 US standard of 8 micrograms per meter cubed. However, this newspaper column is about how community groups should have input on air quality standards in this California Valley, for pollution using stationary source PM 2.5 monitors of wood-burning industries. This newspaper columnist also thinks there should be public hearings on further regulation of industrial PM 2.5 pollution sources in this California Valley. However, this is still an article about PM 2.5 levels which affect residents. The PM 2.5 levels could be measured but are not, or the PM 2.5 levels are measured but the data is ignored. The industries in this California Valley are not well regulated or are not regulated at all. The polluters want financial incentives to stop polluting. The polluters demand carrots rather than sticks, for industries that are not under financial strain. The polluters don't want regulation, community involvement, and public hearings leading to decisions about anti-pollution measures to take. This is similar to the Environmental Protection Agency (EPA) certification of residential wood stoves, which is done without the input of neighbors of residential wood burners, but with the input and rubber stamp of the manufacturers of the wood stoves themselves, ensuring that residential wood stove emission particulate pollution will continue. The harm of breathing PM 2.5 is well described in this article. The stranglehold of the wood burning industry is strong. Ending or even regulating residential wood burning so that it doesn't pollute the air of near neighbors of residential wood burners or damage near neighbors' lungs must seemingly always be accompanied by heavy financial incentives. The stranglehold described in this article is about PM 2.5 pollution from industrial wood burning and other PM 2.5 producing industrial practices, from large source stationary pollutants. Stationary pollutants can be measured over time, and easily regulated, whether they are large sources or hyper-localized residential wood-burning sources. Hyper-localized stationary sources of pollution such as residential wood burning can be controlled, unlike wildfires. Residential wood burning can be easily controlled, in cost effective ways by using PurpleAir PM 2.5 fenceline monitoring in the yards of near neighbors. PurpleAir data can even be collected in the middle of the night automatically every 10 minutes, when smoke descends on the houses of near neighbors. Government officials can note the residential wood-burning emission data the day after, during government's normal working hours. There is no need to enter the homes of residential wood burners to find out what make or model of wood burner is being used, because the evidence of PM 2.5 is apparent, and comprehensive, from using PM 2.5 monitors. Having laws and regulation for PM 2.5 levels higher than standards then can be known, regulated and eliminated as low hanging fruit that should be dealt with. Large scale PM 2.5 pollution from industries is also readily apparent if monitored, and can be known, regulated and eliminated or controlled, if laws can be strengthened, as AB 2550 in California aims to do. The health crisis of PM 2.5 exposure is the impetus for AB 2550. One in five Valley children have Asthma. Others die often of heart attacks and strokes caused by

PM 2.5 pollution. 1,200 residents die prematurely because of PM 2.5 exposure in the Valley. The columnist asks “If that many people were killed in auto accidents, wouldn’t we demand something be done?” This article urges that the Governor of California sign Assembly 2550 by September 30, 2022. Bill 2550 introduces ways that regulation and community involvement in regulation of PM 2.5 air pollution producing industries can begin, and ways that existing regulation can be strengthened. This article from Fresno, California is about the air in the Valley which Californians breathe on many days, lungful by lungful, which is hazardous to their health. The article points out that some Valley residents have just accepted, or been told, that the problem is too large, complex, and difficult, for anything to change. The San Joaquin Valley Air Pollution Control District (the agency responsible for air quality planning, monitoring and enforcement for eight counties) isn’t on the side of residents. Its governing board is stacked with elected officials beholden to industries that are the largest sources of stationary pollutants. In a few cases, members of the governing board are active participants in those polluting industries. California Assembly Bill 2550 introduced by Joaquin Arambula, Democrat of Fresno, disturbs the status quo in air districts like Fresno’s that fail to meet federal air pollution standards. The air quality standards, set so long ago, set back in 1997 for PM 2.5, are so lenient that they are not preventive of harmful levels of air pollution. Bill 2550 is opposed by the boards of supervisors in all eight counties served by the Valley Air District, plus the cities of Clovis and Bakersfield, plus several farm bureaus and more than a dozen groups associated with agriculture and oil. What are all these folks against? They are against any law that increases input and authority over how the California Valley region’s unhealthy air should be combated. They don’t want state regulators and community organizations involved, so the powers-that-be can continue spinning their wheels and passing the buck. Assembly Bill (A B) 2550 requests the California Air Resources Board (C A R B) to “coordinate” with district officials and community organizations to “identify gaps” in state and local attainment plans. AB 2550 requires state regulators to “provide additional monitoring and enforcement capacity” for the region’s largest stationary pollution sources (for example, factories, refineries, and dairies) and to schedule at least one public hearing regarding the district’s attainment plans. Sounds reasonable, right? Not when the ultimate goal isn’t cleaner, healthier air. The goal of the PM 2.5 polluting industries is to maintain a firm grip over a failed process. “This status quo is not acceptable,” the sponsor, Assemblyman Arambula said in a May committee hearing. “In the face of a decades-long health crisis, the C A R B must engage more strongly on this.” Fresno continues to be the Number 1 city in the U.S. most affected by daily particulate spikes, as ranked by the American Lung Association, Bakersfield second and Visalia ninth. The Valley Air District placed industry profits over community health. The stranglehold of certain industries is so strong that adoption of practices that don’t pollute this California Valley’s air or damage residents’ lungs must seemingly always be accompanied by heavy financial incentives. As if all those doctor visits for our kids’ asthma (roughly one in five are asthmatic) or hospital stays for strokes and heart attacks don’t extract an even larger price. More than 1,200 San Joaquin Valley residents die prematurely every year from exposure to PM 2.5, the fine particulate linked to a variety of health ailments. If that many people were killed in auto accidents, wouldn’t we demand something be done? AB 2550 holds local officials’ feet to the fire for pollution sources they CAN control, but won’t control.

Episode 35 C Wendy and an Idaho Columnist compares and contrasts the airborne risk of wood smoke with COVID 19 Wendy noted that, in Idaho, there was more to do against wood smoke than donning a mask. Wood smoke from residential wood burning could be pre-empted by local ordinances banning indoor wood stoves or fireplace use if the PM 2.5 levels measured by near neighbor’s fence-line PurpleAir PM 2.5 monitors in the neighbor’s yard show levels above the W H O standard of 5 micrograms per meter cubed or expected U S standards after November 2022 of 8 micrograms per meter cubed. Wood smoke also has long-term health consequences not mentioned in an article from Idaho. Wendy noted that PM 2.5 can cause early death and longterm illnesses and mortal diseases in humans, as demonstrated by numerous scientific, statistical and medical studies. PM 2.5, particulate matter of 2.5 micrometer size, is the perfect size to infiltrate the human lung, causing a cascade of human health problems. Wood smoke is 90% PM 2.5 Wendy did appreciate that the columnist compared and contrasted two airborne health risks, PM 2.5 exposure and COVID 19 exposure. Wendy hopes that taking measures against wood smoke is not as politically stigmatized as taking measures against Covid 19 is in Idaho. Wendy hopes that taking measures against wood smoke will not be a hard sell in Idaho or in the United States. Wendy noted, in an article from Idaho, called **Between the wildfire smoke and COVID-19, the air feels like a bully**, that breathing smoke for very long is not a good idea. The author wrote that “smoke, of course, can be deadly for some people. The only solution is staying cloistered inside an air-tight room. It’s something we have to learn to cope with. Suggestions: Stop breathing. Hold your breath as long as possible before passing out. Wear a mask. Considering how popular wearing a mask is during restrictions for the COVID-19 pandemic, there’s not a lot of hope folks will adopt it now. Smoke, unlike COVID-19, however, is palpable. You can feel it in your eyes, your throat and your lungs,

and that might make a person more willing to don protective equipment to lessen the irritation. COVID-19 was invisible and you couldn't always tell you'd been infected. Taking precautions against the coronavirus was a hard sell, at least in some places like Idaho, where people are dang tough and aren't going to protect themselves against something they can't see or smell, even if it kills them. Smoke can kill us, too, but it is far less politically stigmatized than COVID-19. You don't hear about smoke deniers. You don't read about government lawmakers arguing how to keep people off the streets when smoke is choking off business. And you don't have people fighting each other over whether smoke is really real or not. Smoke is a bully and there's no denying it. COVID-19 is the enemy who hits us from behind."

Episode 35 D Nasha and the country of Niger's move to more Solar energy, to displace residential wood burning for lighting and cooking

Nasha noted that, in part to combat climate change, the country of Niger is aiming to replace residential wood burning with solar energy, for electricity generation for lighting and cooking. In the country of Niger, currently, wood-burning provides nearly 80 percent of the energy used in Niger, primarily for lighting and cooking. Nasha noted that Niger seeks a renewables route to electrification. The \$317.5 million "Haske" project, ("Light" in the local Hausa language) aims to "accelerate access" to electricity for urban and rural households as well as to health and education establishments and businesses," Energy Minister Ibrahim Yacoubou said at the launch in the capital city of Niamey. Niger, with World Bank support, on September 13, 2022, launched a major electrification program. The scheme includes the expansion of the use of solar photovoltaic energy, which is in abundant supply in the landlocked West African nation. Two-thirds of the impoverished country of 22 million people is desert, and the "harmful effects of climate change" are making matters worse, the minister said. The level of access to electricity throughout the country is just 17.5 percent, according to the energy ministry. The new drive will help that rise to 30 percent by 2026 and to 80 percent by 2035, the ministry said. To free itself from its heavy energy dependence on neighboring Nigeria, Niger is also working to complete its first dam on the Niger River by 2025. When completed, it is expected to provide 629 gigawatt hours of electricity annually. In addition, the E U and the French Development Agency will co-finance the construction of another hybrid power plant at a cost of 32 million euros (\$32 million) in Agadez, a major city in northern Niger that is regularly plunged into darkness. Its construction will allow the city, a UNESCO World Heritage site, to revive its economic and social development after a decline in tourism due to jihadist attacks in the Sahel, according to local authorities. Niger or the Niger, officially the Republic of the Niger, is a [landlocked country](#) in [West Africa](#). It is a [unitary state bordered](#) by [Libya](#) to the [northeast](#), [Chad](#) to the [east](#), [Nigeria](#) to the [south](#), [Benin](#) and [Burkina Faso](#) to the southwest, [Mali](#) to the [west](#), and [Algeria](#) to the [northwest](#). It covers a land area of almost 490,000 sq mi, making it the second-largest landlocked country in [West Africa](#), after Chad. Over 80% of its land area lies in the [Sahara](#). The capital [Niamey](#) is located in Niger's southwest corner. It is listed in the [least developed countries](#) group. Some non-desert portions of the country underwent periodic drought and [desertification](#). The economy is concentrated around [subsistence agriculture](#), with some export agriculture in the more fertile south, and export of raw materials, including [uranium ore](#). Historically, Niger has been on the fringes of some states. Since independence, Nigeriens have lived under 5 constitutions and 3 periods of [military rule](#). After the military coup in 2010, Niger became a democratic, multi-party state. A majority of the population lives in rural areas.