

Episode 56FL June 23, 2023. A West Virginia Senator's bill to schedule reviews of Particulate limits every ten years instead of every five years.

California, San Diego

[Burn permits in San Diego to be suspended following 37-acre blaze](#)

FOX 5 San Diego

Dubbed the Black Wood Fire, the wind-driven blaze was caused by a residential pile burn that escaped and spread to surrounding vegetation, ...

Georgia

[Georgia regulators ditch plan to burn tires for energy - Southern Environmental Law Center](#)

Southern Environmental Law Center

Biomass plants primarily burn wood pellets to create energy. ... and emits more dangerous carbon pollution than burning fossil fuels, ...

Illinois, Roseland

[Smoky fire rages in house in Roseland - CBS News](#)

CBS News

CBS 2's Kris Habermehl reported when Chopper 2 arrived, the smoke had a brown hue – indicating wood was burning. But as firefighters hosed water ...

Kentucky, London

[City Council approves \\$19M budget, fire ordinance - Yahoo News](#)

Yahoo News

The Sentinel Echo, London, Ky. Wood Creek Boat Dock installs lifejacket station in boy's memory. 8h ago.

New York, New York City

[Even safe levels of air pollution can harm your brain: study - New York Post](#)

New York Post

The substances of fine particulate matter (PM2.5), nitrogen dioxide (NO2), and ground-level ozone (O3) were all seen to impact brain function and ..

Oregon, Portland, **Heat Dome** in 2021

Climate Forward Newsletter

The Oregon county that includes Portland filed a lawsuit against fossil fuel companies in an effort to hold them accountable for a **heat dome** that led to the [deaths of 69 people in 2021](#)..

Oregon, Deschutes County

[Deschutes Co. To Clean Out Juniper Ridge Camps - Bend - KBND](#)

KBND

He told Commissioners Wednesday, "The presence of human waste, solid waste and illegal structures that have wood-burning apparatus.

RAWSEP View: There is a **heat dome** in Texas right now, where the heat index has reached 125 degrees Fahrenheit. There is an ideological divide in Texas between Republicans, who want to build more fossil fuel power plants, and Democrats, who want to build more renewables.

Texas, Houston, **Heat Dome** in 2023

Climate Forward newsletter

June 23, 2023.

Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.

Power grids are teetering worldwide. Here's why. It's really hot in Texas right now. In the coastal city of Corpus Christi, the heat index, a combined measure of heat and humidity, reached a shocking 125 degrees Fahrenheit, or about 52 Celsius. That's because a weather system called a **heat dome** is parked over Texas, Oklahoma, and parts of Mexico. People are struggling, and one person may have died from the baking temperatures. And, there's a lot of worry about the Texas electric grid. That heat dome could stay in place until early July. It's forecast to expand to Arkansas, Louisiana, and Kansas. As people turn up their air-conditioners to stay cool, will the grids hold?

Today, I want to explain to you why electric grids are an enormous concern during extreme heat waves. The electric grid in Texas is vulnerable to extreme weather. That's because **Texas has few connections to any grid outside the state.** It's harder for Texas to import energy from other states when things get desperate. Austin's NPR station explained that Texas power companies and policymakers wanted to avoid federal regulation. Grid operators are struggling around the world. Mexico has issued an alert that its grid may not be able to handle increase in demand. China has stocked up on coal to prepare for this summer's heat. Britain also resorted to coal. Some leaders in Texas want to use more natural gas, to meet demand. In general, the Texas energy grid is getting cleaner. But power plants, transmission lines and air-conditioners in our homes work less effectively when it's hot. During the heat wave in Texas some nuclear, coal or gas plants went offline, but the general collapse during a deadly winter storm in 2021 didn't repeat itself.

RAWSEP View: Bill McKibben has a Bachelor of Arts (B A) degree in Government from Harvard. He does not have a degree in any scientific or medical field. That may explain his disinterest in human health, and the effect of wood smoke on human health. Bill McKibben supposedly is writing an opinion on the Canadian wildfire smoke, but he talks about fossil fuel pollution instead. McKibben lives in Vermont, which is the wood stove capital of America. Many wood burning Vermonters mistakenly consider wood burning "green", perhaps simply because Vermont means "Green Mountain" in French. Google search of percentage of people who own wood stoves in the U S states. Answer "Vermont has the highest state-wide percentage of wood use with 11.8% of households relying on wood as a primary heating source (Fig. 2), and 32% using wood as a secondary heating source. Residential wood heat has been on the rise in the majority of U.S. states since 2000." Anyone who has experienced a campfire knows there are no benefits to the blaze, except to burn marshmallows on a stick. To describe wood smoke as iconic, when you are intelligent enough to know that smelling wood smoke means you are breathing in pollution that can shorten your life, is not an observation a climate activist who also cares about human health. It seems climate activists can compartmentalize their interests to exclude interest in human health. You have to identify a problem correctly in order to solve that problem.

Vermont, Ripton

[We can see clearly now - The Mountain Times](#)

The Mountain Times

Editor's note: Bill McKibben is an internationally known climate activist and writer who lives in Ripton. In Vermont, the scent of wood smoke on a ...

[OP - ED, OPINION](#)

JUNE 21, 2023

We can see clearly now

By Bill McKibben

Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.

Editor's note: Bill McKibben is an internationally known climate activist and writer who lives in Ripton.

In Vermont, the scent of wood smoke on a late fall afternoon is an iconic smell. It's not like that here today, in the **first week of June — it's more like sitting on the side of the campfire** where the wind is blowing, but without any of the **benefits of the blaze.** The air is a dull gray, and the sunshine through it looks and feels diminished, as if from a different star circling a different planet. **My chest is tight, and I keep bringing up phlegm.** In the case of the eastern U.S. today, the smoke — and the **dangerous particulates** it carries — comes from Canadian wildfires. **(In New York City recently) That smoke doesn't come from forest fires.** It comes mostly from burning fossil fuels. But it's all combustion, and it all does the same thing to your lungs. Around the world, 9 million deaths a year — one death in five — comes from breathing the combustion byproducts of **fossil fuel.** **About a third of all deaths in Asia come from breathing fossil fuel pollution.** Smoke is the great daily crisis. Happily, (it's) **caused by the same thing: burning coal and gas and oil.** And even more happily, we know how to end it. We **just stop burning stuff,** and rely instead on the fact that there's a large ball of burning gas at a safe 93-million-mile distance (the Sun). This is entirely doable — **solar power is now the cheapest way to make energy on earth.** If someone tells you they don't want to look at a solar panel, or that mining required for a wind turbine does environmental damage, it's fine to see their point. My eyes are stinging a bit from the smoke, but I've never seen more clearly. Everything is in perspective, even — especially — through the haze.

RAWSEP View: Republican Senator Shelley Moore Capito of West Virginia, would like review of Particulate Matter limits to be lengthened to every 10 years, instead of the current every 5 years. She is quoted as saying Particulate standards

are cumbersome and a rash red tape on the economy. The National Association of Manufacturers (NAM) thanks Senator Capito for introducing the National Ambient Air Quality Standards (NAAQS) Implementation Act of 2023. The effects of particulate matter (PM2.5) on human health is not addressed in this bill. During droughts, according to this bill, adhering to PM2.5 limits might be suspended.

Washington, D C

[Capito Introduces Legislation to Reform EPA's Air Quality Standards Process](#)

U.S. Senate Committee on Environment and Public Works - Senate.gov

... including ground-level ozone and particulate matter. Earlier this year, the EPA proposed to make the NAAQS for particulate matter (PM2.5) more ...

[Minority News](#)

[Capito Introduces Legislation to Reform EPA's Air Quality Standards Process](#)

June 22, 2023

WASHINGTON, D.C. – Today, U.S. Senator Shelley Moore Capito (R-W.Va.), Ranking Member of the Senate Environment and Public Works (EPW) Committee, led a group of her colleagues in introducing [legislation](#) to improve how the Environmental Protection Agency (EPA) administers the national ambient air quality standards (NAAQS) program under the Clean Air Act, making the program more cost-effective for states to implement and protecting American jobs.

Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.

The [National Ambient Air Quality Standards Implementation Act of 2023](#) would improve the processes both for EPA to revise current NAAQS. Earlier this year, the EPA proposed to make the NAAQS for particulate matter (PM2.5) more stringent. Historically, the EPA has consistently missed statutory deadlines for both reviewing standards.

WHAT THE BILL DOES:

The National Ambient Air Quality Standards (NAAQS) Implementation Act of 2023 would:

Change the mandatory review of NAAQS from 5 to 10 years.

Ensure that states may seek relief with respect to certain exceptional events, including droughts, under Section 319 of the Clean Air Act.

Direct EPA to submit a report to Congress within 2 years regarding the impacts of foreign emissions on NAAQS compliance.

The full text of the National Ambient Air Quality Standards (NAAQS) Implementation Act of 2023 can be found [here](#).

Washington, D C

[Even 'safe' pollution levels can cause changes in child brain development: study | The Hill](#)

The Hill

The researchers also used data from the EPA and elsewhere to identify the levels of fine particulate matter (PM 2.5), nitrogen dioxide and ...

Canada, Ontario, Pembroke

[WAYNE'S WORLD: Holy smoke! Are my cataracts back? - Pembroke Observer](#)

Pembroke Observer

Wood smoke may be a pleasant aroma in the air on a cool fall morning, but not so much when approaching the first day of summer.

Australia, Melbourne, Monash University

[Breathing in Canadian wildfire smoke could affect your health for years - Study Finds](#)

Study Finds

Researchers from Monash University report that a 10 µg/m³ increase in exposure to wildfire-related fine particulate matter (PM2.5) has an ...

United Kingdom

June 23, 2023

According to Politico, the Church of England has divested from oil majors including Shell and BP because they are not making enough progress in [cutting their emissions](#).

Health Effects and PM2.5 from Wood Burning

[Green electricity won't help with pollution disparities - Ars Technica](#)

Ars Technica

Exposure. Burning fossil fuels releases a variety of pollutants into the environment. Chief among these are particulates; one category alone (PM 2.5) ...

[Consequences of Wildfire-Related PM2.5 Exposure on Mortality - AZoCleantech.com](#)

AZoCleantech.com

A 10 µg/m³ increase in wildfire-related PM2.5 exposure was linked with a 0.4 % higher risk of all-cause and nonaccidental death, as well as a 0.5 ...

[Nightwing Has Contingencies for the Titans Like Batman - CBR](#)

CBR

While examining the body, Dick discovers "traces of wood smoke and ash," so he forbids Wally from helping the Titans stop a wildfire to try and ...

["Safe" levels of air pollution can negatively impact the developing brain • Earth.com](#)

Earth.com

The analysis revealed that greater exposure to PM2.5 led to relative increases in functional connectivity between different brain areas, ...

[Climate Adaptation: Staying Healthy Indoors During Wildfire Season - Earth911](#)

Earth911

... of gases and fine particles from burning wood and organic materials. ... exposure to smoke poses health risks ranging from burning eyes and ... Don't contribute to indoor pollution. Avoid activities that create more fine particles, such as smoking cigarettes, using gas or wood-burning stoves, ...

[Friends of the Earth Celebrates EPA's Decision to Pull Dangerous EV Proposal](#)

Friends of the Earth

Burning wood or trash are some of the dirtiest ways to produce energy and emits a number of toxic pollutants that disproportionately affect ...

[Biggest Study of Wildfire Smoke Shows Alarming Long-Term Health Effects | Mirage News](#)

Mirage News

To date, studies into the health impacts of wildfire-related PM2.5 exposure have shown an increased risk of all-cause, cardiovascular and respiratory ...

[Climate Reality vs. Public Perception: Will Toxic Haze and the 2023 Danger Season Make a ...](#)

UCS blog - Union of Concerned Scientists

More life years are lost around the globe from PM 2.5, according to the Energy ... due to the fine particulate matter of acute wildfire smoke.

[POOR AIR QUALITY LEADS TO LONGER HOSPITAL STAYS FOR CHILDREN ... - Yahoo Finance](#)

Yahoo Finance

Children with asthma spend more time in the hospital when there is a greater amount of particulate matter (PM 2.5) - tiny pieces of solids or ...

Technology

From Inside Climate News: Virtual power plants, made up of networks of thousands of small batteries, may soon help make [electric grids more reliable](#).

Virtual Power Plants Are Coming to Save the Grid, Sooner Than You Might Think

Networks of thousands of home-based batteries could be key to a cleaner, more reliable electricity system.

June 22, 2023

The sign of the manufacturer of solar batteries, Sonnen GmbH, in the Bavarian village Wildpoldsried, southern Germany, is pictured on July 5, 2016.

[A New Battery Intended to Power Passenger Airplanes and EVs, Explained](#)

[California Enters 'Uncharted Territory' After Cutting Payments to Rooftop Solar Owners by 75 Percent](#)

[Inside Clean Energy: This Virtual Power Plant Is Trying to Tackle a Housing Crisis and an Energy Crisis All at Once](#)

Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.

1) Batteries as virtual Power Plants. This summer could be the first one in which virtual power plants—networks of small batteries that work in tandem to function like power plants—are large enough to make their presence felt by helping to keep the lights on during the hottest days. After years of pilot projects, utilities and battery companies now have networks with thousands of participants in [California, Utah, and Vermont](#), among others. The batteries in virtual power plants add megawatts of capacity to the grid when electricity demand is at its highest. And most of the electricity from the batteries is generated by rooftop solar. This combination of renewable energy and groups of batteries is “a recipe for the grid of the future,” So what is it? A virtual power plant is a group of parts that join forces to stabilize the grid. The article author in 2019 had a tour of sonnen’s global headquarters in Wildpoldsried, a village in Germany. [The resulting story](#) had a lot about Wildpoldsried and made only a brief mention of sonnen. Since its founding in 2010, the sonnen company emphasized how batteries can be not just backup power, and it has software to manage groups of batteries. The sonnen [company is among the market leaders in home-based energy storage in Europe but is a smaller player in the United States. Its rivals include Tesla and LG Chem.](#) A home-based battery can serve the entire grid. Rocky Mountain Power, the utility serving parts of [Idaho, Utah and Wyoming](#), is [working with sonnen on a virtual power plant](#) in which the utility provides a rebate to encourage customers to participate. 3,500 customers have signed up. They have purchased a sonnen battery system, which starts at about \$10,000, and received rebates. When electricity demand is highest, the utility has the ability to draw electricity from the batteries to support the grid. Customers receive credits on their bills for the electricity they contribute. The Rocky Mountain Power program is one of many virtual power plants across the country. Some other projects, all from the last two years: In [California](#), the utility Pacific Gas & Electric is working with Sunrun, a solar and battery storage company, to [enroll 7,500 customers to be part of a virtual power plant](#) with capacity of up to 30 megawatts. Also, in [California](#), sonnen is working on a virtual power plant with Baker Electric Home Energy, [aiming to sign up 5,000 households by the end of 2025](#). In [Vermont](#), the utility Green Mountain Power has a virtual power plant with more than 4,000 batteries in customers’ homes and businesses, and [is in the process of expanding the program](#). The utility [Hawaiian](#) Electric is working with the energy company Swell Electric on [an 80-megawatt virtual power plant](#) that will serve customers on three Hawaiian islands. A sonnen leader joined sonnen in 2016 following some time at Tesla, where he was sales manager for the Powerwall battery storage system. He was part of sonnen’s management in 2019, when [the company agreed to be purchased by Shell](#), the London-based oil giant. A member of the Environmental Working Group in 2022, [he said, in response to evidence at a Congressional hearing](#), that “Big Oil has zero intention of divesting from fossil fuels” and is instead “engaging in greenwashing tactics.” The author of the article asked the sonnen leader about this criticism. He said the sale to Shell has been good for sonnen, giving the company the resources to expand much more than it could have on its own. “Shell absolutely, positively is not greenwashing.” Much of sonnen’s expansion has been in the United States, with 140 employees and a manufacturing plant and headquarters in Stone Mountain, [Georgia](#), part of a global head count of about 1,500. Batteries are just one of several resources that can be turned into networks, with nationwide capacity that would be in the tens of gigawatts. A report by RMI, the research and advocacy group, showed the potential for 61.9 gigawatts of capacity in the United States in 2030. Batteries would have a small share, 9.9 gigawatts. Electric vehicles would have 17.3 gigawatts, most of which would be from reducing the use of EV charging during times of high electricity demand. The bulk of the capacity would be in buildings, including [19.8 gigawatts in homes](#) and 14.9 gigawatts in businesses, most of which would come from using networks to reduce electricity demand by [adjusting thermostats](#), among other measures. “Virtual power plants can help us keep the lights on and keep electricity affordable, using devices we’ve already bought and paid for, without building new power plants,” he said. Even if you don’t define it so broadly and focus just on [batteries, 9.9 gigawatts, or 9,900 megawatts, is huge, like a dozen natural gas power plants](#). The author of the article doesn’t have a good number on how that compares to [current](#) virtual power plant capacity, which is likely [less than 1 gigawatt](#). If virtual power plants come anywhere close to that kind of growth, sonnen is among the companies that stand to benefit the most. Other stories about the energy transition to take note of this week: 2) [Unpacking Claims About Renewable Energy Credits: The Washington Post has a good explainer](#) on renewable energy credits, showing how low prices of wind and solar power has made it easy for companies to buy cheap credits [on the market](#). The result can be misleading, with companies claiming they get 100 percent of their electricity from clean sources, even if they still rely heavily on fossil fuels.

3) [Tesla](#) Technology Inches Closer to Becoming Industry Standard as Rivian Joins Its Charging Network: [Rivian](#) is the latest maker of electric vehicles to say it will join Tesla’s charging network, following [General Motors and Ford as Tom Krisher reports for the Associated Press](#). The widespread use of Tesla’s charging systems is a victory for Tesla, and could be good

for consumers as a whole, who will have an easier time finding charging stations if most of them are using the same connector. 4) Biden Push to Protect Public Lands Could Slow Development of Renewable Energy. Solar companies worry a new regulation would limit their ability to build, as [Sammy Roth reports for the Los Angeles Times](#). Conservation and development of renewable energy are sometimes at odds. 5) 'Agrivoltaics' Finds New Fans in the US Senate: Senators in both parties have recently proposed bills to support agrivoltaics, which is the **use of solar panels on farmland that also is growing crops**, as [Alison F. Takemura reports for Canary Media](#). Senators' Martin Heinrich (D-New Mexico) and Mike Braun (R-Indiana), bill would increase funding for agrivoltaics research and demonstration projects. The article author states [As I've written](#), there are signs that solar and crops can work well together, but the projects so far have been small. 6) **California** Lawmakers Advance Bills to Speed Grid Connections: The California State Legislature is trying to reduce obstacles that lead to delays for new energy projects to get approval for grid connections, as [Emma Foehringer Merchant reports for ICN](#). Environmental and business groups call it an "interconnection crisis" that is threatening the state's ability to meet its clean energy goals. The number of new projects—mostly **solar farms**—is **more than the grid and power agencies can accommodate**.

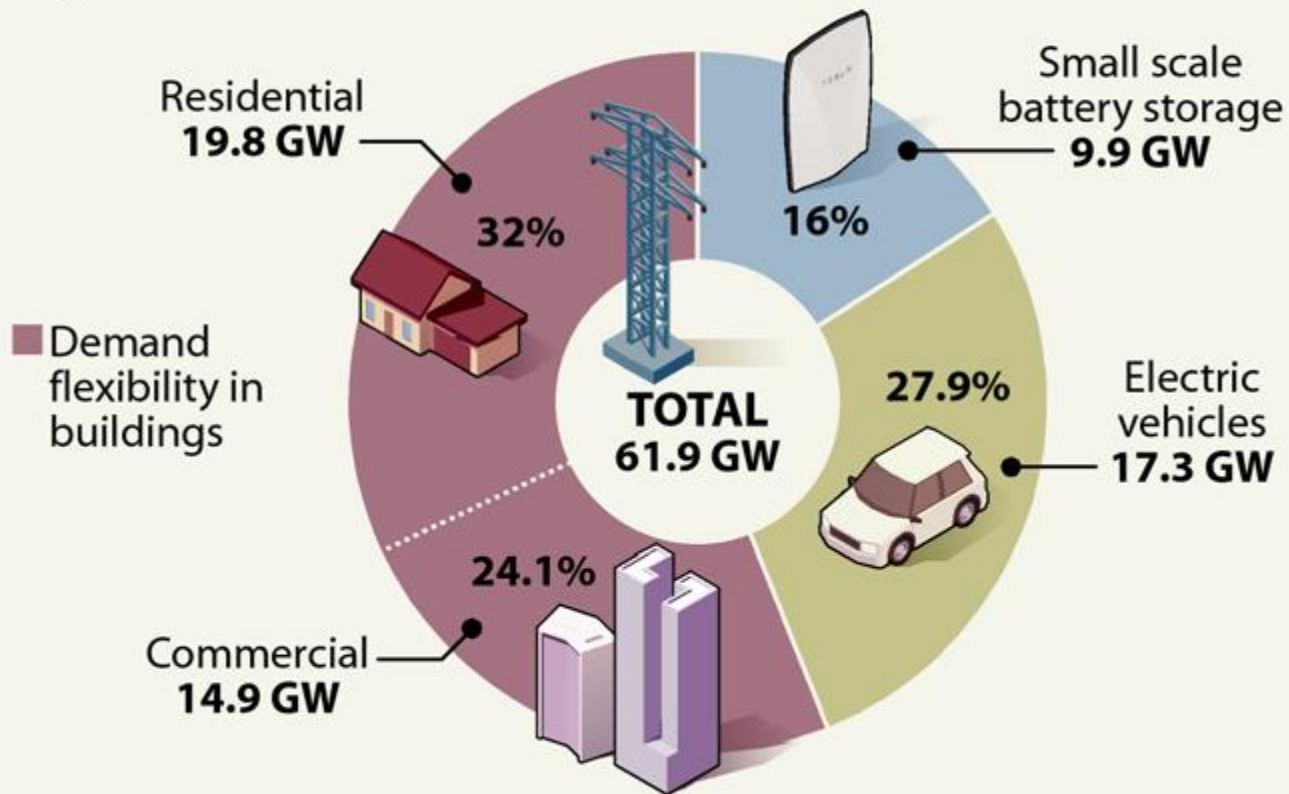
Residents Against Wood Smoke Emission Particulates, see <https://RAWSEPresidents.wordpress.com> and click on the nearest right icon for the latest month, June 2023, of PDFs of articles with U R L's to search on. To the right of that, Games such as 1) Bingo for RAWSEP, 2) Crosswords for RAWSEP, 3) EndWoodSmokeJeopardy. 4) EndWoodSmokeMonopoly Games, 5) a RAWSEP Flyer, 6) the Un-Twist-it Game, and 7) "Vending Machines for PM2.5 monitors", and icon links to 30 minute Youtube videos and Spotify podcasts as well as podcasts on Amazon Music Prime (free for Prime subscribers), podcasts.google.com, Cast Box, and Pocket Cast (Pocket Cast is only free on the phone App. Pocket Cast works on Apple phones) and, below those icons, icon links to monthly PDFs of articles with URL's to search on, from May 2023 to May 2022.

Virtual Power Plants on the Rise

Most of today's virtual power plants are networks of small batteries, but other resources will be larger parts of the mix in 2030, according to a forecast from RMI.

U.S. POTENTIAL VIRTUAL POWER PLANT CAPACITY

In gigawatts, 2030



SOURCE: RMI

PAUL HORN / Inside Climate News