

June 15, 2022, RAWSEP news paraphrased

## Africa

[Exploiting gas reserves is not the solution to develop Africa - Socialist Worker](#) Socialist Worker Woman in Burkina Faso burns highly polluting wood to cook. (TREEAID) ... Many people in Africa rely on burning wood in their homes. RAWSEP View: Many people in Africa rely on burning wood in their homes. This is awful for their health and the planet. But the solution is not to replace one dirty energy source with another slightly less dirty one. Exploiting gas reserves is not the solution to develop Africa. Extending gas infrastructure will not bring people out of poverty. rollout of renewables without detriment to the poorest people is not only possible but essential.

## Air Tracker

[New Tool Shows Air Pollution's Path | Environmental Defense Fund](#)

<https://globalcleanair.org/air-tracker/> For many communities, pollution has long been an unwelcome fellow resident. Air Tracker is changing that. EDF and [our partners](#) have combined this [newly created online tool](#) — run on real-time, trusted scientific models [Air Tracker users can drop a pin on the map](#) and learn the likeliest source area of the air they're breathing.

RAWSEP View: The tool is currently available for Houston, Salt Lake City and Pittsburgh. individual air quality sensors to show real-time and historical fine particle (PM 2.5) pollution readings, wind speed and direction. Air Tracker traces air pollution in Houston, Salt Lake City and Pittsburgh, illuminating potential sources and making data more accessible June 13, 2022, (HOUSTON, TX) Environmental Defense Fund today unveiled [Air Tracker](#), a first-of-its-kind web-based tool that allows users to plot the likely path of air pollution. Run on real-time, trusted scientific models and coupled with air pollution and weather data and developed in partnership with the University of Utah and the CREATE Lab at Carnegie Mellon University, Air Tracker, illuminating potential sources and making data more accessible visit <https://globalcleanair.org/air-tracker/> Monitor used in Houston, and London, \$5,600, not only a PM 2.5 monitor <https://www.thermofisher.com/order/catalog/product/PDR1500>



Thermo Scientific™

*personal* DataRAM™ pDR-1500 Aerosol Monitor

Catalog number: PDR1500

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The Thermo Scientific™ Personal DataRAM pDR-1500 Portable Monitor is a fully integrated, real-time, high precision sampling instrument that provides maximum ease-of-use and increased operating time.

## COVID 19 & PM 2.5

[Don't be fooled: COVID is still with us, dangerous as ever - Daily Kos](#) Daily Kos (**PM2.5** refers to particulate matter larger than 2.5 nanometers; NO<sub>2</sub> is nitrous oxide, O<sub>3</sub> is ozone.) Covid infection may induce severe bone loss, ... RAWSEP View: The short paragraph in this article pertinent to PM 2.5 is “(*Canadian Medical Association Journal*, May 24, 2022) We observed that people with SARS-CoV-2 infection who lived in areas of Ontario with higher levels of common air pollutants (PM<sub>2.5</sub>, NO<sub>2</sub> and O<sub>3</sub>) were at elevated risk of being admitted to the ICU after we adjusted for individual and contextual confounding factors, even when the air pollution level was relatively low. In addition, we found that chronic exposure to PM<sub>2.5</sub> and O<sub>3</sub> was associated with elevated risk of COVID-19–related hospital admission, and exposure to O<sub>3</sub> was also associated with elevated risk of death due to COVID-19. These results suggest that chronic exposure to air pollution before SARS-CoV-2 infection may contribute to COVID-19 severity, particularly chronic exposure to O<sub>3</sub>.”

## Heat Pump Incentives for Consumers (U.S. Government)

[https://focusonenergy.com/heatingandcooling?gclid=Cj0KCQjwwJuVBhCAARIsAOPwGATwL\\_YfTeAKKxTh3o7w47UpBst9JHKkqCBFuiffjPbNF0dt9lzT-tUaAommEALw\\_wcB](https://focusonenergy.com/heatingandcooling?gclid=Cj0KCQjwwJuVBhCAARIsAOPwGATwL_YfTeAKKxTh3o7w47UpBst9JHKkqCBFuiffjPbNF0dt9lzT-tUaAommEALw_wcB) in Wisconsin RAWSEP: Electric heat pumps can cut your heating-related carbon emissions by 40 percent or more compared with a gas furnace. Heat pumps now work in colder climates, as well as warmer ones, due to new technology. Homeowners who switch from oil or propane heat are also likely to save money, too – especially if you live in an area with tax incentives or cash rebates. Check dsireusa.org for programs in your area. In Wisconsin, for example: from Focus on Energy, for Geothermal or Ground Source Heat Pump, with natural gas back-up \$1,000 rebate. How much does a geothermal heating and cooling system cost for geothermal heat pump and installation? Geothermal heating installation costs \$15,000 to \$35,000 on average for a complete system. A geothermal heat pump costs \$4,000 to \$8,000 per ton to install, depending on the loop type, home size, and location. Geothermal systems cost 25% to 65% less to run than conventional heat pumps and last twice as long. Air heat pumps cost on average \$5700 for pump and installation, and run on electricity and can operate effectively down to 5 degrees Fahrenheit.

## Latvia

[Latvians rush to collect wood felling residue - LSM.LV](#) LSM.LV Since the price for heating is expected to double in the winter, many residents who have the opportunity try to switch to wood-burning systems and ...After the completion of felling trees, branches, smaller logs and other remains are left over, and the interest to collect them without additional charges has grown, Latvian State Forests (LVM) told Latvian Radio June 13. price for heating is expected to [double in the winter](#), many residents who have the opportunity try to switch to wood-burning systems and buy material in advance, which has even resulted in a temporary [shortage of wood pellets](#) on the Latvian market. RAWSEP View: Latvians are trading short term cost savings from using collected wood instead of wood pellets, instead of using cleaner heating sources, for long term health problems. There may be no alternative to burning wood in Latvia, which is a terrible choice to have to make, to heat with wood.

## Oklahoma

[Firefighter taken to hospital with minor injury after battling Oklahoma City house fire - KOCO](#) KOCO Fire department officials said a mattress was engulfed in flames and **burning** through a **wood** floor. A firefighter **burned** his arm while trying to ... RAWSEP View: An example of one of the many ways people can be injured in fires. Firedepartment officials said a mattress was engulfed in flames and burning through a wood floor. A firefighter burned his arm while trying to open a window, officials said. He was taken to a hospital with minor injuries.

## Portable Wind Turbine

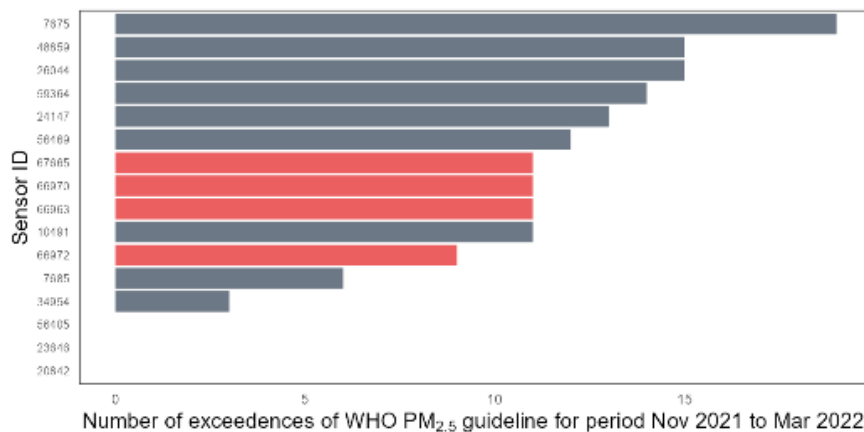
<https://www.dezeen.com/2022/06/07/shine-turbine-portable-wind-power-design/>  
<https://www.indiegogo.com/projects/shine-a-wind-turbine-that-fits-in-your-backpack#/>

RAWSEP View: \$327, 3 pounds, the size of a water bottle, and fits in a backpack, Aurea's Shine Turbine portable wind turbine can charge up to four smart phones (but not at the same time) and other USB devices. "As wind speeds double, power output increases eight times," said Aurea Technologies. "Produces the most amount of energy for the least amount of weight compared to any other portable renewable charger." Designed to provide reliable, [renewable energy](#) on the go. Intended for use during camping trips or in emergency situations

## U.K., England, Bristol

[New data shows damning links between wood burners and toxic air - Bristol24/7](#) Bristol24/7 **Burning wood** or coal pollutes the air inside and outside homes, creating tiny particulates called PM2.5 and PM10 which can cause heart and lung ...

RAWSEP VIEW: Ten volunteers based in a Bristol neighbourhood where log burners are common recorded multiple breaches of daily guidelines for air pollution over a six month period. 11 exceedances of World Health Organization (WHO) daily guidelines for PM 2.5 between November and March. Sensors in Ashely ward, including Montpelier, St Werburgh's and St Paul's – where many Victorian and Georgian houses have been renovated and had solid fuel-burning appliances installed. The sensors, indicating levels of PM10 and PM2.5 pollution, are operated for the [Slow the Smoke](#) project.



Data shows 11 breaches of WHO daily guidelines for PM2.5 between November and March – image: Bristol City Council

## Wood burning detected by Artificial Intelligence (AI) in Israel

[AI finds hidden evidence of ancient human fires 1 million years ago | New Scientist](#)

New Scientist **Wood burning** fire. The heat of a fire can make lasting changes to nearby stones. Chris Howes/Wild Places Photography/Alamy.

RAWSEP View: Artificial Intelligence (AI) finds hidden evidence of ancient human fires 1 million years ago. An AI tool has spotted subtle evidence of changes in flint tools that indicate ancient humans had cooking fires at a 1-million-year-old archaeological site in Israel. Last year, a group of researchers in Israel [unveiled a deep-learning AI tool that can identify subtler signs of fire](#) caused by exposure to temperatures of between 200 and 300°C. The team trained the algorithm by gathering chunks of flint from non-archaeological sites in the Israeli countryside, heating them to particular temperatures in the lab and then tasking the AI with identifying subtle changes in the flint's response to UV light.

Now, the team, working with [Michael Chazan](#) at the University of Toronto in Canada, has used the algorithm to look at flints from a 1-million-year-old ancient human site called Evron Quarry in Israel.