Episode 56UQ June 11, 2024. A GET, Advanced Conductoring, to improve the US electric grid.

United States. A Grid-enhancing technology, G E T, or GET, Advanced Conductoring, is set to improve the US electric grid in 21 states. RAWSEP View: Advanced Conductoring is an example of a solution to the problem of rural areas or storm affected areas losing power when the electric grid fails. This rural or storm affected electrical grid failure, because of outdated wiring, is used by proponents of polluting wood burning as an excuse to continue indoor residential wood burning, as a highly air polluting backup to the electrical grid. A side effect of installing new wires with better connectivity is that these wires will be stronger and less apt to sag against trees and start fires during a storm event. In answer to current wood burners' specious argument to continue indoor residential wood burning, the obvious answer is that even in areas that have not had outdated wiring replaced, there are better alternatives for backup to the electrical grid. These cleaner alternatives to backup wood burning are backup natural gas generators or backup LPG gas generators, because wood burning emits 450 times the air polluting PM2.5 as the fossil fuel natural gas burning. Across Africa, wood burning is being replaced with LPG gas burning for home cooking. LPG is far more energy concentrated than wood: annual per capita cooking requires 43 kg instead of 400 kg of wood. LPG transfers 50% of its energy content to the pot, compared to wood's 10-20%. Unlike wood, an LPG fire can easily be turned on and off. Instead of emitting choking smoke, its exhaust is considered relatively problem-free for indoor use. Using the bridge LPG Gas as a fuel for home cooking, rather than wood burning, will save many lives in Africa. Although Liquid Petroleum Gas, or LPG is not a perfect fuel, it is a much cleaner alternative to wood burning. Wood burning also emits 2.8 times the CO2 and PM2.5 as the fossil fuel coal burning. Wood burning emits 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 and early deaths. From the article: In the United States. 21 States with Democratic Governors are part of the Advanced Conductoring Federal Project to install new electrical wires in 21 states' electrical grids. National Public Radio. MAY 28, 2024. Heard on "All Things Considered", Transcript. RAWSEP's choice of key sentences from the article below: A new Government program of replacing old electrical wires will be done for 21 US States, to allow more power to be connected to the grid. A beneficial side effect of the new wires is that these advanced power lines are stronger, and they're lighter weight, and so they don't sag like traditional power lines. And that's a big deal because we're seeing some wildfires starting when the old power lines sag and rub up against tree branches. Over a million electricity customers in Texas were without power after severe storms over the Memorial Day weekend. The White House announced a program that could help make electricity more reliable. Excerpts Edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. Over a million electricity customers in Texas were without power today after severe storms rolled through the state over the Memorial Day weekend. While Texas has its own power grid, today the White House announced a program that could help make electricity more reliable for U.S.

homes and businesses. Michael Copley from NPR's Climate Desk is here to talk about what the Biden administration is doing. COPLEY: (Announced May 28, 2024) it's a program between the federal government and 21 states to try to make the electric grid work better. You know, the Biden administration has put a lot (into) building more wind and solar plants to limit climate change. But power grids in the U.S. are old, and they can't handle all that new power. And that's creating long lines of projects that are waiting to connect into the grid. One solution is building more power lines, essentially expanding the grid. But that takes a long time, and it costs a lot of money. So the White House and 21 states are also trying to roll out different technologies to get more out of the grid that's already been built. That means making sure the grid can handle more electricity and move it around to where it's needed most. Folks who live in the southern U.S. already know heat waves. And scientists say this could also be a record year for hurricanes. Could new (advanced conductoring) help keep the lights on in that kind of extreme weather? COPLEY: The short answer is yes. Advanced conductoring means replacing old transmission lines with new wires that can carry a lot more electrical current. That could help companies connect more power plants to the grid, and it could make it easier to move electricity between different parts of the country. Being able to move electricity around essentially provides a backup when the weather knocks out power plants in one part of the country. For a lot of Americans, their utility makes more money if they invest in big projects. Replacing electrical wires might not actually be all that attractive to (utility companies) because it's quick and inexpensive. One of these projects could take about two years to do. That compares to a decade for a brand-new transmission line. The states in the initiative are Arizona, California, Colorado, Connecticut, Delaware, Hawai‘i, Illinois, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Washington, and Wisconsin. They are all led by Democratic governors and are members of the U.S. Climate Alliance. Grid-enhancing technologies or GETs are the lowest hanging fruit for adding capacity to the grid at the least cost. “there’s no reason not to love grid-enhancing technologies, unless you’re a transmission developer”. To RAWSEP’s editor, this new government programs seems a little like the Clip, which is a new product that converts an ordinary bicycle to an electrical bicycle. The Clip comes in two versions, one less than 9-pounds or one less than 10-pound, that cost $499 or $599, that you can now put on ordinary bikes to transform them into electric bikes that can travel on electric power 6 or 12 miles on a half hour or hourlong charge. One advantage is that you can take the Clip off the bike when you reach your destination and stow it in your backpack. Reviews have said that the Clip does not work as well as a traditional e-bike, but it is a friction drive that converts non-electric bikes into electric bikes in seconds. RAWSEP’s editor does not work for The Clip and does not (yet) own the Clip. “It gives life to an old bike” said one reviewer. It’s conversion kit is easy to install, and easy to use, said a reviewer in “The Week”, the weekly newsmagazine on Page 20 of the June 14, 2024, edition.