Episode 56LH November 9, 2023. Rebates coming in 2024 for Heat Pumps, now Tax Incentives only for people owing taxes.

RAWSEP View: 1)Inverter heat pumps are needed for colder winter states. More expensive heat pumps are a necessity in states that have harsher winters. A contractor in the Minneapolis area who has been installing heat pumps for more than 15 years, said he favored inverter. "If you're really trying to put in a heat pump that's going to heat well in Minnesota, you need an inverter heat pump," he said. Inverter heat pumps are more efficient and less noisy and work at lower temperatures. Higher-efficiency heat pumps generally cost more than lower-efficiency ones and are harder to find.

2) Consumers must wait for rebates for Heat Pumps until 2024, and these rebate programs will be administered by each state, not federally. Some people, including most lower-income Americans, cannot take advantage of Heat Pump tax credits in 2023 for up to $2,000 because they do not owe enough in taxes. .A much more generous program would provide rebates of up to $8,000 for heat pump purchases, which the IRA climate law also authorized, is not expected to be up and running until sometime until 2024 and the timing will vary by state. That program is taking longer to set up because it will be run by state governments, which have to devise a system for dispensing the money and then submit those plans for approval by federal officials. Rebates coming in 2024 for Heat Pumps, but now Tax Incentives are only for people owing taxes. . Energy experts said interest in heat pumps should pick up when states began rolling out rebates, which will immediately lower costs and will not require people to wait for tax filing season to claim a credit. The rebate programs provide a total of $8.8 billion for various home energy efficiency and electrification projects. States have until the end of January 2025 to seek the money. Just 22 percent of Americans had heard "a great deal" or "a good amount" about the tax credits for heat pumps, while 77 percent had heard "a little" or "nothing at all," according to a July poll.

The New York Times. Heat Pump Installations Slow. edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates. Heat pumps can operate at more than 100 percent efficiency, which is much higher than a typical air-conditioner or furnace. Nov. 9, 2023. More Americans are buying heat pumps, an environmentally friendly alternative to furnaces and air-conditioners that can significantly lower monthly energy bills. But the pace of installations has slowed in the past year. Rising interest rates and inflation combined with a slow and confusing rollout of federal government incentives for the purchase of heat pumps are largely responsible for the recent drop in sales, energy analysts said. These headwinds, if they persist, could jeopardize President Biden's goals of effectively eliminating U.S. emissions of greenhouse gases by 2050. the Inflation Reduction Act, offers tax credits of up to $2,000 a year for the purchase of heat pumps, devices that can heat and cool homes and are significantly more efficient than oil and gas heaters. Those incentives defray only a small portion of the $16,000 an average heat pump installation costs, according to Rewiring America, a nonprofit group that is working to increase the use of cleaner forms of energy.. "We're not on track," said director of the Greenhouse Institute, Installations have slowed recently because the cost of installing a new heat pump is significant enough that many homeowners need to borrow money to buy one.. "higher interest rates on HVAC installations act to slow Heat Pump purchases," said a research firm, referring to heating, ventilation and air-conditioning systems. Unlike air-conditioners or furnaces that cool or heat the air inside homes, electric heat pumps transfer heat, moving it either into or out of buildings. As a result of how they function, heat pumps can operate at more than 100 percent efficiency, which is much higher than a typical air-conditioner or furnace. The typical homeowner can save more than $500 a year in energy and heating bills by replacing an older heating and cooling unit with a heat pump, according to Carbon Switch, a renewables and clean energy company. The I.R.A. limits the use of the heat pump tax credit to devices that meet or exceed high-efficiency standards. Some homeowners who have recently purchased heat pumps said the federal incentives in the I.R.A. were difficult to use. an engineer in Chapel Hill, N.C., said she and her installer had spent hours combing through a federal database to figure out which model would qualify for the $2,000 federal tax credit. Even after all that work, she said, she is still not sure if the system she bought, which cost her $11,000, will qualify for the tax break when she files her tax return next year. President Biden's signature climate law, the Inflation Reduction Act, offers tax credits of up to $2,000 per year for the purchase of heat pumps. investments in electric vehicles and solar panels were accelerating faster than heat pumps, but that the market was growing relative to competing devices that burn fossil fuels. Total heat pump shipments this year have been higher than orders for warm-air furnaces fueled by gas or oil, according to the Air-Conditioning, Heating and Refrigeration Institute, an industry group. Biden administration officials also noted that the recent drop in installations had followed a surge in the pandemic when lots of Americans were renovating homes. Sales of heat pumps this year are still expected to be higher than they were in 2019 before the pandemic.

Some states were offering heat pump incentives long before Congress passed the I.R.A. Maine started its rebate program in 2012. So far this year, 32,000 heat pumps installed in the state of Maine have received rebates, up from 28,000 in 2022 and 8,000 in 2018, according to Efficiency Maine, which administers the state's energy programs. Montana, which has one of the lowest rates of heat-pump sales in the country, has seen an uptick in interest for installations, said the head of the energy department at Montana's Department of Environmental Quality. The state has applied for $1.8 million in administrative funding from the federal government, which it will then use to apply for $71 million to hand out as rebates. But even once the state's rebate program is up and running, which he said would be in early 2024, he expects challenges. Montana will have to get more contractors trained to install heat pumps, especially in more rural areas. Another bigger problem is that many Americans are not aware that they could save thousands of dollars through the Inflation Reduction Act's programs.

Other Environmental News from the New York Times. Offshore Wind Farm: The Interior Department approved a plan to install up to 176 giant wind turbines off the coast of Virginia, clearing the way for what would be the nation's largest offshore wind farm yet. Power Grids: The Energy Department will spend $1.3 billion to upgrade America's electric grids so they can handle more wind and solar power. An Unpopular Plan: In Wyoming Explosive reactions to a proposal that would block oil and gas drilling on 1.6 million acres of high desert sagebrush steppe in Wyoming show how Biden's climate policies are crashing into walls in some oil and gas states. Hydrogen Hubs: The Biden administration will award up to $7 billion to create seven regional hubs around the country that will make and use hydrogen, a clean-burning fuel that could help fight climate change

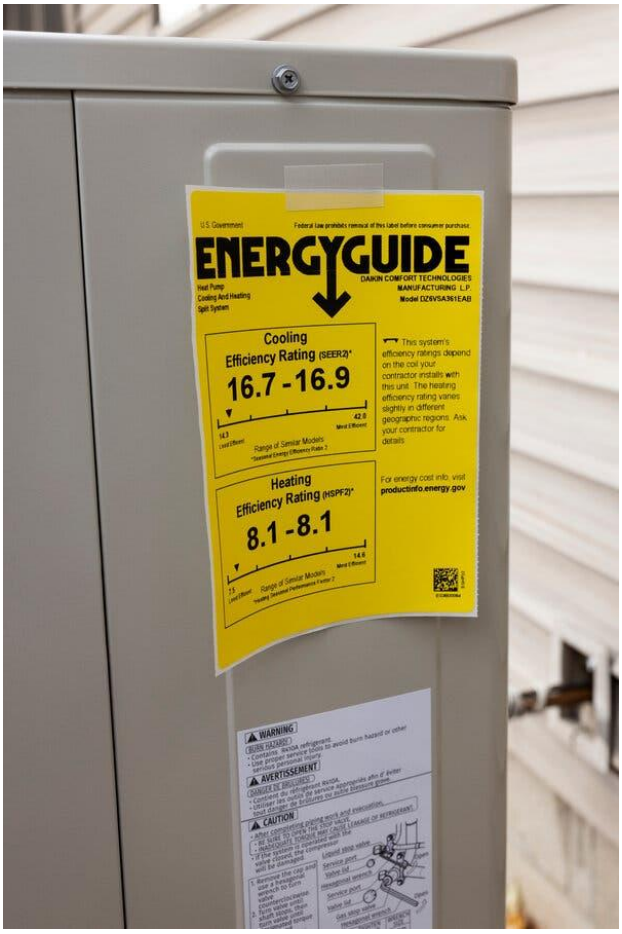
Results of searches on the internet about Heat Pump financing. Can I get a tax incentive or rebate to help pay for a heat pump? Home Heating and Cooling (HVAC) Heat Pump: 100% rebate (up to $8,000) for low income* ... Hot Water Heat Pump. 100% rebate (up to $1,750) for low income. Electric Panel Upgrade. 100% rebate (up to $4,000) for low income. ... Electric Wiring. How to get money for a heat pump? All taxpayers are eligible for a federal tax credit worth up to $2,000 on high-efficiency heat pumps. Low- and moderate-income households might qualify for a heat pump rebate up to $8,000, but there are many restrictions.Oct 27, 2023 What is the Inflation Reduction Act for heat pumps in 2023? Starting in 2023, homeowners are eligible for a tax credit of 30% of the cost, up to $2,000, for heat pumps, and/or heat-pump water heater, in accordance with section 25C of the US tax code. What is the Washington state heat pump rebate? Utility programs Puget Sound Energy offers rebates of $1,500 to $4,000 for converting from an electric forced-air furnace to a heat pump and, for low-income customers, a $2,400 rebate for energy efficiency upgrades.(message dated Aug 23, 2023.) Coming soon: more oil, gas and coal

It's no secret that fossil fuels are still going strong, as we discussed last month. But a new United Nations-backed report paints an alarming picture of how dramatically coal, oil and gas production is expected to grow in the coming years.

RAWSEP View: If nations are replacing fossil fuel burning with wood burning, we are going backward faster toward climate change. New York Times Climate Forward Newsletter. In the United States, where President Biden campaigned under a "no more drilling on public lands" slogan, the Willow project will extract 600 million barrels of oil from pristine federal land in Alaska. The U.S. is now the world's biggest crude oil producer, and is ramping up exports of natural gas. Its two biggest oil companies are buying up smaller rivals in a bet that fossil fuels will remain profitable for decades to come. Canada, which wrote its 2050 net-zero commitment into law, is on track to boost its oil output by 25 percent in the next 12 years. Meanwhile, major fossil fuel producers like Saudi Arabia and Russia seem to be vying to become the last ones standing as the world transitions to cleaner energy sources. Only a handful of countries among the biggest fossil fuel producers plan to reduce their total output by 2030, including the United Kingdom, Germany, Norway and China. China remains by far the world's biggest fossil fuel emitter, largely through oil, gas and coal that it imports from other countries. As global leaders gather in Dubai for the United Nations' climate talks known as COP28 later this month, there will once again be calls for collective action to reduce planet-warming emissions and expand renewable energy. But it's far from certain that countries would reach an agreement about how — or whether — to phase out fossil fuels. This year's talks are taking place in the United Arab Emirates, overseen by the chief executive of the state oil company, who expects production to expand "as long as the market demands it." In the absence of a tax on carbon, which has been politically untenable in the United States and elsewhere, there are few incentives for state-owned or private companies to cut production. What's more, the world still lacks examples of industrialized countries that have successfully moved away from oil and gas. Norway has mostly phased out the use of fossil fuels for its own energy needs, but remains a major exporter of oil and gas. The country's prime minister has said that phasing out fossil fuel "will have to come from the demand side," not "political decisions to cut the supply side." Britain cut 46 percent of its emissions from 1990 levels, but in July

announced that it would grant hundreds of new oil and gas licenses in the North Sea, as prime minister Rishi Sunak's administration started to reverse earlier climate policies. And Colombia's government announced in January that it would ban all new oil drilling, but has faced harsh criticism and low approval ratings as it struggled to present a credible transition plan. "It's looking really dire," said the U.N. Environment Program's global coordinator for climate change. "We're really on life support here."

RAWSEP View: Stop emitting CO2 in the first place, instead of attempting to capture CO2 from the air, after burning wood or burning fossil fuels. Heirloom's plant in Tracy, Calif., pulls carbon dioxide from the air so it can be sealed permanently in concrete. The New York Times The first U.S. direct air capture plant opens. The first commercial plant to pull carbon directly from the air in the United States opened today in Tracy, Calif. The technique, called direct air capture, could be crucial for fighting climate change if it succeeds at a larger scale. Heirloom, the start-up that built the facility, will take the carbon dioxide it pulls from the air and have the gas sealed permanently in concrete, where it can't heat the planet. To earn revenue, the company is selling carbon removal credits to companies paying a premium to offset their own emissions. The artificial methods of removing carbon dioxide from the air are wildly expensive, and some critics fear they could distract from efforts to reduce emissions. The small California plant can absorb a maximum of 1,000 tons of carbon dioxide per year, equal to the exhaust from about 200 cars. But Heirloom hopes to expand quickly. "We want to get to millions of tons per year," said the company's chief executive. "That means copying and pasting this basic design over and over." Heirloom's technology hinges on a simple bit of chemistry: Limestone, one of the most abundant rocks on the planet, forms when calcium oxide binds with carbon dioxide. In nature, that process takes years. Heirloom speeds it up. At the California plant, workers heat limestone in a kiln powered by renewable electricity. Carbon dioxide is released from the limestone and pumped into a storage tank. The calcium oxide that remains is then doused with water and spread onto large trays, which are exposed to open air. Over three days, the white powder absorbs carbon dioxide and turns into limestone again. Then the process repeats. Other News from the New York Times' Climate Forward Newsletter. Michigan's legislature passed a landmark clean energy package that would shift its economy to zero-emission climate-friendly electricity sources by 2040. Heat pump sales are up but the pace of installations has slowed, threatening the Biden administration's climate plans. In a major a setback for the nuclear industry, a developer of small reactors said it was canceling a closely watched project in Idaho.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