

In this Webisode [1](#) United States The Sister Study [2](#) Alaska [3](#) California [4](#) Florida [5](#) Georgia The Smoke over Atlanta signals a Georgia forest story you might not know [6](#) Indiana [7](#) Louisiana Gerrymandering in Southern States allowed [8](#) Michigan [9](#) Montana [10](#) New Jersey [11](#) New York The data is clear Utilities are overcharging New Yorkers who install heat pumps by an average of Eight Hundred Fifty Five Dollars a year which runs directly counter to the New York State push to electrify the buildings of New York State Simply offering fair rates to these customers would make heat pumps the cheapest way to heat Eighty Three Percent of homes in New York State [12](#) North Carolina [13](#) Oklahoma [14](#) Texas Why the skies of the Rio Grande Valley are gray Smoke haze leads to air quality concerns [15](#) Vermont [16](#) Washington [17](#) Wisconsin [18](#) Canada [19](#) Australia Electricity networks still need to pay for poles and wires regardless of how much energy flows through them As households install solar and reduce grid consumption recovering those costs through usage alone becomes more difficult [20](#) United Kingdom [21](#) Europe Progress in improving the air quality of Europe but further action needed to address Two Thousand Thirty limits [22](#) Germany Car industry supplier Bosch turns to heat pumps to escape combustion engine crisis [23](#) Ukraine [24](#) Turkey [25](#) China Chinese Air Source with Ground Source Heat Pumps in a Rail Station Main Content

[1A1](#) United States heat pump rebate ENERGY STAR Heat Pump Version Six point Two Update Reshapes Two Thousand Twenty Six Heat Pump Buying Rules Intelligent Living Learn how the Two Thousand Twenty Six ENERGY STAR Heat Pump Version Six point Two rules update efficiency standards cold climate reporting and rebates for homeowners and

[1A2](#) United States Four Takeaways from the Biggest Heat Pump Expo in the Nation [Excerpts](#) [edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization](#)

PHCP Pros Explore the latest innovations in heat pump water heaters and air to water technology as manufacturers expand product lines to meet the surging Green Trends Manufacturers are rapidly expanding product options to meet rising demand for affordable low carbon heating technologies May 4 Two Thousand Twenty Six In early February I had the opportunity to travel to Las Vegas for the AHR Expo The ginormous Fifty Three Thousand person expo focused primarily on space and water heating systems is a Mecca of sorts While there I stopped by dozens of booths and talked with dozens of manufacturers to see the latest innovations in heat pump water heaters for both residential and commercial buildings Here are four of my top water heater takeaways from a jam packed two days at the AHR Expo A solid residential HPWH showing Residential HPWH manufacturers were out in full force at AHR I counted a dozen brands with products on display GE Bradford White LG Steibel Eltron Vaughn Navien Ariston Rheem AO Smith Noritz Bosch SanCO2 and Rinnai all had HPWHs proudly displayed I talked with many manufacturers and heard that HPWHs are the future and they want this heat pump future Manufacturers told me again and again that they were highly invested in the technology as HPWHs meet so many of their goals helping the grid helping lower utility bills helping the environment and yes helping their bottom lines While there were not a ton of brand new HPWH models on display many new HPWH manufacturers GE and Navien had come to market only last year and others made significant product updates Ariston Rheem Bradford White and LG which is coming out later this year The two new products on display that I noticed were from Noritz a tankless water heater manufacturer with a new HPWH and Navien with a dual fuel HPWH with a gas backup Central HPWHs everywhere! So much innovation in commercial heat pump water heaters was on display at AHR that I am sure I missed much of it Every boiler manufacturer seems to be coming out with a heat pump which is fantastic news for the climate There were different central HPWH configurations refrigerants sizes and form factors on display highlighting the many product innovations and options for building types and applications Some of the booths and manufacturers I was able to catch during my two days in Las Vegas were Eco2Systems is launching a larger central HPWH this year Laars E Therm is launching a

smaller Fifty Kilowatt version of its central HPWH this year as well. It had launched a larger version of this equipment in Two Thousand Twenty Five. Transom is launching a small commercial HPWH called the Trent. Nyle is launching a new modular HPWH called the Velo that promises to be able to fit through a doorway and not need a swing tank. Colmac launched a new HPWH called the CXA Fifteen. The Daikin Mega Q cascading central HPWH recently hit the market. I am sure I missed some so please let me know your insights into other brands if you were able to make it to the show. Air to water heat pumps are having a moment. One technology that seems to be having a moment thanks to its prominent presence at AHR is the air to water heat pump for space and water heating. Air to water heat pumps or combi space and water heaters can heat and in some instances cool both a home and its hot water from a single heat pump. Check out our factsheet on this topic here. There were multiple manufacturers with products on display. Several are already on the market and the others have plans to launch very soon. Among those I was able to catch were Spacepak has been in the market with an air to water heat pump for some time with its Solstice model. The Mitsubishi EcoDan is coming to the US market soon. Daikin is launching its Altherma 3 very soon. Samsung is launching its first entry into the market the EHS soon. The NTI new Verta series is coming to market. The Hitachi Bosch AirH20 came to market last year. Split HPWHs are coming to market. Finally split HPWHs were another form factor on display and a topic of conversation at AHR. Split HPWHs are water heaters where the compressor is outside and the water tank is inside. Sometimes the connection between the inside and outside units is a refrigeration line and sometimes it is a water line. In unitary HPWHs they are all one unit. This might be an important type of technology for homes that do not have the space or air space for a unitary HPWH and so want to locate the part that produces sound and cool air outside. Two manufacturers I saw had split HPWHs on display. Ariston has a small commercial water heater the Nuos Extra which is coming soon. The AO Smith Voltex X will come to market very soon. This HPWH can be used in both residential and commercial settings and will have water lines connecting the indoor and outdoor units. All in all AHR was a bonanza of heat pumps and HPWHs showcasing a wide variety of form factors, innovations and product options. As heat pumps continue to make inroads on space and water heating in the United States, manufacturers are responding by building many great products to meet our US need for clean, affordable heat.

1A3 United States heat pump Homeowner seeks advice after AC fails to cool home during brutal heat. Yahoo Shopping Pairing a heat pump with solar panels and ditching an outdated AC unit or furnace is one of the most effective ways to reduce energy consumption from **Excerpts** edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization. The Cool Down April 29 Two Thousand Twenty Six Dealing with summer heat can be exhausting and when an AC unit starts to fail it can quickly feel overwhelming. That is why one homeowner took to Reddit for advice on whether it is worth upgrading to a heat pump HVAC. The homeowner explained in the Heat Pumps subreddit that their 18 year old Goodman AC unit is failing to cool their home amid scorching temperatures. The AC unit cannot keep up when it gets above 100F the original poster said. The OP added that they have solar panels and batteries installed on their property and the system generates more than enough energy for their needs. I turned my system on Jan 6 and have been essentially off grid ever since they said. Pairing a heat pump with solar panels and ditching an outdated AC unit or furnace is one of the most effective ways to reduce energy consumption from the grid and protect against rising bills. In fact a high efficiency HVAC upgrade such as a leased system from the Palmetto HVAC experts can help homeowners cut energy costs by up to Fifty Percent. While the furnace of the homeowner was still working well switching to a heat pump or hybrid system for home heating could lead to significant savings during the winter months. Fortunately commenters were quick to jump in and highlight just how much the OP could save with an upgrade. Mild climate plenty of solar and HVAC nearing its life expectancy makes switching to a heat pump a no brainer one user wrote. If you can eliminate any other gas appliances too you will save a lot on the monthly fixed costs of just having gas service. Heat pump is totally worth it another added. This homeowner is not alone. In fact a

Harvard study found that some US homeowners could shave thousands off their energy bills by upgrading to heat pump appliances

1A4 United States heat pump rebate Missed The May Battery Rebate Cutoff? Here is What To Do Solar Quotes The rebate has dropped from Three Hundred Dollars per kilowatt hour of Top 5 Heat Pump Brands Heat Pump Installation Heat Pump STC Calculator

1A5 United States heat pump rebate Some Americans still qualify for One Thousand Seven Hundred Fifty Dollars in rebates for a new water heater Yahoo Shopping According to the EnergyStar rebate finder there are 234 incentives for heat pump water heaters across the United States

1A6 United States heat pump rebate US Heat Pump Market Size Share Growth and Analysis Twenty Thirty Four Market Data Forecast rebates for homeowners who upgrade to high efficiency electric heat pumps According to the Internal Revenue Service eligible taxpayers can claim

1A7 United States heat pump Why Your Water Heater Should Be a Battery Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization YouTube How This Heat Pump Water Heater is Also a Battery Go to https://ground.news/undecided-for-an-innovative-way-to-stay-fully-informed-on-tech/ AI Summary To enhance energy efficiency and reliability consider why your water heater should be a battery Provides backup power during outages ensuring hot water availability Stores excess energy from renewable sources like solar or wind Reduces energy costs by using off peak electricity for heating Offers a sustainable solution by integrating with home energy systems Improves overall energy management and grid stability Allows for smart home integration optimizing usage based on demand

1B1 United States Wood burning PM TWO POINT FIVE Growing impacts of fire smoke on ozone pollution and associated mortality burden in the Science Fire smoke pollution is an emerging health risk factor yet prior studies have focused mostly on fine particulate matter PM TWO POINT FIVE and neglected the

1B2 United States wood burning RAW SEP Top Excerpt The Sister Study Forty Three Percent figure is higher likely because it tracked actual stove and fireplace use rather than relying on regional or national estimates Back to the Article Headline This everyday heating method could increase lung cancer by Forty Three Percent Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization Futura Sciences Women who burned wood more than Thirty days per year showed a Sixty Eight Percent higher risk The effect appeared even among those who never smoked a population Wood heating is often seen as the ultimate renewable comfort affordable cozy and carbon neutral But a study of Fifty Thousand women has found that the atmosphere inside a wood heated home is far from benign According to research published in Environment International using an indoor wood stove or fireplace raises the risk of lung cancer by Forty Three Percent Fireplaces and Stoves The research drew on the Sister Study a massive effort following Fifty Thousand women across the United States Every participant in this group had a sister diagnosed with breast cancer This provided a unique long term dataset to track other environmental risks Doctor Suril Mehta of the NIEHS led the effort His team documented how often these women used wood stoves and exactly what fuel they burned By following these cases as they emerged the researchers established one of the first direct links between wood smoke and lung cancer in a US population What the data showed Women who used indoor wood heating regularly showed a Forty Three Percent higher likelihood of developing lung cancer compared to nonusers The risk rose with frequency Women who burned wood more than Thirty days per year showed a Sixty Eight Percent higher risk The effect appeared even among those who never smoked a population where lung cancer risk is typically considered low and whose exposures are harder to attribute to a single source The International Agency for Research on Cancer classifies indoor emissions from household wood combustion as Group 2A meaning probably carcinogenic to humans based on evidence from more than a dozen studies A separate analysis of studies from higher income countries in Europe and North America found wood users carry a Twenty Percent higher lung cancer risk on average The Sister Study Forty Three Percent figure is higher likely

because it tracked actual stove and fireplace use rather than relying on regional or national estimates According to a large American study wood heating increases the risk of lung cancer in women by Forty Three Percent Why the exposure builds indoors Wood smoke contains polycyclic aromatic hydrocarbons benzene and One Three butadiene all classified as carcinogenic or probably carcinogenic by regulatory agencies These compounds bind to surfaces settle into carpets and upholstery and reenter the air through normal household activity The particles themselves measure below Two point Five micrometers in diameter small enough to bypass the airway filtering mechanisms and reach deep lung tissue directly Statistics from Santé Publique France show that in France residential wood heating accounts for Forty Three Percent of all PM TWO POINT FIVE emissions the largest single source of fine particle pollution in France The reliance is equally visible elsewhere approximately two million American households use wood as their primary heat source while Seven point Five Percent of all homes in the United Kingdom depend on it for warmth Health Why women appear more affected The Sister Study focused exclusively on women so direct male comparison data from the same cohort does not exist But researchers point to several factors that may explain higher female vulnerability Women in many households spend more time indoors near the fire source Some studies suggest that narrower airways in women may increase the dose of particles reaching sensitive lung tissue per unit of air inhaled And historically research on indoor air pollution has underrepresented female exposure patterns meaning the risk may have been systematically underestimated for decades Mehta noted that the findings represent some of the first prospective US evidence showing that even occasional indoor wood smoke exposure is linked to higher lung cancer incidence Using a wood stove for more than Thirty days a year would increase the risk of lung cancer to Sixty Eight Percent Fireplaces and Stoves Reducing exposure without eliminating wood heat For households that rely on wood heating several practical steps reduce exposure without requiring a full system replacement Ventilating rooms for 10 minutes twice daily reduces indoor particle accumulation Annual chimney maintenance lowers combustion byproduct buildup in flues Using dry untreated wood with moisture content below Twenty Percent reduces incomplete combustion which produces the highest particle loads Certified high efficiency stoves produce measurably lower emissions than older models For households considering a full system change heat pumps and pellet stoves both produce substantially lower fine particle emissions than open fireplaces or conventional wood stoves

2 Alaska Anchorage wood smoke Letter Planning for winter power outages beats panic burning in open fireplaces [RAW SEP View](#) It is not a solution to air pollution to install a catalytic wood stove insert into an existing wood stove Wood stoves should be removed and Heat Pumps which work down to Forty Below Zero used for residential home heating if the objective is to eliminate air polluting PM Two Point Five emissions from home heating Even if Alaska reaches Twenty Two Below Zero surely this will not happen in May Two Thousand Twenty Six If a rational person is elected US Senator from Alaska in November Two Thousand Twenty Six perhaps that Senator can influence policy in Alaska to provide new Subsidies for Heat Pumps to make them affordable to Alaskan citizens **Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization** Anchorage Daily News May Second Two Thousand Twenty Six wood smoke when the simple directions are followed This is far preferable to the alternative panicking homeowners burning not just what little Letters to the Editor Letter Planning for winter power outages beats panic burning in open fireplaces Published May Second Two Thousand Twenty Six Regarding the possibility of rolling gas blackouts on very cold winter nights and the cold demands of Winter a contingency plan The Letter is from April Twenty Fifth Two Thousand Twenty Six **the first reflexive response will of course be that thousands of homeowners will light fires in their usually cold unused fireplaces** which will produce lots of smoke and do little to heat their homes as is well known with conventional fireplaces On the other hand over the course of the next year or two hundreds or hopefully thousands could convert their open fireplaces to efficient home heaters by purchasing and installing catalytic wood stove inserts These are about Eighty Percent efficient at converting the chemical potential energy in dry firewood to home heat

Because they have a catalyst that literally burns the smoke inside the steel or iron stove box they do not produce billowing clouds of polluting wood smoke when the simple directions are followed This is far preferable to the alternative [RAW SEP Interjection](#) which according to this commenter the only alternative [Back to the Article Comment](#) The only alternative is panicking homeowners into burning not just what little firewood they have but plastic waste trash and furniture in normally never used open fireplaces Which is exactly what will happen if there is a rolling gas outage at Twenty Two below zero in Anchorage

[3A](#) California San Diego County wood burning Breaking Wood Fire reported in San Diego County on May First Fresno Bee Wood Fire has been burning on private land At this time the containment status is unknown and the cause of the fire remains undetermined Source

[3B](#) California heat pump rebate officials announce ultra efficient HVAC rebate program MSN heat pump with visible electrical tools While heat pump HVAC systems are a proven way to reduce heating and cooling costs worldwide two key Yahoo While heat pump HVAC systems are a proven way to reduce heating and cooling costs worldwide two key barriers continue to slow their adoption in

[3C](#) California Tom Steyer [RAW SEP View](#) This New York Times article again singles out Steyer for criticism because of his wealth The Tom Steyer longtime advocacy for Clean Energy is questioned because he is a millionaire In the past one of the companies he formerly owned has gone on to continue to invest in coal even after Steyer left the firm in Two Thousand Twelve It is questionable whether Steyer can influence the company away from coal after he has left the company [From the article headline](#) Steyer a Climate Activist Retains Ties to a Hedge Fund That Backs Coal Questions linger about the finances of Tom Steyer who has emerged as a leading contender in the California race for governor He says he has asked that his money be separated from fossil fuel investments [Raw Sep View](#) Does the New York Times doubt that Tom Steyer is a Climate Activist? Does the New York Times have anything new to say about Farallon Capital? [Excerpts edited by Residents Against Wood Smoke](#)

[Emission Particulates a 501C3 nonprofit organization](#) The New York Times May 5 Two Thousand Twenty Six Tom Steyer has become a leading contender in the California race for governor since the sudden withdrawal of Eric Swalwell last month Tom Steyer one of the front runners in the California race for governor has said that he walked away from the hedge fund he managed years ago to focus full time on fighting climate change Steyer did step down as the chief executive of Farallon Capital one of the largest hedge fund firms in the US in Twenty Twelve But his financial records show that he never fully cut ties with the investment firm he founded even as it solidified its role in recent years as a major lender to the coal industry as mainstream banks faced environmentalist pressure to stop funding coal mining The Steyer campaign says that he has asked Farallon to separate his funds from the Farallon investments in fossil fuels [His pivot from hedge fund manager to progressive activist particularly on the issue of climate change has been central to his campaign narrative](#) A number of progressive groups including Our Revolution founded by Bernie Sanders have backed his candidacy Yes Tom Steyer is a billionaire the organization said adding that it matters what he is doing with that power In the past some progressives have defended him when his coal ties have been highlighted Hedge funds manage large pools of money for institutions and wealthy individuals and they typically make sophisticated investments in their quest for outsized profits Today Farallon is one of the Twenty largest hedge fund groups with Forty Four Billion Dollars under management and has expanded into a number of different trading strategies Farallon has invested in coal and financed coal projects going back to when Steyer ran the company In the last half decade Farallon has stepped up its role as a major lender for the industry particularly in Australia as big banks scaled back their ties to high profile coal projects amid pressure from climate activists [Banks still lend plenty of money to the coal industry](#) and [some like Bank of America have reversed course on climate commitments amid Republican pressure](#) Though Steyer stopped running Farallon in Twenty Twelve disclosures from his Two Thousand Twenty presidential run which were filed in Two Thousand Nineteen showed that [his investments in the firm were then worth at](#)

least One hundred ten million dollars and potentially far more since the disclosure forms had no upper limit for the ranges of some investments. Last week during a question and answer session after a debate among candidates for California governor Steyer was asked if he would be willing to repatriate some of the money that you have in the Cayman Islands. I do not have any money in the Cayman Islands he replied. People are making statements that are not true. The truth of the matter is I pay my California taxes and I pay every single tax. I have no money overseas. But the Steyer Two Thousand Twenty Four tax filings show extensive foreign holdings and the word Cayman appears Nineteen times. The records indicate he increased his investment in one of his Cayman based holdings that year by about Eight Hundred Thirty Thousand Dollars, a small fraction of his total investment. Asked to clarify the Steyer comments his campaign said Tom does not personally have accounts in the Cayman Islands or Bermuda but does invest in funds that are domiciled in those jurisdictions that is the standard legal structure across the private funds space. Tom pays US taxes on all of his earnings. Regarding the Steyer statement on Tuesday that he has no money overseas the campaign was asked about the long list of foreign investments listed on his Two Thousand Twenty Four tax return including a British bank account worth nearly Sixty Two Million Dollars. The point he was making is that he pays US taxes on all of his earnings his campaign said. Steyer and his campaign have said that as governor he would work to make home batteries rooftop solar panels and EVs more affordable and demand that oil companies pay higher costs. He has been a longtime backer of the California cap and trade program aimed at offsetting global warming emissions. Steyer has attacked other candidates for their fossil fuel ties. He recently went after one of his chief Democratic rivals Xavier Becerra a former state attorney general and cabinet member in the Biden administration calling on him to return a Thirty Nine Thousand Two Hundred Dollar contribution from Chevron. A campaign spokesman Jonathan Underland said on Monday that Becerra was keeping the contribution and that he took on oil companies when he was state attorney general. Propelled by his hedge fund fortune Steyer has spent One Hundred Thirty Two Million Dollars on the race for governor thus far blanketing the major media markets with advertising and outspending rivals by about 10 times. If he reaches the general election alongside a Republican opponent he would be a strong favorite to become the next governor in the heavily Democratic state. California voters could be deciding whether to elect a billionaire governor at the same time they are voting on a statewide referendum proposing to increase taxes on California billionaires. The referendum appears to have enough votes to be added to the November ballot.

3D California San Diego wood burning To understand why a fire in San Diego is referred to as the SDU Wood fire consider the following points. SDU stands for San Diego Unified indicating the area affected by the fire. Wood refers to the type of fuel involved often indicating vegetation or forested areas. Breaking S d u wood Fire reported in San Diego County on May 1 Sacramento Bee S d u wood Fire has been burning on private land. At this time there is no information on the containment of the fire and the cause of it remains. California San Diego wood burning Update Wood Fire burns one acre in San Diego County Sacramento Bee Wood Fire initially started today at 1:39 pm in San Diego County California. It has burned one acre of private land. Currently there is no data.

4 Florida Miami Dade County wood burning Highway 41 fire continues to burn in west Miami Dade YouTube A brush fire burning in west Miami Dade has scorched 450 acres so far officials confirmed to Local 10 News

5A Georgia Atlanta wood smoke The Smoke over Atlanta signals a Georgia forest story you might not know Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization AJC dot com In the past year three of the largest wood products manufacturers in the region have shuttered Georgia facilities in Savannah Riceboro and Cedar Springs South Georgia fires. Even inside our house you can smell the smoke. Firefighters are trying to contain growing blazes in Clinch and Brantley counties near Florida as smoke reaches Atlanta Georgia. Firefighters responded to the Pineland Road Fire in southeast Georgia on Monday April 20 Two Thousand

Twenty Six Firefighters responded to the Pineland Road Fire in southeast Georgia on Monday April 20 Two Thousand Twenty Six April Twenty Third Two Thousand Twenty Six Georgia Homerville A veil of smoky dishwater gray skies stretched all the way to Atlanta from the blueberry farms and timberlands here in South Georgia on Wednesday blown north from along the Florida border where wildfires continue to burn The cross border blaze fogged the atmosphere with a haze that looked like looming rain clouds but there was none in the offing 5B Georgia Savannah wood smoke What not to do during wildfire smoke events in Georgia Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization Savannah Morning News What you should never do during smoke alerts Burning candles incense or wood indoors Smoking inside Using gas or propane appliances when possible What Georgians should never do during wildfire smoke alerts Savannah Morning News May One Two Thousand Twenty Six While skies across Georgia have cleared after recent wildfire smoke health officials say the precautions still matter the next time conditions worsen Over the past few weeks the Georgia Department of Public Health warned that smoke from South Georgia fires drifted into areas including Atlanta impacting air quality far beyond the fire zones Here is what to know Why smoke is a concern Wildfire smoke contains fine particles that can irritate the eyes and lungs Even short term exposure can lead to coughing headaches and throat irritation People with asthma heart conditions or other health issues as well as children older adults and pregnant individuals face higher risks What you should never do during smoke alerts When smoke returns the CDC says certain everyday habits can make indoor air worse Avoid Burning candles incense or wood indoors Smoking inside Using gas or propane appliances when possible Vacuuming frequently which can stir up particles Cooking methods that create smoke like frying or broiling These activities can increase pollution inside your home at a time when air quality is already compromised 5C Georgia Suwanee and Japan Mitsubishi heat pump Survey finds over Ninety Percent of homeowners with heat pump HVACs would recommend one Yahoo Shopping Heat pumps are becoming an increasingly popular upgrade for homeowners looking to curb rising energy rates and reduce their overall electricity costs 9 Out of 10 Homeowners Surveyed Who Owned Heat Pumps Would Recommend Heat Pump Technology to Others According to Mitsubishi Electric Trane HVAC US Survey Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization Mitsubishi Released on Feb 10 Two Thousand Twenty Five 9 Out of 10 Homeowners Surveyed Who Owned Heat Pumps Would Recommend Heat Pump Technology to Others According to Mitsubishi Electric Trane HVAC US Survey Most homeowners Eighty Eight Percent surveyed for The Heat Pumps and Homeowners Index believe heat pumps are more energy efficient than conventional heating and cooling systems Suwanee Georgia Feb 10 Two Thousand Twenty Five Mitsubishi Electric Trane HVAC US LLC METUS a leading supplier of all electric all climate Ductless and Ducted Mini split and Variable Refrigerant Flow VRF heat pump and air conditioning systems announces the results of the latest Heat Pumps and Homeowners Index commissioned by it According to a survey of more than One Thousand US homeowners commissioned by METUS heat pump ownership has increased among respondents since Two Thousand Twenty Three Ninety percent of respondents who owned a heat pump would recommend heat pumps to others The latest METUS Heat Pumps and Homeowners Index uncovered these findings The survey offers a snapshot of more than One Thousand sentiments and experiences around clean energy of American homeowners specifically related to heat pumps and their knowledge and usage of federal and state incentives for home improvements including installing heat pumps Survey respondents who owned a heat pump shared their top three benefits of owning a heat pump system as greater energy efficiency Fifty Five Percent better heating Forty One Percent and greater cost savings Thirty Nine Percent Surveyed homeowners identified HVAC contractors and federal and state tax incentives as influences on their heat pump adoption Specifically Eighty Two Percent of homeowners surveyed with heat pumps said their HVAC contractor was somewhat or very influential in their decision to invest in one Energy costs and efficiency are top of mind for surveyed consumers including those with conventional HVAC systems

currently in place. Ninety three percent of surveyed homeowners with conventional HVAC and furnace systems are to some degree concerned about utility bills. Eighty eight percent of those surveyed believe heat pumps are more energy efficient than conventional heating and cooling systems. **6A** Indiana Most Trump Backed Challengers Beat Indiana Incumbents Who Bucked Trump President Trump endorsed primary opponents against seven Republican lawmakers who opposed his redistricting push. At least five of the Trump backed candidates have won their races. **Excerpts edited by Residents Against Wood**

Smoke Emission Particulates a 501C3 nonprofit organization The New York Times May Fifth Two Thousand Twenty Six President Trump promised political payback last year when Indiana state senators from his own party voted down his plan to redraw the Indiana congressional map to help Republicans. On Tuesday he got much of what he wanted as at least five of the seven anti redistricting Republicans facing Trump backed challengers lost their primaries. The results reflected the Trump continuing sway over Republican voters and his ability to enforce political consequences for Republican officeholders who defy him. In the other races at least one incumbent won his primary and another race remained too close to call. State legislative primaries are often low drama affairs but the Trump involvement brought unusual levels of attention and outside spending. The president issued social media endorsements to the seven challengers and hosted some of them at the White House while outside groups aligned with Trump poured money into the races. As the challengers emphasized their ties to Trump many of the incumbents focused on their own conservative credentials as well as endorsements from groups supporting farmers gun rights or abortion restrictions. Rather than a contest between moderates and conservatives the primaries became a test of how much deference Republicans owe Trump and how much control the president holds over rank and file voters. Any Republican that votes against this important redistricting potentially having an impact on America itself should be Primaried. Trump wrote in a November social media post that referred to two senators as Republicans in name only. He soon followed through on that promise endorsing challengers to seven of the eight anti redistricting Republicans who ran for reelection this year. Other Republicans who voted against the bill have two years remaining in their terms or did not run for re election. **6B** Indiana Trump Gets Payback on Indiana Republicans 5 Takeaways **Excerpts edited by Residents Against Wood Smoke Emission**

Particulates a 501C3 nonprofit organization The president helped unseat most of the state lawmakers he targeted after they rebuffed his call to draw new House maps to help Republicans. President Trump vowed political payback last year when Republican state lawmakers in Indiana defied him on redistricting refusing to draw new congressional maps to help the party in the midterms. He delivered on that threat. On Tuesday Republican primary voters backed at least five of the seven challengers whom Trump endorsed over incumbent state senators. But in Tipton Ind. Jeff Crouch said that he did not want to vote for anybody that was endorsed by President Trump. Crouch a Republican said he had voted for Trump previously but not in Two Thousand Twenty Four. He described his impression of the Trump second term as somewhere between terrible and really terrible. The divide is not exactly between moderates and conservatives but more between the party establishment and an ascendant faction that has modeled its style after Trump. On the one side the Indiana governor lieutenant governor and many members of the congressional delegation lined up behind Trump. On the other former Governor Mitch Daniels who helped usher in the Indiana era of Republican dominance became a leading voice against redistricting. His successor as governor former Vice President Mike Pence mostly avoided the redistricting debate but endorsed one of the incumbents seeking reelection. The two Democratic congressmen in Indiana could face inhospitable new maps. With so many Trump backed challengers ousting incumbents who had voted against redistricting the path appears clearer for drawing new maps before the Two Thousand Twenty Eight elections. Because Republicans hold durable majorities in both chambers of the state Legislature the results from the Tuesday State Senate primaries made it more likely there would be support for a GOP friendly redistricting next year. It remains unclear how aggressive the new class of Indiana Republicans in the State Senate will be. Democrats hold seats based in Indianapolis the state capital and largest city and in the suburban Chicago communities of

Northwest Indiana 7 Louisiana Gerrymandering in Southern States allowed How the Supreme Court came to accept a practice it called unjust Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization

The Atlantic May Fifth Two Thousand Twenty Six Just a few years ago Chief Justice John Roberts decried partisan gerrymandering as unjust Now in striking its latest blow against the Voting Rights Act the majority bloc he leads is effectively exhorting states to employ it Seven years ago midway through a multiyear demolition of the Voting Rights Act the John Roberts Supreme Court heard a case on a slightly different topic partisan gerrymandering Republican legislators from North Carolina had drawn a map of US House districts that courts including the high court had found was an unconstitutional racial gerrymander under the Voting Rights Act VRA So the North Carolina lawmakers tried again this time going out of their way to make clear that they were trying to reduce Democratic representation not Black representation The gambit worked Roberts writing for the majority lamented that partisan gerrymandering was pernicious and unfair Excessive partisanship in districting leads to results that reasonably seem unjust he wrote in Rucho versus Common Cause But the majority nonetheless concluded that federal courts had no role to play in policing partisan gerrymandering because it was a political question Still Roberts did not want that to seem like an endorsement Our conclusion does not condone excessive partisan gerrymandering That was then The conservative majority decision in Louisiana versus Callais last week does not just tolerate but encourages states to embrace partisan gerrymandering as a justification for squeezing out majority Black districts As politicians work through the impact of the decision Republican led governments in Louisiana Tennessee and Alabama have all announced plans to try to redraw maps this week and the South Carolina legislature may not be far behind The mission will be drawing the most ruthless partisan gerrymanders they can in the hopes of protecting the GOP majority in the US House This is what Justice Samuel Alito the author of the Callais opinion recommends Discarding the old requirement of the US Supreme Court which said that mapmakers must consider whether minority voters were numerous and concentrated enough to constitute their own district Alito wrote that plaintiffs must provide strong evidence that minority voters were intentionally targeted for their race But he also offered an escape hatch the law professor Richard L Hasen explains Even if a state likely could have drawn a map favoring minority voters but did not the state can defend itself by wait for it admitting to engaging in partisan gerrymandering In other words as the scholar Joshua A Douglas puts it partisan gerrymandering has become an absolute defense to any claim of racial discrimination under Section Two of the Voting Rights Act The fundamental ideology of the Callais majority is color blindness In a Two Thousand Seven case undermining affirmative action Roberts articulated the idea plainly The way to stop discrimination on the basis of race is to stop discriminating on the basis of race That is the sort of glib comment that sounds like an argument ender as long as you do not think too much about it But it is no coincidence as my colleague Adam Serwer wrote last week that the earliest advocates for color blindness were reinvented segregationists In the color blindness framework any discussion of race is itself seen as impolite the political scientist Julia Azari notes The Alito opinion hurriedly states that vast social change has occurred throughout the country and particularly in the South which have made great strides in ending entrenched racial discrimination This is true as far as it goes but also highly tendentious writing off both existing disparities and the important role that the VRA has played in combating discrimination The late Justice Ruth Bader Ginsburg likened abandoning parts of the VRA because of reduced discrimination to throwing away the umbrella held by a person during a storm because one is not yet wet Alito acknowledges that Black voters tend to be Democrats in the South but his allegiance to color blindness prevents him from thinking too deeply about why It is not some weird coincidence but the result of Democrats taking up the cause of civil rights and Republicans becoming consistent opponents This makes the Alito argument that Black Democrats are losing representation because they are Democrats not because they are Black incoherent To control for partisanship when assessing racial gerrymandering is to erase the very mechanism through which racism travels the political scientist Jake Grumbach writes The fallout from Callais stands a good chance of making the

relationship between race and partisanship even stronger Black voters have some good critiques of the Democratic Party but watching Republican led governments race to redraw maps to eliminate Black representation is unlikely to push them to the GOP Then again it may not matter If mapmakers are empowered to draw ruthlessly partisan maps that are also racially discriminatory the views of Black voters in some places especially in the South will simply not be electorally relevant In his 2019 opinion in Rucho Roberts portrayed his decision to allow partisan gerrymandering as rooted in humility and restraint about the proper role of the judiciary despite his dislike of extremely partisan maps No one can accuse this Court of having a crabbed view of the reach of its competence But we have no commission to allocate political power and influence in the absence of a constitutional directive or legal standards to guide us in the exercise of such authority It is ironic then that Roberts and his allies have had no compunctions about trashing the VRA a law duly passed and renewed by Congress Their hubris will bring about an efflorescence of the same partisan gerrymandering that Roberts claimed to detest

8 Michigan Detroit PM TWO POINT FIVE Detroit Metro Area Receives Failing Grade in Air Quality Ranks High for Particle Pollution WRIF PM TWO POINT FIVE measures 30 times smaller than the width of a human hair These particles can get lodged in lung cells and slip into the bloodstream Have **9** Montana Missoula wood smoke Viewpoint Forest Service burns pollute residents with smoke Missoula Current According to Utah Physicians for a Healthy Environment and Doctors and Scientists Against Wood Smoke Pollution wood smoke is the most toxic type of **10** New Jersey Belleville wood smoke Massive NJ warehouse fire spreads to other buildings sends thick smoke across region YouTube New Jersey Belleville wood burning Massive warehouse fire in Belleville burns for hours crews battle flames YouTube A massive fire at a mattress warehouse in Belleville New Jersey has been burning for hours with thick smoke **11** New York Albany heat pump **RAW SEP Top Excerpt** The data is clear Utilities are overcharging New Yorkers who install heat pumps by an average of Eight Hundred Fifty Five Dollars a year which runs directly counter to the New York State push to electrify the buildings of New York State Simply offering fair rates to these customers would make heat pumps the cheapest way to heat Eighty Three Percent of homes in New York State **Back to the article headline** New Report New York Heat Pump Customers Overpay for Electricity Delivery Rates Here is Earthjustice Utilities overcharge heat pump customers Eight Hundred Fifty Five Dollars per year on average for electric delivery rates Utilities must create fair rates for heat pump **Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization** Earth Justice April 28 Two Thousand Twenty Six heat pump Owner of tiny home explains how a heat pump transformed the space Yahoo Shopping Where electric resistance or gas furnaces create heat modern heat pumps utilize technology similar to your fridge to move ambient heat from one space New Report New York Heat Pump Customers Overpay for Electricity Delivery Rates Here is How Utilities Can Fix the Discrepancy Utilities overcharge heat pump customers Eight Hundred Fifty Five Dollars per year on average for electric delivery rates Utilities must create fair rates for heat pump customers Today Alliance for a Green Economy AGREE and Earthjustice release a report conducted by Switchbox Heat Pump Rates in New York State An Analysis of Cost Based and Cost Reflective Rates for Heat Pump Customers The report finds that when customers switch from gas heating to heat pumps they dramatically cut their energy use however most of these same customers see their bills go up due to outdated electric pricing policies The report details solutions for a modernized and fair electric rate structure that advances affordability and supports the New York State transition to clean energy The Energy efficient technologies are coming to market and utility customers are upgrading from gas furnaces to electric heat pumps for heating and cooling their homes New York State has identified heat pumps as a key technology to help meet its goal of Eighty Five Percent reduction in greenhouse gas emissions by Two Thousand Fifty Heat pumps heat and cool homes by using electricity to move heat from inside or outside buildings making them two to four times more efficient than traditional combustion technologies like gas furnaces To meet this goal New Yorkers need electrical rates that do not overcharge heat pump

customers Even though their electric delivery cost of service is only Two Percent higher than that of customers that heat their homes with gas their electric delivery bills are One Hundred Nine Percent higher As a result utilities in New York overcharge heat pump users by Eight Hundred Fifty Five Dollars per year on average approximately One Hundred Seventy Million Dollars million statewide creating a major disincentive for customers to buy heat pumps To address this cost discrepancy the analysis models alternative rate options for heat pump customers that reflects what these customers actually cost to serve These new rates would transform the economics of operating heat pumps By eliminating the overpayments Seventy Two Percent of gas heated households would save by upgrading to heat pumps up from Twenty Seven Percent under rates today and the share losing more than One Thousand Dollars per year would drop from Fourteen Percent to just One Percent Additionally the heat pump rates could improve energy affordability for low income households If low to moderate income households installing heat pumps are enrolled in this new rate and available utility bill discount programs at the same time the share of highly energy burdened households would drop by 15 percentage points compared to today In New York heating and cooling in buildings represents Thirty Two Percent of the New York State carbon emissions Nationwide Thirteen Percent of climate pollution comes directly from fossil fuel use in our homes and buildings largely from burning methane gas for heat Burning gas in our buildings is a little known culprit of air pollution like PM TWO POINT FIVE that increase our risk for lung disease heart problems reduced cognitive function and even early death According to the American Lung Association over 1 million children in New York are breathing unhealthy levels of air pollution As utility bills soar summers get hotter and New Yorkers need relief from toxic air pollution the New York State Public Service Commission PSC holds the authority to reexamine revise and implement updated utility rate structures A fair rate for heat pump customers will incentivize the switch to energy efficient home heating and cooling while helping meet the New York State emission reduction mandates New Yorkers who are doing the right thing by upgrading to clean efficient heating are being charged more for it said the Executive Director of Alliance for a Green Economy That is not only unfair but these energy pricing policies are standing in the way of the clean energy future New York has committed to The PSC has the power to fix this today and we are calling on them to act The current New York utility rate structure is stuck in the past failing to reflect the reality of modern energy efficient heat pump technology These systems heat and cool homes two to three times more efficiently than outdated gas furnaces yet families who make the choice to adopt cleaner healthier technology are penalized paying more than Eight Hundred Dollars extra each year in electricity delivery costs alone That is not just outdated policy it is a direct barrier to progress said the Senior Attorney at Earthjustice Updating the rate structure is not optional it is essential Fair rates for heat pump users would cut household costs accelerate the transition to cleaner air and deliver a clear win for both public health and wallets of New Yorkers The data is clear utilities are overcharging New Yorkers who install heat pumps by an average of Eight Hundred Fifty Five Dollars a year which runs directly counter to the New York State push to electrify the New York State buildings said the Executive Director of Switchbox Simply offering fair rates to these customers would make heat pumps the cheapest way to heat Eighty Three Percent of homes in New York State New York utilities should charge customers fairly for the energy they use but right now heat pump customers are overpaying for electricity This analysis shows that rates can be more fair and affordable for electric heat customers in New York said Erin Murphy Senior Attorney Environmental Defense Fund

¹² North Carolina wood burning Outdoor burning What is and is not allowed in North Carolina WRAL Logs stumps limbs and other natural vegetation as part of land clearing Untreated clean wood Note Burning yard waste is only allowed ¹³ Oklahoma ordinance and wood burning Baca County passes fire ban ordinance triggering automatic Stage 1 restrictions during Red Kiowa County Press During a Red Flag Warning even those permitted campfires and outdoor charcoal or wood grills are prohibited Smoking is suspended outdoors during

^{14A} Texas heat pump Have electric heat? Here is how much you could save with heat pumps Fast Company Old fashioned electric resistance heat is around three times less efficient than a heat

pump and making the switch could make a major difference [Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization](#) Fast Company May Second Two Thousand Twenty Six Have electric heat? Here is how much you could save with heat pumps Old fashioned electric resistance heat is around three times less efficient than a heat pump and making the switch could make a major difference on your electric bill The power bills of almost everyone are going up but if your home still relies on old school electric resistance heat or a conventional electric water heater you are likely feeling it even more A new report breaks down how much you could save by switching to a heat pump instead A single family home could save an average of One Thousand Five Hundred Thirty Dollars a year or Twenty Three Thousand Dollars over the lifetime of a heat pump according to an analysis from the energy focused nonprofit RMI If every potential house across the US made the switch customers would collectively save more than Twenty Billion Dollars annually and avoid around Thirty Eight million metric tons of Carbon Dioxide emissions Because of modeling challenges the analysis does not include apartment buildings so the total number would be even bigger A mass shift from old electric heat to heat pumps would also help significantly ease strain on the electric grid Today the industry is struggling with how to source all the energy that data centers need A chip test was delayed by a weeklong holiday closure of a plant in China An engineering director jumped on a plane from Europe to retrieve the chip from the fabrication facility and a team of employees spent their weekend getting the testing process back on track [14B Texas Weslaco Rio Grande Valley Agricultural Burns KRGV wood smoke RAW SEP View](#) This article may be overemphasizing the air pollution drifting over borders into Texas Investigate how much air pollution is created in Texas Agricultural burns can also be called Field Burns even Agricultural Burns as far away as from Mexico and South America are unnecessary and can be avoided by disposing of Agricultural Waste in Landfills left to decompose into soil There are also chemicals that can be sprinkled on Solid Crop Waste to hasten decomposition in Landfills This can avoid unnecessary threats to human health from PM two point five from solid fuel burning Just do not burn solid fuel such as wood or material resembling wood to begin with [Back to the headline](#) Why the skies of the Rio Grande Valley are gray Smoke haze leads to air quality concerns YouTube AI Overview To understand why the skies of the Valley are gray due to smoke haze consider the following points Wildfires in surrounding areas release significant smoke into the atmosphere Weather patterns can trap smoke close to the ground leading to haze Air quality is affected causing health concerns for sensitive populations Local authorities may issue air quality alerts during high smoke events Long term exposure to poor air quality can lead to respiratory issues Monitoring air quality indices can help residents stay informed and safe [Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization](#) [From the story](#) Gray skies covered the Rio Grande Valley on Monday but the haze is not from rain it is [smoke from agricultural burns in southern Mexico and Central America](#) Warmer air is trapping the smoke Wind is pushing it north into the Valley The air quality index hit a high of One hundred seven according to AirNow That is considered unhealthy for sensitive groups The air is a little bit different a Weslaco Texas resident said His Weslaco Texas family is feeling the effects They get headaches they get runny noses he said A Hidalgo County Health Authority Doctor said the public should keep an eye on the air quality levels Is this at a dangerous level? Absolutely not Is it something we need to watch? Of course we do the doctor said People with severe allergies asthma or who rely on oxygen should stay indoors Limit your activities outdoors this is not a good time to go jogging or walking outside People should see a doctor if they develop a fever have difficulty breathing or experience wheezing that will not go away Their usual symptomatic treatments whether they be breathing treatments antihistamines or decongestants are not working certainly it is time to schedule a visit with your doctor [15A Vermont Burlington wood burning](#) Inclusion of a wood burning power plant in the Burlington net zero plan generates criticism WAMC progress report on Net Zero Energy goals But some residents said the plan is flawed because it relies in part on a wood burning power plant [15B Vermont Montpelier wood smoke](#) The Vermont

wildland fire season begins backyard burning reminders [RAW SEP View](#) The half measure of the Vermont government asking people to burn less wood does not work adequately to protect human health Just do not burn wood to begin with [RAW SEP Top excerpts from this article](#) The best advice in this article is to Consider alternatives to open burning such as chipping composting or making a brush pile for wildlife Our best suggestion is to avoid burning altogether and let the materials decompose naturally said the Compliance Section Chief for the DEC Air Quality and Climate Division On premise or backyard burning of brush deadwood or tree cuttings collected from normal property maintenance is allowed under the Vermont Air Pollution Control Regulations if no public or private nuisance such as excessive smoke is created [Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization](#) Vermont Business Magazine Never burn trash including paper cardboard tires plywood pressboard asphalt shingles plastics or treated wood Burning trash is harmful The Vermont Wildland Fire Season Begins Backyard Burning Reminders With spring cleaning underway in some parts of the state the Departments of Environmental Conservation DEC and Forests Parks and Recreation FPR want to remind Vermonters to follow a few guidelines for backyard open burning to protect not only environmental and public health but also public safety Open burning releases air toxics and particulate matter that can harm our health air quality and environment said the DEC Commissioner By following a few simple guidelines Vermonters can help reduce these health and environmental impacts Burning debris is the leading cause of wildland fires in Vermont underscoring the critical importance of proactive measures said the FPR Commissioner In Two Thousand Twenty Five Vermont had 84 wildland fires the majority of which were [caused by human activity](#) In recent years higher summer temperatures and increasing drought have led to increased wildland fire risk in Vermont To minimize the harmful impacts of smoke and reduce wildland fire risks remember to [Get a permit to kindle](#) by contacting your Town Forest Fire Warden You need a permit to burn legal materials such as tree limbs and branches Consider alternatives to open burning such as chipping composting or making a brush pile for wildlife Check the latest wildland fire situation Review the Fire Danger Forecast and the wildland fire situation update Postpone burning during periods of moderate or higher fire danger Sign up for daily fire danger alerts Check the Air Quality Forecast Postpone burning if atmospheric conditions are not favorable to disperse the smoke or if the Air Quality Index is moderate or worse Reduce air pollution Check wind speed and direction before burning to minimize impacts on neighboring properties Avoid burning green materials allow them to dry first Never burn trash including paper cardboard tires plywood pressboard asphalt shingles plastics or treated wood Burning trash is harmful and illegal Never leave a fire unattended Ensure the fire is cool and cannot re-ignite Report wildland fires immediately by calling Nine Eleven Our best suggestion is to avoid burning altogether and let the materials decompose naturally said the Compliance Section Chief for the DEC Air Quality and Climate Division On premise or backyard burning of brush deadwood or tree cuttings collected from normal property maintenance is allowed under the Vermont Air Pollution Control Regulations if no public or private nuisance such as excessive smoke is created To get permission for backyard burning obtain a permit to kindle from the Town Forest Fire Warden When a statewide ban on issuing permits is in effect Wardens may not issue permits You may need an air quality open air burning permit from DEC when burning other materials including wood waste from demolition activities at a business industry farm or a private residence When you get this DEC open burn permit you may also need an additional permit to kindle from your Town Forest Fire Warden or other local officials Learn more about open burning from the DEC Air Quality and Climate Division Learn more about the FPR Wildland Fire Program The Department of Environmental Conservation is responsible for protecting The Vermont natural resources and [safeguarding human health](#) for the benefit of this and future generations

[16A](#) Washington PM TWO POINT FIVE Air Quality Awareness Week is here! Washington State Department of Ecology particulate matter or PM that are harmful if inhaled The most harmful type of particle pollution has particles that are Two point Five micrometers or smaller [16B](#) Washington Spokane wood smoke Ask the Builder What makes a chimney dangerous [RAW SEP View](#)

Just do not burn wood to begin with If your chimney was built for gas burning confine your fireplace burning to gas burning although it would be best to use a clean energy Heat Pump for home heating

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The Spokesman Review May 2 Two Thousand Twenty Six Some fireplaces are intended for just gas logs Do not burn wood if there is a small black iron gas pipe in the basement that terminates in or near the underside of the fireplace Do not burn wood if chimney walls are just Four inches thick on all sides Do not burn wood if there is no visible clay flue liner when you look down the chimney from the top Sometimes chimneys required a significant amount of work to ensure the hot embers and flue gases from a wood fire will not set the house on fire This man has been extremely fortunate that his local fire department has not pulled up on a winter night that is frosty to extinguish a fire inside his exterior wall or attic His current chimney is an extreme fire hazard For starters the chimney lacks a flue liner Flue Liners are vitrified clay products which are designed to withstand the hot temperatures from wood burning fires Years ago I saw a chimney above a fireplace that did have a proper code approved clay flue liner surrounded by solid Four inch concrete block When I removed the drywall I saw black tongues of soot extending from tiny cracks in the mortar between the solid concrete blocks This soot and the hot flue gas had escaped from the flue liners Wood furring strips nailed to the concrete block were next to the hot gases! Any insurance company would cancel a fire policy if it were aware of an unsafe chimney [16C](#) Washington Seattle Pacific Northwest wood smoke US Forest Service Closes 57 of 77 Research Labs Before Fire Season Wood Central The Pacific Wildland Fire Sciences Laboratory which issues the wildfire smoke forecasts the Pacific Northwest relies on through fire season sits on [17A](#) Wisconsin wood burning DNR Avoid outdoor burning due to very high fire risk YouTube [17B](#) Wisconsin wood burning Wood stove sparks property fire during very dry conditions YouTube fire woodstove wood flames wildfire dry weather spring DNR burning Oconto County Little River Stay up to date with our [18A](#) Canada PM TWO POINT FIVE Long range Transport of Two Thousand Twenty Three Canadian Wildfire Smoke into the Northeastern United States NASA Scientific Visualization Studio 5 estimated from the NASA aerosol Visualization Particulate Matter PM Two point Five September Twenty Seventh Two Thousand Twenty Three [18B](#) Canada Prince Edward Island heat pump rebate PEI paused incentives for electric vehicles What could happen to unpurchased EVs? CBC dot ca The PEI heat pump rebate is on pause and one installer is concerned Some bike shop owners [19](#) Australia heat pump rebate AEMC Report Raises Concerns For Solar Households [RAW SEP Top](#)

[Excerpt](#) Electricity networks still need to pay for poles and wires regardless of how much energy flows through them As households install solar and reduce grid consumption recovering those costs through usage alone becomes more difficult [Back to Article Headline](#) Solar Quotes Battery Rebate Changes In May What To Know The Battery of Australia

[Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization](#) Top 5 Heat Pump Brands Heat Pump Installation Heat Pump STC Calculator AEMC Report Raises Concerns For Solar Households AEMC Report Raises Concerns For Solar Households April Twenty Eighth Two Thousand Twenty Six The Australian Energy Market Commission AEMC says its proposed network pricing reforms could cut electricity costs and deliver up to Six Billion Dollars in savings across 15 years but modelling suggests those savings will not be shared evenly with some solar owners potentially worse off

Will the AEMC Network Pricing Reforms Save Money? The modelling projects savings of Forty to Eight Dollars per household per year on electricity bills by Two Thousand Forty It estimates some families would be much better off saving up to Seven Hundred Forty Dollars a year by Two Thousand Forty with two thirds of households that are unable to have solar or batteries benefiting The impact is slightly negative however for solar and battery owners The payback period for solar extends from approximately Four point Four to Four point Seven years while solar and batteries go from Four point Six to Five point Zero years although home batteries could be better rewarded for easing network pressure during peak periods Quitting gas would become more financially enticing with payback from going all electric

improving from Eight point Three to Seven point Seven years This follows earlier Solar Quotes coverage of the draft proposals which raised concerns about higher fixed charges and shifting costs onto low usage and solar households The latest release does not change that direction but it does add further modelling and proposed consumer protections Is This Really About Savings Or Cost Shifting? AEMC projections AEMC projections for potential changes that would see fixed charges go up and usage costs go down Dig into the detail of the report and the focus is less about cutting bills across the board and more about reshaping who pays what under the AEMC cost reflective pricing approach The AEMC also links the reforms to broader benefits including lower wholesale costs improved energy security and reduced emissions although these outcomes are not directly evidenced in the pricing modelling Electricity networks still need to pay for poles and wires regardless of how much energy flows through them As households install solar and reduce grid consumption recovering those costs through usage alone becomes more difficult The solution being proposed is not to reduce those costs but to recover more of them in ways that are less dependent on how much electricity is used That is why fixed charges remain central to the discussion even if they are not the headline focus **20A** United Kingdom heat pump Green energy tycoons at war over heat pumps Yahoo Finance Yahoo Finance Dale Vince has criticized Octopus Energy over its support for heat pumps and the government advisory roles held by its boss Green energy tycoons at war over Two Point Seven Billion Pound heat pump subsidies

Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization The Daily Telegraph May Second Two Thousand Twenty Six Dale Vince has attacked Octopus Energy over its support for heat pumps and the government advisory roles held by its boss Vince a green energy tycoon and Labour donor who founded Ecotricity said heat pumps were a niche technology that cannot move the dial for net zero targets of Britain and were being sold to the public under false pretenses He criticized a decision by ministers this year to earmark Two Point Seven Billion Pounds for subsidies that give households a Seven Thousand Five Hundred Pound grant to help pay for a heat pump **20B** United Kingdom Nature Medicine TWO POINT FIVE PM Indoor air purifiers mitigate health impacts of wildfire smoke **Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization** Nature Indoor air purifiers can substantially reduce the global health burden of wildfire smoke but innovative solutions are needed to overcome RESEARCH HIGHLIGHT April Thirtieth Two Thousand Twenty Six Indoor air purifiers mitigate health impacts of wildfire smoke Indoor air purifiers can substantially reduce the global health burden of wildfire smoke but innovative solutions are needed to overcome financial barriers Wildfires are becoming more frequent and severe owing to climate change this has led to increased exposure to harmful pollutants such as fine particulate matter with a diameter of less than or equal to Two point Five micrometer PM Two point Five This exposure poses substantial health risks and contributes to more than One point Five million deaths annually **20C** United Kingdom Lake District heat pump The numbers do not lie HVAC tech breaks down his preference for heat pumps Yahoo Shopping In general heat pumps are far more efficient than gas boilers or electric resistance systems because they do not generate heat Instead they use **Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization** May 5 Two Thousand Twenty Six People always ask me Does it actually work? The Cool Down April Twenty Eighth Two Thousand Twenty Six For something that homeowners rarely think about your HVAC system can have a dramatic impact on energy consumption and utility bills of your home **21** Europe PM TWO POINT FIVE Progress in improving the air quality of Europe but further action needed to address Two Thousand Thirty limits **Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization** European Environment Agency European Union May Fifth Two Thousand Twenty Six particulate matter PM TWO POINT FIVE However in up to Twenty Percent of monitoring stations air pollution is still above current EU Most air quality monitoring stations in Europe achieve current EU legal standards for key air pollutants However the levels of key pollutants like particulate matter remain a significant problem according to the latest air quality assessments

published today by the European Environment Agency EEA Latest data collected and analyzed for Two Thousand Twenty Four and Two Thousand Twenty Five shows EU standards were mostly met in most regions across Europe for fine particulate matter PM Two Point Five However in up to Twenty Percent of monitoring stations air pollution is still above current EU air quality standards especially for smaller particulate matter with a diameter of Ten microns micrometer or less PM Ten The EEA Air Quality status report Two Thousand Twenty Six presents the latest official reported data on levels of key air pollutants in Europe It compares these concentrations against current and Two Thousand Thirty EU air quality standards and the World Health Organization WHO health based air quality guideline levels The new air quality standards applicable from Two Thousand Thirty will require Member States to maintain and increase measures to address air pollution Across the majority of Europe air pollution levels also remain above the stricter WHO guideline levels set to protect human health 22 Germany Bosch heat pump Car industry supplier Bosch turns to heat pumps to escape combustion engine crisis

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Clean Energy Wire March Thirty First Two Thousand Twenty Six heating without replacing radiators windows or insulation a barrier that has previously limited heat pump adoption in older buildings Germany Car industry supplier Bosch turns to heat pumps to escape combustion engine crisis Cars Heating Die Welt Technology company Bosch is betting on heat pumps to offset deepening problems in its automotive business after the German engineering heavyweight posted its first loss since Two Thousand Nine last year and announced Thirteen Thousand job cuts newspaper Die Welt reported The Stuttgart based company is one of the largest automotive suppliers in the world and recorded a post-tax loss of Three Hundred Sixty Three million euros in Two Thousand Twenty Five as demand shifted from conventional cars to EVs weighing on its core combustion engine business

Against the backdrop of sluggish progress in the transition of Germany to cleaner heating Bosch is expanding its heat pump offering launching a model designed to allow homes to switch to climate friendly heating without replacing radiators windows or insulation a barrier that has previously limited heat pump adoption in older buildings The climate and building technology revenue of Bosch rose Thirteen percent to Eight point Five billion euros in Two Thousand Twenty Five boosted by its acquisition of the heating and air conditioning businesses of Johnson Controls and Hitachi Bosch which recorded total sales of Ninety One billion euros last year told Die Welt it expects sustained growth in the sector from Two Thousand Twenty Seven particularly in North America The buildings sector of Germany remains a problem for its climate targets Heat pumps overtook gas boilers as the bestselling heating technology in Two Thousand Twenty Five with around Three Hundred Thousand units sold But sales of around Five Hundred Thousand are needed to decarbonize the ageing housing stock of Germany in time for the Two Thousand Forty Five climate neutrality target of the country The long delayed reform in Germany of existing heating rules the so called Building Modernization Act designed to replace the current Buildings Energy Act will roll back obligations to replace a broken boiler with a climate friendly system The government will allow installations of new fossil fuel boilers in what it has described as a technology neutral approach to cutting emissions in the sector The reform which has drawn heavy criticism from environmentalists is expected to be approved by cabinet in May The Heat Pump

Association of Germany said homeowner interest in the electric heating systems is growing boosted partly by energy security concerns following the crisis in the Middle East but warned that uncertainty over the clean heating policy of Germany is suppressing demand Heat pump sales to increase Ten Percent this year but growth falls short of potential Trade tax revenues drop across Baden Wurttemberg in Germany amid car industry troubles German carmakers drop behind in international profit rankings as suppliers shed jobs 23 Ukraine The Russian war against Ukraine Excerpts edited by

Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization

Kiev Independent Tuesday May 5 Two Thousand Twenty Six Russian servicemen attend the rehearsal of the Victory Day military parade to be held at Red Square in central Moscow on May 4 Two Thousand Twenty Six Russia declared a unilateral ceasefire with Ukraine between May 8 to 9 when Moscow marks

its annual World War Two Victory Day commemorations and threatened a massive missile strike on Kyiv if Ukraine violated it Ukraine reportedly strikes Russian Shahed Iskander component facility major oil refinery amid large scale attack Ukrainian forces launched a missile and drone attack on multiple Russian regions overnight on May 5 reportedly striking a critical Russian military industrial site in Cheboksary Chuvash Republic Russian Telegram media channels reported Zelensky announces earlier ceasefire starting May 6 ahead of the Victory Day truce of Russia President Volodymyr Zelensky announced on May 4 that Ukraine is proposing a ceasefire beginning at midnight on May 6 saying Kyiv is prepared to halt hostilities if Russia reciprocates Russia extends its Victory Day truce to May 8 9 Ukraine says no proposals received Zelensky said earlier on May 4 that Ukraine had received no official ceasefire proposals contrasting he Russian claimed truces with ongoing attacks on Ukrainian cities Russia launches more than 10 times as many drones at The Ukraine port infrastructure in Two Thousand Twenty Six as last year Russia has launched over Eight Hundred drones against The Ukraine port infrastructure since the beginning of Two Thousand Twenty Six Oleksii Kuleba The Ukraine deputy prime minister for restoration and minister for communities and territories development said Russian authorities publish list of Tuapse shelters only after days of Ukrainian drone attacks The list posted without announcement on the website of the municipality on May 4 is a spreadsheet showing the locations of One Hundred Eighty Six shelters most of them in the basements of apartment buildings Putin appoints general implicated in Bucha massacre commander of the Air Force of Russia The general also served as commander of the Russian troop contingent in Syria For four years Ukraine Daily has brought you the latest updates from Ukraine no matter the circumstances Ukraine war latest Russia extends its Victory Day truce kills Seven and injures Thirty Five in attack on Kharkiv Oblast Russian President Vladimir Putin decided to extend the purported Victory Day ceasefire by another day according to the Russian Defense Ministry in a May 4 statement Russian losses in Ukraine may have set a grim new record Russian soldiers are now dying at an exceptionally high rate in Ukraine according to Ukrainian officials in what could mark one of the deadliest killed to wounded ratios seen in modern warfare The main problem with The Ukraine corruption prevention watchdog The National Agency for Corruption Prevention set up in Twenty Fifteen has a broad mandate including determining the Ukraine anticorruption strategy checking the asset declarations of officials protecting whistleblowers and examining corruption risks in legislation With Orban out the Slovakian Fico shifts tone on Ukraine The Viktor Orban electoral defeat appears to be easing The Ukraine relations with not one but two of its neighbors Human cost of war At least Ten killed over One Hundred injured in Russian attacks over past day On the morning of May 4 Russian forces struck the town of Merefa in Kharkiv Oblast with missiles killing at least four people and injuring another Eighteen International response Helsinki raises concerns with Ukraine over drones straying into Finnish airspace The Finland authorities reported two unidentified drones briefly entering the Finland airspace near the Finnish Russian border early on May 3 The incident coincided with an alleged Ukrainian drone strike against the Leningrad Oblast of Russia Austria expels 3 Russian embassy staff members over suspected signals espionage The move was linked to satellite dishes installed on Russian diplomatic buildings in Vienna which Austrian intelligence says are used to intercept data from international organizations UK opens EU negotiations to team up on 90 billion euro Ukraine loan Keir Starmer and Ursula von der Leyen met bilaterally during the European Political Community summit in Armenia where the two agreed that UK participation would be a major step forward in the EU UK defense industrial relationship Zelensky meets Armenian Georgian leaders in rare high level contacts This is the first visit by the President of Ukraine to Armenia in the past 24 years President Volodymyr Zelensky said Zelensky meets Fico ahead of the Moscow trip of the Slovak leader We spoke about exchanging visits to Kyiv and Bratislava and agreed that our teams will work out the schedule Zelensky said UAE reports intercepting missiles drones from Iran for first time since ceasefire A fire broke out at an oil facility in the Fujairah emirate after it was hit by a drone launched from Iran local authorities said Belarus develops military training grounds and logistics routes in cooperation with Russia border officials say Belarus continues expanding military related infrastructure

that could support Russian operations even though Moscow does not currently have enough troops stationed there to launch a new offensive against Ukraine the Kyiv State Border Guard Service said on May 4 In other news The Poland PZU acquires The Ukraine top insurance company MetLife Ukraine makes up Fifty Percent of the Ukrainian market earning nearly Hr 1 billion Twenty Two point Six Million Dollar in profits last year from its Nine Hundred Thousand clients 24 Turkey Kütahya PM TWO POINT FIVE Estimated mortality attributable to ambient PM TWO POINT FIVE PM10 and NO2 in Kütahya Türkiye Nature In this study it was aimed to estimate early all cause deaths and respiratory system related deaths in Kütahya province due to exposure to PM 25A China Jinan Heat Pumps in a Railway Station RAW SEP View Research showed that use of a standalone Ground Source Heat Pump GSHP sometimes led to heat accumulation in the soil Researchers in China developed a GSHP coupled to an Air Source Heat Pump ASHP The simulation model of this hybrid GSHP with ASHP showed less energy consumption while running the system Soil thermal imbalance was reduced to a lower percentage number Back to the article headline Investigation of the Running Characteristics of Ground Air Source Hybrid Heat Pump Systems Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization MDPI Ground source heat pump GSHP systems are widely used because of their energy saving and environmentally friendly characteristics Abstract Ground source heat pump GSHP systems are widely used because of their energy saving and environmentally friendly characteristics However the long term operation of a standalone GSHP system leads to heat accumulation in the soil for cooling load dominated buildings which results in a decline in system performance To address this issue in this study a high speed railway station in Jinan was considered as the research object and a hybrid system scheme in which a GSHP is coupled with an air source heat pump ASHP was developed The system uses the outdoor dry bulb temperature as the control parameter and establishes a multi-unit operation control strategy A dynamic simulation model of the hybrid system was constructed using TRNSYS software and then the energy consumption soil thermal balance economics and environmental benefits of the system under various schemes and operating conditions were simulated and analyzed Through a comparative analysis of the operating strategies the optimal strategy that achieved the best performance was determined Under the optimal strategy the soil thermal imbalance rate after 10 years of operation was only One Percent the total energy consumption was significantly lower than that of a standalone ASHP system and the initial investment was clearly lower than that of a standalone GSHP system The results demonstrate that the hybrid system ensures soil thermal balance and high efficiency operation while providing significant energy savings a Twenty Eight percent primary energy savings rate compared to a standalone ASHP and environmental benefits reducing annual CO2 Carbon Dioxide by 5 thousand Six hundred Kilograms reducing Sulphur Dioxide by Three Hundred Eighty Four Kilograms reducing Nitrogen Oxide by Three Hundred Sixty One point Six Kilograms and reducing dust by Three Hundred Thirty Nine Kilograms Therefore the emission of atmospheric pollutants such as Carbon Dioxide and dust can be effectively reduced thus providing an important reference for the development of building energy saving technologies under the dual carbon goals 25B China PM TWO POINT FIVE Newborn metabolomics linking prenatal air pollution exposure and autism spectrum Excerpts edited by Residents Against Wood Smoke Emission Particulates a 501C3 nonprofit organization Nature Recent studies have indicated that pregnant women residing in areas with higher levels of particulate matter PM TWO POINT FIVE and Nitrogen Oxide are more likely to have This study demonstrates that prenatal exposure to air pollution specifically PM Two point Five is associated with dysregulated neonatal amino acid metabolism detectable in newborn blood Using untargeted metabolomics we identified shared pathways linking these exposures and autism spectrum disorder ASD particularly those related to oxidative stress and inflammation These findings suggest a potential biological mechanism connecting environmental exposures in utero with later neurodevelopmental outcomes Our results highlight the value of newborn metabolomics as a tool for early biomarker discovery and underscore the importance of reducing prenatal air pollution exposure to support healthy brain development