

Episode 57BM January 7 2025 In Germany selling heat pumps across a political party divide

In Episode 57BM 1 World 2 United States 3 Alaska 4 Arizona 5 California wood burning bans 6 Connecticut 7 Massachusetts 8 Canada 9C United Kingdom UK government hires 'nudge unit' to help dispel heat pump myths 10 Germany Selling heat pumps across a political divide in Germany 11 Ukraine just stopped Russian gas flows to Europe Who is most at risk 12 Africa and South Asia United Nations website September 5 2024 Cooking smoke kills millions every year Here is what the world can do about that 13 China 14 India 15 South Korea 16 PM2.5 and human health Main content 1 World Residential Heat Pump Global Industry Report 2024 Revenues GlobeNewswire The global residential heat pump HP market forecast to reach 170 million units by 2035 up from 76 million in 2024 2A United States Washington DC Trump Transition Live Updates Congress Certifies Trump Victory **RAWSEP View** The backdrop of the effort of RAWSEP to switch indoor residential wood burning to clean Heat Pumps is that the new Republican administration may seek to claw back Heat Pump rebates of up to \$8000 based on a sliding income scale in many states These clean energy Heat Pumps rebates make owning a Heat Pump economically viable for all income groups It remains to be seen if the claw back will happen This article excerpted below also contrasts the peaceful transfer of power in 2025 under the Kamala Harris gavel to the violent attempt to prevent a peaceful transfer of power in 2021 The main aim of a second Trump administration appears to be tax cuts for the wealthy at the expense of programs such as Social Security that currently under the Biden Harris Administration provide economic security for the middle income and poor portions of the remaining 99 percent of United States citizens Taking away safety nets for the poor and middle class also makes it less likely that they will be able to afford Heat Pumps that incrementally stop air pollution which especially negatively affects the health of the neighbors of indoor residential wood burners that Heat Pumps can replace and additionally incrementally slows hazardous climate change New York Times **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** January 6 2025 Lawmakers in Congress officially certified the election of Trump in a constitutionally mandated joint session on Monday peacefully performing a basic ritual of democracy that was brutally disrupted four years ago by a violent pro Trump mob inflamed by his lie about a stolen election January 6 2025 Trump told a radio host he planned to replace the head of the National Archives the agency that raised alarms about his handling of presidential records The current national archivist was not involved in what became a criminal investigation and indictment into handling by Trump of classified documents but a letter expressing concerns about his actions was written by her predecessor January 6 2025 3:22PM Senator Mitch McConnell of Kentucky the former Republican leader who just recently relinquished the majority leader title was not present at the certification today His staff did not provide any comment about why he stayed away Four years ago McConnell excoriated his colleagues in the Capitol as they objected to the electoral votes from Arizona and several other states We are debating a step that has never been taken in American history whether Congress should overrule the voters and overturn a presidential election McConnell said on January 6 2021 adding that his vote to kill the objections would be the most important one he would take in his 30 plus year Senate career January 6 2025 2:55 pm Vice President Kamala Harris speaking to reporters after overseeing the process that certified her defeat to Trump in the 2024 presidential election said that carrying out her role in the process was important to upholding American democracy and the peaceful transfer of power Today I did what I have done my entire career which takes seriously the oath I have taken many times to support and defend the Constitution of the United States Harris said adding that today American democracy stood January 6 2025 other sitting vice presidents have presided over their own electoral loss Al Gore had to tamp down Democratic objections to the victory of President George W Bush during the certification process after the Gore loss in the contested 2000 election Nixon had to preside over his own defeat after the 1960 election In 1968 Humphrey avoided the certification of his own loss to Nixon departing Washington DC to attend a funeral in Norway A Difference between January 6 2021 and January 6 2025 Around 2:15 pm four years ago on January 6 2021 Officer Eugene Goodman of the Capitol Police descended a staircase to block a group of rioters

who had entered the Capitol and were approaching the Senate chamber This year after the certification of the 2024 election lawmakers loitered in the Capitol posing for pictures Goodman dressed in a navy suit watched over a calm hall in the building January 6 2025 Former Vice President Mike Pence who received death threats four years ago when he presided over the certification of the 2020 election praised the return of order and civility to that process In a post on social media he called Vice President Kamala Harris particularly admirable for presiding over the certification of an election she lost The remarks by Pence who four years ago found himself in the crosshairs of Trump and his supporters for his refusal to overturn the election results came in a lengthy statement posted online after the smooth process that unfolded today in the Capitol Shortly before 2 pm four years ago a group of protesters overpowered the police at the northwest staircase of the Capitol On the east side of the Capitol building side rioters swept past barriers as the overwhelmed Capitol Police requested help from the National Guard This year the snow slicked grounds outside the Capitol are all but empty Inside lawmakers quickly certified President elect Trump 2B United States [RAWSEP View](#) January 10 2025 may be the day that Trump is sentenced From the article headline A New York Judge Forces Trump to Live With His Disgrace [Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization](#) On Friday the judge in the Trump felony trial signaled what he will do with Trump when he sentences him on January 10 just 10 days before Trump takes the oath as president Justice Juan Merchan will simultaneously let Trump off scot free and give him a life sentence as a felon Rather than delay sentencing until Trump leaves office in 2029 as the prosecution recommends Merchan said in his ruling that it is important to ensure finality in the case in which Trump was convicted on 34 counts of falsifying business records in a criminal scheme to cover up hush money payments to porn star Stormy Daniels and interfere in the 2016 election So Merchan is opting for an unconditional discharge which means no jail probation or fines Once Trump was re-elected jail was no longer a serious option It may never have been given his age and status as a first time offender About one fifth of all those convicted of falsifying business records serve time Probation isn't practical for a president of the United States And the judge is limited by law in what he can fine Trump as he was when he fined him only \$10,000 for repeatedly violating his gag order during the trial Merchan said this rare extremely light sentence is the most viable solution to allow Trump to pursue his appellate options 2C United States [RAWSEP View](#) It appears that January 10 2025 remains the date that Trump is sentenced From the article headline Trump Seeks to Halt His Criminal Sentencing in New York A Manhattan judge has already indicated that he will spare Trump from jail time but the president elect is seeking to avoid the symbolic blow of the criminal proceeding The New York Times [Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization](#) January 6 2025 President elect Trump has signaled that he plans to mount a full scale legal offensive to stave off his criminal sentencing in New York seeking a last minute reprieve before becoming the first president who is a convicted felon With the sentencing scheduled for Friday just 10 days before the presidential inauguration Lawyers for Trump have implored the judge overseeing his case to postpone the proceeding according to a court filing unsealed on Monday 2D United States Considering a water heater upgrade? You can collect \$2000 in tax credits for this more The Cool Down rebates up to \$2000 and a 30% tax credit for purchasing one Heat pump water heaters work by pulling heat from the air and transferring it to United States The government is giving homeowners \$10000 for this bill slashing home upgrade The Cool Down The IRA offers up to \$2000 in tax credits for installing a heat pump If you qualify as a low income household an additional rebate of \$8000 United States The government is giving homeowners in this region \$3500 for high tech home renovations The Cool Down pumps electric heat pump water heaters or buying an electric bike rebate for installing a modern dual use heat pump for space heating and United States Next gen water heater tech earns rave reviews after homeowner shares initial doubts The Cool Down Homeowners can also claim rebates between now and Dec 31 2032 if they install a heat pump water heater; they can claim up to 30% of project cost or United States These states are quickly unlocking billions from the government in home renovation rebates The Cool Down The heat pump is an elegant replacement for the furnace and cheaper to use in the long run So if you want to do any home improvements or United States This home heating

tech is up to five times more efficient than older models The Cool Down However depending on your income you may qualify for a rebate of up to \$8000 as well To learn more about the benefits of heat pumps check out 2E United States How to Get a Rebate for Home Energy Improvements CNET You might have heard about big tax breaks on heat pumps solar panels and electric vehicles Those aren't the only opportunities to get a discount United States Monthly Plumbing Quiz Heat Pumps Contractor Magazine How much do you know about heat pumps? Take our quiz and find out you could win a \$25 gift card! United States Samsung launches monobloc air to water heat pumps pv magazine USA pv magazine USA Now available in the North American market the manufacturer says these heat pumps work with new AI technology and reportedly perform better when United States An Update on the IRA and Geothermal Systems phcppros PHCP Pros The IRA particularly incentivizes commercial geothermal heat pump installations with a generous tax credit Nontaxed businesses unable to take United States WEB Quantum Zeno Engines and Heat Pumps Phys Rev Lett Physical Review Journals American Physical Society We study the implementation of quantum engines and quantum heat pumps where the quantum adiabatic transformations are replaced by quantum Zeno United States Woman Refuses To Stop Burning Wood In Her Yard Despite Complaints of a Neighbor About Twisted Sifter Prior to burning the wood I called our local fire department and confirmed there were no ordinances or laws preventing me from burning it January 3 2025 3 Alaska A Fairbanks lab is testing a prototype of a new cold climate heat pump Alaska Public Media How low can you go really? That is one question Alaska researchers are asking of a new grant funded heat pump prototype this winter 4A Arizona Phoenix 2025 starts off with a breath of polluted air and health risks for many around Phoenix AZ Family MSN So imagine a PM2.5 particulate of 25 micrometer size PM2.5 particulates are very tiny That is a reason they are so dangerous They can get really deep into the lungs 5 California wood burning bans California Los Angeles Good to Know When are 'No Burn' orders in effect? The Eastsider LA The Eastsider LA Wood burning is banned in Los Angeles all day today both indoors or out due to poor air quality according to the South Coast Air Quality California Los Angeles No Burn Day alert extended through Friday night for Southern California areas KTLA Gas and other non wood burning fireplaces are not restricted Smoke from wood burning can cause health problems Particles in wood smoke also California Los Angeles Wood Burning Ban Extended Through Wednesday KFI AM 640 LA Local News iHeart A ban on indoor and outdoor wood burning will be in effect through midnight in much of the Southland due to a forecast of high air pollution in California Los Angeles Wood Burning Ban Extended Thursday News westsidecurrentcom Westside Current LOS ANGELES A ban on indoor and outdoor wood burning has been extended Thursday in much of the Southland due to a forecast of high air pollution California Los Angeles Wood Burning Ban Extended Through Friday My News LA com A ban on indoor and outdoor wood burning was extended through Friday in much of the Inland Empire due to a forecast of high air pollution in the California Los Angeles Wood burning ban in effect at least through Friday City News theeastsiderlacom The Eastsider LA A ban on indoor and outdoor wood burning will be in effect today in much of the Southland due to a forecast of high air pollution in the area California Los Angeles Wood Burning Ban in Effect Friday My News LA com A ban on indoor and outdoor wood burning will be in effect Friday in much of the Southland due to a forecast of high air pollution in the area California Orange County Wood Burning Ban Extended Through Friday In Orange County Patch Particles in wood smoke also known as fine particulate matter or PM2.5 can get deep into the lungs and cause respiratory problems California Pasadena Yet Again Wood Burning Ban in Effect Monday Pasadena Now wood burning devices prohibited as burning manufactured fire logs such as those made from wax or paper Fine particles in wood smoke also California Rancho Santa Margarita Poor Air Quality Prompts Another Wood Burning Ban In RSM Rancho Santa Margarita CA Patch A ban on indoor and outdoor wood burning was issued this week for much of Southern California due to a forecast of high air pollution in the area California Sacramento Air quality alert issued by the NWS for Los Angeles area Tuesday Sacramento Bee The No Burn rule bans burning wood pellets and manufactured fire logs Particles in smoke can get deep into the lungs and cause health California San Francisco Air district asks residents to refrain from wood burning setting off fireworks over holiday Local News Matters Residents are asked to avoid burning wood in fireplaces woodstoves or outdoor fire pits and refrain from setting off

personal fireworks which California San Francisco Bay Area residents asked to refrain from wood burning setting off fireworks NBC Bay Area Residents are asked to avoid burning wood in fireplaces woodstoves or outdoor fire pits and refrain from setting off personal fireworks which can California San Francisco Bay Area residents asked to refrain from wood burning setting off fireworks NBC Bay Area Residents are asked to avoid burning wood in fireplaces woodstoves or outdoor fire pits and refrain from setting off personal fireworks which can California San Gabriel Southern California wood burning ban extended through Thursday due to air pollution San Gabriel Valley Tribune The residential wood burning ban will be in effect until at least 11:59 pm Thursday for all those in the South Coast Air Basin including California Southern No Burn Day alert extended through Friday night for Southern California areas KTLA Smoke from wood burning can cause health problems Particles in wood smoke also known as fine particulate matter or PM2.5 can get deep into your lungs California Southern California No Wood Burning Day Monday December 30 2024 South OC Beaches Wood smoke can be a significant source of fine particulate matter pollution it also contains toxic air contaminants Health studies link fine California Southern California wood burning ban extended through Thursday due to air pollution Daily Breeze The residential wood burning ban will be in effect until at least 11:59 pm Thursday for all those in the South Coast Air Basin California Southern Wood burning ban in effect Monday in much of SoCal Audacy A ban on indoor and outdoor wood burning will be in effect Monday in much of Southern California due to a forecast of high air pollution in the 6 Connecticut Maximize Savings How CT Restaurants Can Slash Energy Costs From Parking Lot to Total Food Service Commercial Heat Pump Rebates The commercial heat pump rebate program supports businesses aiming to reduce energy costs and environmental impact 7 Massachusetts More heat pumps and help for renters What is in the new Mass Save plan WBUR Thinking about buying a heat pump or new windows? Here is how the Massachusetts energy efficiency program could make your home more climate friendly and More heat pumps and help for renters In a new plan leaders of Mass Save pledged big changes to the statewide program that provides rebates to residents to make their homes and 8A Canada Vancouver A reminder for Delta Metro residents about wood burning fireplaces Delta Optimist The City of Delta is reminding residents that they must follow a new Metro Vancouver bylaw to register their wood burning appliances 8B Canada 280945 views January 4 2025 Meidas Touch host Ben Meiselas reports on the growing popular opposition to Trump in Canada thanks to the efforts of people like Canadian Member of Parliament Charlie Angus who sits with Meiselas for an exclusive interview 8C Canada Here Are Four Possible Contenders to Succeed Justin Trudeau Whoever replaces Trudeau as the leader of the Canadian Liberal Party will become the prime minister Not long after they'll face a general election and the daunting challenge of keeping the job **RAWSEP View** Chrystia Freeland has styled herself as more able to stand up to Trump on the tariff issue **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** January 6 2025 After 12 years leading the Liberal Party of Canada Prime Minister Justin Trudeau on Monday said he was stepping down His resignation sets off a succession battle among the most prominent faces in the Liberal Party who will vie to replace him In the Canadian political system the leader of the Liberal Party as the head of the largest party in the House of Commons is also prime minister That politician will take the party to general elections to face the Conservatives and their leader Pierre Poilievre who are dominating public opinion polls Elections must be held no later than October but the government under its new prime minister is expected to fall long before then through a vote in the House of Commons Trudeau said the Liberal Party would choose his successor through a vote by its members a relatively small portion of the Canadian population While no one has yet announced their candidacy to succeed Trudeau here are some possible contenders 8C1 The resignation last month of Chrystia Freeland the former deputy prime minister and finance minister incited widespread speculation that she would start her own bid to run the Liberal Party Ms Freeland who was born and raised in Alberta returned to Canada to join Liberals in 2013 After the Liberals subsequently came to power she played important roles in resolving several major issues for Trudeau in particular negotiating the successor to the North American Free Trade Agreement during the first Trump administration On Monday Trudeau had kind words for Ms Freeland although he declined to share what transpired between them People familiar with

the events surrounding her departure said that Trudeau had attempted to fire her over a video call and offered her a minister without portfolio position which she declined 8C2 Dominic LeBlanc who became finance minister when Ms Freeland resigned LeBlanc is a longtime friend of Trudeau and has known him since LeBlanc used to babysit Trudeau and his brothers in Ottawa LeBlanc was among the Canadian contingent who flew to Florida to meet with President elect Trump at Mar a Lago his private club and residence after he threatened to impose a 25 percent tariff on Canadian goods in response to border security issues LeBlanc was first elected as a member of parliament in 2000 and has led various portfolios in the administration of Trudeau including most recently as the public safety minister LeBlanc who is from a French speaking part of New Brunswick considered running for Liberal leadership in 2012 but changed his mind 8C3 Mélanie Joly has been the top diplomat of Canada top diplomat 2021 Trudeau encouraged her to take the next step in her political career by accepting the foreign affairs role Ms Joly has brought her own brand of pragmatic diplomacy to the role I think that to be strong is to be able to have the tough conversations 8C4 Trudeau had privately been pursuing Mark Carney the former governor of the Bank of Canada who also led the Bank of England to take over for Ms Freeland as finance minister Carney and Ms Freeland are longtime friends and he is the godfather of one of her children Those efforts to pursue Carney unraveled after the public rift of Ms Freeland with Trudeau and her resignation from the Trudeau cabinet Since then Carney has been calling Liberal members of parliament to ask for their support and advice if he were to make a leadership run During his time as governor of the Bank of England Carney earned a reputation for talks including on his views on the financial dangers of climate change In his recent book Values Carney offered a withering critique of capitalism and a proposition that markets ought to serve citizens 8D Canada Justin Trudeau steps out of the boxing ring for now **RAWSEP View** The writer below compares how Justin Trudeau is exiting to how his father Pierre Trudeau exited The writer states that the reason for the exit of Justin Trudeau may as be shallow as waning of excitement around Trudeau **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** In politics the pendulum never stops and excitement of yesterday becomes a handicap tomorrow Justin Trudeau should have known that His father Pierre Trudeau bowed to public fatigue with his charisma and progressive policies in 1984 after 15 years as prime minister of Canada Some colleagues of Justin had been urging him for some time to take a walk in the snow a reference to what his father said he did before making his decision to step down Somewhat like his father Justin Trudeau also entered Canadian political life in a burst of excitement and hope He was 43 handsome and fresh His mantra was sunny ways and he promised a return to the progressive vision that the Liberal Party had championed in the 1960s and 1970s one that successors of his father Pierre Trudeau then tried to erase 8E Canada The New York Times A Timeline of the Rise and Fall of Justin Trudeau **RAWSEP View** Justin Trudeau was known at birth as the son of Pierre Trudeau As Canadian Premier himself Justin Trudeau promoted environmentally correct policies in many areas The editor of **RAWSEP** finds when looking back that Justin Trudeau led on COVID lockdowns when needed and led on COVID vaccinations which was prescient and heroic in promoting Public Health especially in the face of scientifically unfounded opposition As with many democratic developed countries since 2020 the COVID pandemic and Russian end of much of its natural gas exports because of Russian aggression in the war with Ukraine had economic consequences that all these democratic developed countries struggled to overcome The election of Trump in the United States in 2024 signaled additional negative economic consequences such as the threat of Trump tariffs on Canadian goods among other Trump threats **Key RAWSEP chosen excerpt on the environment** 2015 Trudeau burst onto the international scene as a newly elected young leader of Canada He styled himself as an environmentalist 2016 Trudeau outlined a national carbon tax program that included rebates for consumers The plan was one of his major accomplishments as prime minister but was seized on by his political opponents as having put a burden on everyday Canadians **Key RAWSEP chosen excerpt on COVID** 2020 During the coronavirus pandemic Trudeau became the first Group of 7 leader to isolate himself after his wife tested positive for Covid 19 The couple is now separated Trudeau pushed for restrictive COVID measures and was targeted over them by his Conservative critics even though most of the restrictions were put in place by provincial governments

2021 When his approval ratings were still relatively high Trudeau called a snap election saying he wanted a strong mandate for his party to lead Canada out of the pandemic and into economic recovery He eked out a narrow victory but the Liberal Party again failed to secure a majority of votes 2022 Canadian protesters fighting vaccine requirements paralyzed Ottawa the capital and several border crossings Trudeau took the rare step of declaring a national public order emergency allowing the authorities to move aggressively to restore public order banning public assembly and restricting travel **Key RAWSEP chosen excerpt on the Canadian economy** 2017 an ethics commission found Trudeau violated conflict of interest rules in 2016 with a luxurious free vacation that he failed to declare which fueled conservative anger while rising housing costs and inflation were a frustration for Canadians of all political persuasions 2023 Trudeau was contending with popular outrage over the cost of housing and high unemployment **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** The Canadian prime minister said on Monday January 6 2024 that he would step down Justin Trudeau has spent a quarter century in the political spotlight January 6 2025 The Justin Trudeau announcement was expected after he faced political struggles in recent months but it nonetheless represented a stunning fall for a leader once so beloved that his diplomatic meetings were marked by fans lining up to take selfies with him Here is a look at his political rise and fall which has played out over the past 25 years 1971 Trudeau was already a celebrity when he was born on Christmas Day in 1971 the son of Pierre Elliott Trudeau the prime minister at the time 2008 Trudeau a former high school teacher was elected to Parliament at the age of 36 2013 Trudeau was elected to lead the embattled Liberal Party which was the dominant federal political force for most of Canadian history especially during many of the 15 years his father Pierre Trudeau served as prime minister 2024 In September The hold on power of Justin Trudeau slipped somewhat when the left leaning New Democratic Party NDP deprived Liberals of guaranteed support needed to pass legislation In December Chrystia Freeland the deputy prime minister and finance minister resigned abruptly delivering a stinging rebuke to Trudeau 2025 Trudeau caved to pressure from many in his party to step down 9A United Kingdom Landlords warned heat pumps won't improve energy efficiency ratings Yahoo Landlords are being warned against installing heat pumps amid fears they do not make homes more efficient on paper 9B United Kingdom Let us get a heat pump into every new home The Guardian Rather than wasting time and money on nudge units to boost the take up of heat pumps **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** January 1 2025 Rather than wasting time and money on nudge units to boost the take up of heat pumps the government just needs to order housebuilders to install them at the time of construction ditto solar panels gaining cost benefits from economies of scale too Sadly MPs don't seem to have any guts 9C United Kingdom UK government hires 'nudge unit' to help dispel heat pump myths **RAWSEP View** If a Heat Pump costs 12500 pounds and a government grant for a Heat Pump gives the consumer 7500 pounds then the net cost of a Heat Pump to a Household would be 5000 pounds after using the grant If a Heat Pump cost 4 times more than a gas Boiler a gas boiler costs 3125 pounds In **RAWSEP's opinion** the government grant for a Heat Pump should be increased to 9375 pounds so that there is no difference in price between purchasing a Heat Pump and purchasing a Gas Boiler **RAWSEP View** The truth is that Heat Pumps work in cold climates and with grants or subsidies based on sliding income scales Heat Pumps can be affordable for all income groups in the United Kingdom The truth is that Heat Pumps are not noisy Heat pumps are reliable and can be easily installed in older homes The Reform UK party cited in a BIT report as fostering misinformation about Heat Pumps are specifically members of the Reform UK party often appearing on GB News In support of Heat Pumps a prominent member of the Conservative Party accused vested interests in the natural gas industry of spreading some misinformation about Heat Pumps **RAWSEP Top chosen excerpt that demonstrates misinformation about Heat Pumps in the United Kingdom** The Behavioral Insights Teams of the United Kingdom Government BIT is finalizing a large survey of householders' views and coverage in the media to be used in planning how the United Kingdom government will push back against misinformation Disinformation about heat pumps is being shared by the media and stakeholders which may be skewed to negative incorrect or exaggerated stories of heat pump adoption The BIT

contract cites misinformation claims that the pumps are noisy cost too much to install are not reliable and don't work in older homes Articles about heat pumps in the Daily Mail and the Daily Telegraph were cited Some parts of these stories are well founded such as believing that heat pumps are expensive but some include parts of these stories contain incorrect misconceptions such as believing that Heat Pumps might not work well in the cold Then Conservative energy minister Martin Callanan last year accused vested interest in maintaining United Kingdom current supplies of gas boilers and the like Heat Pump technology has also come under fire from the Reform UK Party which is seeking to leverage an anti-net zero agenda while heat pumps have been openly criticized on GB News by Nigel Farage The Reform UK deputy leader Richard Tice MP has also been particularly hostile towards the technology claiming that heat pumps were useless in most homes Toby Park the head of climate energy and sustainability at BIT said Heat pumps are a very efficient low carbon system for keeping our homes warm but negative perceptions remain a barrier to their widespread adoption **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization**

The Guardian UK government hires 'nudge unit' to help dispel heat pump myths Behavior experts say misinformation shared in media and by other stakeholders is impeding uptake Heat Pumps run on electricity instead of gas and are regarded as a way of decarbonizing homes at scale A target of installing 600000 Heat Pumps a year by 2028 is part of a drive to achieve Britain is commitment to reach net zero by 2050 According to a report issued for a £100000 government contract awarded to the Behavioral Insights Team BIT The contract awarded to BIT contains details of a previously unpublished research by the Department for Energy People who correctly answered a simple knowledge question about heat pumps were more likely to want one While installations of heat pumps in the UK have hit a record number last year they have still only reached about 42000 since January 2024 Air source heat pumps cost just over £12500 to buy and install on average about four to five times more than gas boiler The government offers a £7500 grant for households installing the technology In terms of the claims experts say the majority of households are expected to be able to use heat pumps It was also found that on average heat pumps were far more efficient than gas boilers turning one unit of electricity into 255 units of heat 10 Germany Saxony Bautzen 'They've heard so much wrong information' Selling heat pumps across the political divide in Germany **RAWSEP View** As in the United States subsidies for Heat Pumps are offered now in Germany ahead of the February 2025 German Snap Election This article is about how a German government agency and its energy experts went to towns and cities across Germany in November 2024 to promote heat pumps Will German citizens believe that Heat Pumps will offer them ongoing monthly cheap bills along with attractive subsidies for initial purchase as that government blitz promised? The government is described as talking often to climate skeptics The economic argument appears to be the strongest argument for most audiences and it is a strong argument The pro side of the argument for Heat Pumps is that if heating through electricity then electricity monthly heating bills are lowered immediately upon installing a Heat Pump because of its efficiency and alternately if heating with oil or gas now and replacing those fossil fuels with a Heat Pump there are no fuel bills such as oil or gas bills in the future The con side of promoting Heat Pumps is that the government must battle so much misinformation often from the neo Nazi climate skeptic Alternative für Deutschland AfD German political party about Heat Pumps and some misinformation from the center right Christian Democratic Union CDU about Heat Pumps How do the German political parties describe Heat Pumps? **Top RAWSEP chosen excerpt about Heat Pump opposition from leader Friedrich Merz of the center right Christian Democrat Union CDU from the article below** In Telegram chats and town hall meetings critics decried the Greens for forcing households to make expensive renovations and taking away their freedom Friedrich Merz leader of the center right Christian Democrats has promised to overturn a Green Party promoted law if he becomes chancellor after federal elections in February We will regulate it so that people can make their own decisions about what they install for home heating Friedrich Merz said on a talk show **Top RAWSEP chosen excerpt about the neo Nazi German rightist party AfD response to German government Heat Pump subsidies** The German current energy agency under a Social Democrat Party SDP plus Green Party government coalition hopes that a focus on cheap bills and attractive subsidies will widen the heat pump appeal beyond

climate conscious customers It is a strategy being tested to the limit in far right strongholds such as Bautzen in Saxony where the climate sceptic Alternative für Deutschland AfD German party won a third of the vote in September elections and other regions where the Greens have become a political punching bag after pushing through an unpopular heating law last year For more than a year the AfD has raged against a law that will eventually require all new heating systems to be able to run on at least 65% renewables Bild the highest circulation daily newspaper in Germany dubbed it the heating hammer **The Green Party RAWSEP notes** that as stated above the Greens promoted and passed a law that would require renovations and switch to 65 percent of renewables for home heating eventually **RAWSEP notes** that unfortunately wood burning is still considered a renewable across the world in the European Union and probably in Germany so that theoretically switching from coal to wood heating would fall under renewables under this Green Party law and the ensuing added wood burning would increase air pollution and hasten climate change while the wood burning emissions such as CO2 and PM2.5 would not be counted in Germany as a count of harmful emissions based on the scientifically debunked theory of Carbon Neutrality of Wood Burning However the spirit of the law appears to be asking for Germans to switch to truly clean renewables such as wind solar and geothermal energy stored long term in batteries to be sent out when needed on a smart electric grid to homes which use clean energy electricity powered Heat Pumps that have no emissions at all The spirit of the Green Party sponsored law seems to be to stop air pollution and slow climate change so hopefully perhaps the law does not consider wood burning a good renewable alternative to oil gas and coal for home heating The German government is signaling by Heat Pump subsidies that the government wishes Germany would use the cleanest alternative for home heating Heat Pumps that work down to 40 degrees below zero in 2025 and lower monthly electricity bills immediately **Top RAWSEP chosen excerpt about the German law promoted by the Green Party** RAWSEP calculation using the figures from the United Kingdom nudge article assuming that a heat pump in Germany if similar to the United Kingdom prices might cost around 12500 euros and a gas furnace might cost around 3125 euros in comparison If Germany subsidized a Heat Pump by 70 percent the actual cost to the consumer might be only 3750 euros or very slightly above the cost of a 3125 euro gas furnace which in the future will require monthly gas purchases to fuel the furnace And as the article points out German society pays the societal economic public health and hazard from climate change cost of fossil fuel burning pollution or RAWSEP interjects here wood burning pollution **RAWSEP also interjects** that wood burning emits 450 times the PM2.5 as the fossil fuel natural gas burning **From the excerpt** Germany subsidizes 30 to 70% of the cost of a new heat pump and experts say the device could pay for itself in a number of years The uncertainty over the future of subsidies after the German Snap Election in 2025 signals a change of government coalition from the current Social Democrat Party SDP plus Green Party coalition may have contributed to a surge in heat pump sales in recent weeks in December 2024 and January 2025 Heat pumps are more expensive than gas burning boilers but in most countries are cheaper to run even before counting the costs that society pays for fossil fuel pollution **Top RAWSEP chosen excerpt about patriotic adoption of Heat Pumps for German Energy Security** just as **RAWSEP has previously made the argument that use of Heat Pumps rather than indoor residential wood burning for home heating aids National Defense because an population ill from air pollution is less able to defend itself and increasingly the air pollution from wildfire wood burning is grounding transportation specifically airplanes** Growing concerns about energy security could help sell heat pumps as the patriotic choice for homeowners who value locally sourced power The technology reduces reliance on foreign fuels and can shield consumers from price shocks in volatile global gas markets An analysis from the ECIU last month found a British heat pump would use six times less imported energy than a gas boiler in 2030 if the renewables rollout continues to accelerate Heat pumps have huge energy security benefits because they reduce the amount we have to import said an English researcher If you want to run something off British [or German] energy it is going be electricity not gas **Top RAWSEP excerpt about German government appeals to status scarcity and security referring to the example of solar panels which were given government subsidies earlier** Subtly German government energy advisers played on ideas of status scarcity and security to win over middle class conservatives and other demographics who are unmoved by environmental

arguments Energy advisers asked the audience who among them thought gas prices would still be the same in a decade; whether they had benefited from subsidies for solar panels which Germans across the political divide have embraced; and if their friends or neighbors had bought a heat pump The strategy could win over risk averse homeowners who fear they will be left behind as carbon taxes rise and late adopters are left to foot the bill for a gas grid whose costs will be carried by fewer customers **Top RAWSEP chosen excerpt about the neighborhood effect** as explained in the United Kingdom using an Australian example of adoption of solar panels and insulating double glazed window because of the neighborhood effect Research finds people are more willing to adopt clean technologies if they see other people doing so Solar panel example in Australia Last month a study of Australian households found this neighborhood effect explained about 20% of solar panel installations Double glazed windows example It is all about keeping up appearances said the head of energy at the Energy and Climate Intelligence Unit ECIU a thinktank in the United Kingdom UK She said her parents didn't want to get double glazing till other houses on the street got it Their neighbors had told them how much quieter it made living on the main road For people who are not very environmentally minded other ways into the conversation are quite useful she said **Top RAWSEP chosen excerpt on the Heat Pump adoption example in Scandinavian countries such as Norway** While cold Nordic countries with cheap electricity and high carbon taxes embraced heat pumps decades ago negative media campaigns have turned them into a polarizing force in countries such as Germany and the UK Norway has 635 heat pumps for every 1000 households while Germany has 47 and the UK just 15 RAWSEP View However the editor of **RAWSEP is disturbed** that alongside apparent Heat Pump acceptance in Nordic countries exists a regressive anti scientific movement of considering wood burning as Hygge translated as coziness in Nordic countries with perhaps the fans flamed for wood burning for this specious purpose of coziness combined with real health harming air pollution by the advertising of the wood burning industry more than any real popular wish to burn wood rather than use clean energy for heating homes As in all other developed countries that burn wood unnecessarily which means all modern countries that burn wood unnecessarily that unnecessary wood burning a fad a fashion and a folly **Top RAWSEP chosen excerpt on the myths about Heat Pumps debunked by German energy experts to their audiences** Under the banner simply inform German energy experts busted common myths about the Heat Pumps explaining that heat pumps work well in cold weather and modern Heat Pumps make about as little noise as a fridge **Top RAWSEP chosen excerpt on the faff factor used as a deal breaking final criticism of Heat Pumps** There are also barriers such as the faff factor said the head of energy at the Energy and Climate Intelligence Unit ECIU a thinktank in the UK about the effort of stripping out pipes and radiators particularly if a boiler breaks unexpectedly the middle of winter **RAWSEP** did not know what the so called Faff factor was and searched for a definition online and found The 'Faff Factor' A cost worth considering? A Linked In article **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** September 12 2016 Would you consider the cost implications of the so called 'faff factor' when buying a new asset for yourself or your business? The Faff Factor to waste time and/or money doing things you didn't expect to or have to do I've suffered the effects of the 'faff factor' on personal purchases mainly due to bad technical support but also due to time away from what I had purchased as it had to be returned or exchanged or repaired these costs haven't been significant but it does make me think Your brain hurts trying to understand what the support engineer trying to tell you From the main article about German energy experts crossing the country in November 2024 to educate the public about Heat Pumps and German government subsidies for Heat Pumps **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** The Guardian The German energy agency hopes that a focus on cheap bills and attractive subsidies will widen the heat pump appeal beyond climate conscious 'They've heard so much wrong information' Selling heat pumps across Germany political divide Green heating has an image problem especially where climate sceptic parties hold sway **RAWSEP note the climate skeptic German parties referred to include the AfD and the CDU** Now energy groups are promoting them on grounds of cost status and energy security January 3 2025 A few dozen people had gathered on the dancefloor of the nightclub in eastern

Germany when Stefan Vetter took to the stage amid neon lights bouncing off disco balls The German energy expert flicked through PowerPoint slides of homeowners and their heaters We know that oil and gas are not getting cheaper in future he said The audience of mostly retired men nodded slowly along Versions of this unusual scene played out in towns and cities across Germany in November 2024 in a weeklong PR blitz to promote heat pumps which are a clean alternative to gas burning boilers But rather than lecture citizens about climate or carbon this adviser at the Saxon energy agency talked up the cash they could save The heat pump was promoted in the media in a very wrong way said a representative from Energy Saxony one of the event organizers who had little success inviting people to attend the session when he walked around Bautzen Saxony Germany that morning You say Heat Pump They say no and run away They've heard so much wrong information that they don't even want to hear the correct information Heat pumps work like a backwards fridge sponging unclaimed thermal energy from outside and bringing it indoors where it can warm a home The International Energy Agency roadmap to greening the economy as fast as world leaders have promised shows the share of heat pumps in sales of heating equipment soared worldwide from 10% in 2022 to 50% in 2026 Sales in the two countries Germany and the United Kingdom lagged far behind their Nordic neighbors' last year as Industry data shows To catch up the German energy agency staged 200 public events as part of a heat pump information week in November 2024 that it said drew in 50000 citizens But in towns such as Bautzen in Saxony Germany the new approach may be too little too late 11 Ukraine just stopped Russian gas flows to Europe Here is who is most at risk RAWSEP View Russian cut off of much of its natural gas exports in 2022 because of the Russian aggression in Ukraine causing economic hardship and increased pollution from Europeans resorting to even more polluting energy sources since 2022 Now Ukraine is making a proactive decision to cut off Russian gas still more in order to punish Russia economically RAWSEP View Increased use of Heat Pumps since 2022 and increased use of the clean renewable energy sources of wind solar and geothermal with better long term battery storage of clean energy may have better prepared the affected previous importers of Russian natural gas for the Russian gas shutoff decision by Ukraine Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization January 2 2025 Ukraine halted the flow of Russian gas to several European countries on the first day of the New Year 2025 bringing an end to long dominance from Moscow over Europe energy markets The widely expected move marks an end to a five year transit agreement between Russia and Ukraine with neither side willing to strike a new agreement amid the ongoing war Austria has insisted it is well prepared for the stoppage but Slovakian prime minister Robert Fico has threatened to cut electricity supplies to neighboring Ukraine Russian gas flows to Europe via Ukraine stopped as a key transit deal expired raising the stakes for European energy security as it draws heavily on reserves Photo of The Mitte Combined Heat and Power CHP natural gas power plant operated by Vattenfall AB in Berlin Germany on Wednesday January 1 2025 The widely expected move marks the end of a five year transit agreement between Russia and Ukraine with neither side willing to strike a new deal amid the ongoing war Ukrainian President Volodymyr Zelenskyy said in December that Kyiv was not prepared to prolong the transit of Russian gas adding We will not give the possibility of additional billions to be earned on our blood Moscow can still send gas via the Turk Stream pipeline which links Russia with Hungary Serbia and Turkey Ukraine will lose up to \$1 billion a year in transit fees from Russia due to the stoppage while Russian owned Gazprom is poised to lose close to \$5 billion in gas sales The European Commission the EU executive arm said it had been working with EU member states most impacted by the end of the gas transit agreement to ensure the entire 27 nation bloc was prepared by steps taken by EU importers to prepare for the cut in supply and helped by the mild winter weather seen across most of Europe Gas price moves over the coming months would likely hinge on political developments in the Russia Ukraine war and remaining winter weather conditions Above average temperatures are expected for the remainder of European winter which implies the impact of the cuts will be limited 12 Africa and South Asia United Nations website September 5 2024 Cooking smoke kills millions every year Here is what the world can do about that Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization The For billions of people across the developing world

particularly children and women mealtime starts by setting fire to kerosene charcoal or wood This type of household air pollution led to 31 million premature deaths in 2021 and is part of a larger crisis driving climate change Household air pollution is one of the world's greatest public health threats says the Head of Secretariat of the Climate and Clean Air Coalition of the United Nations Environment Programme UNEP Worldwide nearly one in three people cook on inefficient stoves or over open fires breathing in harmful smoke from so-called solid fuels such as wood charcoal and animal dung The problem is especially acute in Africa where nearly four in five people are exposed to household air pollution 99 per cent of the world breathes household or outdoor air that the World Health Organization considers unsafe **RAWSEP Note** 90 per cent of wood burning emissions are PM_{2.5} particulate matter of 25 micrometer size Continuing excerpts from the article What does household air pollution do to the human body? Fine particulate matter less than 10 microns in size can enter the lungs and bloodstream From there it can cause serious health problems including pneumonia heart disease stroke and lung cancer low birthweight and stillbirths Household air pollution led to the premature deaths of an estimated 31 million people in 2021 In 2021 household air pollution led to the deaths of 237,000 children under five Household air pollution also disproportionately affects women as they are most often doing the cooking In Africa women and children account for 60 per cent of early deaths related to smoke inhalation and household air pollution Better than cooking on open fires or biomass stoves are highly efficient electric cooking appliances Electric appliances have the most potential for rapid deployment of clean and low carbon cooking solutions particularly given the trend to invest in renewable power generation both grid and off grid The use of high polluting cooking fuels such as coal and firewood produces as much planet warming carbon dioxide as the aviation sector In Africa companies are producing small affordable solar power systems for households not connected to the electric grid Since 1990 the number of people mainly using polluting cooking fuels fell from more than half of the global population from almost 58 per cent earlier to 29 per cent in 2021 which has led to a 36 per cent reduction in deaths from household air pollution since 2000 This is also due to efforts to extend grid electricity Yet access to clean energy is still limited in South Asia and parts of Africa where hundreds of millions of people still rely on solid fuels for cooking and heating Globally US\$10 billion a year needed by 2030 to achieve universal access to clean cooking according to the International Energy Agency

13 China The effects of PM_{2.5} components on the cardiovascular disease admissions in Shanghai BMC Public Health BioMed Central Daily PM_{2.5} components data during 2013 to 2019 in three districts of Shanghai were obtained from Tracking Air Pollution in China We obtained CVD daily China Winter spring droughts exacerbated PM_{2.5} O₃ compound pollution? Evidence from China ScienceDirect.com ASCM method to quantify the drought effect of air pollution The winter spring drought significantly increased PM_{2.5} O₃ compound

14 India Delhi December becomes capital most polluted month The Express Tribune Dust the main particle adding to air pollution in addition to smoke and particulate matter recorded at 25 microns said Labs and National India Delhi PM_{2.5} Levels Rise Despite Drop in Stubble Burning CSE Analysis Down To Earth Despite a significant reduction in stubble burning incidents Delhi PM_{2.5} levels have risen for two consecutive years reveals a CSE analysis India Delhi PM_{2.5} levels up in 2024 even after low stubble burning CSE report India News Business Standard Delhi annual PM_{2.5} levels rose in 2024 for the second consecutive year despite a 37 per cent drop in stubble burning in Punjab Haryana and the

15 South Korea Samsung launches monobloc air to water heat pumps PV Magazine South Korea Samsung has launched new residential air to water heat pumps for heating and domestic hot water DHW in multiunit homes apartments

16 PM_{2.5} and blood Environmental PM_{2.5} Exposure an Ignored Factor Associated with Blood TCRM Dove Medical Press Background The negative impacts of particulate matter with an aerodynamic diameter of 25 µm or less PM_{2.5} are well known Patients undergoing PM_{2.5} and obesity Exposure to PM_{2.5} leads to obesity role of socioeconomic status Nature Incorporating these into PM_{2.5} monitoring and analysis offers understanding of atmospheric pollution composition PM_{2.5} and weather Unraveling how meteorological conditions cause changes in atmospheric fine particle concentration Phys.org The variation in PM_{2.5} concentrations not only affects the quality of the atmospheric environment but also has a direct impact on human health