

In Episode 57CY 1 Introduction **RAWSEP View** 2A World Global Temperatures Shattering Records in January **RAWSEP Key Excerpt** Ironically sulfate pollution emissions reductions are hampering slowing global warming despite PM2.5 and CO2 reductions on paper **The editor of RAWSEP writes reductions on paper since PM2.5 and CO2 emissions from wood burning are not counted and are ignored when calculating if each country in the world is reducing its harmful air pollution emissions** 2B World Denmark and Norway and New Jersey New York and Rhode Island in the United States Green Energy Ambitions of European Companies Take a Beating Orsted of Denmark and Equinor of Norway tap the brakes on offshore wind development after setbacks and market shifts 3A United States Workers at EPA Office of Environmental Justice Are Told They May Be Put on Leave President Trump is likely to close the office as he moves to eliminate programs on environmental justice which aims to protect poor and minority communities from disproportionate harm from pollution 3B United States Where Coal Is Retiring and Hanging On in the US **RAWSEP Top critical excerpt** But even the units that are kept open will continue to decline in capacity as more planned gas nuclear and renewables **RAWSEP interjection that wood burning is considered a renewable but it is not a clean renewable and replacing coal burning with wood burning is not good news for the environment and not good news for human health** enter the grid Northstar Clean Energy said that TES Filer City Station Unit 1 would continue to combust coal through 2025 and possibly into 2026 and early 2027 as Northstar transitions to biomass with carbon capture and sequestration at the plant It is marked as withdrawn for the purposes of this article **RAWSEP View** Biomass wood burning emits 2.8 times the CO2 and PM2.5 as the fossil fuel coal burning 3C United States The US energy transition is moving faster than most realize 3D United States Trump Is Failing the Marshmallow Test Again A discussion of the reckless approach to trade and the economy of Trump 4 United Kingdom Grenfell Tower Where Fire Killed 72 Will Be Demolished Families Say Survivors and bereaved family groups said the deputy prime minister of Britain said it would be dismantled 5 Europe and Musk Tesla European Sales Drop in January After Musk Disrupts Politics There The sales of the US electric car company are sliding across Europe amid what many see as interference in local affairs by Tesla chief executive Musk Main Content

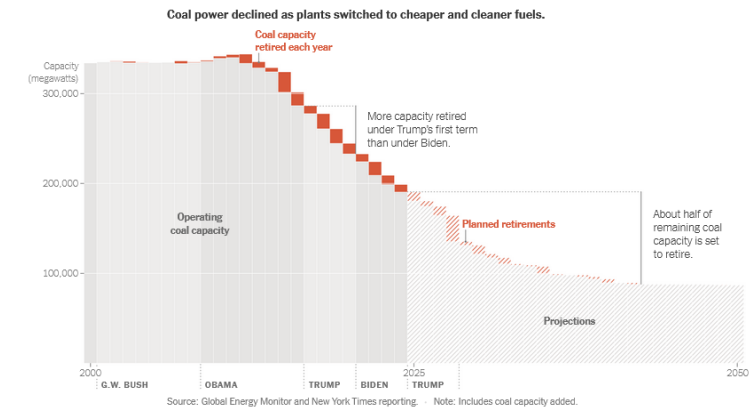
1 Introduction **RAWSEP View** The United States government was on track in the Biden Administration to reduce the prices for both clean energy Heat Pumps and clean energy Electric Cars Trump tariffs are expected to upset those plans to prevent future air pollution and prevent climate change The United States Government should instead of certifying wood stoves as safe when they are not safe go forward with regulations that ban wood stove use and direct government money for use of forest refuse only for home building and furniture building for just a few examples of use of forest products for non burning uses It is well known from scientific and medical research that wood burning is a substantial source of PM2.5 emissions Yet the wood burning industry uses the scientifically debunked theory named Carbon Neutrality of Wood Burning to argue that wood burning replacing coal burning in industry and in a trickle down argument that wood burning should continue for home heating should continue presumably because it is called renewable Wood may be renewable in the sense that a tree can be planted in the place of a cut down burned tree but it takes centuries or decades for the newly planted tree to attain the stature of the cut down burned tree During those centuries or decades photosynthesis which converts CO2 to oxygen and so sequesters some carbon will not take place at the same rate as photosynthesis was performed previously And wood burning emits both CO2 and PM2.5 and PM2.5 is not absorbed by trees so PM2.5 is not diminished by planting a tree in the place of a cut down and burned tree In fact a living tree closes its pores against the presence of PM2.5 from nearby wood burning



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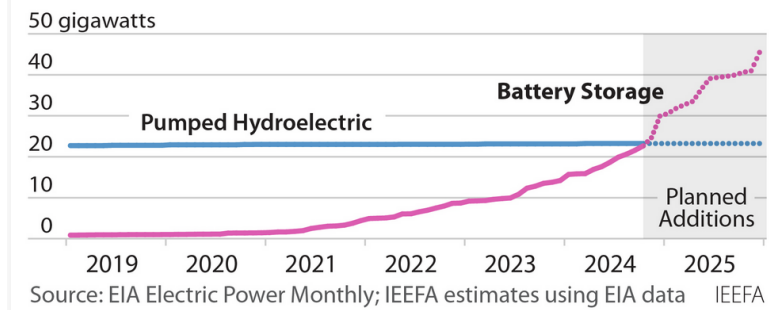
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Battery Storage Soars, Overtaking Pumped Hydro

Total time-adjusted storage capacity, monthly



just as humans hold their breath in the presence of PM2.5 from nearby wood burning and when a tree closes its pores the level of photosynthesis that absorbs CO2 pollution goes down Wood burning emits 90% PM2.5 particulate matter of 2.5 micrometer size the perfect size to infiltrate the human lung setting off a cascade of human health problems and early deaths Contrary to many beliefs wood burning emits 28 times the PM2.5 as the fossil fuel coal burning and wood burning emits 450 times the PM2.5 as the fossil fuel natural gas burning Replacing coal burning with wood burning creates more air pollution in the form of CO2 and PM2.5 than coal burning This emission data comes from testing the cleanest burning wood stove in the United Kingdom the EcoDesign wood stove An international convention based on the scientifically debunked theory named Carbon Neutrality of Wood Burning The emissions from wood burning are erased from all countries around the world when calculating if each country has met its Climate Goals This non counting or erasure of wood burning emissions data from Climate Goals does not mean wood burning emissions do not exist Burning wood instead of coal increases the adverse health effects of PM2.5 air pollution and hastens climate change Stopping burning wood for residential home heating is an easy incremental way to be kind to your neighbor and to the planet Choosing to burn wood when burning wood when it is more expensive than heating your home with a Heat Pump that is less expensive when you use the United States Heat Pump Rebates available in 2025 in many states is like choosing a gas powered car above an electric car when both are of equal price Many of the Trump tariffs will result in less manufacture of clean electric vehicles in the United States and less price reduction to customers on existing electric vehicles

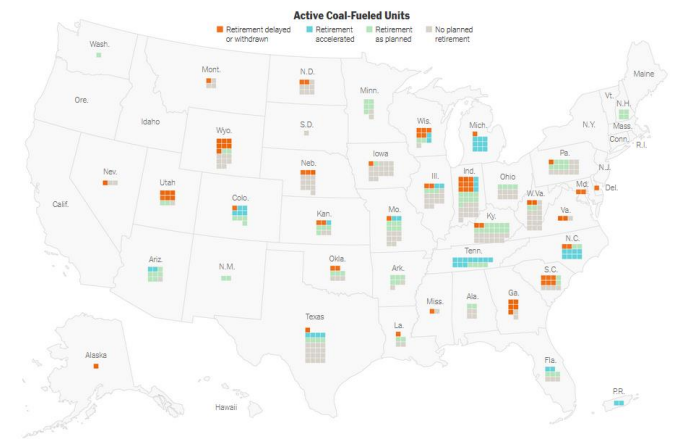
2A World Global Temperatures Shattered Records in January **RAWSEP Key Excerpt** Ironically sulfate pollution emissions reductions are hampering slowing global warming despite PM2.5 and CO2 reductions on paper **The editor of RAWSEP writes reductions on paper since PM2.5 and CO2 emissions from wood burning are not counted and are ignored when calculating if each country in the world is reducing its harmful air pollution emissions** From the article headline the prolonged streak on Earth of abnormal heat continued into 2025 despite the arrival of La Niña ocean conditions which typically bring cooler temperatures **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** The New York Times February 5 2025 Even as much of the United States shivered under frigid conditions last month the planet as a whole had its warmest January on record the surface of the Earth has now been so warm for so much of the past two years that scientists are examining whether something else in the chemistry of the planet might have changed something that is boosting temperatures beyond what carbon emissions alone can explain Those emissions the byproduct of burning coal gas and oil remain the main driver of global warming which reached record levels in both 2023 and 2024 According to Copernicus the European Union climate monitoring agency last month was much balmer than usual in northern Canada Alaska and Siberia as well as parts of Australia and Antarctica Abnormally high temperatures above the Hudson Bay and the Labrador Sea helped shrink Arctic sea ice to a record low for January Copernicus said One thing scientists have focused on is reductions in air pollution In a report this week James Hansen the former NASA scientist argued that cutting sulfate pollution played a big role in causing global warming to accelerate For decades humans have not only been emitting carbon dioxide and other greenhouse gases when they burn fossil fuels They have also been emitting tiny sulfate particles into the air These particles spur the formation of more and brighter clouds which help shield Earth from the sun But as regulators have **curbed sulfate pollution to protect lungs of people** this cooling effect has diminished exposing the planet to more of the full force of greenhouse warming The UN approach to meeting its climate goals still



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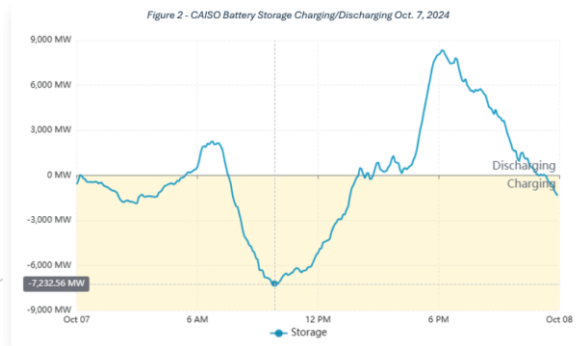
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Source: Global Energy Monitor and New York Times reporting. Note: Reflects any changes to retirement plans from the date of first retirement announcement through January 2025.

Figure 2 - CAISO Battery Storage Charging/Discharging Oct. 7, 2024



goals still counts on societies to slash their carbon emissions in the coming decades Hanson said Those

2B World Denmark and Norway and New Jersey New York and Rhode Island in the United States Green Energy Ambitions of European Companies Take a Beating Orsted of Denmark and Equinor of Norway tap the brakes on offshore wind development after setbacks and market shifts Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization The New York Times February 6 2025 The new chief executive of the Danish offshore wind developer Orsted sounded as if he had inherited a mess Over the past two years Orsted has backed away from some huge wind projects it planned to build off the East Coast of the United States notably off New Jersey because of delays inflation and higher interest rates Now the aversion of President Trump to offshore wind farms threatens to complicate the two big projects off New York and Rhode Island that Orsted says it is still committed to completing The downshift at Orsted one of the flagship renewable energy developers in Europe came just a day after Equinor the Norwegian energy giant that has been a large investor in renewable energy said it would cut planned spending on low emission projects to \$5 billion from \$10 billion over the next three years The energy transition is moving slower than expected But large European energy companies are not so much giving up on wind solar and other low carbon technologies as much as applying the brakes to what had sometimes seemed a race to pile into new projects After a relentless battering of the company stock price which has fallen by more than 50 percent in three years the board decided on Friday to replace Mads Nipper the chief executive with Errbroe his deputy The weakness at Orsted has attracted potential suitors looking to invest in the large renewables portfolio of Orsted at what seems like a low price We are used to cycles from oil and gas and clearly we see that in offshore wind I think the offshore has come to a full stop with immediate effect the chief executive of Vestas the Danish wind turbine maker told analysts Wednesday Vestas will be able to continue to sell its onshore wind turbines a much larger business for the company in the United States He said that the company had orders for its factories through this year and into next and that land based wind farms were often the quickest sources of energy generation to build for uses like data centers Many people are still sticking to their projects he said Indeed Vestas has seemed to be coming out of a long profit drought On Thursday the company reported billions of euros in gross profit on more billions of euros in revenue a performance Andersen called the best since 2017 which he credited to the land based turbine business

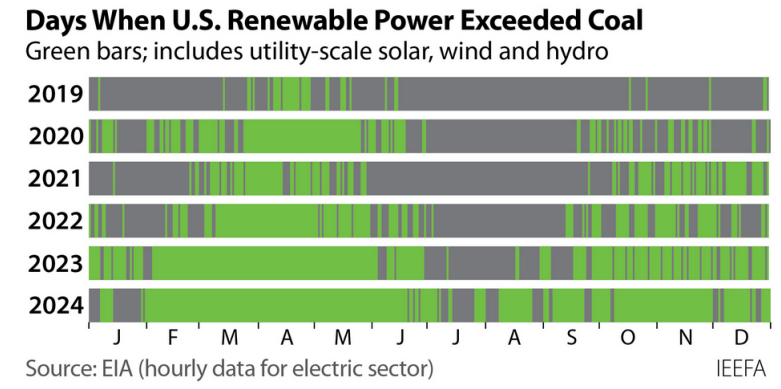
3A United States Workers at EPA Office of Environmental Justice Are Told They May Be Put on Leave President Trump is likely to close the office as he moves to eliminate programs on environmental justice which aims to protect poor and minority communities from disproportionate harm from pollution Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization The New York Times February 6 2025 Employees at the Environmental Protection Agency Office of Environmental Justice were told in a telephone meeting this week that some of them could soon be placed on administrative leave The move was seen as the first step in the Trump widely expected plan to do away with the office The EPA OEJ has focused in part on ensuring that air water and chemical safety regulations many of which affect the profits of electric utilities automakers and other big companies are inscribed with provisions that try to mitigate the impact of environmental damage to poorer and minority communities It is also charged with enforcing portions of the Civil Rights Act



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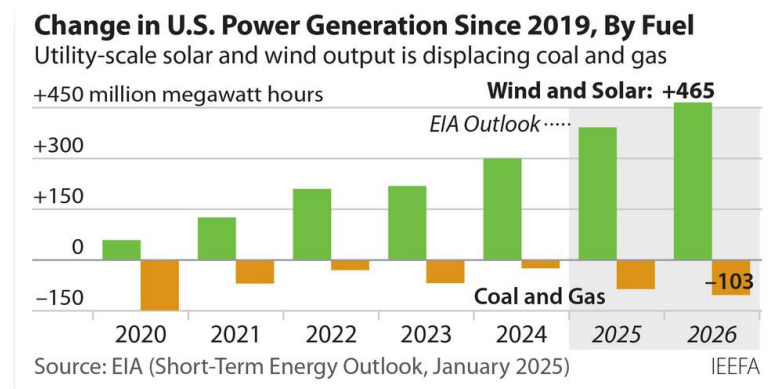
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3C United States The US energy transition is moving faster than most realize **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** Solar News February 6 2025 National generation data through the end of 2024 shows this clearly According to the Energy Information Administration hourly grid monitor total US generation from utility scale wind and solar has increased since 2019 easily exceeding the growth in overall US power demand This shows that renewable energy can grow fast enough to meet rising national power demand while also reducing fossil fuel use The pace of the transition is perhaps best seen in a day by day matchup between coal fired generation and renewable generation utility scale wind solar and hydropower In 2019 the power produced by renewables only exceeded coal generation on 38 days By 2024 roles were almost completely reversed with renewables out generating coal on 294 days With substantial new capacity additions in the works for solar and wind and more coal plant retirements coming it is entirely possible that coal will not top renewable generation on any day by 2026 But the transition in the power sector is not just away from coal It is a shift away from fossil fuels The surge in renewable generation has continued to cut the total generation market share provided by coal and gas Those two fossil fuels accounted for two thirds of US generation a decade ago but its share has been declining steadily since with the rise in renewables Fossil fuel market share dropped a lot the first time during the 2020 COVID 19 pandemic and has continued falling This means that renewables are taking a bigger share of a growing market a positive sign for a green transition Looking ahead EIA projects that both gas and coal generation will drop through 2026 even as total US demand increases EIA expects combined coal and gas generation to have fallen since 2019 Meanwhile utility scale solar and wind output will have grown including an increase in 2025 and 2026 This will be pushed by an increase in solar output in 2026 or almost 8% of total US demand It is worth noting that solar did not top 1% of US generation until 2017

3D United States A discussion of the reckless approach to trade and the economy of Trump **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** The New York Times February 6 2025 China Tariffs are a tax and taxes increase prices I think the basic expectation is that companies that are importing goods from China and paying these tariffs are going to seek to raise the prices that they charge either to retailers or directly to consumers and that the cost of these tariffs will be substantially passed on to American consumers It is not just the price of the stuff from China that goes up The whole point of a tariff is to create room for other retailers to also raise their prices so that goods made in America can compete or goods that come from other countries can compete And so you will see increases in prices to adjust to the cost of the tariffs Trump is reincarnating a perspective on the world known as mercantilism which was the view that nations are losers when they spend money to import goods And the measure of the wealth of a nation and well being economically is to be a net exporter of goods This is a view of the world that was prevalent in a much earlier period really before modern capitalism It is a worldview in which nations are competing with each other and the international economy is a zero sum game so if China is winning then the United States is losing and vice versa For Trump what Canada has that no other nation has is vulnerability You want to be bringing your friends closer and make common cause with them in this effort to protect democracy and our system of government and our way of life instead of taking advantage of those ally countries and squeezing them and bullying them and making them resent you It is not a good formula in the long term for pursuing the national interest of the United States It is eating the first marshmallow It was a very close election and a lot of people in this country are equally bitterly opposed to much of what he is doing Democrats need an affirmative message to juxtapose with the Trump affirmative project of Here is what we are going to do And I think that until Democrats do that they are going to find it very



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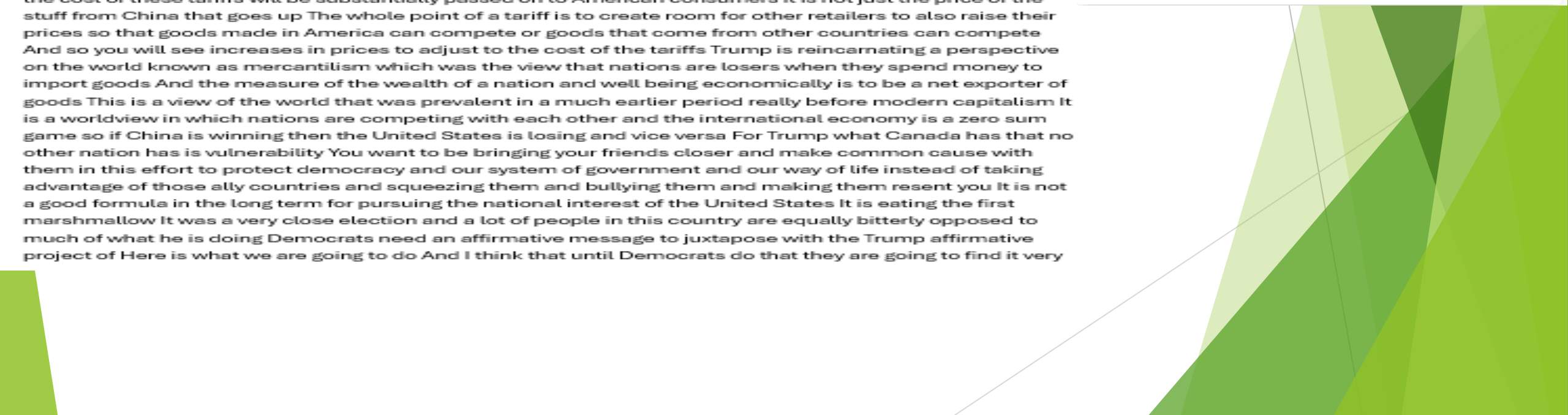
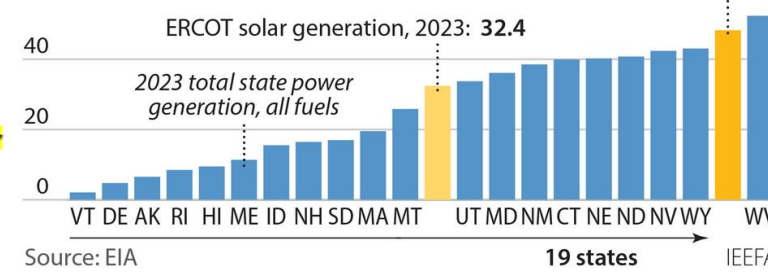
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ERCOT Solar Greater than Total Generation in 19 States

Utility-scale solar power in Texas continued to grow rapidly in 2024

60 million megawatt hours **ERCOT solar generation, 2024: 48.2**



hard to effectively oppose Trump There will be holding actions and places where he is blocked and things it turns out he can not do but he will remain on the offensive and Democrats will remain on the defensive until Democrats can articulate a coherent alternative to the Trump vision for America

4 United Kingdom Grenfell Tower Where Fire Killed 72 Will Be Demolished Survivors and bereaved family groups said the deputy prime minister of Britain had told them that the site of the 2017 catastrophe would be dismantled **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** February 6 2025 712 am ET Almost eight years after 72 people died when a devastating fire ripped through a tower block in central London the government is set to announce that the building will be demolished according to former residents and survivors groups Survivors of the fire at Grenfell Tower responded to the plans after a meeting on Wednesday with the deputy prime minister Angela Rayner ahead of an official announcement on the future of the structure which is expected on Friday One group condemned the decision to demolish the remains of the building In a statement on social media But another group that represents some of the bereaved families Grenfell Next of Kin acknowledged that the tower could not be allowed to remain a permanent feature of the London skyline for structural reasons saying in a statement Do we wish the whole tower could stand forever? Yes Is that an option? Not from a structural point of view This is a deeply personal matter for all those affected and the deputy prime minister is committed to keeping their voice at the heart of this

5 Europe and Musk Tesla European Sales Drop in January After Musk Disrupts Politics There The US electric car company sales are sliding across Europe amid what many see as interference in local affairs by Tesla chief executive Musk **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates a 501c3 nonprofit organization** The New York Times February 5 2025 Tesla sales in Germany plunged 59 percent in January the month when Musk the company chief executive and a close adviser to President Trump chided Germans for focusing too much on past guilt for Nazi era crimes and urged voters to support a nationalist party in the German general election As Musk has been intent on slashing the US budget through an initiative he calls the Department of Government Efficiency the electric vehicle company he runs has been steadily losing market share across Europe The sales of the automaker were down in the three largest European markets for electric cars in January In Germany home to Tesla only factory in Europe only 1277 new Tesla vehicles were registered in the month the German Federal Motor Transport Authority reported on Wednesday German consumers turned instead to domestic and Chinese automakers for electric cars which recorded a 54 percent increase in demand in January Tesla sales plummeted 63 percent in France in January from a year earlier and 12 percent in Britain where Musk riled Prime Minister Keir Starmer through inflammatory social media posts Sweden where a strike of mechanics against Tesla is now in its second year saw demand for its cars slide 44 percent last month while sales in Norway dropped 38 percent German buyers may well be reacting to Musk comments made at a convention of the right wing Alternative for Germany party days before the 80th anniversary of the liberation of the Auschwitz concentration camp as well as a gesture he made after the Trump inauguration widely interpreted as a Nazi salute Schmidt Automotive Research wrote in a report Other nonpolitical factors could be at play including the consumers waiting for the updated Model Y It is expected to be released by the end of March The decline is also noticeable in the United States although not as steep In California the largest US market for electric cars Tesla sales have been declining for months Registration of new Tesla vehicles fell 116 percent there in 2024 even as overall sales of electric cars and trucks climbed 12 percent according to the California New Car Dealers Association



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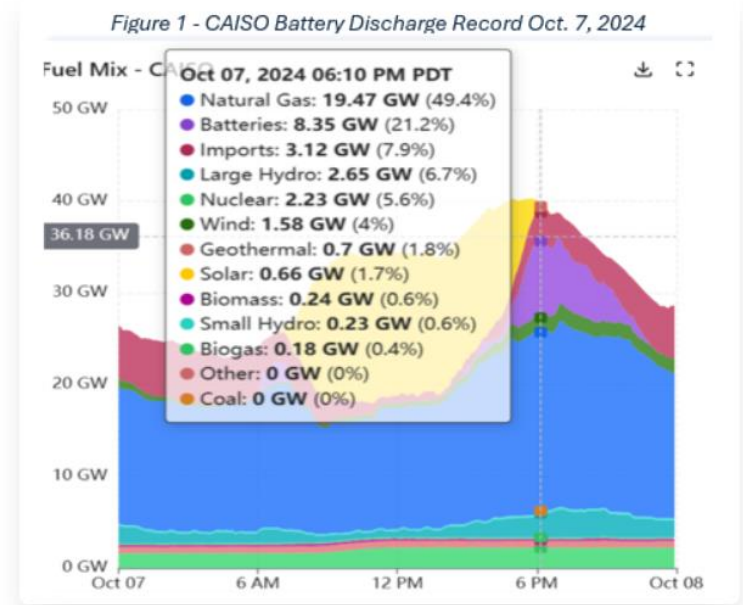


Figure 1 - CAISO Battery Discharge Record Oct. 7, 2024

