



Catalyst

Volume 26, Winter 2026

Who's Behind the War on Wind?

States go to court to save their clean energy plans

We Cannot Afford to Resume Nuclear Testing

Can Renewable Energy Meet Data Center Demands?

57 Years (and Counting) of People-First Science

Catalyst, ISSN 1539-3410, is published quarterly by the Union of Concerned Scientists. Text of articles from *Catalyst*, duly acknowledged, may be reprinted free of charge. Artwork may not be reproduced.

© 2026 Union of Concerned Scientists

 *Catalyst* is printed on chlorine-free recycled paper with 100% post-consumer content.

EDITORIAL DIRECTOR
Abby Figueroa

MANAGING EDITOR
Bryan Wadsworth

EDITOR
Pamela Worth

PRODUCTION MANAGER
Heather Tuttle

CONTRIBUTING WRITERS
Seth Michaels
Michelle Rama-Poccia
Eric Schulz
Claudia Ward-de León

LAYOUT & DESIGN
Cynthia DeRocco

ART DIRECTOR
Ryan Fleischer

CONTRIBUTING DESIGNERS
Bill Cotter
Nick Davis-Iannaco
Omari Spears

FRONT COVER
kruwt/Getty Images

BACK COVER
Hispanolistic/Getty Images

The Union of Concerned Scientists puts rigorous, independent science into action, developing solutions and advocating for a healthy, safe, and just future.

This publication is financed by contributions from individual members. You can join UCS by making a tax-deductible contribution of \$20 or more on our website (www.ucs.org/donate); you can also send your contribution to UCS Development, Two Brattle Square, Cambridge, MA 02138-3780.

BOARD CHAIR
Kim Waddell

PRESIDENT & CEO
Gretchen T. Goldman

NATIONAL HEADQUARTERS
Two Brattle Square
Cambridge, MA 02138-3780

PHONE
(617) 547-5552

EMAIL
ucs@ucs.org

WEB
www.ucs.org



Since our founding in 1969, UCS has worked to engage the scientific community politically, from walkouts to teach-ins to lobby days in Congress, making the case that scientists are natural advocates for a more peaceful, sustainable, and equitable society.

By Gretchen Goldman

On March 4, 1969, a group of faculty and students walked out of their classes at the Massachusetts Institute of Technology (MIT) in protest of the increasing violence of the Vietnam War—and the expectation that the height of any talented scientist’s career would be to work in defense, engineering more destructive weaponry for such conflicts.

In a statement accompanying the walkout that resonates decades later, they wrote, “[O]ur government has shaken our confidence in its ability to make wise and humane decisions.” They called for scientists and other experts to unite, “so that their desire for a more humane and civilized world can be translated into effective political action.”

That one-day strike 57 years ago launched the Union of Concerned Scientists.

Just over a year ago, when I returned to UCS as its president and CEO after a stint in government, I carried with me our founders’ core beliefs that science should be used in service of peace and humanity to help people, and that scientists are a potent political force. The way we work has changed, along with the threats we face, but these values remain constant.

Opposition to the government and its decisions was not universal in 1969, especially at a staid institution like MIT, which was dependent on federal funding for its research and salaries. It wasn’t easy or uncomplicated for our founders to take this public stance. But as history has proven, it was the right thing to do.

(continued on p. 15)

Photos: Florence Haseltine/Smithsonian Institution (1969 photos); Ryan Fleischer/UCS (rally); Roger Stephenson/UCS (tabling)

UCS ON THE RECORD . . . AND HAVING AN IMPACT

“When you really follow the trail, you see just how much the corporations that stand to make a penny off of deregulation are actually influencing this process. . . . And I would urge people to really question whether the administration is following through on its [Make America Healthy Again] principles.”

DARYA MINOVI, UCS senior analyst, in a HuffPost story on the US government burying a 2025 study about toxic “forever chemicals” in drinking water

“Restarting explosive testing would be . . . a political statement with major consequences. There is no good reason for the United States to resume explosive nuclear testing—it would actually make everyone in the US less safe.”

TARA DROZDENKO, director of the UCS Global Security Program, for ABC News, on President Trump’s cryptic allusion to testing nuclear weapons

“This single data center is set to span an amount of land [equivalent to] about 70 football fields . . . and it’s going to consume roughly three times the amount of electricity that the entire city of New Orleans consumes on an annual basis.”

PAUL ARBAJE, UCS analyst, for CBS News, on the largest-yet US data center being built by Meta in a Louisiana town (see p. 22 for more on the impacts of data centers)

“No country, including the United States that is now being led by an anti-science, increasingly authoritarian Trump administration, can stop global climate action. The question is, is it going to accelerate fast enough, given the dire space we’re in now with the climate crisis?”

RACHEL CLEETUS, senior policy director of the UCS Climate and Energy Program, in a Guardian story on how the United States could have hindered global negotiations at the most recent United Nations climate summit (see p. 4)

“[California] had a state EV rebate that went away . . . and I think we may see some form of that come back. I think we’re going to see a lot more [EV incentives] at the state level than at the federal level, at least in probably the next three years or so.”

DAVE REICHMUTH, UCS senior scientist, for Gizmodo, on the end of the federal electric vehicle tax credit

“We won’t have sustainable, fair, healthy or climate-resilient food systems anywhere in the world as long as giant agribusiness and food corporations are making the rules.”

KAREN PERRY STILLERMAN, deputy director of the UCS Food and Environment Program, in a Guardian article on Big Ag lobbyists working to influence global policy at the United Nations climate summit



[FEATURES]

8 **The War Against Wind**

Billions in clean energy investments are in jeopardy

12 **Access Denied**

How the Trump administration is eliminating public input

[ALSO IN THIS ISSUE]

- 2 *First Principles*
57 Years (and Counting) of People-First Science
- 3 *Field Notes*
- 4 *Advances*
- 16 *Inquiry*
Interview with Jennifer Knox
- 18 *Got Science?*
Angel in Allensworth: Boosting a Town’s Future with Sustainable Farming
- 21 *Donor Profile*
A Builder of Better Worlds
- 22 *Final Analysis*
Tech Companies Should Pay for Their Share of AI’s Electricity Needs

UCS Fights Back Against Fossil Fuel Interests at UN Climate Summit



Rachel Cleetus, senior policy director for the UCS Climate and Energy Program, being interviewed in Belém, Brazil, during COP30.

THE FINAL OUTCOME AT COP30 **FELL WELL SHORT** OF WHAT PEOPLE ACROSS THE WORLD NEED IN THE FACE OF **WORSENING CLIMATE IMPACTS**.

On the heels of the sobering news that the world is on the verge of breaching 1.5°C of global warming—a threshold science suggests could be catastrophic for low-lying communities—UCS staff pushed for ambitious outcomes during negotiations at the United Nations’ climate summit in Belém, Brazil, last November. Also there advocating for their own interests were far too many fossil fuel and agribusiness lobbyists—and conspicuously absent, for the first time since these summits began, was an official US delegation.

“No surprise, given the administration’s deep hostility toward climate science, clean energy policies, and multilateral diplomacy,” says Rachel Cleetus, senior policy director for the UCS Climate and Energy Program, who was in Brazil for the summit familiarly known as COP30, or the 30th Conference of the Parties. “Frankly, their presence would just have been destructive anyway.”

However, many leaders and representatives from US states, cities, Tribal nations, educational institutions, nonprofits like UCS, and businesses did make it a point to be at COP30, showing the world that many people in the United States are still committed to climate action.

Among the key issues discussed at this COP were addressing shortfalls in countries’ emissions reduction commitments, which collectively do not meet the goals set by the 2015 Paris Agreement, and scaling up financing to support lower-income countries’ transition to clean energy and their adaptation to climate change. Given the summit’s proximity to the Amazon, commitments to protect forests and biodiversity were also front and center.

While hopes were high before COP30 for a worldwide commitment and road map to transition away from fossil fuels, neither made it into the final agreement,

and countries’ emissions reduction targets were not increased in any meaningful way. While a reference to tripling adaptation finance for lower-income countries was adopted, the deadline for doing so was pushed to 2035, and the overall amount of funding remains uncertain. This funding is urgent for countries that are facing the worst climate impacts but contributing the least to the problem, Cleetus says.

“The final outcome at COP30 fell well short of what people across the world need,” she says. “Unless nations reckon with the outsized influence of polluting industries we saw in Brazil, there will be major repercussions for multilateral climate agreements and, more importantly, for the lives of communities that are on the front lines of the climate crisis.”

Turkey will host this year’s COP31 in November, in partnership with Australia.

Starting Your Own Science Advisory Committee? UCS Has Your Back

Independent scientists are stepping up to fill the void of science advice and information created by the Trump administration's firing of government scientists and disbanding of federal scientific advisory committees. To guide these scientists through the process of convening and issuing recommendations, UCS has created a new clearinghouse site: www.ucs.org/win26-advisory-committees. There, you can find resources including a toolkit for creating an independent scientific advisory committee, examples of existing independent committees and the work they're doing, and information on independent online science hubs created to maintain government datasets that have been taken down.

Scientific advisory committees are crucial to government decisionmaking, providing policymakers who don't have subject-matter expertise with rigorous, evidence-based advice on real-world issues like vaccine effectiveness, air pollution protections, food safety, and much more. It's a powerful way to resist the Trump administration's authoritarian attempt to control information and ensure that essential science remains available for those who need it.

Illinois Passes UCS-Backed Clean Energy Legislation



UCS Associate Director of Midwest Policy James Gignac (bottom right) poses with a coalition of Illinois clean energy advocates after Governor J.B. Pritzker (center) signed the Clean and Reliable Grid Affordability Act into law in January.

Last year, the Illinois legislature passed a wide-ranging clean energy package signed into law by Governor J.B. Pritzker, countering the Trump administration's attacks on renewable energy and responding to rising electricity costs. The Clean and Reliable Grid Affordability Act introduces new energy planning tools for Illinois agencies and utilities, expands cost-saving energy efficiency programs, solidifies funding for wind and solar power, and creates new programs and incentives to help all customers benefit from resources like rooftop solar and residential batteries.

The bill also adopts policy recommendations made by UCS to deploy battery storage resources in Illinois, improving access to clean electricity, and helping to lower costs when replacing old, polluting fossil fuel power plants. UCS created an Illinois-specific energy model to demonstrate the need for battery storage policy, Associate Director of Midwest Policy James Gignac testified in support of the bill on several occasions to the state legislature, and our campaign staff worked closely with state coalition partners to pass the bill.

LIMITED-TIME MONTHLY MATCH OPPORTUNITY

Thanks to a generous lifelong UCS supporter, an additional \$100 will count toward our Science Sustainer Match campaign for every new or increased monthly donation.

Maximize your impact today.

ucs.org/monthly
member@ucs.org
(800) 666-8276



Presenting the 2025 UCS Science Defenders

It's been a tough year-plus for science and scientists. But a bright spot in 2025 was the year's Science Defenders: individuals or groups recognized by the Union of Concerned Scientists for taking a stand for science.



ORGANIZING SCIENTISTS TO FIGHT RESEARCH FUNDING CUTS

From May 28 to June 1, 2025, Alessi—a UCS fellow for climate attribution science—helped organize a live-stream event in which about 200 federally funded meteorologists and climate scientists spoke for 100 hours to explain how the Trump administration's cuts to research, firings of scientists, and closures of agencies threaten our ability to predict and survive wildfires, heat waves, and storms made more extreme by climate change. The event was featured in *Fast Company*, the *New York Times*, and other major news outlets. By the time it wrapped, more than 180,000 viewers had tuned in, and made about 15,000 calls to Congress in support of these agencies.



PUBLIC HEALTH IS FOR EVERYONE

Jetelina has spent the past five-plus years increasing public understanding of science through the newsletter and public health initiative she founded, Your Local Epidemiologist. In 2025, Jetelina was invited to meet with a chapter of the Make America Healthy Again (MAHA) movement, whose members often reject science in favor of fringe beliefs. “I wanted to listen and learn from the people who reached out, and try to understand where their fears and frustrations are coming from,” she explains. This conversation eventually spawned collaborative policy and research projects between MAHA members and public health experts.



ENGAGING COMMUNITY IN ACTION AND ADVOCACY

In the neighborhood surrounding Chicago's McKinley Park, exhaust from big rigs and emissions from a nearby asphalt mixing facility make residents' eyes and lungs burn. When that asphalt plant opened, a group of residents formed Neighbors for Environmental Justice (N4EJ) and began collecting local air quality data. This year, its members hosted more than 30 community education events and helped install almost 300 self-powered sensors that measure particulate matter and nitrogen dioxide—the nation's largest such network. Having these data will help residents advocate for increased protections from pollution.



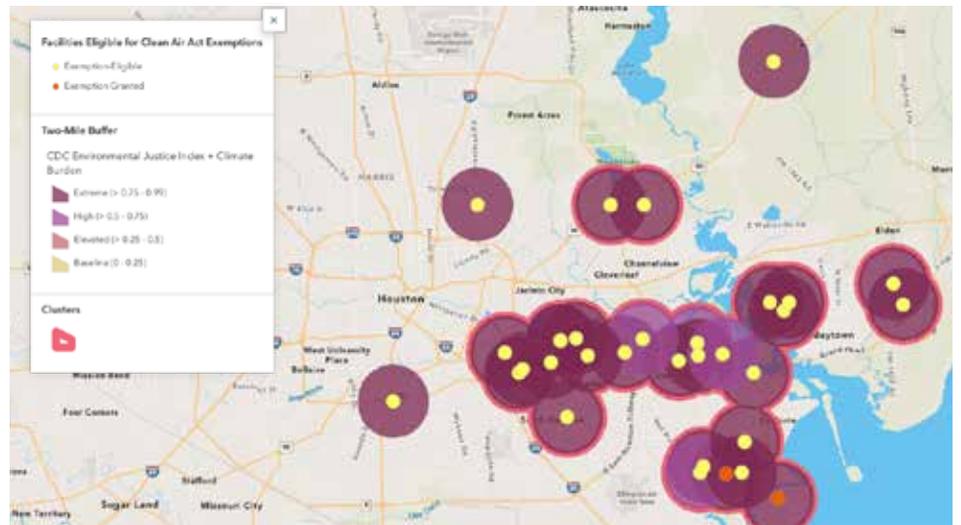
UNITING COMMUNITY VOICES FOR HEALTHIER ENERGY

As a senior scientist at PSE Healthy Energy, Nunez provides robust scientific analysis that empowers communities to make their voices heard. In 2025, when a Wisconsin utility company proposed building two new gas plants next to thousands of people's homes, she worked in coalition with UCS and community groups to highlight the harmful toll of fossil fuels: more than \$5.7 billion in health impacts over the lifetime of these plants. Although the company decided to move forward with the plan, the landscape has shifted for its future proposals. “We brought the topic of public health to the front row,” Nunez says. “This work is incremental, and persistence is key.”

UCS Illustrates the Scale of Polluters' Free Pass

Last year, President Trump invoked a never-before-used provision in the Clean Air Act—intended to be used only during emergencies such as natural disasters—to give industries that emit hazardous air pollutants a two-year exemption from their responsibilities to limit pollution under the act. Companies were told that by sending an email to the Environmental Protection Agency they could “apply” for this exemption, with no formal application or qualifying criteria. Scores have taken advantage.

To bring home the consequences of this free pass to polluters, UCS released an interactive map titled *Dirty Air, Dirty Deeds*, which shows that *more than one-third* of US coal plants, chemical manufacturers, industrial furnaces, and other facilities requested and received exemptions from clean air rules that were put in place to protect communities from toxic air pollution. These legally dubious exemptions cut the public out of decisions that affect their health and community and ignore the hundreds of thousands of public comments that already informed these regulations.



As Catalyst went to press, at least seven of the 45 eligible facilities in the Houston metro area had received exemptions. The state of Texas has the most exemption-eligible facilities (represented by yellow dots) and the most exemptions granted (represented by orange dots) of any US state. Around each facility mapped is a two-mile zone in purple showing the communities that may be affected the most by these exemptions.

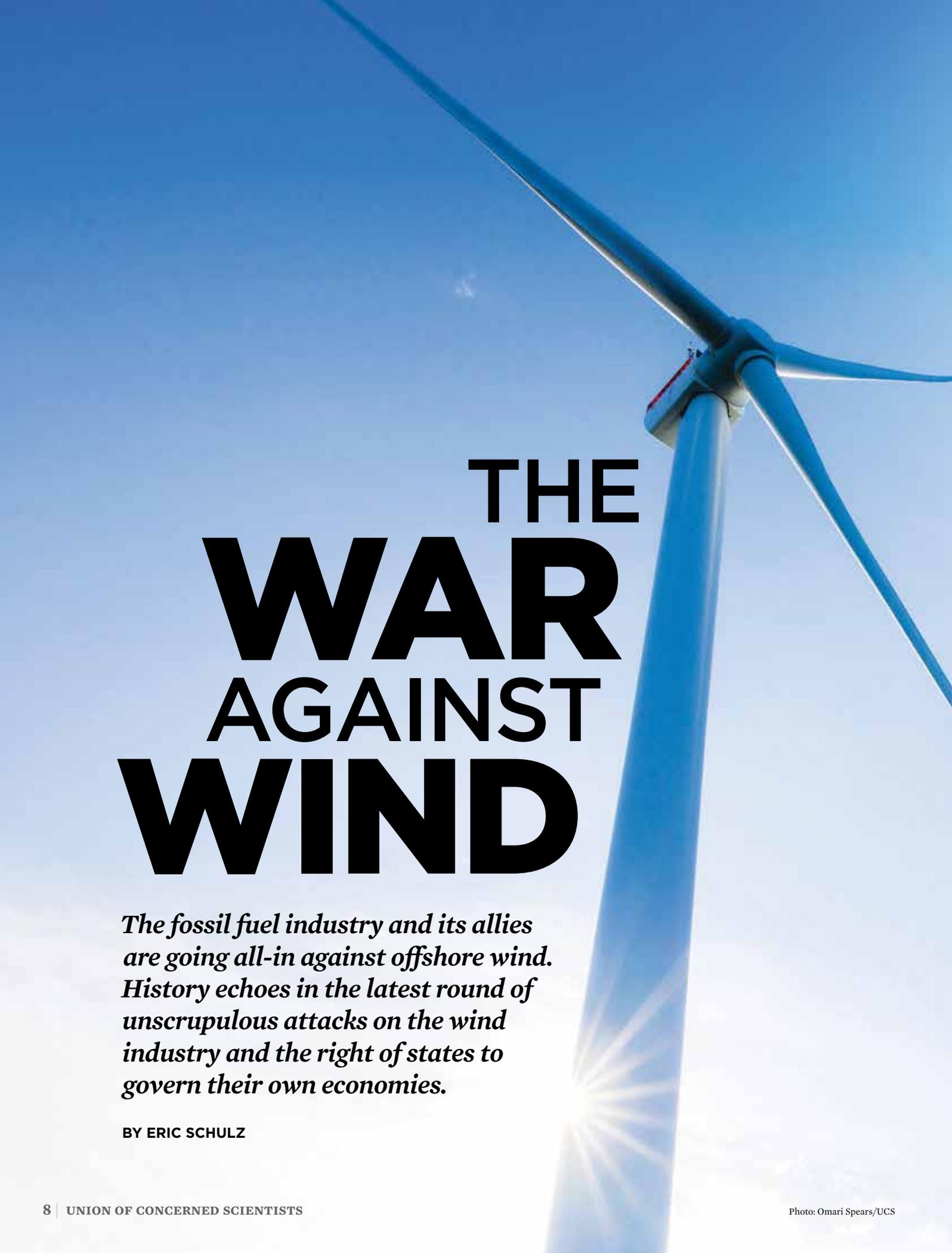
The map also shows the 546 total industrial sites across the United States and Puerto Rico deemed eligible for exemptions from their Clean Air Act requirements. You

can zoom in and out to see where these facilities are located, and learn more about each facility and the surrounding communities, at www.ucs.org/win26-dirty-deeds.

Indigenous STEM Association Honors UCS

At the 2025 national conference for AISES, a professional association of Indigenous Americans in the STEM fields, representatives presented UCS with their Advocacy Partner Award. “This is a testament to the partnership we’ve been building with AISES for several years,” says Melissa Varga (second from left), senior manager of the UCS Science Network, who attended the conference to present a workshop on science advocacy and accept the award on behalf of UCS. “And it’s a commitment to continuing our work together even during challenging times.”





THE WAR AGAINST WIND

The fossil fuel industry and its allies are going all-in against offshore wind. History echoes in the latest round of unscrupulous attacks on the wind industry and the right of states to govern their own economies.

BY ERIC SCHULZ

Offshore wind delivers a staggering number of benefits including robust job creation, zero operating emissions, drastic pollution reduction, consequential public health benefits, and critical energy reliability during winter storms. The sector was on the precipice of exponential expansion, primed to provide desperately needed, stably priced power at a time when energy affordability is a top concern across the country. And then it came within the Trump administration's crosshairs.

While the administration's attacks on the industry are not surprising—the fossil fuel agenda is part-and-parcel to the current presidential agenda—that does not make its efforts any less egregious.

Countries across the world, from Denmark to Japan, are embracing offshore wind technology for its immense perks. Studies demonstrate these turbines' ability to safely coexist with marine ecosystems and sea life. Expert reviews illustrate the ability of offshore wind to heat homes in New England (see sidebar, p. 10) at a lower cost to consumers than fossil fuels.

How will the industry navigate these particularly challenging headwinds? A look at the state of play reveals a surprisingly broad coalition emerging to support offshore wind and push back on the administration.

A THROWBACK FOR THE SEMIQUINCENTENNIAL

It's a tale as old as time: Protest is brewing in Boston.

Massachusetts Governor Maura Healey is uniting state governors—representing some 41 million constituents—in defiance of presidential attacks against offshore wind. She marked Labor Day 2025 with a statement of solidarity in support of the industry: “These projects represent years of

planning, billions of dollars in private investment, and the promise of tens of thousands of additional jobs.”

Rewind more than 250 years, when protest was brewing in Boston Harbor. The aftermath of the Boston Tea Party brought a series of retaliatory measures unofficially dubbed the Intolerable Acts. The city's port was shuttered and held for ransom by the government, and the colony's charter to govern itself was essentially revoked. Permission to hold town meetings was restricted to once per year. New loopholes were adopted to help loyalist officials accused of breaking the law evade justice.

As we ready ourselves to mark the 250th anniversary of the founding of the United States and those days of protest in New England, we can see parallels in today's all-out assault on offshore wind. Stripping back rights of self-governance, restricting control of the region's maritime economy, and curbing freedoms of expression ring familiar in the present moment.

Rather than forcing the colonists into submission, the Intolerable Acts hardened their resolve and broadened support for liberty far beyond Massachusetts. The acts were so widely reviled that previously unaligned colonies were compelled to come together in collective defense: Other tea parties were held in protest, from South Carolina to Maryland, and the First Continental Congress convened delegates from 12 colonies within just six months. A boycott on British goods was adopted and a formal call to King George III was issued to rescind the measures.

The official parliamentary name for these measures was the Coercive Acts. The goal was clear: coerce into obedience. The results were quite the opposite. And so, as we see another administration attempt to stifle dissent into submission, it's fitting to explore whether the past will serve as prologue yet again.



WIND ENERGY CAN HELP US WEATHER WINTER STORMS



When cold weather sweeps in and the demand for energy spikes to heat homes and keep families safe, offshore wind is literally at its best. Reliable electricity in these moments is top of mind for consumers, energy providers, and utilities alike—there is no worse time for an outage than during extreme weather. That’s why UCS has been leading the charge in support of offshore wind for years.

The UCS report *Keeping Everyone’s Lights On*, published last spring, focused on the urgent need to prepare the country’s grid for climate change, particularly because the transmission system investments we make today will be in operation for a half-century or more. And a follow-up UCS report, *Power After the Storm*, found that 100 percent of the last decade’s largest outages across the central United States were caused by extreme weather. The need for energy sources we can depend on, especially as extreme weather occurs more frequently due to fossil fuel–driven climate change, is tremendous.

That’s what makes the reliability offered by offshore wind so valuable. Its ability to consistently deliver a massive supply of energy during periods of peak winter demand is nearly unmatched. Alternative power sources pushed by the fossil fuel industry, such as imported oil and gas, frequently falter in cold temperatures and routinely cause electric bills to spike in the winter months.

“Temporary spikes in heating demand drive prevailing prices even higher,” says Susan Muller, an energy analyst at UCS. “Offshore wind can provide the same level of winter reliability protection that we have been achieving through much more difficult—and expensive—means.” This is a key reason the fossil fuel industry views offshore wind power as such a formidable threat.

And our newest analysis, authored by Muller, found that offshore wind would have protected the New England grid against blackouts during the winter of 2024–2025 for a fraction of the cost of fossil fuels. This report, and the others mentioned above, are online at www.ucs.org/win26-energy.

BILLIONS IN INVESTMENT IN JEOPARDY

The offshore wind sector has been subject to fossil fuel–funded attacks for years. A strategic disinformation campaign bankrolled by major fossil fuel companies has targeted the industry, with its attacks escalating recently. The reason is simple, says John Rogers, associate director of energy analytics at the Union of Concerned Scientists: “The only thing actually threatened by offshore wind is [fossil fuel companies’] profit margin.”

The tactics should seem familiar. The fossil fuel industry borrows from the tobacco industry’s playbook, pouring millions of dollars into developing a disinformation network of fake community organizations that push its talking points. A peer-reviewed article published last year traced funding from industry groups including the American Petroleum Institute, ExxonMobil Foundation, Charles Koch Foundation, and Shell Foundation to think tanks that in turn provide disinformation to local opposition groups.

The start of President Trump’s second term provided a new opportunity to stoke the fire. Executive orders on day one threw up roadblocks for new offshore and land-based wind development, expanded fossil fuel production in Alaska, made it easier to extract and transport fossil fuels, and made it easier to use them. And while President Trump’s budget package last year handed out \$80 billion in subsidies and perks to the fossil fuel industry, it made sweeping attacks against clean energy development and incentives.

States are not backing down. The benefits of offshore wind are so certain that they’re taking the administration head-on.

The impacts have been profound, not only on the future of clean energy deployment, but on the US economy as a whole. In 2025, at least \$24.7 billion in clean energy projects were canceled and with them, nearly 35,000 jobs. This includes a significant number of projects in Rust Belt states and former manufacturing communities—like a now-canceled battery plant in Michigan that promised 2,400 jobs and \$2.4 billion in investments—where the projects were seen as a much-needed form of revitalization.

These cuts have come for the offshore wind sector, directly and indirectly. Late last summer, President Trump pulled back \$679 million in funding for offshore wind projects across 11 states. In the same breath, the administration withdrew a \$700 million loan guarantee to upgrade transmission infrastructure to accommodate an offshore wind project in New Jersey.

But states are not backing down. The benefits are so certain that they’re taking the administration head-on.



The Trump administration issued work-stoppage orders on five offshore wind projects along the East Coast, without explaining why. In addition to putting thousands of people out of work, blocking offshore wind could drive up power prices as demand for electricity rises.

MAINTAINING THE MOMENTUM

East Coast states have committed to building enough offshore wind energy in the next two decades to power 30 million homes.

A sizable project off the coast of New York City, dubbed Empire Wind, is set to provide power to a half-million homes once completed. Construction began in April 2024, and on April 16, 2025, the Trump administration attempted to thwart the project with a work-stoppage order. Pushback was broad, swift, and effective. Within a month, the administration backed down, and the developer aims to meet the goal of bringing the system online by 2027.

In Virginia, a bipartisan front of industry and state leaders have united behind offshore wind. When the nearly finished Coastal Virginia Offshore Wind project fell into the administration's crosshairs last fall, pushback came even from such Trump allies as then-Governor Glenn Youngkin and Speaker of the House Mike Johnson, who spoke to the administration in defense of the project. "I understand the priority for Virginians, and we want to do right by them," Johnson said. The project, now nearly two-thirds complete, will be the largest offshore wind project in the country when it comes online later this year.

The CEO of Dominion Energy, the Virginia utility developing the project, expressed confidence in "bipartisan support at all levels of government" and warned about the cost to ratepayers should more interference come: "If you stop it now, it causes energy inflation."

The battles being waged against the industry have certainly exceeded executive authority, forcing federal judges to step in to curtail illegal attempts to restrict the development of contracted,

approved projects. Such was the case in Rhode Island, when the Revolution Wind project—set to deliver energy for 350,000 homes and generate 1,000 jobs—was dealt a work-stoppage order last year. Within a month, a federal judge paused the order, and the project was on track to complete construction this spring.

And yet, the Trump administration hasn't backed down: Late last year, it issued a sweeping work-stoppage order for offshore wind projects under construction. The move was quickly challenged in court, with judges ruling in favor of the offshore wind projects in all five cases, granting temporary injunctions and allowing work to restart. Still, the interim costs are brutal—including, in the near term, less reliable power in the cold winter and higher prices for families.

As attack after attack pops up, the coalition in defense of offshore wind grows: utility companies, industry leaders, organized labor, local elected officials, state governors, and members of Congress from both parties. That's about as big a tent as one can imagine in the current political climate.

And it's a demonstration of just how promising offshore wind is as an alternative power source. Undoubtedly, fossil fuel interests will continue to push inaccurate narratives and pull whatever strings possible to thwart this foe and protect their profits. But, just as King George III and the British Parliament learned the hard way, you can only delay the inevitable for so long.

The reality is clear: This war against wind has only galvanized an even stronger coalition—one that sees a cleaner energy future as the only way forward. {C}

Eric Schulz is a communications strategist at UCS.

ACCESS DENIED

What happens when the public is blocked from commenting on government policies that affect our health and safety?

BY SETH MICHAELS

The Trump administration has targeted science, democracy, and justice in painfully obvious ways—using firings, funding cancellations, political interference, and the promotion of misinformation to keep the public interest and the facts alike from getting in the way of its agenda. But underneath the blunt actions that draw headlines, the administration is using subtler methods to elbow out public input.

A new analysis from the Union of Concerned Scientists shows that the administration is evading accountability by simply not allowing public comment on its proposed rules. By law, federal agencies must not only notify the public about potential rule changes but also give it the opportunity to make comments on those changes. Yet in many cases, the Trump administration is evading that legal requirement.

Last fall, the Center for Science and Democracy at UCS issued the report *Access Denied: How the Trump Administration Is Eliminating Public Input* (www.ucs.org/win26-access-denied). UCS researchers found that, in the first six months of the administration, nearly 600 final rules were issued across six key science agencies, but 182 of these rule changes—nearly a third—bypassed the public notice-and-comment process.

The heart of democracy is that we all get a say in the rules we live under. Without transparency and accountability, federal agencies can make policies that cater to the narrow interests of the powerful: polluting industries, exploitative corporations, and ideological extremists. Public notice-and-comment makes sure the door is open when policies get made, so that the people who know the issues best—and especially those who have to live with the consequences—can be heard. The Trump administration is deliberately slamming that door shut.





HOW THE FEDERAL RULEMAKING PROCESS IS SUPPOSED TO WORK . . .

RULE PROPOSAL



1. Agency conducts research
2. Agency writes draft proposed rule
3. Proposed rule is published in the *Federal Register*, with an explanation of the proposal in light of the law, relevant facts, and analyses

PUBLIC COMMENT PERIOD (typically 30 days)



4. Members of the public submit written comments and/or testify at a hearing (if one is held)
5. Agency records and adds written comments and public hearing statements into the docket for the rulemaking, which is usually available online

SLAMMING THE DOOR ON THE FACTS

The public comment process has been a staple of federal rule-making since the passage of the Administrative Procedure Act nearly 80 years ago. When a federal agency makes any rule change, it is obliged by law to inform the public by issuing a proposed rule and giving individuals and organizations an opportunity to weigh in. The agency also needs to respond to the substance of those comments when it issues a final rule. That applies to new rules as well as amended or repealed ones.

The Trump administration came into power in January 2025 with a clear agenda laid out in *Project 2025*, the policy blueprint co-authored by leading Trump administration appointees like Russell Vought, now head of the White House Office of Management and Budget. The goal of *Project 2025*'s authors: undo years' and even decades' worth of public health, environmental, and consumer protection rules. In many cases, executives and lobbyists were appointed by President Trump to run agencies that had direct jurisdiction over the industries that bankrolled these individuals. At the Environmental Protection Agency (EPA), oil industry and chemical industry lobbyists like Steven Cook, Nancy Beck, and Alex Dominguez hold key policy positions, while Secretary of Energy Chris Wright is a former CEO of a fracking company.

The incoming administration also set up a quasi-legal "Department of Government Efficiency" led by multibillionaire CEO Elon Musk and tasked it with dismantling federal agencies, the rules they created, and their capacity to introduce new rules. Clearly, President Trump and his cronies set out to implement their agenda quickly, aggressively, and with no intention of including the public interest in the process.

Public notice-and-comment would get in the way of this crusade. In a flurry of executive orders in the opening weeks of his administration, Trump announced his cross-government intention to "commence the deconstruction" of "the administrative state." These executive orders used language about legality, transparency, and accountability in wildly misleading ways—hiding in lofty

language a clear intention to dismantle the tools the public could use to hold the administration accountable. The president directed agencies to get rid of regulations deemed "unlawful" or "unnecessary" without using the notice-and-comment process.

"Cutting out the public from decisionmaking is not democratic—it is authoritarian," says Darya Minovi, senior analyst for the Center for Science and Democracy and the lead author of *Access Denied*. "Notice-and-comment isn't a high bar. It's the bare minimum."

Access Denied looks at six agencies—the Departments of Agriculture, Energy, Health and Human Services, the Interior, and Transportation (DOT), as well as the EPA—between inauguration day and July 31, 2025. The DOT stands out for issuing more than 80 rules that evaded public comment.

It's not a trivial change. Environmental justice advocates, scientists, and organizations like UCS use public comments to improve how proposed rules will work—as happened with the Biden administration's chemical safety rules. Those rules were finalized in 2024 with significant improvements to how they were first proposed—*after* more than 15,000 comments from UCS members.



During the first Trump administration, environmental justice advocates Yvette Arellano and Kendyl Crawford Crawford gave testimony on the impacts of attacks on science with UCS staff on Capitol Hill.



FINAL RULE

- 6. Agency considers all comments and responds to “significant” comments (e.g., novel analysis)
- 7. Agency revises rule based on input
- 8. Final rule is published in the *Federal Register*, along with supporting materials, including agency responses to public comments

CHECK OUT OUR RECOMMENDATIONS

It’s possible to build a culture inside agencies that welcomes public participation, recognizes the expertise built from lived experience, and operates with a spirit of transparency and cooperation.

Visit www.ucs.org/win26-fair-access for our guide, *Fair Access: Guidance for Meaningful Public Participation in Government Decisionmaking*.

ONE STEP FORWARD, TWO STEPS BACK

In a healthy democracy, accountability to the public is at the center of how governments make policy. Everyone deserves the chance to have input and influence over decisions that affect their lives—especially if their health and safety are at risk.

The Biden administration had taken some positive steps toward better processes for public input. Executive Order 14094, issued in 2023, helped guide agencies toward more inclusive and open public participation, and the EPA’s 2024 Meaningful Engagement Policy laid out principles for more and better ways that the public could weigh in on rulemaking, with a focus on accessibility for people with disabilities, those who speak a language other than English, and people who are most affected by the environmental issues that rules are meant to target. But the Trump administration rescinded this executive order within hours of inauguration.

There is a long and infuriating list of ways that Trump and his appointees have undermined science and transparency and

worked to shield their actions from the scrutiny of the public or to avoid being held accountable to the facts. They’ve dismissed or disrupted federal advisory committees that are supposed to help agencies ensure their rules are based on evidence and will work to the benefit of the public. They’ve removed scientific information from federal websites and promoted misinformation on issues ranging from vaccines to climate change. It’s no wonder they’ve been eager to dodge their responsibility to tell us what rules they’re changing and give us a chance to be heard.

The Trump administration is trying to operate behind closed doors, gutting rules that protect the air we breathe, the water we drink, and the climate we all have to live in. UCS will be watching closely and calling out every action that puts our health and safety at risk. {C}

Seth Michaels is a senior writer at UCS.

57 Years (and Counting) of People-First Science

(continued from p. 2)

UCS does not accept government funding—so it is easier for us to speak out against the Trump administration’s anti-democratic, anti-science, and anti-human rights actions, as we’ve done since 2017 and won’t stop now. And at a time when other institutions are walking back their work on issues that affect Black and Brown people, we maintain our commitment to science in service of justice.

We’re calling out this administration’s attacks on diversity, equity, and inclusion,

including its moves to block people from commenting on public policy that affects them (p. 12). We’re proposing science-backed solutions that communities can implement without government intervention (p. 18). And, harkening back to our founding days, we’re demanding accountability and transparency around our government’s proposals to expand our nuclear arsenal (p. 16).

I’ve been so grateful to return to UCS, where, earlier in my career, I learned how

to put my values and scientific expertise to work to make positive change. It’s an honor to set the tone for our organization and to see us follow through with our actions. Thank you for sharing our hope for a healthier, safer, and more just future, and supporting our work to make it possible. {C}

Gretchen Goldman is president and CEO of UCS. Read more from Gretchen on our blog, The Equation, at <https://blog.ucs.org>.

The Threat of Nuclear War Is Rising Again

INTERVIEW WITH JENNIFER KNOX

As the Trump administration threatens to resume nuclear testing, nuclear weapons and warfare are back in the news. We asked UCS expert Jennifer Knox about recent developments that could increase global tensions.

What is your take on the state of the international order at this moment and where do you find hope?

JENNIFER KNOX: I entered the nuclear policy field in a period of optimism. It was 2009 when President Obama delivered a passionate speech endorsing the vision and viability of a world without nuclear weapons, and international leaders met to trade proposals and set agendas for change.

But beneath the surface, things did not change. The United States and Russia still maintained thousands of nuclear weapons, and another seven countries kept a tight grip on their own arsenals. The risk of nuclear war may be as high now as it has ever been.

I miss the optimism of my early career, but I still have hope that our future can be different from our past. People are paying attention again, asking hard questions, and demanding answers. That's how change happens.

On February 5, the New START treaty between the United States and Russia expired, removing any limits on the number of strategic nuclear weapons the two countries can deploy. We haven't faced a similar situation since 1972. What do you expect both countries to do?

JENNIFER KNOX: In September 2025, Russian President Putin publicly offered to extend the central restrictions of New START for one year following its expiration, provided that “the United States acts in a similar spirit.” Now it's up to the United States to respond to Russia's offer. Shortly after Putin's statement, President Trump said, “It sounds like a good idea to me,” but as of late January, the United States hasn't formally responded.

Alarming, some voices close to the administration have called for the United States to use New START's expiration as an opportunity to *expand* its nuclear forces. There are lots of problems with

this pathway, but here's the most obvious one: If the United States expands its strategic nuclear forces, Russia can and almost certainly will do the same. After decades of cooperative arms control, we would slide right back into a new nuclear arms race.

Meanwhile, the Pentagon has begun a massive effort to rebuild the entire US nuclear arsenal at a cost of approximately \$2 trillion, claiming that its nuclear weapons are getting too old. Why does UCS disagree?

JENNIFER KNOX: It's true that most of the weapons in the US nuclear arsenal are older than their original planned service life. But all these weapons undergo regular maintenance and are rigorously tested to ensure their safety and reliability. When necessary, nuclear weapons are refurbished through a life extension program that replaces aging components. So, we don't need to spend this money on new nuclear weapons—let alone the new bombers and submarines that will carry them, which are part of the plan.

President Trump has also raised the possibility of a return to explosive nuclear testing, which the United States has avoided for more than 30 years. Why is this a bad idea?

JENNIFER KNOX: Between 1945 and 1992, the United States conducted more than 1,000 explosive tests that resulted in a trove of data about the US arsenal, and since then, scientists have used modern analytical techniques that give us an increasingly refined understanding of the performance, aging, and reliability of nuclear weapons without having to detonate one. In a 2023 interview, a



JENNIFER KNOX is a policy and research analyst for the Union of Concerned Scientists with more than 10 years of experience in nuclear security issues. Prior to joining UCS, she was a nuclear security fellow in the US House of Representatives promoting bipartisan discourse. She holds a master's degree in international relations from the University of Oxford. Read more from Jennifer on our blog, *The Equation*, at <https://blog.ucs.org>.

The most important action the United States could take to prevent nuclear war is to preserve strategic arms control with Russia.

former administrator of the National Nuclear Security Administration stated clearly that “there is no technical reason to conduct nuclear explosive testing.”

Not only is it unnecessary, it would also undermine US legal commitments and an important global norm against testing. Since 1996, the Comprehensive Nuclear Test Ban Treaty has been a cornerstone of nonproliferation diplomacy. If the United States becomes the first major power to violate this norm, it would give Russia, China, and other nuclear powers free rein to restart their own testing programs. A return to widespread testing would also open the door for new states to acquire nuclear weapons.

The 2025 Netflix movie A House of Dynamite depicts the US response to a nuclear missile attack. How realistic is the scenario in the movie?

JENNIFER KNOX: I’ve gotten a lot of questions like this from friends and family since *A House of Dynamite* was released. While the film depicts a fictional scenario, the most disturbing elements are also the most realistic. In the event of a nuclear attack against the United States, there might be less than 20 minutes of warning. Only one person—the US president—would decide whether or not to launch US nuclear forces in retaliation.

What’s less realistic in the film is hardly more comforting. *A House of Dynamite* depicts possibly the best-case scenario of a nuclear attack: a solitary missile with no countermeasures or decoys to protect it. I think this was a deliberate choice by the filmmakers to showcase how systems like missile defense could fail even under the best possible conditions. But a more realistic nuclear attack scenario would involve multiple—even hundreds—of missiles using the many well-known countermeasures for defeating missile defense systems.

The director, Kathryn Bigelow, said she hopes the movie will spur a discussion about nuclear disarmament—have you seen any response to the movie from the public or government officials?

JENNIFER KNOX: I’ve personally seen lots of interest in nuclear policy generated by *A House of Dynamite*, both from the public and elected officials. I find it heartening! Our government will only change when it is held accountable, and that requires us to be informed about what decisions are being made in our name.

If complete disarmament is unlikely in the short term, what can the United States do now to reduce the risk of nuclear war?

JENNIFER KNOX: The most important action we could take is to preserve strategic arms control with Russia. There are many other ways we could show leadership to reduce nuclear dangers, but if the current administration is not going to work to make the world better, it should at least refrain from making things worse. That means an end to uncontrolled and unnecessary weapons spending, as well as dangerous rhetoric and inflammatory comments. {C}

BECOME A PARTNER FOR THE EARTH

UCS PARTNERS FOR THE EARTH sustain our work by making monthly gifts by credit card or bank account transfer.

It’s simple to sign up.

**ucs.org/monthly
member@ucs.org
(800) 666-8276**



Angel in Allensworth: Boosting a Town's Future with Sustainable Farming

By Michelle Rama-Poccia

If farming as practiced by the Big Ag corporations is faceless, extractive, and polluting, then agroecology is the opposite: a nature-based approach to farming that's environmentally sound, economically viable, and socially just.

And for Angel S. Fernández-Bou, a bilingual senior climate scientist at the Union of Concerned Scientists who studies and advocates for agroecological solutions, it's also personal. He has spent years working with, and learning from, farming communities like Allensworth in California's San Joaquin Valley to help root out harmful practices while creating more economic and educational opportunities. Along the way, he has cultivated valuable relationships with people who are experts in their local conditions,



UCS Bilingual Senior Scientist Angel Fernández-Bou is committed to hands-on work in California communities, especially with young people. "You can see the spark in their eyes when they learn about how cool science is," he says.

including the Indigenous knowledge of the Tachi Yokuts Tribe near Allensworth.

"Working directly with grassroots groups helps me understand much more deeply how to do things right," he says. "It helps me demonstrate that the science we do can be implemented on the ground."

A TOWN WITH A PROUD —AND TROUBLED—HISTORY

Allensworth—California's first town founded by Black people—has survived more than a century of barriers, sabotage, and environmental difficulties, thanks to the work of three generations of community leaders and neighbors who have fought to keep it afloat.

Formerly enslaved Black Americans settled in the area in the early 1900s. Colonel Allen Allensworth, the highest-ranking Black officer in the US armed forces at the time, left the South to seek a life in the San Joaquin Valley, which was depicted as an agricultural paradise. He envisioned a community where Black people would be free to live on and work their own land, and become educated—a rare opportunity at a time when Black Americans' options were often limited to sharecropping on former plantations or toiling in northern factories.

Allensworth became a thriving community, but that prosperity was soon yanked away. The racist actions of powerful people would have lasting impacts over the century, including moving Allensworth's railroad stop to a nearby White town and denying the water rights the town had purchased.

The community's racial demographics have shifted over time, and its residents

today are predominantly Latino. But injustices persist. In 2023, someone attempted to divert flood waters into Allensworth to spare their own crops. The town has faced serious environmental problems as well, including air pollution from the massive industrial pistachio farms surrounding it, and a lack of access to clean, affordable water. The overpumping of wells by these farms has also worsened naturally occurring arsenic pollution in the town's water supply, exacerbating its water challenges.

"Working directly with Allensworth shows that the science we do can be implemented on the ground."

For years, community leaders sought to find common ground through negotiations with a trillion-dollar insurance company that owns those thousands of acres of pistachio orchards, asking the company to stop its polluting practices. Now that the state has reduced the insurer's water allocation, the company is selling the orchards. Allensworth would like to buy the land to prevent another industrial farming operation from moving in—but it is unable to match competing offers from corporate and private equity competitors. This leaves the town's health, environment, and economy vulnerable to continued harm from exploitative investors.



At a community gathering in Allensworth, residents made and shared food, learned about regenerative agriculture practices, and played games. The community, whose leaders solicit and act on input from residents, comes together regularly to plan for its future and celebrate its successes.

SETTING AMBITIOUS (BUT ACHIEVABLE) GOALS

Fernández-Bou learned of Allensworth before he joined UCS, in his role as coordinating author of California’s Fourth Climate Change Assessment for the San Joaquin Valley. Impressed with the community’s efforts to institute nature-based farming, he reached out to local leaders who described some of the projects they were working on.

For example, Allensworth’s plans for a community-owned agroecology “hub” combines scientific theories and Indigenous knowledge into a practice that Fernández-Bou expects will create local jobs, improve food security, and create a safety buffer from surrounding contamination. The multiple nature-based solutions to be employed by the hub include farming without tillage or toxic pesticides, using cover crops, mulching and composting, and sustainably integrating livestock. The hub prioritizes treating farmworkers fairly, as well as engaging the public in “regenerative” farming—cultivating a diverse range of healthy, nutrient-dense foods through practices that rebuild healthy soil, enhance biodiversity, and keep carbon in the ground instead of releasing it into

the atmosphere where it contributes to global warming.

The surface area of the hub will be several orders of magnitude less than the area dedicated to pistachio farming, yet Fernández-Bou predicts it will be able to generate deeper and more profound wealth in the community, by the community, and for the community. And it will use far less water, with no pesticides or synthetic fertilizers. There are also plans for an educational farm with a market center that sells locally grown produce and artisan goods made by residents, and a childcare cooperative for small farmers and farmworkers to help them balance work and family life.

A significant piece of Allensworth’s regenerative farming plan is repurposing farmland with agrivoltaics—that is, the dual land use of growing crops beneath solar panels. With agrivoltaics, Allensworth aims to provide low-cost electricity for residents and community services as well as to diversify its crops with plants that grow better in the shade provided by solar panels, all while reducing crops’ water demand.

“I have worked on cropland repurposing for years,” says Fernández-Bou. “Allensworth’s plans are among the most inspiring I have seen.”

Fernández-Bou believes strategic cropland repurposing may be the key to addressing broader water issues in California as well as the state’s “megadrought” and other impacts of climate change. Throughout the San Joaquin Valley, unregulated groundwater use has made large-scale agriculture unsustainable, and recent state regulations that force farms to operate with less water have triggered the need to rethink how food is produced in the state. California’s agriculture challenges affect the entire country, as the United States relies on the state as its biggest source of agricultural products.

To offer other communities guidelines for adopting these sustainable practices, Fernández-Bou and UCS analyst Erin Woolley, with partner Dezaraye Bagalayos from the community group Allensworth Progressive Association, published a guide in September called *Working with Nature to Protect California’s Agricultural Regions: How Nature-Based Solutions Can Build Resilience*, which details multiple solutions and provides case studies of communities like Allensworth where these solutions are being implemented. (You can download the guide at www.ucs.org/win26-agroecology.)



(left) A model of the proposed Allensworth Community Cooperative Regenerative Farm, including agrivoltaics (solar panels installed over crops that can grow in shade). (right) Fernández-Bou helps move a solar panel for maximum sun exposure at Allensworth State Park, with summer camp students and teachers from SEEN, the nonprofit he founded.



A BLUEPRINT FOR BROADER CHANGE

By combining his expertise with local and Indigenous knowledge, Fernández-Bou has helped Allensworth acquire funding for, and implement, some of its projects. Through collaboration with an educational nonprofit he founded as a PhD student, SEEN (SocioEnvironmental and Education Network), he has worked with children and beginning farmers on sustainable farming practices, so they're prepared to advance these practices once the town's agroecology hub is up and running.

His research has bolstered Allensworth's grant applications to pursue additional projects, and to acquire the funds needed to purchase land for the agroecology hub. Allensworth has piloted some projects already, like a patented arsenic purification plant it plans to scale up. It expects to start construction soon on a community resilience center that's been approved by the county, and it has plans to develop land trusts and lease agreements that will help new and small farmers gain access to land.

Progress has been slow at times, with obstacles arising despite the community's best efforts, but Allensworth is

steadily moving forward. "In this region where industrial farming only takes away and extracts, the fact that underserved communities are able to secure the means to build infrastructure to produce prosperity is a tremendous success," says Fernández-Bou. "That fact alone gives us an incredible boost of hope that things can improve for many other communities."

Allensworth's progress toward sustainability has been its own doing, both because of community involvement and because it has based its plans on science and evidence supplied by Fernández-Bou, UCS, and other scientific partners. As climate change continues to diminish California's water supplies, the state's future will depend on the success of such community land repurposing projects.

"Communities like Allensworth are catalyzers for positive change because they are role models for other grassroots groups to replicate, allowing them to directly ask leaders who have already done a lot of the groundwork to show the paths that are most likely to lead to success," says Fernández-Bou.

One community following Allensworth's lead is Fairmead, California,

for which Fernández-Bou has helped design a cropland repurposing plan using nature-based solutions. After collecting community input, the Fairmead Groundwater Resilience Project secured approval to transform a water-intensive almond orchard into a stormwater management system that will prevent floods while creating green areas for the community. Although the project is smaller than Allensworth's plans, its success would be a major step for Fairmead toward improving its residents' well-being.

In the process, Fernández-Bou has not only built strategic relationships but also close friendships. He reports that the simple act of listening to, and respecting, members of the communities he wanted to support was more important to making progress than the science he contributed could do on its own. "I've gained so much from working directly with grassroots groups and community members. There's no substitute for this kind of experience," he says. {C}

Michelle Rama-Poccia is a bilingual writer and podcast host for the Union of Concerned Scientists.

A Builder of Better Worlds



Self-described “art goblin” Indigo Moorhead has a job that many of his peers covet: a video game artist who creates different worlds, characters, and landscapes from his imagination.

“I grew up really loving fantasy, science fiction, all the usual nerdy pursuits,” says Moorhead. “When I found out that you could be an artist for a job—not just painting, but doing concept work, world-building, all that kind of stuff—I wanted to do that.”

And in an effort to improve the real world we all must live in, Moorhead has made monthly donations to the Union of Concerned Scientists for nearly 10 years. “I believe that the more our species lives

sustainably, and the more we take care of each other, the more we thrive as individuals. If my neighbor’s doing well, I’m doing well,” he says. “And the climate is a bellwether of how well our neighbors are doing. The way I see it, it’s almost self-ish—I’m taking care of myself by taking care of others.”

After learning about UCS from his mother, Moorhead decided to contribute to the organization because, he says, our work is aimed at the highest levels of decisionmakers. “A scientific organization that’s trying to make sure we get enough of our politicians to understand the incredible damage we’re currently doing to the climate—especially given that there are potential solutions—is of utmost importance,” he says.

FAITH IN THE EVIDENCE

Moorhead’s love for the natural world, concern for his literal and metaphorical

neighbors, and respect for science stem from his Christian faith. From a young age, he was taught that we are all stewards of the world, with a responsibility to care for each other.

“I believe in God. But even if there is no God,” he says, “we still live here. And if a small subset of individuals is thriving far more than the rest of the populace, that only invites collapse and chaos. I also believe in evidence—and the evidence of history shows us that’s what happens.”

Moorhead says he trusts UCS to keep pushing hard for more equitable outcomes for all in the face of the climate crisis, and to continue working for a better world.

“Someone needs to fight for this, regardless of how effective that fight is at any one time. You’re fighting, and that’s what I care about,” he says. “UCS has the skillset to combat this problem—so why *wouldn’t* I donate?” {C}

“The more we take care of each other, the more we thrive as individuals. If my neighbor’s doing well, I’m doing well. And the climate is a bellwether of how well our neighbors are doing.”

MAKE A DIFFERENCE TODAY

Did you know there are many ways to make a gift to UCS?

- ▶ Transfer funds **FROM YOUR IRA**
- ▶ Give via a **DONOR ADVISED FUND**
- ▶ Make a **GIFT OF STOCK, bonds, or mutual funds**

Learn more:

ucs.org/waystogive
member@ucs.org
(800) 666-8276

Restrictions apply. Please consult your tax advisor and financial institution for guidance.



Tech Companies Should Pay for Their Share of AI's Electricity Needs

By Steve Clemmer



The year is 2035. Data centers built to process artificial intelligence (AI) applications are sucking up enough electricity to power entire cities, and your energy bills have gone through the roof. To feed

the demand, your electric utility has built new fossil gas-fired power plants that pollute the air and heat the planet. Squinting in the dim light, you wonder how we arrived here.

This grim future is not inevitable! A new analysis from the Union of Concerned Scientists charts a better

path forward—one that meets increased demands for electricity with clean energy, while providing trillions of dollars in climate and health benefits.

In our report *Data Center Power Play*, we estimate that US electricity demand could increase 60 to 80 percent over the next 25 years, with data centers accounting for about half of the growth in the next five years. As the Trump administration pushes regressive energy policies that steer investments away from cost-effective clean energy sources to more volatile and polluting fossil fuels, state and federal policymakers need to enact sensible policies to keep prices down, protect our health, and reduce heat-trapping emissions.

We examined several electricity demand and policy scenarios and found

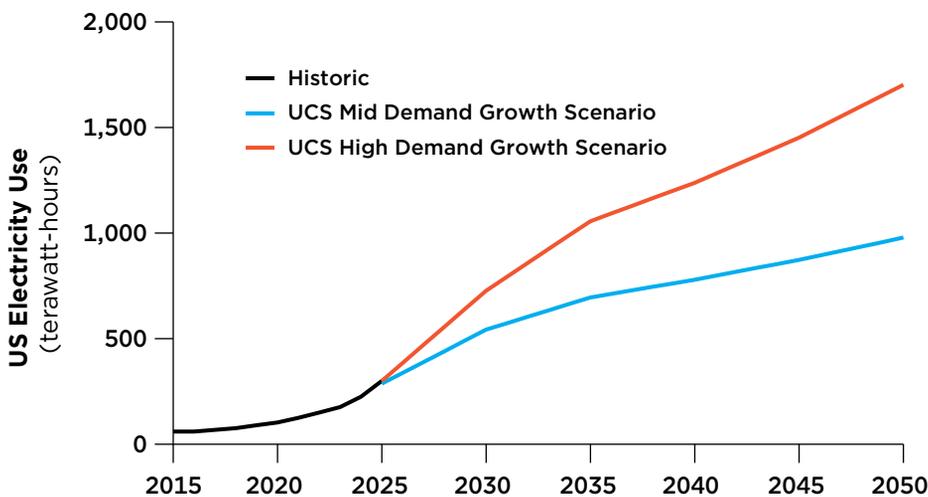
that electricity costs for data centers over the next 25 years could range from \$886 billion to \$978 billion cumulatively. Without policies that require companies like Google, Meta, and Microsoft to pay their fair shares, these costs could get passed onto households and other, smaller businesses. And without stronger clean energy policies, we estimate the additional fossil fuels burned to power data centers could result in a 19 to 29 percent increase in annual carbon dioxide emissions from US power plants by 2035—when we desperately need to *decrease* such emissions.

However, we found that restoring the federal clean energy tax credits that Congress and the Trump administration phased down last year would lower electricity costs for consumers and reduce US power plant emissions of carbon dioxide 33 percent between 2026 and 2035—even if data centers' electricity demand more than doubles from today's levels. Adopting additional policies to nearly decarbonize the power sector by 2050 would result in slightly higher electricity costs but would achieve deep cuts in dangerous air pollution and help the United States meet its climate goals, resulting in trillions of dollars of climate and public health benefits.

Transitioning to a future powered by clean and affordable energy is doable, but we need strong policies to set us on the right path now. You can read our recommendations at www.ucs.org/win26-data-centers. {C}

Steve Clemmer is director of energy research and analysis for the Union of Concerned Scientists. Read more from Steve on our blog, The Equation (<https://blog.ucs.org>).

US DATA CENTER ELECTRICITY USE



Data centers are straining the US electricity grid. Their demand for power could more than triple under a mid growth scenario and increase nearly sixfold under a high growth scenario.

SCIENCE NEEDS DEFENDERS FOR GENERATIONS TO COME

**Include a gift to UCS in your will
or other estate plan.**

**UCS can be named as a beneficiary
in your will or trust, retirement plan,
life insurance policy, donor advised
fund, or other financial account.**

**Contact our Planned Giving Team to
create your own legacy for science.**

**ucs.org/legacy
plannedgiving@ucs.org
(617) 301-8095
Tax ID: 04-2535767**



Union of Concerned Scientists

Two Brattle Square
Cambridge, MA 02138-3780



EarthShare
NONPROFIT PARTNER



Find us on
social media

NONPROFIT
ORGANIZATION
US POSTAGE
PAID
UNION OF
CONCERNED
SCIENTISTS

SCIENCE IN ACTION

LIMITED-TIME MONTHLY MATCH OPPORTUNITY

Thanks to a generous lifelong UCS supporter, an additional \$100 will count toward our Science Sustainer Match campaign for every new or increased monthly donation.

Maximize your impact today.

ucs.org/monthly
member@ucs.org
(800) 666-8276

Join our efforts to build a
healthier planet, a safer world,
and a more just society.

ucs.org