

# SOLUTIONS



Environmental  
Defense  
Fund

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## POISONED BY LEAD

A crisis in Milwaukee's  
schools exposes the  
dangers of federal cuts.

ALSO INSIDE: Last chance for green tax credits | Cutting pollution pays off | More fish in the sea





## Indigenous leaders put the Amazon at the heart of global climate talks

When the 30th United Nations Climate Change Conference begins in Brazil this November, the world’s eyes will be on the Amazon — the planet’s largest tropical forest and a critical line of defense against climate change. For Indigenous peoples like the Kayapó, whose community member Kokonap is pictured here, this moment culminates a year of bold action — forming global alliances, advancing land rights and calling for an end to destructive practices. EDF is working alongside Indigenous peoples and local communities to elevate their priorities and help channel global support toward forest protection and Indigenous-led climate solutions.

MARCOS HLACE

## The importance of taking risks



I have some difficult news to share — news you might have already heard. This summer, we lost contact with MethaneSAT, our groundbreaking satellite designed to track methane emissions from oil and gas operations around the world. The satellite is not recoverable.

There is no sugarcoating it: This was a big blow. We spent years developing MethaneSAT. It was an ambitious mission and a risk worth taking.

MethaneSAT proved that it is possible to measure methane concentrations over wide areas with unprecedented precision. It confirmed, for the first time, that small methane leaks account for most of the oil and gas industry’s methane pollution. It also collected a massive amount of data, providing us with the first comprehensive, global look at how much methane oil and gas producers are emitting.

Methane from the global economy is driving almost a third of the warming we’re currently experiencing, which means cutting these emissions is the fastest way to slow climate change. We are now vigorously exploring how to collect the data required to meet our goal of cutting methane pollution from the oil and gas sector by 75% by 2030.

The climate crisis demands continued bold action. Especially as the federal government is working to remove climate protections, organizations like EDF, supported by people like you, have to make big bets and take big risks.

Amanda Leland, our executive director, writes about one big bet in her new book, *Sea Change*. It’s the story of how EDF brought together fishermen and environmentalists — two groups often at odds — to save both the fishing industry and fish populations. By taking a chance on an idea they believed in, Amanda and her team found a solution that worked. (*See p. 12.*)

Organizations like ours must be willing to do what Amanda’s team did: make big bets in pursuit of breakthrough solutions.

The loss of MethaneSAT is a setback. But it’s not the end. We’re already exploring monitoring from airplanes, partnering with other satellite missions, and yes — we are considering building another satellite. We are not giving up. And neither should you.

Thank you for bravely supporting our pursuit of bold action and big breakthroughs.

*Fred Krupp*  
Fred Krupp, EDF President

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## More methane moo-ves

Fans of yogurt, milk, cheese and ice cream have new reasons to cheer, as a growing number of dairy companies band together to decrease methane pollution from their supply chains. (Methane is a potent greenhouse gas released in cow burps and by manure. Cutting it is the fastest way to slow climate change now.)

Two of the world's largest dairy companies — Agropur and Savencia Fromage & Dairy — recently joined other food industry leaders in the Dairy Methane Action Alliance. The group, founded with EDF's help in 2023, brings together dairy and food companies to analyze and reduce their methane hoofprints.

These two companies are not the only ones making progress. Other DMAA members are now publicly disclosing their dairy methane emissions for the first time and publishing some of the world's first methane action plans — detailing specific strategies to cut this dangerous pollution. Danone, a DMAA founding member, has already reduced methane emissions from its fresh milk supply by 25% since 2020.

“Action on dairy methane is good for farmers, good for business and good for the climate,” says Katie Anderson, EDF's senior director of business, food & forests. But there's still work to do, she says. “Today's progress needs to become tomorrow's standard practice and collective action. And EDF is ready to help companies take their next steps.”



GETTY

## Methane-tracking satellite loses contact

EDF's mission to track methane pollution from space — crucial to cutting methane pollution, the fastest way to slow global warming — has experienced a setback.

One of the world's most advanced methane tracking satellites, MethaneSAT, lost contact with its mission operations program on June 20.

EDF laid the groundwork for this extraordinary satellite mission in order to drive action to reduce methane pollution.

Launched in March 2024, MethaneSAT had been measuring methane emissions in oil- and gas-producing regions worldwide. After pursuing all options to restore communications, the MethaneSAT

team determined the satellite was not recoverable. The team is conducting a thorough investigation into the loss.

MethaneSAT data has already lent critical insight into where and how much methane is being released from oil and gas production. That data will continue to be released in the coming months.

EDF is exploring all options to obtain the data needed to continue to inform action to protect the climate. For example, MethaneAIR, the aircraft-based sister project to MethaneSAT, has resumed previously scheduled methane-measurement flights over North American oil- and gas-producing regions. EDF will continue its long-standing leadership on methane reduction policies, both internationally and within the U.S., as well as with leading oil and gas companies.

The MethaneSAT team will also continue to leverage the technology developed as part of the MethaneSAT mission, so the world has access to high quality, actionable greenhouse gas emissions data on a global basis. (Check future issues of *Solutions* for updates.) “This is a setback, not a failure,” says Steven Hamburg, EDF's chief scientist. “We look forward to continuing this most critical work here in the U.S. and with partners worldwide.”



FRONTLINE RESOURCE INSTITUTE.ORG

**The Frontline Resource Institute**, founded with support from EDF in 2022, strengthens the capacity of community-based organizations to solve environmental challenges. FRI and partner Writing for Green, through a grant-writing training program, have now helped more than 250 community-based organizations secure \$353 million in federal and philanthropic funding. They are aiding communities hit first and worst by pollution and climate change in charting their own path to a more just, sustainable future.



Oakland school kids now enjoy more green space, thanks to the state's cap-and-trade program.

TRUSTS FOR PUBLIC LANDS

## Putting a price on pollution makes sense

SIX YEARS AGO, THE SCHOOLYARD shared by two public elementary schools in Oakland, California, was a barren slab of asphalt that amplified street noise and radiated heat all year long. Today, it's a green oasis for 600 students in a community otherwise surrounded by freeways and industrial areas.

The space has not only transformed the community, but the students. “Being surrounded by the beauty of nature is teaching our students how to be stewards of the land at a very young age,” says garden steward Jose Luis Rodriguez.

Built with support from the California Natural Resources Agency's Urban Greening Program, the new schoolyard is just one of thousands of examples of how California is able to invest in communities, thanks to revenue from its flagship cap-and-trade program.

### Putting a price on pollution

In 2012, California set a statewide, declining limit (or “cap”) on roughly three-quarters of the state's planet-warming pollution. The program applies to major polluters such as oil refineries, power plants, industrial facilities and fuel distributors, and requires them to hold a permit,

or “allowance,” for every ton of greenhouse gas pollution they emit. Facilities can buy and sell (“trade”) allowances among themselves, as necessary.

Each year, the number of allowances is reduced, ensuring pollution declines over time. Because the program puts a price on emissions, it creates an economic incentive for businesses to invest in cleaner alternatives to reduce their pollution — and the number of allowances they need to buy.

While the cap drives down emissions, the revenue generated by selling allowances is reinvested into projects like the living schoolyard in Oakland, helping to boost resilience, deploy clean energy and support communities, housing, transit, water and forests.

EDF was deeply involved in the launch of the program, beginning as a co-sponsor of the legislation that first authorized it and established the state's climate targets. And we have continued to lead efforts to strengthen and extend this landmark climate policy through the legislative and regulatory processes.

To date, the program has brought in more than \$28 billion, \$11.6 billion of which has already been translated into

on-the-ground projects. In addition, this year, Californians received an average of \$137 in automatic savings on their utility bills through the cap-and-trade-funded California Climate Credit.

This September, lawmakers built on the program's past success and reaffirmed their commitment to ambitious, effective climate action by strengthening and extending California's cap-and-trade program until 2045.

### What's at stake

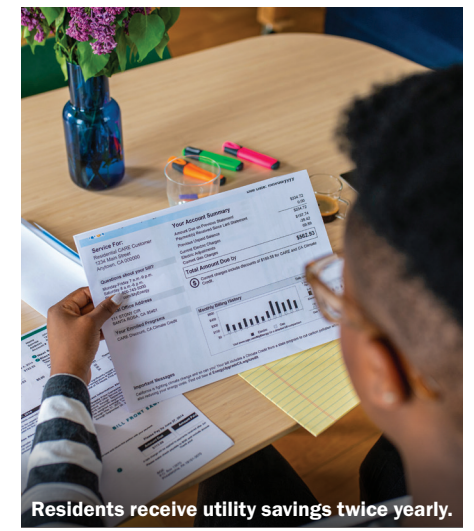
A new EDF/Greenline Insights study highlights just how much can be gained.

Extending the program through 2045 is expected to bring in \$47 billion in revenue, translating into \$55 billion in economic growth and more than 287,000 jobs. The 42% of California households that earn less than \$70,000 a year are projected to receive the greatest benefits relative to their incomes, saving approximately \$700 per household.

“In California and across the country, affordability is at the top of everyone's mind,” says EDF climate policy expert Caroline Jones. “California's cap-and-trade program hasn't just been a win for the climate. It's been a win for ordinary people who can see it in their neighborhoods and on their utility bills. There's billions more to come.

“The vote reaffirms California's commitment to a thriving economy with bold climate action,” she adds. “By aligning the future of cap and trade with the state's commitment to build a carbon-neutral economy by 2045, we can provide certainty of meeting our climate goals while keeping costs down for families.”

Joanna Foster



Residents receive utility savings twice yearly.

GETTY



# Science is under attack, again

By Joanna Foster

IT'S QUIET NOW AT A MODERN, SIX-story brick and concrete building on the University of North Carolina at Chapel Hill campus. The lab, near the university medical center, used to be home to the Environmental Protection Agency's Human Studies Facility, where scientists studied the effects of air pollution like ozone and wildfire smoke on human health — research that helped inform lifesaving national air quality standards. But this spring, the Trump administration canceled its lease, and the lab, including millions of dollars of unique, state-of-the-art equipment that cannot be relocated, is now collecting dust.

The fate of all the scientists who used to work at this lab is unclear. In May, the EPA announced it would be dismantling its scientific arm, the Office of Research and Development, which ran the North Carolina lab and 11 others like it. Around 75% of ORD's roughly 1,000 scientists will be fired and the rest reassigned to other offices at the EPA.

According to Maria Doa, who worked at the EPA for over 30 years and is EDF's chief chemicals expert, it's not just a restructuring, it's a multipronged, strategic assault on independent science that protects public health.

"ORD is a leading, world-class research organization that saves lives," says Doa. "What will be left is a handful of scientists scattered throughout the EPA who will be subject to the political bidding of the administration in pursuit of its goals."



The EPA's ORD was a world-class research organization.



The EPA's Human Studies Facility in North Carolina now lies empty.

For 50 years, ORD has provided the independent research that underpins nearly all of the EPA's environmental policies. Its work includes developing methods to detect pollutants, track their movement, model human exposure, assess toxicity and design technologies for prevention and remediation. Much of what keeps America's air, water, and food safe — from analyzing the risks of forever chemicals in drinking water to finding the best ways to reduce fine particle pollution in the atmosphere — relies on this research and expertise. Eliminating the office would potentially weaken regulation of the chemical and fossil fuel industries.

"If you're no longer basing health and environmental protections on rigorous, independent science, then it's going to come down to what special interest group is exerting the most pressure," says Doa, who, during the first Trump administration, had a front row seat as chemical industry lobbyists appointed to the EPA pressured scientists to change their results to justify weakening regulations.

"When that happens again, independent science will take a back seat," says Doa.

The dismantling of this office is just one of the Trump administration's attempts to defund, disrupt and distort science at the EPA, severely undermining its ability to carry out its mission to protect human health and the environment. Two scientific advisory boards at the agency have been disbanded. Cuts to funding at the EPA as well as the universities it partners with to conduct research have hamstrung the ability of scientists to continue their work.

75%

The percentage of EPA Office of Research and Development scientists fired.

Source: U.S. Environmental Protection Agency

EDF is fighting back. During Trump's first administration, Tomás Carbonell helped lead EDF's effort to successfully defeat the censored science rule, which tried to restrict the types of research the EPA could use to inform its rule making.

Carbonell says EDF is once again using all the tools in its legal toolbox to counter attacks on independent science. "We'll continue to take the Trump administration to court when it breaks the law, including when it comes to the administration's war

on science," says Carbonell, who is now Distinguished Counsel and Associate Vice President at EDF. "We are also using the power of the federal Freedom of Information Act to shine a bright light on its actions so the American people can hold their leaders to account."

“We’ll continue to take the Trump administration to court when it breaks the law.”

— Tomás Carbonell, EDF’s distinguished counsel and associate vice president

EDF has already successfully used FOIA to recover and publish the EPA's legally required greenhouse gas inventory, which it failed to release this year for the first time ever — restoring a key accountability tool.

Scientists are also stepping up to meet the moment. When the Trump administration canceled all funding for the National

Nature Assessment, which was charged with reporting on the state of the nation's lands, waters and wildlife, scientists like EDF's own Brian Buma refused to let that be the end of this vital work and are volunteering their time to make sure the research is published independently and made available to the public.

But lasting damage has been done.

"It is so easy to break things and so hard to put something back together," says Doa. "The development of the next generation of scientists is being severely stunted." And in the meantime, the team of scientists who used to be out there watching and preparing for the next emerging threat, like endocrine disruptors, micro-



ORD research has helped protect people from pollution.

plastics or forever chemicals, just won't be on the job.

"Independent science used to be the guiding light at the EPA," says Doa. "Without it, I fear the agency will lose its way." ■

## The data heroes



Since President Trump's return to office, his administration has purged more than 8,000 government web pages and 3,000 datasets — wiping out scientists' and the public's access to climate, health and environmental justice information from the EPA, the Centers for Disease Control and Prevention and other agencies.

These aren't just files. Climate scientists rely on NASA satellite data and NOAA weather records to monitor changes in Earth's systems. Public agencies and local governments use the same data — along with census information — to identify communities most at risk. U.S. Department of Agriculture climate risk models and crop-resilience tools help farmers plan for and manage droughts, floods and changing seasons.

"If we lose environmental data, we limit our capacity to respond to climate threats," says Ellen Robo, a transportation and clean air expert at EDF. "You can't protect what you can't measure."

EDF is part of Public Environmental Data Partners, a coalition that archives federal climate datasets and uploads them to public repositories.

Volunteers work from university libraries and kitchen tables, using tools like the Internet Archive's Wayback Machine and Harvard's Perma.cc to capture disappearing content, preserving critical datasets as the administration deletes information that conflicts with its pro-fossil-fuel agenda.

"Those of us who were around during the first Trump administration remembered how climate information vanished almost overnight," says Jennifer Freeman, who tracks climate impacts at EDF. "So, when this new wave started, we immediately reached out to help triage what needed to be saved."

That included data tied to the Inflation Reduction Act's billions in climate funding — some of which has been rescinded or put at risk by Congress and the Trump administration.

EDF and partners are now focused on building a more resilient, justice-centered data system. "We're focused

on the long game now," says Julia Martin, EDF's director of information services. "Not just scrambling to save the next dataset, but creating resilient, redundant systems that don't rely on the goodwill of whoever's in power."

"This isn't just a salvage operation," Freeman says. "It's resistance. It's restoration. And it's preparation."

Tom Clynes





# A LEAD CRISIS LINGERS

Milwaukee families face the real-world cost of federal cuts.

By Vanessa Glavinskas

LISA LUCAS thought her daughter was safe.

When news broke in January that lead paint had poisoned a student at Milwaukee's Golda Meir Elementary School, she worried about that child, but thought it was an isolated incident.

Then, in March, came a devastating discovery. City inspectors found dust and debris contamina-

ted with lead in her daughter Esme's first-grade classroom. The public school she attended had recently done some maintenance, but Lucas says she had no idea that work could pose a risk to students.

Lead is highly toxic to the developing brain. Exposure is known to decrease a child's IQ and impulse control; it's also linked to ADHD, angry outbursts and behavioral problems. "Knowing Esme had been exposed to lead was terrifying," Lucas says. "It had me questioning every health and behavioral issue that she had."

She rushed her daughter to the pediatrician for a blood test. Her lead level came back below the threshold of concern — which the federal Centers for Disease Control and Prevention defines as 3.5 micrograms per deciliter — but that didn't put her mind at ease. Every time she turned on the news, Lucas learned about another contaminated school in Milwaukee. By

April, the number of public schools shut down because of lead contamination had grown to six and several children tested positive for lead poisoning.

"That's when I contacted Kristin Payne, a mom who started an advocacy group for parents called Lead Safe Schools MKE," Lucas says. "I told her, 'This is ridiculous. I'm in.'"

Together with other worried parents, they began calling for accountability from everyone from the Milwaukee school district to the state and federal government.

## No safe level

Because of its harmful effects, EDF experts have worked to get lead out of people's daily lives for more than 50 years — first supporting its removal from gasoline, and now from water pipes and consumer products.

"There's no safe level of lead," says Maria Doa, EDF's chief chemicals expert. Even the CDC's threshold for blood lead levels is meant to trigger intervention by a child's pediatrician and doesn't mean exposure to lead is safe at low levels.

In Milwaukee, more than 100 of the city's public schools were built before 1978, when lead in paint was banned in the U.S. Before then, lead was routinely added to paint.

Lead paint becomes problematic when it wears down and chips. Those chips are extremely dangerous if swallowed by a



Lisa Lucas, with daughter Esme.

JAMIE KELTER DAVIS - NEW YORK TIMES/REDUX

curious baby or toddler — and when they crumble into dust, the lead hazard can spread. People can inhale it or touch contaminated surfaces and then ingest lead if they don't wash their hands before eating.

## 29M

The estimated number of U.S. homes that have lead-based paint hazards.

Source: U.S. Centers for Disease Control and Prevention

Even though the Milwaukee school district had protocols to minimize the risk presented by old paint in its buildings, like regularly painting over old paint to seal it, those protocols hadn't been strictly followed. District officials say state leaders have starved public schools of the resources they need to operate, forcing impossible choices between maintaining buildings and hiring teachers.

But as the number of schools improperly maintained came to light, the district's director of facilities was cited by the city and removed from his role.

## A perfect storm

As more schools tested positive for lead hazards, Milwaukee health officials made an urgent request for federal help on March 26.

Part of that request asked that highly trained epidemiologists from the CDC's lead poisoning prevention and surveillance team come to the city to help guide and staff the response.

But the timing coincided with Health and Human Services Secretary Robert F.



Six Milwaukee public schools shut down in April due to lead contamination.

JAMIE KELTER DAVIS - NEW YORK TIMES/REDUX



Kennedy Jr.'s restructuring of his agency and the elimination of 20,000 full-time positions. Those layoffs included the CDC's entire lead team — the very toxicologists and epidemiologists whose help is critical during a lead crisis.

"Multiple agencies and levels of government work together to prevent lead poisoning in this country," explains Amanda Reddy, who runs the National Center for Healthy Housing. "In a crisis, state and local governments depend on federal expertise. If it's not there, it's like firemen showing up to put out a fire and then finding out they have no water in their hoses."

As Dr. Michael Totoraitis, Milwaukee's health commissioner, struggled to lead his city through a crisis without anyone at the CDC to answer his calls, he told reporters, "There's no bat phone anymore."

### The backlash

In April, Lead Safe Schools MKE, now made up of hundreds of concerned parents, organized a town hall where parents asked local leaders questions and began calling for more government help to tackle the crisis.

"Our babies are getting poisoned and so many levels of government haven't been doing anything about it," Lucas says.

On May 20, Wisconsin Senator Tammy Baldwin took parents' concerns to Washington, D.C.

In a widely shared clip, Baldwin criticized Kennedy for dismissing the CDC's lead experts, saying, "You cannot tell us that you want to make America healthy again when you are willfully destroying programs that keep children safe and healthy from lead poisoning."

Under pressure, Kennedy said his department would maintain \$51 million in funding for the Childhood Lead Poisoning Prevention Program.

By June, former federal lead experts were being rehired, though they learned that they will be splintered off from the CDC to work for a new agency being set up by the Trump administration called the Administration for a Healthy America, which will focus on health issues not related to infectious diseases. That administration may not be based in Atlanta, where the CDC's offices are and where many experts live.

### A fragile victory

"The rehiring of experts is a positive turn of events," says EDF's Lindsay McCormick, who works to protect communities from

lead and other toxic hazards. "But it's a fragile victory, as other critical pieces of the federal lead poisoning prevention infrastructure are still at risk of being defunded."

For example, at press time, lead hazard control grants — which are used to help remediate contaminated homes — were still set to be cut by hundreds of millions of dollars. And federal funds that could be used for lead pipe replacement across the country were also under attack.

To keep progress going, EDF has focused on local opportunities. For example, EDF experts have been working directly with mayors who want to replace their cities' lead water pipes, educating them on the safest and most efficient way to do so.

As co-founder of the Lead Service Line Replacement Collaborative, EDF also continues to bring together experts and advocates to speed up progress. The Collaborative's latest project is an explainer video designed to help utilities better educate the public about the lead pipe

project has finished, the district has brought in third-party inspectors to put parents' minds at ease.

But Lisa Lucas isn't sure who she can count on.

Even though public pressure helped to reverse cuts to the federal lead poisoning prevention and surveillance team, a wider threat to public health remains now that thousands of experts are gone from HHS, which oversees not only the CDC, but also the National Institutes of Health, the Food and Drug Administration and other important public health agencies.

**“Our babies are getting poisoned and so many levels of government haven’t been doing anything about it.”**

— Lisa Lucas, Milwaukee public school parent



Kristin Payne leads the parent group demanding lead-safe schools.

replacement process, as many residents don't know if they have a lead service line bringing water into their home or why one could pose a risk.

EDF also maintains several mapping tools that show which cities still have lead pipes, where progress is being made and where it's not.

### What's next?

In Milwaukee, school is underway again, but the district is still scrambling to mitigate lead in all 108 schools built before 1978 by the end of the year.

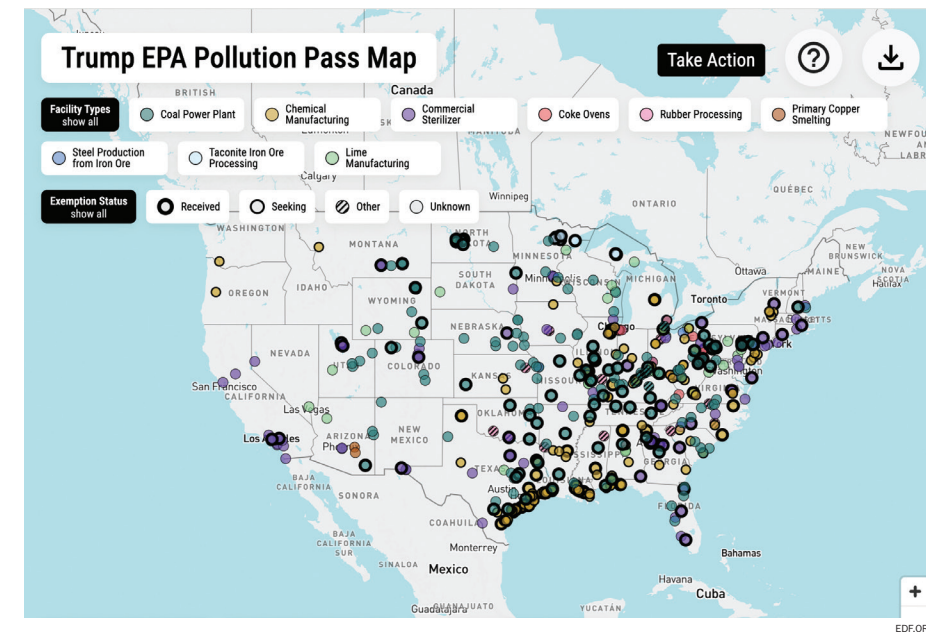
Over the summer, it started with the oldest schools and as each mitigation

According to Pat Breyse, who led the CDC's efforts to address environmental health issues from 2014 until he retired in 2022, "I really worry that these cuts mean we're going to see important public health issues not being addressed, and we'll be weaker and less responsive when something does happen."

"I used to trust that there were systems in place to keep my child safe," Lucas says. "It's upsetting because I know we are a country with the resources to provide safe schools and safe houses for every single child in America," she says. "It's simply a matter of where we choose to put those resources." ■

# No free pass for polluters

To protect people's health, EDF is fighting in court and exposing polluters.



WHEN LAURIE ANDERSON HEARD that the Trump administration was inviting major polluters across the country to apply for a "presidential exemption" from clean air rules, she says it felt like a slap in the face.

"Offering these exemptions is basically saying that the administration doesn't care about the health and safety of the people living near polluting facilities," says Anderson, who lives near an oil and gas operation in Broomfield, Colorado.

### EDF helps people fight back

As an organizer for EDF-affiliate Moms Clean Air Force, Anderson has fought hard for pollution safeguards to protect communities.

That's why, when she heard that EDF was mapping every facility across the country that could be granted an exemption, she immediately logged on to find out what was near her home.

The map shows the location of more than 500 facilities, including large petrochemical plants and coal-fired power plants. Many are located in low-income communities and communities of color that have already borne the brunt of industrial pollution for decades.

Anderson's heart sank when she saw that several nearby sterilizer facilities emitting ethylene oxide were seeking an exemption. People living near such

facilities are at higher risk for cancer, including breast cancer, myeloma and lymphocytic leukemia. In July, Trump granted one of those Colorado sterilizer facilities an exemption.

"The map not only shows you which polluters are near you; it also makes it easy to reach out to the Environmental Protection Agency," Anderson says. "I immediately used it to send a message because people in my state will be harmed."

### Who has been granted an exemption?

When the exemptions were first offered in March, the Trump administration did little to notify the public, so EDF filed a Freedom of Information Act request for records related to the exemption plan.

The EPA did not respond. So in April, to fill the information gap, EDF sued and, with several allied groups, released a map of facilities that could seek an exemption.

Media outlets began using the map. For example, *Public Health Watch* reporter Savanna Strott used it to expose dozens of Houston-area petrochemical facilities whose trade association filed for exemptions on their behalf. If granted, these facilities would not have to reduce emissions of six highly toxic and/or carcinogenic chemicals.

### A free pass to pollute

At press time, more than 160 facilities

across 40 states were known to have received exemptions.

That number includes 71 coal-fired power plants — a move that delays their compliance with a 2024 EPA rule that limits mercury, arsenic and other toxic emissions. The Trump administration has also proposed rolling back this lifesaving rule altogether.

Coal plants are the largest source of mercury pollution in the U.S. Mercury can cause lifelong brain damage in children, cardiovascular issues in adults and weaken the immune system.

Already, EDF and 11 other environmental and community groups have filed a lawsuit against the Trump administration. It calls the use of a presidential exemption to postpone coal-fired power plants' compliance with the standards an "illegal scheme" that gives these plants a "free pass to pollute."

While the lawsuits play out in court, Anderson encourages the public to be vigilant.



"I want everyone to know that this map exists," she says. "With a few clicks, you can find out what's near you and contact the EPA. The map guides you through the whole process. Don't allow this administration to let polluters off the hook."

Vanessa Glavinskas



**Learn more** Scan the QR code to find out who near you is trying to dodge pollution limits.



# A fish tale like no other

Amanda Leland’s new book tells the story of an unlikely alliance that transformed fishing.

By Vanessa Glavinskas

**H**OW DID A TEXAS FISHERMAN WHO fought against sustainability reforms become their biggest champion?

The answer to that question is at the heart of a new book, *Sea Change: Unlikely Allies and a Success Story of Oceanic Proportions*, by EDF Executive Director Amanda Leland and James Workman.

The story centers around Keith “Buddy” Guindon, a fisherman who fought his way to becoming the “highliner,” catching more red snapper than anyone else along the Gulf Coast.

As he and other commercial fishermen worked harder and harder to earn a living, fish populations crashed and communities struggled. When the council that manages commercial fishing in the Gulf brought up for a vote a new management system designed to rebuild the fishery, Buddy campaigned against it.

Why? “I was still winning ... so any change ... might take that away from me,” he later admitted.

Buddy’s campaign was ultimately

unsuccessful. But a few short months after the plan rolled out, he realized how wrong he had been. Under the new system, fishermen were able to earn more while catching less — and red snapper populations rebounded. Buddy joined forces with the EDF experts and other fishermen who had championed the new management system. And together, they inspired a quiet revolution, one that led to a remarkable recovery.

We sat down with Leland to find out more.

**Q.** *Sea Change* is a conservation success story that many people haven’t heard of. What is this book about?

**A.** Fishing used to be the most dangerous job in America. Fishermen were literally dying at sea because, under the old system, they had to race each other to catch fish before someone else did, even if it meant going out in dangerous conditions.

The solution that EDF experts helped advance — called “catch shares” — stopped

that dangerous race, helping fish populations and coastal communities to rebound and regain stability.

“To solve complex problems ... we need to meet people where they are.”

— Amanda Leland, EDF executive director

**Q.** What are catch shares?

**A.** Basically, it’s a solution that enables fishermen to become stewards of the sea. First, scientists determine how many fish in any given fishery can be caught while still building and sustaining healthy fish populations. Commercial fishermen are guaranteed a percentage of the total annual catch. Once they’ve caught their limit, they stop fishing. Fishermen are then rewarded financially as those fish populations recover. To mix metaphors for a minute, a bigger pie means everyone gets a larger slice. More fish means more profit for everyone.



EDF Executive Director Amanda Leland

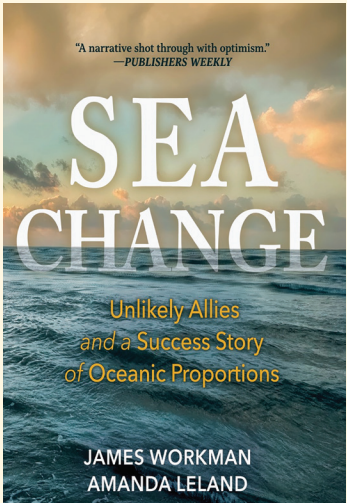
Providing a guaranteed share also ended the race to fish, which had cost too many fishermen their lives and well-being. Fishermen also began getting a better price per pound at the dock. It’s a model that’s helped rebuild key fisheries in the U.S. and supported sustainable management in hundreds more fisheries worldwide.

**Q.** Why did you decide to share this story now?

**A.** This book is fundamentally about how to find common cause with people who you think will never agree with you on anything. That’s why I think this story is needed now. At the moment, environmental protections are being rolled back in the U.S., and it’s hard to find bipartisan support for our work at the federal level. This story is a reminder that lasting progress comes from listening to others, including people you don’t agree with, and finding a way to pair your goals with their goals.

**Q.** What do you hope people take away from this book?

**A.** To solve complex problems, whether it’s overfishing or climate change, we need to meet people where they are, not judge them for where they are not. If you can do that, you never know where you might find an ally — and maybe meet in the middle. ■



**Keith “Buddy” Guindon** fishes out of Galveston Island at the southern edge of Texas. For more than thirty-five years, he’s unloaded his boats onto the docks along a dead-end strip of asphalt called Wharf Road.

It’s a place of humid air ripe with fish smells and diesel fumes, the creak of rope, scavenging pelicans and raucous profanity. Since arriving here in the late 1970s he has consistently outmuscled and outfoxed every other fisherman in the western Gulf. And through the first decade of the twenty-first century, he and others had nearly emptied the seas of the very reef fish on which this working waterfront was built.

A barrel of a man with amused eyes, a gruff voice and a Santa Claus beard, Buddy is a Galveston legend, a hard-working seafood harvesting machine eager to catch more of whatever was out there and keep catching it until it is gone. He once owned a bar, and now owns a seafood market and adjacent restaurant. But for most of his career he and anyone else with a fishing permit have rented access to the federal grouper and red snapper fisheries off Galveston. In the years of wide-open free-for-all, they beat the Gulf like a piñata, competing to extract the most treasure from within it. The upsurge in market demand, combined with Buddy’s lethal fish hooks, soon hollowed out supply.

Verging on empty, Galveston’s restaurants and stores began to resort to the unthinkable — selling farmed fish, often imported from overseas, and passing it off as locally wild caught. Wild seafood like red snapper or grouper had all but vanished from menus and display cases, a reflection of barren waters Buddy and others left in their wake.

Like so many other former fishery-dependent communities in America — Pier 39’s salmon, Cannery Row’s sardine, Baltimore Harbor’s oysters, Fulton Fish Market’s cod — Wharf Road risked becoming just another tourist trap, an outdoor museum of a bygone era.

While Buddy’s dominance of the fishery kept him in the game, other commercial fishermen went under, defeated by the strain of chasing elusive animals around in an increasingly empty sea. As competitors dropped out, Buddy hooked some of the snapper they left behind. Federal fishing regulators stepped in, enacting and enforcing rule after rule.

But his Falcon found ways to haul in more fish no matter how the laws tried to hobble him. The broken system was worse than a failure. Instead of saving the red snapper, federal rules unintentionally accelerated its crash. At this rate regulators at the start of the twenty-first century would have had to close the fishery, taking Wharf Road — the beating heart of Galveston Island — down with it.

But they didn’t. Something happened to reverse the downward spiral. It’s an exemplary and infectious tale of how Buddy the destroyer became Buddy the restorer of one of America’s most iconic fisheries.



**Read more** To buy *Sea Change*, scan the QR code at left. Use code “EDF” to donate 20% of the purchase price to EDF.



Buddy Guindon used to risk his life racing to catch fish. Sustainability reforms he backed have made fishing safer while helping fish populations grow.

JOHN RAE



# Save on clean energy while you still can

Federal tax credits for solar, electric vehicle chargers and heat pumps are set to expire soon.

THIS SUMMER, WITH THE PASSAGE OF its singularly destructive budget bill, the Trump administration and its allies in Congress ripped away Biden-era clean energy funding that saved consumers more than \$2 billion on auto costs in 2024 alone; created hundreds of thousands of new jobs; could have prevented as many as 1,300 premature deaths by 2030 by limiting pollution; and moved the nation closer than ever to a clean energy future.

Despite this blow to national climate progress, it's not too late for consumers to take advantage of many of these savings. Several Biden-era federal tax credits are still in effect until December 31 or later. Some of the rebates will be around for even longer.

As always, confirm with a tax professional. And remember: Many states, local governments and utilities still offer generous incentives and rebates. For more information about all these kinds of savings, check out Rewiring America and the Database of State Incentives for Renewables & Efficiency.

Here are five ways you can save on clean energy:

1 Solar power and battery storage

A 30% federal tax credit for solar covers systems that generate electricity and those that can provide heat and hot water. Home batteries are eligible as well. Projects completed or paid for by the end of this year are still eligible.

2 Heating and air conditioning

Energy-efficient heating and cooling systems, including both air-source heat pumps and geothermal ones, are eligible for tax credits of 30% if they're completed by December 31. That amount is capped at \$3,000 for air-source heat pumps but is unlimited for geothermal systems.

3 Weatherization

An energy audit can tell you where your house is leaking energy and how to fix it. There's a \$150 tax credit for these audits available through the end of this year. Likewise, a 30% tax credit for insulation, sealing leaks and replacing leaky windows.

4 Electric vehicle chargers

Even though you can no longer use federal tax credits to buy new or used EVs, in large parts of the country, through June 30, 2026, you can still get a federal 30% tax credit of up to \$1,000 to install an electric vehicle charger and any necessary electrical upgrades. **To find out if you're eligible, visit [anl.gov/esia/refueling-infrastructure-tax-credit-faq](https://anl.gov/esia/refueling-infrastructure-tax-credit-faq).**

5 Additional rebates

Twelve states and the District of Columbia have started to roll out rebates available to low- and middle-income consumers for heat pumps, electrical work, weatherization and energy-efficient appliances. These rebates are available through 2031 or until the money runs out. Check with your state's energy office for details.

Liz Galst



PHOTO ILLUSTRATION BY TINK TANK

★ YOU GOT THIS DONE!

## From installer to entrepreneur



Chadd Spruell



Spruell hopes the solar industry can continue to grow.

CHADD SPRUELL TOOK A CHANCE on a new kind of job when he started as a solar installer in 2016. Having previously worked in sales, he began climbing on rooftops in Staten Island, New York, to attach solar panels.

As the industry has grown, so too has he. Today, Spruell runs his own solar installation company, Ceads Energy, based in New York City, finding opportunities to do well and do good at the same time. "I know that every house we install, we're erasing some of the carbon footprint," he says.

In recent years, solar energy has been one of the country's fastest-growing industries and one of its least expensive forms of energy. But even as the Trump administration and its allies in Congress have thrown up roadblocks to solar power,

Spruell sees opportunities to expand.

When Spruell started as an installer, solar's clean air and climate benefits weren't his focus. "The green I was thinking about then was the green of the dollar," he says. He worked his way up through the ranks, quickly becoming a foreman, then a manager on large projects.

But he wanted to advance further. And that wasn't happening at the company where he worked. So in 2021, he started what was then called Ceads Unlimited to focus on what he did best, installing solar panels; his company partners with other companies that sell solar systems to homeowners and businesses.

Demand for Ceads' services has grown since then. The company now employs six installers, plus his sister working in the office. He aims to expand into backup

batteries and electric vehicle charging stations soon.

The road ahead for businesses like Ceads is not smooth. Thanks to the budget bill President Trump signed on Independence Day, the federal tax credits that have helped lower solar prices and fuel the industry's growth are set to expire on December 31, almost 10 years ahead of schedule. That worries Spruell and everyone else who works in the solar industry.

But he still sees a future in clean energy. Solar's payback period will increase without the federal credits, Spruell says. But it's still cheaper than electricity from the grid in most places. "As long as the sun comes up, you're creating power. It's better to own what you use every day."

Liz Galst



WE'RE ALL EARS

Got an environmental success story you want to share? Let us know at [editor@edf.org](mailto:editor@edf.org).



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