



## The new defenders

As Washington caves on climate change and public health, states are rushing to fill the void.

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# Sanctuary

The Endangered Species Act is under attack by the Trump administration, Congress and industry groups. EDF and allies are pushing to save and improve this critical safeguard. One way is to reward landowners who restore habitat, which is essential to the survival of the San Joaquin kit fox and hundreds of other species. There is broad agreement among Americans on the Endangered Species Act: 83% support it, including 74% of conservatives.



>>> TAKE ACTION >>> Tell Congress today: Protecting wildlife is not partisan! [bit.ly/EDFforESA](https://bit.ly/EDFforESA)



# Make your voice heard



For environmentalists, these are challenging times. In Washington, DC, the Trump administration's unprecedented assault on bedrock environmental protections continues with the latest attacks on the Clean Power Plan, clean car standards, and even safeguards against poisonous mercury in our air.

We will keep fighting in Washington because we can't afford to give up. The stakes for our children and grandchildren are just too high. And we have powerful ways to fight back. EDF and its allies have gone to court repeatedly to challenge the administration's illegal rollbacks of environmental protections.

In July, for example, we asked the DC Circuit Court to block EPA Administrator Scott Pruitt's decision not to enforce pollution standards on so-called "glider" trucks. A glider is a new truck body equipped with an old, dirty diesel engine that can emit as much lethal particulate pollution as up to 450 cleaner modern trucks. We won a stay in court, and Pruitt's successor Andrew Wheeler was forced to reverse Pruitt's decision (*see p. 7*).

Fortunately, Washington is not the only arena where environmental policies are set. States, other countries and companies are increasingly taking the lead in advancing innovative environmental and public health policies.

Thanks to the generous support of our members, EDF is actively engaged in 34 states. As you'll read in this issue's cover story (*see p. 8*), states are taking decisive action on everything from air pollution to wildlife protection to energy efficiency in buildings.

We're also actively involved internationally. In China, EDF's Beijing office is helping to set up the world's largest emissions trading system. And we're involved with the private sector. We're working with Walmart, the world's largest retailer, on Project Gigaton, a plan for the company to remove a billion tons of greenhouse gas emissions from its supply chain by 2030. That's the equivalent of removing a year's emissions of Germany, the world's fourth largest economy.

As we look to protect the environment and public health for future generations, I urge you to use the power of the ballot box. Vote this November for a healthy and safe environment. Make your voice heard loud and clear on the important environmental issues we face today.

*Fred Krupp*  
EDF President



Finding the ways that work

Environmental Defense Fund's mission is to preserve the natural systems on which all life depends. Guided by science and economics, we find practical and lasting solutions to the most serious environmental problems.

Our work is made possible by the support of our members. Donate online at [edf.org/newsletter](http://edf.org/newsletter) or by mail: EDF, attn.: Member Services, 1875 Connecticut Ave NW, Ste. 600, Washington DC 20009.



## On the cover:

As the federal government retreats on environmental protection, states and cities are stepping up. Across the country, from California to Pennsylvania,

environmental progress is being recognized as vital to economic prosperity. In this issue, we explore state advances—from renewable energy to air pollution cuts to public health safeguards, that give us hope.

COVER ILLUSTRATION: KJURT HUGGINS

## Solutions

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# FIELD NOTES

## Public health is more than skin deep



JOHN PAE

EDF's Boma Brown-West, a champion for safer chemicals.

The facts tell the story. The last major U.S. legislation on personal care products was passed in 1938. Today the Food and Drug Administration prohibits or restricts just 11 types of chemicals in beauty and personal care products, compared to more than 1,300 in Europe. Nor are beauty products reviewed by federal government before they go on the market.

Found in our cosmetics are chemicals linked to cancer, birth defects and asthma. Now EDF is calling for an end to this unsafe state of affairs.

This summer, we joined a briefing to Congress that highlighted how the abundance of toxic chemicals in products such as hair relaxers means women of color are disproportionately affected.

"To achieve a future where everyone can purchase safe products we need smart, science-backed regulation," EDF's manager of consumer health, Boma Brown-West told the gathering, which included representatives from both sides of the aisle.

The briefing, sponsored by Nanette Barragán (D-CA) and

Susan Brooks (R-IN), was called by Beautycounter, a cosmetics brand that also collaborated in a challenge to scientists to develop safer cosmetics preservatives. The challenge, also supported by EDF and Johnson & Johnson, Unilever and People Against Dirty (parent company of Ecover and method), among others, yielded seven new preservatives that could be developed for market.

"Leadership from U.S. businesses should embolden government to set stronger standards," Brown-West says.

### What's in your beauty products?

Find out how your favorite retailers and brands fare on phasing out dangerous chemicals at: [bit.ly/BizPledges](http://bit.ly/BizPledges)



## A burning question

Interior Secretary Ryan Zinke knows who's responsible for California's record-breaking fire season: "environmental terrorist groups." Why? Because greens allegedly won't allow timber companies to clear the underbrush and dead trees fueling the fires. That's not true. One real cause is that climate change has made California hotter and drier.



PHOTO: AP IMAGES

**“The oceans are a fulcrum for the health of our planet and our well-being. How the oceans go, so goes our future.”**

—EDF's new senior VP for Oceans, Kathleen McGinty



BETTY

## EDF to EPA: Science matters

What's the best way to undermine a regulation? Attack the underlying science. And the best way to do that is to make sure the science can't be used. Before leaving EPA, Scott Pruitt devised a plan to block use of any research in which the underlying information is not publicly available. But that information often must be kept private for good reasons. A major study on air pollution, for example, involving 500,000 people, contained intimate details, such as medical history—details scientists are

legally obligated to protect. This particular study helped shape U.S. air pollution standards. But under Pruitt's proposal, EPA couldn't use this critical research. In fact, most research supporting public health rules would be excluded. EDF's legal team remains vigilant. The decision to advance Pruitt's science-suppression scheme now lies with his successor, Andrew Wheeler.

**»» TAKE ACTION »»** Tell EPA science matters [bit.ly/Science\\_Matters](http://bit.ly/Science_Matters)



ISTOCK

## Heavy metal is not for babies

Lead is a potent neurotoxin. So why is it in baby food? That's the question EDF asked last year in a report based on Food and Drug Administration data. FDA found lead in 20% of baby food samples. But we learned the agency hadn't shared their findings with the companies. We're working with companies to learn the

source of the lead—soil, processing or packaging are possibilities—and urging them to back stronger standards. “EDF’s willingness to recognize our efforts to reduce lead levels in our products and encourage us to go further is a valuable public service,” said Wendy L. Johnson, vice president of Gerber.

## \$400 million boost to public transit in New York City



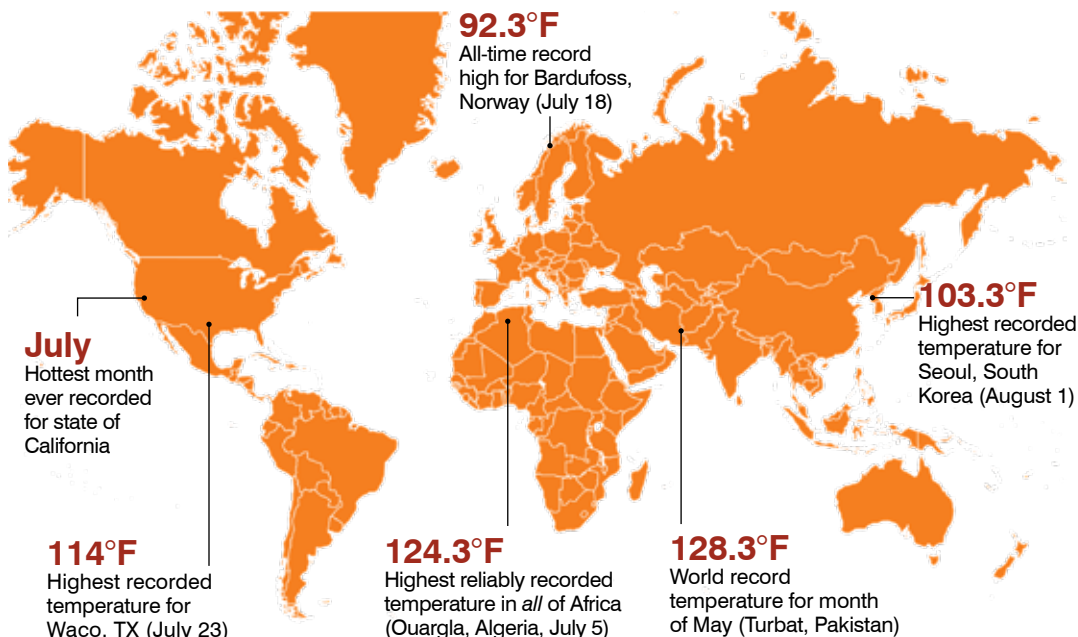
Take an NYC Uber or taxi and you'll be helping fix the city's flagging public transit system. A new surcharge, with revenue destined for the MTA, was advocated by EDF as part of a push for a citywide congestion pricing plan to reduce pollution.

## Clearing the air in London

Pollution in London has been at illegal levels since 2010. Now an EDF project aims to change that by collecting the most sophisticated air quality data ever gathered in the city. Sensors, both fixed and carried on Google Street View cars, will collect readings in tens of thousands of locations. Supported by the Mayor of London and C40 Cities—a global network of cities committed to climate action—the project will give communities real-time air quality information and inform policy in London and beyond. “This exciting project will...deliver an approach that can be replicated across the world,” said London mayor Sadiq Khan.

## Record temperatures boil down to climate change

This was a summer of records. Technological advancements mean it took climate scientists just three days of computer modeling to conclude that climate change made Europe's heat wave twice as likely. By next summer, they hope to be able to conduct such analyses instantaneously.



## NOTEWORTHY

**A solar array** saving up to 841 metric tons of CO<sub>2</sub>/year was launched by health care giant, Blue Shield CA. The groundwork for the installation was laid by a 2015 EDF Climate Corps fellow.

**EDF Europe's executive director** Baroness Bryony Worthington led a UK parliamentary debate that helped boost laws supporting electric car use. 25% of all vehicles in the UK could be hybrid or electric by 2030.

**A ballot initiative** in Washington State, supported by the Nature Conservancy, would institute the first statewide carbon fee in the U.S. Proceeds from the \$15/ton fee would support clean energy, water and forests.





ISTOCK

## Washington gridlocked on clean cars

Pollution from tailpipes accounts for 20% of U.S. greenhouse gas emissions. As the Trump administration attacks clean car standards, EDF is defending the rules in court and (*opposite*) opening up new frontiers for clean trucks.

**C**LEAN CARS ARE POPULAR. Consumers like them because they save money. Environmentalists like them because they are better for the climate and produce less pollution. Public health advocates like them because less pollution means healthier people. Sixty-five percent of voters want to leave current clean car standards in place.

The Trump administration didn't get the memo. In early August, the administration released a proposal that would roll back standards for cleaner cars put in place by the Obama administration. In addition, the proposal would launch an unprecedented attack on states' authority under the Clean Air Act to set standards stronger than the federal government's. These stronger state standards have for many years helped drive innovation in the auto industry. EDF President Fred Krupp called the administration's proposal "a massive pileup of bad ideas."

By 2040, the rollback would add 2.2 billion metric tons of additional carbon pollution to the atmosphere—as much

carbon pollution as 480 million American cars emit in a year. And U.S. fuel consumption would increase by nearly 14 billion gallons per year, 70% of what we import annually from Saudi Arabia.

EDF is fighting back. In May, we filed suit over EPA's earlier step to undo the Obama-era standards, and we've highlighted the new proposal's significant legal and technical flaws.

"The administration's work is shoddy and deceptive, making it legally vulnerable," says EDF attorney Alice Henderson. "The proposal has no foundation in either public health or environmental protection—which should be driving this program."

For example, the administration justifies its proposal by arguing that cleaner cars are less safe—even though research actually suggests the opposite: that older, dirtier cars are less safe. Internal EPA emails have revealed that EPA's career staff repeatedly disputed claims that gutting clean car standards would save lives.

The administration also twisted

research to argue that cleaner cars will cost too much—a claim also challenged in internal EPA emails. In fact, a recent analysis found that with the current standards in place, owners of model year 2025 cars would see fuel savings of up to \$5,000 over the lifetime of their cars—not an insignificant sum for families that are financially squeezed.

EDF has a long history of advancing clean car standards. California's landmark clean cars law, enacted in 2002 with vigorous support from EDF, required steep emissions reductions. EDF successfully defended the California law in court against a challenge from automakers.

A critical priority for EDF is preserving California and other states' authority to set stronger clean car standards. Not only is California a huge car market in itself, but 13 other states have committed to follow the state's lead, as permitted under the Clean Air Act. Together these states represent more than one-third of the domestic auto market and help drive automakers to design more fuel-efficient cars.

The auto industry appears conflicted on the administration's effort. The day after the 2016 elections, the industry's trade association urged the incoming administration to revisit clean car standards. CEOs of General Motors, Ford, Toyota and others then stood with the new president in 2017 when he announced plans to re-examine the standards. But following August's edict, the Auto Alliance, representing Ford, General Motors and others told the administration "automakers support continued improvements in fuel economy."

Auto suppliers have been less equivocal in their opposition. The administration's own analysis found it would cost 60,000 industry jobs.

To counter the threat, EDF is working with a coalition of state and local governments and consumer and public health groups to oppose the rollback and we have conducted detailed analyses of the proposal to expose its flaws and distortions.

"Clean car standards are a made-in-America success story, leading to more innovation and ensuring that U.S. automakers remain competitive in the global marketplace," says EDF attorney Martha Roberts. "The Trump administration is gutting a popular program that benefits the economy, public health and the environment."

*Charlie Miller*



## Electric trucks speed ahead

**W**ITH POLLUTION RATES UP TO 450 times higher than modern freight trucks, so-called gliders—heavy-duty trucks with new bodies but old, highly polluting engines—are among the dirtiest vehicles on our roads. Now, following a court win by EDF and allies, EPA has withdrawn a policy not to enforce pollution limits for these trucks.

It is a U-turn EDF fought hard to secure and we will continue to pressure EPA to follow through and enforce the rule.

But when it comes to trucking we're not stopping there. Truck pollution causes thousands of premature deaths a year and a quarter of all transportation greenhouse gas emissions globally.

EDF's new transportation strategy aims to address this hazard by speeding the transition to electrification, starting with delivery vehicles and buses, contributing to pollution cuts and emissions reductions of 750 million tons a year by 2050.

In much of the country, the transition has begun. In as many as 33 states, electric buses are already on the road. In California they comprise 15% of some fleets. Manufacture is picking up too. More than 50 models of electric trucks or buses are either in production or development, among them one of the world's first 18-wheel electric rigs, slated to roll off Tesla's production lines in 2019.

Still, electrifying the U.S. truck fleet is a goal that presents many challenges. Electric trucks are expensive and the charging infrastructure is still patchy. Many companies have yet to be convinced that electrification is the right

solution for their fleets.

EDF is working to address these issues. In North Carolina, for example, we are partnering with Duke Energy to explore how utilities can support bus electrification, providing a test bed for other states to learn from. Meanwhile in New York, we're spearheading a congestion fee on traditional fuel vehicles that supports the transition toward low-emissions alternatives.

Our work in Houston and West Oakland is using local air quality data to reinforce the case for electrification in municipal fleets. This summer saw 16 EDF Climate Corps fellows working with businesses, municipalities and utilities on projects related to electric vehicles.

We have some high-impact corporate allies, too. Longtime EDF partner FedEx now has 2,860 alternative fuel, electric and hybrid vehicles on the road. Walmart, which partners with EDF on ambitious carbon reduction goals, has pre-ordered 15 of the Tesla rigs.

"We're really excited about the momentum in this space," says Walmart's supply chain sustainability manager Jennifer Wheeler.

It's complicated work, but Jason Mathers, EDF's director of on-road vehicles, is optimistic.

"The transition will not happen overnight," he says. "But it will happen. Our job is to drive that progress."

*Tasha Kosviner*

**Time to plug-in?** See p.18 for our guide to buying an electric car.

### POLLUTION HEAVYWEIGHTS

Transportation is the single largest source of CO<sub>2</sub> pollution in the U.S., followed by the power and residential sectors.

#### TONS OF CO<sub>2</sub> EMITTED PER YEAR



SOURCE: U.S. ENERGY INFORMATION ADMINISTRATION. TRANSPORTATION FIGURE INCLUDES EMISSIONS FROM CARS, TRUCKS, PLANES, TRAINS AND BOATS.



# States step up

By Rod Griffin, Peter Klebnikov, Tasha Kosviner and Charlie Miller





While EDF and allies fight to hold the line in Washington, states are emerging as leaders on climate, health and wildlife protection.

**I**N THIS PARTISAN ERA, THE SIGHT OF a conservative governor coming to the rescue of an obscure bird that fans its feathers out like a punk-rock chicken might seem unusual.

But there was Wyoming Governor Matt Mead ardently protecting the greater sage grouse from a dismal future. The bird has the misfortune to mate and nest in areas that are rich in oil and gas.

This summer, Rep. Rob Bishop (R-UT), a tireless foe of endangered species protection, slipped a rider that would have endangered the bird into a must-pass defense bill. Gov. Mead dashed off a letter to Congress. “I’m concerned the rider will fracture the groups that came together to protect greater sage grouse,” he wrote. The rider was quickly withdrawn.

It was a brave move, but hardly a surprising one. (See p. 12 for an interview with Gov. Mead.) As the full extent of the administration’s assault on the environment has become clear, states across the country are saying, “Hold on!” They’re turning away from the terrible ideas coming out of Washington and blazing their own path forward on the environment.

At EDF, we’re committed to supporting these state-led initiatives, even as we fight to hold the line in Washington. We are working in 34 states on projects that range from building grassroots political advocacy to providing state officials with the science needed to underwrite tough regulatory targets. As a result, we’re seeing significant action to shrink carbon footprints, expand habitat protections, tackle pollution and more.

As an example, just days after President Trump’s election, Illinois passed a bill putting the state on track to achieve a 55% reduction in power-sector greenhouse gas emissions—more than it would have achieved under President Obama’s Clean Power Plan. And Ohio’s governor vetoed legislation that would have gutted investment in renewable energy.

Not surprisingly, California and New York are the movement’s leaders. But in the following pages, you’ll see how even in conservative states, the conversation has changed. Environmental progress is finding a home in mainstream political discourse and being recognized as vital to economic growth and public health.



The red-cockaded woodpecker benefits from a strong Fish and Wildlife Service in Florida.

It’s not hard to understand why: With many states reeling from the ravages of climate change—and getting no help from Washington—they’re banding together to plan for the future.

In the months ahead, states will undoubtedly maintain this offensive. As EDF Midwest director for clean energy Dick Munson says: “These are exciting times. The federal government is turning its back on the environment, but states are experimenting, innovating, investing and making actual progress. They’re showing their independence and creativity.”

## Climate coalitions surge

States are banding together to reduce carbon dioxide pollution and increase energy efficiency. This year, New Jersey rejoined the Regional Greenhouse Gas Initiative (RGGI), the nation’s first multi-state market to cut greenhouse gas emissions from power plants. Since 2009, RGGI has helped reduce those emissions in ten northeastern states by more than 40%, while driving \$2.8 billion in regional economic growth.

In California, where EDF co-sponsored America’s largest cap-and-trade program for carbon dioxide, we are now working to enable the sharing of renewable energy with other western states, including Nevada, Oregon and Washington. While legislation has not yet passed, California has so much solar and wind power at certain times that it can’t use it all and is forced to shut down some production.

“The balancing of renewable power across multiple states could eliminate the need for coal and natural gas power plants,” says Jorge Madrid, EDF’s California clean energy manager.

## Help for threatened wildlife

In the face of coordinated attacks on the Endangered Species Act in Congress, states are working collaboratively with partners to protect wildlife and habitat. In the Southeast, for example, EDF is part of a coordinated effort led by Florida to save vanishing longleaf pine forest ecosystems. The work benefits imperiled species like the red-cockaded woodpecker and the gopher tortoise.

## Safeguarding citizens’ health

The Trump administration has slow-walked critical action on toxic chemicals, but states are stepping up. Per- and polyfluoroalkyl substances (PFAS) are synthetic chemicals used in many consumer products such as pizza boxes and microwave popcorn bags. Every American tested has PFAS in their blood—troubling, because the chemicals are associated with cancer and other diseases. In the absence of federal action, several states are moving forward to restrict PFAS. Washington State has passed a bill banning the substances in food packaging. Michigan, New Hampshire and Vermont are also taking action. EDF is helping

raise awareness, most recently about paper mills as a source of serious PFAS water contamination.

## Tackling air pollution hotspots

Every state struggles with environmental hotspots where people, often minorities, suffer from pollution. Now, states and cities are using innovative technology to identify and fix such localized pollution.

In 2017, California passed a law focusing on air pollution in neighborhoods. That dovetailed with our work in West Oakland, CA. EDF worked with Google to collect air pollution data every 100 feet, using Google Street View cars outfitted with air pollution sensors. We then combined the Google data with health information from insurer Kaiser Permanente, and our analysis found that the streets with the heaviest pollution correlated with more heart disease among the elderly. Due to the wealth of air pollution data already collected by EDF, other scientists and the community, West Oakland will bypass the first step of additional monitoring and move directly to identifying actions to reduce air pollution exposure. We've conducted similar monitoring in Houston.

## Energy efficient buildings

Buildings account for 40% of all energy consumed in the U.S. and 28% of carbon dioxide emissions. That spells opportunity for cities and states looking for ways to slash pollution, save money and meet their climate commitment targets. That's why, when Chicago initiated Retrofit Chicago, a plan to increase energy efficiency in buildings across the city, EDF jumped on board.

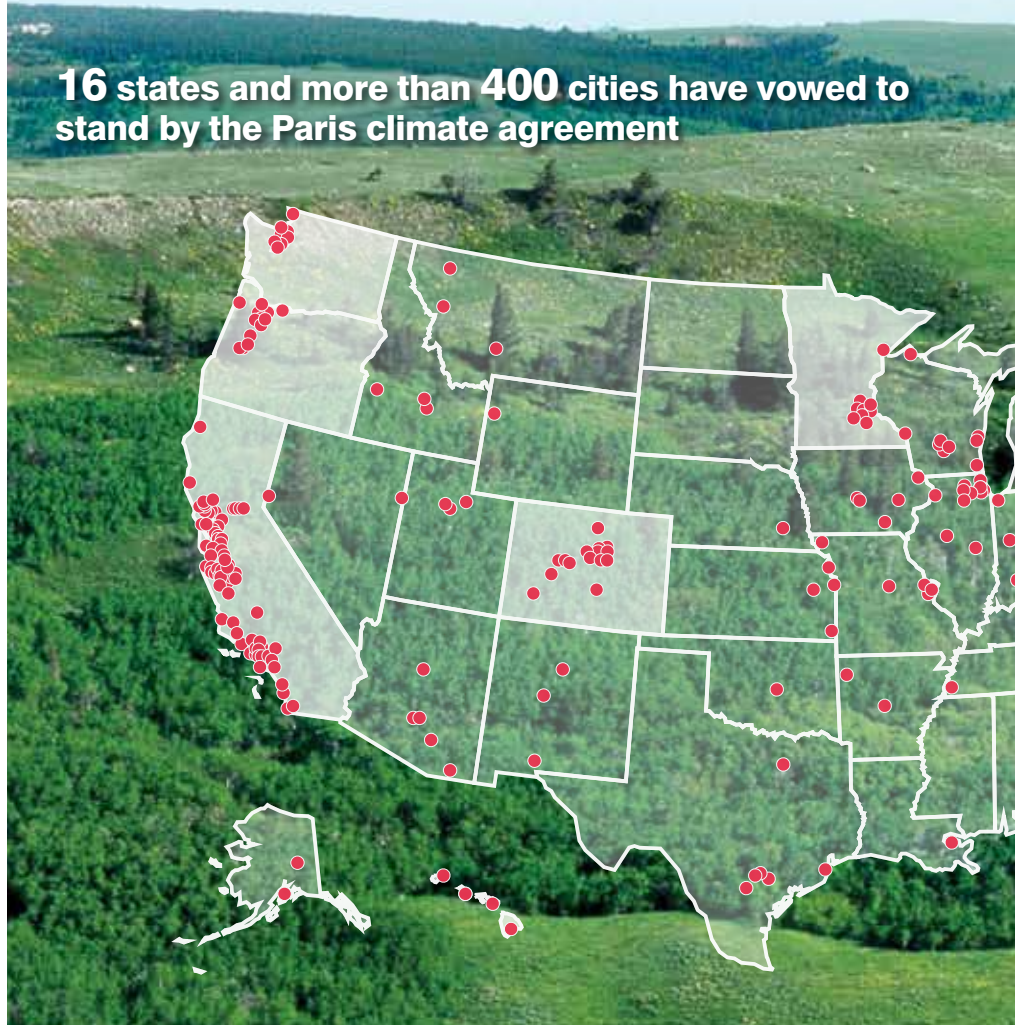
In two years, EDF Climate Corps fellows identified 21 million kilowatt hours in energy savings across 65 buildings. Chicago has also joined an EDF program that uses specially designed software to provide building operators with real-time energy use data. Under the program, ComEd, Illinois' largest utility, rewards building owners for reducing energy use.

Elsewhere, cities from Cleveland to New Orleans to Orlando opened their doors to EDF Climate Corps fellows this summer, to help reduce energy consumption, promote clean energy and build grid resilience.

# Not waiting for Washington

President Trump abandoned the Paris climate agreement, which committed the U.S. to slashing greenhouse gas emissions, and he's trying to roll back other environmental protections. But states and cities are forging ahead. U.S. emissions have already dropped 13% since 2005, thanks to action in multiple states.

**16 states and more than 400 cities have vowed to stand by the Paris climate agreement**



## Spotlight: How some states are making progress

**CA** The Golden State extended its landmark cap-and-trade program, part of its commitment to cut climate emissions 40% below 1990 levels by 2030.

**PA** The nation's second-largest producer of natural gas set rules limiting methane pollution from new gas wells. California, Colorado, Ohio and Wyoming adopted similar measures.

**HI** In 2015, Hawaii became the first state to set a 100% renewable energy goal. New Jersey and California have since followed suit.

**NY** 17 states joined with New York to sue the Trump administration to uphold the Clean Power Plan, which cuts climate pollution from power plants.

**FL** The city of Orlando set a goal of generating all of its energy from carbon-free sources by 2050.

**WA** The legislature banned the use of certain dangerous toxic chemicals in food packaging. Vermont, New Hampshire and Michigan are also taking action.



PHOTO: ALAMY



## Cleaning up oil and gas

Methane is a highly potent greenhouse gas, responsible for about a quarter of today's global warming. As the Trump administration takes aim at federal rules that cut methane emissions from the oil and gas industry, key states are stepping up to fill the void, with EDF's help. Pennsylvania—the nation's second-largest producer of natural gas—recently joined California, Colorado, Ohio and Wyoming in adopting measures to control pollution from new natural gas wells.

EDF mobilized a broad coalition of officials and environmental groups in Pennsylvania and worked with Gov. Tom Wolf on a methane-reduction strategy for the thousands of new wells drilled in the state every year. Now we're working with major oil and gas states to address pollution from existing wells (California and Colorado already have rules in place).

## Businesses find their voice

Giving the lie to the Trump administration's claims that environmental protection is bad for business, nearly half of Fortune 500 companies have set goals to procure renewable energy, increase energy efficiency and reduce emissions. But they need regulatory certainty.

With the administration working to repeal the Clean Power Plan, businesses are looking to states to lead. Powering Ohio, an EDF-backed vision for a clean energy economy that could create more than 20,000 jobs and over \$25 billion in investments in the state, drew endorsement from JPMorgan Chase & Co, Walmart, Whirlpool and more. A new clean energy campaign in Florida has also garnered widespread corporate support.

## Keeping promises on environmental justice

Even as the Trump administration's actions take a disproportionate toll on air quality in low-income communities, many cities and states are bringing energy efficiency and renewables to disadvantaged areas.

A central premise of the clean energy revolution is that everyone should benefit from low-polluting energy. EDF played a key role in Los Angeles' Board of Water

and Power Commissioners' decision to significantly increase funding for energy efficiency and community solar programs. The monies will improve access to clean energy for multifamily dwellings and low-income renters. It will also reduce customer energy bills and enhance grid resilience at a time when citywide blackouts due to severe heat waves are becoming common.

## Flexing legal muscle

In the fight to block the administration from dismantling bedrock environmental and health protections, state attorneys general are playing a leading role. Courts have blocked attempts to delay limits on pollution from oil and gas facilities; required EPA to implement smog protections that have been unlawfully delayed; and required that EPA address pollution from power plants that crosses state lines and affects people living downwind. In all, states have filed almost three dozen environmental lawsuits against the Trump administration since January 2017.

In many cases, EDF and our allies have joined forces with these attorneys general. And as the administration continues its assault on core protections, the fight continues. In May, California and 16 other states filed suit against EPA over its plan to weaken clean car standards.

## Toward 100% clean power

Situated in a red state, Georgetown, TX, is one of the first U.S. cities to run on 100% renewable energy. For Mayor Dale Ross, the transition was a no-brainer because of lower costs and lower climate emissions.

In 2017, U.S. clean energy jobs surpassed 3 million, outnumbering fossil fuel jobs three to one. The numbers are growing daily. In North Carolina, clean energy is a \$7 billion industry and growing, thanks in part to an EDF-backed bipartisan bill that expands the market for renewables. In New Jersey, EDF championed clean energy legislation that puts the state on a path to source 100% of its electricity from clean energy by 2050. Even the Kentucky Coal Mining Museum sees the writing on the wall: It recently switched to solar power to save on energy costs. ■

**LA** Sixty miles of barrier islands have been constructed or restored in Louisiana, part of a massive coastal resilience project.

**TX** Improvements in the economics of wind power have propelled Texas to become the national leader in wind energy, generating enough electricity to power 5 million homes.

**NC** The state's \$7 billion clean energy industry is booming, generating more than 34,000 jobs.



# On the range, a true uniter

Wyoming Governor Matt Mead will soon leave office after two terms. With the environment under attack in Washington, he has been an effective red state advocate for conservation, pushing for bipartisan approaches to the Endangered Species Act and advocating sweeping pollution restrictions on oil and gas. Governor Mead spoke with *Solutions* editor Peter Klebnikov about conservation in a divided nation.

## How do you strike a balance between competing interests?

A consistent theme throughout Wyoming's history is recognizing that we have this great resource in oil and gas, but we also have this great resource in wildlife, clean air and clean water. I think we want both. I think the message from the governor always has to be: "We are not an either-or state. We want a clean environment."

## At a time of hyperpartisanship, what can politicians in Washington, DC learn from the Wyoming model?

Listen, you can make political points and ten-second answers. But that's really not solving anything. I think they can learn from the Wyoming model, which is grass-roots: People of good faith recognizing there will be disagreements but, at the end of the day, success on the environment or on oil and gas development is

up to all of us. It is our state and our future, and we all have to put our shoulder to the wheel to make it happen.

## You've been successful in enacting strong pollution regulations on oil

and gas wells in western Wyoming and on cutting ozone. You're now expanding that work statewide. Given the lack of encouragement for pollution controls at the federal level, why go through with this?



Wyoming is fending off federal threats to the protection of the greater sage grouse.



We have to remain a leader in rules and regulations. Presidential administrations come and go. But just because the federal government says “you don’t have to do this,” doesn’t mean Wyoming shouldn’t examine it and see whether it’s best for Wyoming. We have done that with air quality, and we now see other states adopting what Wyoming has done.

To complain about federal regulations on one hand and then not lead in your own state is inconsistent. With state’s rights come state responsibility.

**How would you describe EDF’s role in winning strong methane pollution rules?**

To have EDF involved in that process is helpful for all of us, because ultimately the science-based approach is going to win the day, as it should. It’s not going to be a political view. And in that light, all of us shouldn’t be afraid to re-examine our views. If science says it’s not A, it’s B, we should accept that, and act upon the new information we have.

**How did you come to value conservation?**

I don’t know that I’m unique that way, but I grew up on a ranch, and it was instilled in me at a young age to take care of the land. I remember we had a dirt road down to Spring Gulch Valley. And in the spring, my mom decided to get all the ranch kids and the town kids and we would ride in the back of pickup trucks and pick up trash. After the first year, there was a revolt. So my mom painted ten tin cans with gold paint. If you

found one of the gold cans you got a dollar, which was a big motivation. I still think about my mom out there the night before, throwing gold cans out on the road to encourage the kids to pick up trash.

**Given the proposed federal rollbacks on wildlife protection, how do you ensure the Wyoming partnership between environmentalists and the energy industry on the greater sage grouse will survive and the bird will be protected?**

Well, I remain concerned. But I have a pretty high degree of confidence that regardless of who the next president is, the effort will continue. Because it’s not just about the bird. It’s about the habitat. You have to take a long-term view. I don’t see any path forward for continuing mineral production in the state of Wyoming if conservation and the environment are left behind. I don’t think it’s going to work in terms of the markets. I don’t think it’s going to work in terms of what the citizens of Wyoming want, which is to enjoy clean air, clean water and great vistas.

**And what about the Endangered Species Act as a whole?**

I think the only way we’re going to find long-term solutions to difficult issues is having groups like EDF at the table. Because if it’s just a Republican-led issue, I don’t think a lot of these things are going to go very far in Washington. And even if they do, it’s going to be short term.

I do want to thank EDF. It’s a tough political environment; it really is. But one thing every person in my position has to recognize is: You’re going to have some wrong ideas. And there are a lot of people out there willing to help and provide ideas. And if you can keep an open mind and keep your eye on finding long-term solutions, a lot of good things can happen.

*(Interview abridged)*



**Building a conservation future: Gov. Mead, left, with EDF natural gas expert Jon Goldstein and EDF habitat specialist Sara Brodnax.**

WEST EDGE COLLECTIVE

# A gift to EDF can pay you back for life...

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70	5.1%	5.6%
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85	7.8%	8.3%

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# A recipe for saving Europe's struggling fisheries

Regulatory changes mean Europe's fisheries face major upheaval. Does Sweden hold the key to navigating the choppy waters ahead?

**I**T WAS SUMMER SOLSTICE IN SWEDEN. For once, the North Sea was as smooth as glass. Peter Ronelöv Olsson, fisherman of 35 years, scanned the water.

"To be a good skipper, you need intuition," he said. "Everything depends on the phase of the moon, the time of year, the air pressure. You have to analyze everything to know where to go."

But, as Olsson would admit, intuition can fail. You could be trawling for crayfish and accidentally haul in a net of cod.

This causes a problem. Europe's fisheries are governed by strict quotas, handed down by the European Union. Exceed a given quota, even by mistake, and you could be forced to stop fishing.

Now Sweden, an influential advocate for sustainable fishing in Europe, has worked with EDF to come up with a



Man on a mission: Sweden's Peter Olsson

CELIA TOPPING



SHUTTERSTOCK

Sweden's innovative reforms boost conservation and reduce waste on Europe's high seas.

solution—one that could help elsewhere in Europe too. When Swedish fishermen sail too close to their quota ceiling, they can now trade quota allocations or purchase them from other vessels.

It's an elegant solution that comes at a critical time. The quota system exists to tackle overfishing that was causing a worrying Europe-wide decline in valuable herring, mackerel and cod. But it created an unexpected and partially self-canceling effect: many vessels, to avoid exceeding quota, began throwing excess catch, much already dead, back into the sea. In 2010, it was estimated that some discards were as high as 50%, sparking a Europe-wide outcry at the waste.

Now, in the most radical change to its fishing laws in a generation, the EU is addressing this. From January 2019, a discard ban decrees that everything that is caught must be brought ashore, even if this pushes a boat over its quota.

But the ban confronts fisheries with a problem. A boat that exceeds quota must remain in port until the next annual quota negotiation—no matter how far into the future that may be.

"To be more careful with our resources is absolutely right," says Olsson, also head of Sweden's largest fishing trade body. "But without changes, the ban can cause illegal dumping or boats unable to fish. There would be bankruptcies."

Sweden's response has been forceful.

Since 2014, fishermen, regulators and EDF have collaborated in a meticulous

overhaul of how the country distributes its quota to fishermen. The first change, a switch from small, weekly, use-it-or-lose-it quotas to a larger annual allocation, paved the way for the second—a digital platform, FishRight, through which fishermen can trade quota.

"Swedish fishermen saw a challenge and stepped up to find a solution," EDF's associate vice president for Oceans, Nancy Raditz, explains. "Their success is grounded in a commitment to sustainability combined with what they know works on the water."

Unfortunately, other EU countries are far less prepared. But Olsson is hoping Sweden's work will inspire them. In July, he presented Sweden's approach to the European Commission, which proposes and implements EU law.

"There are many valuable lessons for the rest of Europe in Sweden's collaborative and market-based solution to implementing the discard ban," says EU fisheries policy officer Erik Lindebo.

Says Raditz: "Sweden is a respected voice in fisheries in Europe. Their work provides a model for a brighter future for sustainable fishing across the continent."

Tasha Kosviner

## THE WILSON LEGACY

*This feature honors the memory of Robert W. Wilson, a longtime EDF supporter and champion of harnessing market forces to drive environmental progress. See [edf.org/wilson](http://edf.org/wilson)*





## Ballot battleground

**I**T'S AN OLD POLITICAL AXIOM: THE next election is the most important one ever. But for the upcoming midterm elections, it just might be true.

Donald Trump is the most anti-environmental president ever elected. His administration has shown itself to be uniformly hostile to environmental protection and is working diligently to implement the President's plans. More than ever, environmentalists need to make their voices heard.

That's why next month's Congressional midterm election is so critical.

So, in the run-up to the election, EDF has swung into action to engage voters, on a bipartisan basis, across the nation.

For example, we've brought on board Heather McTeer Toney as national field director for EDF's one million-member-strong partner Moms Clean Air Force. Toney is a force of nature. In 2004, she became the youngest mayor ever of the Delta city of Greenville, MS. She was also the city's first African-American mayor and its first female mayor. She accomplished all this at the age of 27. A past president of the National Conference of

Black Mayors, she comes to the role of activist naturally—her father is a prominent civil rights attorney in Greenville.

"Public service is in my blood," she says.

During Toney's time in office, she grappled with the region's poverty and a city debt crisis that she inherited from previous administrations, but environmental problems were never far away. She led Greenville through several natural disasters heightened by climate change, including the severe flooding and dislocation of 2005 and 2008 caused by Hurricanes Katrina and Gustav.

Under Toney's leadership, Moms Clean Air Force has launched Moms and Mayors, a program to coordinate its efforts with mayors who are implementing policies to fight climate change, protect children's health and build resilient communities.

Moms is also sponsoring online voter registration on its website and collecting pledges at community events from state fairs to farmers markets.

For Toney, getting minority moms involved is critical if strong environmental protections are to survive.

"For a long time moms have been quiet and underestimated," she says. "But the demographic of moms and

women, accompanied by the issues of climate change and children's health, is something no elected official can ignore."

EDF is working around the country to mobilize young people, who overwhelmingly support strong environmental action but don't always vote, especially in midterm elections. Only 46% of millennials voted in 2016, compared to a more robust 69% of baby boomers.

Hoping to improve on those numbers, Defend Our Future, a group backed by EDF that seeks to educate and engage millennials on climate change, has launched voter registration drives in several states, including, for example, Pennsylvania. The group is also encouraging young people to sign a pledge to vote, since research shows

that the act of signing such a pledge makes a person more likely to vote.

Over the summer, EDF Action, our advocacy arm, deployed online advertisements urging lawmakers to find solutions to climate change. EDF Action also has organizers on the ground encouraging people to defend strong environmental policies.

"Voting to protect clean air, safe water and a healthy environment is not just good policy, it's good politics," says Eric Pooley, EDF senior VP.

"Decision makers can side with the big polluters, or they can side with people who care about protecting the environment. But they can't do both."

*Charlie Miller*



**Heather Toney: "The demographic of moms and women... is something no elected official can ignore."**

### A guide for voters

Learn more about your candidates and current representatives at [usa.gov/voting](http://usa.gov/voting).

# Big plans for a mighty land

By Peter Klebnikov

What if you could save vanishing grasslands, restore native species, lock tons of carbon in the soil and encourage a company to pay for it? EDF figured out how to do it in Colorado.

**O**NLY 150 YEARS AGO, COLORADO'S Front Range harbored one of the greatest concentrations of savannah wildlife on the planet. Then came settlers, and today the shortgrass prairie that once stretched unbroken for hundreds of miles is being rapidly converted to cropland.

EDF looked at the remaining prairie and saw a huge repository of carbon. More than one-third of U.S. land—654 million acres—is grasslands and rangelands. These landscapes sequester an enormous amount of carbon through photosynthesis, slowing climate change as long as the land is not converted to farms.

EDF developed a way to pay cash-strapped ranchers to help fight climate change by restoring native grasslands and locking carbon into the soil. As a bonus, grasslands projects restore vanishing native wildlife. Under the system, polluters buy credits from projects that reduce greenhouse gases. Buyers use these credits as offsets for their activities that contribute to climate change.

In July, EDF facilitated the sale of the first listed grassland carbon credits, allowing the Southern Plains Land Trust to

restore two Colorado ranches that annually sequester 8,000 metric tons of soil carbon.

Microsoft, which began a carbon neutrality program in 2012, purchased the credits.

Microsoft praised the project. “We need new approaches to reduce carbon emissions. This innovative project has the potential to reduce emissions while also protecting biodiversity,” says Elizabeth Willmott, the company’s environmental sustainability program manager.

“This project can serve as a model for working lands around the nation,” says Josette Lewis, associate VP for sustainable agriculture at EDF.

Located at the end of 30 miles of dirt road in Bent County, CO, Raven’s Nest and Heartland Ranches contain sweeping native grasslands, seasonal wetlands and 20 miles of prairie streams. The ranches, covering 28 square miles, are abundant with rare songbirds, raptors, wildflowers and mammals.

When the Southern Plains Land Trust acquired the ranches on the Front Range in 2015, they had been heavily used for decades. “The land badly needed some rest,” recalls Nicole Rosmarino, execu-

tive director of the land trust.

Today, with income from its sale of carbon offsets, the land trust is nurturing 85 bison and other native grazing animals, including deer, elk and pronghorn antelope, all of which naturally maintain the health of the grasslands.

“It’s amazing how much you can bring back with just a few steps,” says Rosmarino. The animals are neither hunted nor



Microsoft offsets its CO<sub>2</sub> pollution by preserving prime Colorado habitat. Besides being a giant carbon sink, the grasslands provide shelter for wildlife such as the western meadowlark (above).

Well-managed grasslands keep the prairie resilient to climate change as habitats shift. “We’ve learned from the Dust Bowl that it’s not smart to plow up shortgrass prairie,” says Nicole Rosmarino (pictured with ranch manager Jay Tutchtón).

Across the West, grasslands birds such as burrowing owls (right) are in decline. On Heartland Ranch, owls share burrows with prairie dogs and respond to the dogs’ warning whistles.





sold for commercial purposes.

For ranchers, many of whom are financially strained and under pressure to convert to cropland, the carbon payments are enticing. "There is no shortage of ranches willing to participate," says Robert Parkhurst, until recently head of agricultural greenhouse gas markets at EDF Grasslands today are being converted to croplands at the highest rate in decades. From 2008 to 2012, 7.5 million acres of uncultivated land was converted to cropland. A rancher can get five times the revenue from cropland than from grassland.

EDF first created a grasslands carbon mechanism in 2013, but it proved too complicated for landowners. So we found a way to simplify the transaction and reduce its costs. Offsets are generated for soil carbon, avoided use of

## “EDF shows that conservation pays. We need more such examples.”

—Nicole Rosmarino, executive director, Southern Plains Land Trust

nitrogen-based fertilizers and the carbon-spewing machinery that's used in crop cultivation. Rosmarino keeps daily logs measuring the ranches' carbon footprint, down to the impact of hay deliveries.

Technology keeps down costs. A third-party verifier uses satellite imagery to confirm the range is healthy, avoiding costly site visits.

"EDF made it economically viable for landowners to participate in the carbon market," says Rosmarino. "Their technical assistance was invaluable."

Today, nine grasslands preservation

projects using EDF's system are underway in Colorado, Montana and Oregon, with more coming. Groups such as The Nature Conservancy are participating. The system can now be expanded to 185,000 acres in the U.S. as well as other countries with grasslands, generating substantially more carbon reductions.

"My dream is that, with more grasslands carbon projects, we'll have more restored prairie and it will no longer be seen as a sacrifice zone for drilling, or flyover country," says Rosmarino. "People will regard this special landscape as ecologically valuable and well worth protecting."



Native plants such as the Colorado green gentian (left) flourish on the restored ranches.

Bison are the keystone species of the prairie and its most effective restoration agents. They kill invasive junipers while prairie dogs encourage the growth of buffalo grass, which locks in carbon.

With money raised from carbon farming, the land trust hopes to reintroduce black-footed ferret (right), once thought to be extinct.



PHOTOS, CLOCKWISE FROM BOTTOM LEFT: SEAN F. BOGGS; ALAMY; FLICKR/RANDOMTRUTH; SEAN F. BOGGS, ALAMY, SHUTTERSTOCK



## The quiet revolution

They now account for 6% of all vehicles sold in California. Electric cars are here to stay. The International Energy Agency estimates that by 2030 the number of electric cars worldwide will balloon from 3 million to 125 million. Is it time to take the leap and buy one? Some things to consider:

### ■ How much will it cost?

Expensive batteries mean electric cars are still pricier than gas vehicles, though a \$7,500 federal income tax credit (capped at 200,000 sales for each auto-maker) and some state subsidies help offset that. Bloomberg New Energy Finance predicts that battery costs will halve by 2025, at which point electric and gas cars should reach price parity. Plug-in hybrids are cheaper than pure electric and eligible for a smaller tax credit.

### ■ What about running costs?

Plug In America estimated that an average gas-powered car driven 15,000 miles a year on \$2.35 gas (cheap by today's prices) will have fuel bills of \$1,400. A comparable electric car will cost closer to \$540 so it could take only two or three years to earn back any price premium. The more you drive, the quicker the payback. And because electric cars have fewer moving parts, maintenance should be significantly lower, too.

### ■ Talk to me about charging.

Average charging time is four to six hours and up to 90% of charging is done at home, usually overnight. You'll need an electrician to install a dedicated 240-volt garage charger which can cost up to \$1,000. If you do need to charge on the road, there are more than 21,000 public charging stations in the U.S. and Canada—and more than half of them are free to use, according to PlugInCars.com. Find a map of public charging stations across the U.S. at Alternative Fuels Data Center ([bit.ly/Gt24z](http://bit.ly/Gt24z)).

### ■ Will I run out of battery?

Most people drive only 30 miles per day, so range (which, as with gasoline, varies according to driving conditions and is best in highway driving) may not matter as much as you think. The best battery cars can go 200 miles on a charge. Range is increasing all the time, though will probably stop at around 300 miles since adding any more miles requires bigger,

heavier, more expensive batteries and longer charging times.

### ■ How will I know if the electricity is green?

Electricity from the grid is pooled from all sources, so the only way to truly know you're driving on clean juice is to generate it yourself, probably from rooftop solar panels, or mitigate your usage through the purchase of carbon offsets or by switching to a green energy supplier. Of course, some state grids are cleaner than others—in April 2017, for instance, California hit 67.2% renewable generation.

### ■ Should I consider a hybrid, or plug-in hybrid, instead?

Hybrids use electric motors to increase overall fuel efficiency and never need plugging in. Plug-in hybrids go 30 to 40 miles on battery power alone, and 300 miles or more on gas. If you have a distant commute or take the occasional long trip, one of these might make sense. Note though that pure battery domination of the market is not a question of if, but of when.

"Everything that moves is going to be electric," says Tony Seba, Stanford professor and co-founder of the technology think tank RethinkX.

*Jim Motavalli*

*Jim Motavalli is a freelance writer and author of two books on electric cars, High Voltage and Forward Drive. The opinions are the author's.*



THANK YOU, MEMBERS!

SHUTTERSTOCK



## Pruitt: Gone but not missed

As historian Howard Zinn once said: “When enough people do enough things, however small they are, then change takes place.”

It took 16 long months, but Scott Pruitt was finally shown the door at the Environmental Protection Agency thanks in part to the 70,000 of you who called for his resignation. Under his tenure, Pruitt withdrew or delayed almost four dozen regulations that protect public health and the environment. He supported massive budget cuts designed to cripple the agency, although EDF helped stave off the cuts in Congress.

Many transgressions figured into Pruitt’s exit, not least his 18 ethics investigations. But his misguided leadership on the environment played a key role.

Before any other environmental group, EDF called for Pruitt’s resignation. And through the efforts of our dogged legal staff, we filed 35 Freedom of Information Act requests that revealed, among other misdeeds, that he was personally involved in scrubbing all mention of climate change on EPA’s website. Our many lawsuits significantly slowed his agenda, to the point that despite Pruitt’s clear hostility to the environment, we were able to limit the damage. Our victory showed that when our members stand up to this administration, they prevail.

Pruitt’s successor, former coal lobbyist Andrew Wheeler, shows little sign of being any better.

But with the support of EDF’s steadfast members, we are confident we will again carry the day.

ASK AN EXPERT



SHUTTERSTOCK

Can we trust Andrew Wheeler with such natural treasures?

## Will Wheeler be any better?

**EDF member Dorothee Lottman-Kaeseler, of Germany, asks:**

“I am deeply concerned with how U.S. policy affects humans and nature across the globe. I am glad President Trump accepted Scott Pruitt’s resignation, but I’m gravely worried about the Environmental Protection Agency’s future under Andrew Wheeler. What’s the difference between Wheeler and Pruitt and how does EDF plan to oppose Wheeler’s actions?”

**Felice Stadler, director of EDF’s political affairs campaigns, responds:**

Meet the new boss. Same as the old boss.

Andrew Wheeler, Scott Pruitt’s replacement as head of EPA, is a protégé of Sen. James Inhofe (R-OK), the Senate’s most outspoken climate denier. Later he was a prominent lobbyist for coal and energy companies.

So, considering Wheeler’s background, expectations were low, and little that he’s done so far has changed that. After less than two weeks in office Wheeler finalized a rule easing up on disposal of toxic coal ash, the arsenic- and mercury-laden residue of coal burned in power plants. Just four years ago, a coal ash containment pond in North Carolina burst and dumped 39,000 tons of coal ash into the Dan River, devastating wildlife and threatening drinking water supplies.

Any doubt that Wheeler would continue Pruitt’s hardline policies was removed when Wheeler proposed a rollback of clean car rules, which will cost consumers more money at the pump and have a ruinous effect on the environment, since transportation is now the biggest source of greenhouse gases in the U.S. In August, Wheeler took steps to kill the Clean Power Plan in favor of a weak substitute that would do almost nothing to stop climate change and would increase pollution that contributes to soot and smog. The Clean Power Plan is the cornerstone of U.S. efforts to fight climate change.

The upshot? Both men are agents of the anti-environmental agenda of President Trump. Wheeler is similar to Pruitt, but he could be even more destructive. Unlike Pruitt, he is politically savvy, a longtime Washington insider who knows how to get things done. He’s unlikely to make the same mistakes Pruitt made, from headline-grabbing ethical violations to sloppy legal work.

EDF will defend bedrock environmental protections through determined legal action, lobbying pressure and mobilization of our members. We will push Congress to conduct aggressive oversight of Wheeler’s EPA to hold his harmful environmental policies in check.

**>>> TAKE ACTION >>>** Tell your senators: Keep EPA clean! [edf.org/NoDirtyEPA](http://edf.org/NoDirtyEPA)

# Vote like the earth depends on it.

November 6, 2018