




earthwise

News and Ideas for UCS Members and Activists

EPA's Climate Authority Safe—for Now

In June, the Senate narrowly defeated a resolution that would have derailed the Environmental Protection Agency's (EPA's) efforts to protect public health by curbing global warming. The resolution, proposed by Senator Lisa Murkowski (R-AK), sought to rescind the EPA's finding that heat-trapping gases "endanger public health and welfare," which, according to a 2009 Supreme Court ruling, requires the agency to regulate these emissions under the Clean Air Act. Without this finding, regulations to cut global warming emissions from the largest power plants and factories would come to a standstill, and implementation of historic new global warming emissions standards for cars and light trucks would be hindered.

UCS worked successfully to block passage of the resolution, organizing a statement signed by more than 1,900 scientists who opposed it. Senator Barbara Boxer (D-CA) mentioned this statement several times during the debate.

Unfortunately, several more bills are pending that would delay or undermine the EPA's ability to regulate global warming emissions. UCS will continue to fight these efforts while pushing for strong climate and energy legislation that helps avoid the worst effects of global warming. 

close to home

This Scientist Is a Man of Action

"In high school I was a romantic—and I still am. Far-away places have always filled me with wonder. That's why I chose a career that takes me to our planet's most inhospitable climates. I get to mountaineer my way to new discoveries. My research on Arctic glaciers has revealed how our world is warming like never before. My name is Cameron Wake, and I'm a concerned scientist."

This is how Cameron Wake, a glaciologist at the University of New Hampshire, describes his lifelong love of science in one of our new "Curious for Life" ads. These ads are the latest product of our Weight of the Evidence campaign, which aims to build momentum for decisive federal action to deal with global warming by focusing the public's attention on climate science.

Cameron's work aligns with the UCS mission to create a healthy environment and a safer world. He believes his scientific research findings are "put to their highest purpose when they address our most pressing societal challenges." His research, drilling and analyzing deep cores of glacial ice in remote locations such as the Tibetan Plateau and Denali National Park, illuminate thousands of years of climate history—and detail how our climate is changing.

Collaborating for a Cooler Future

As a contributing author of our 2007 report *Confronting Climate Change in the U.S. Northeast*, Cameron has testified before state and federal legislators to advocate for energy efficiency and renewable energy policies that would reduce emissions of



When I said, "Let's go see the stars," I meant it.

In high school I was a romantic—and I still am. Faraway places have always filled me with wonder. That's why I chose a career that takes me to our planet's most inhospitable climates. I get to mountaineer my way to new discoveries. My research on Arctic glaciers has revealed how our world is warming like never before. My name is Cameron Wake, and I'm a concerned scientist.

To learn more about my work, visit www.ucsus.org/evidence



This UCS ad is one in a series highlighting the work of climate scientists like Cameron Wake. You can view the ads online at www.ucsus.org/evidence.

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on a personal note

We Can't Drill Our Way out of This



You don't have to look far to see the serious problems resulting from our energy choices. Nearly every conversation I've had with UCS members during the past six months touched on this issue in some way, whether in relation to the BP oil spill, coal mining accidents, radioactive water leaks at nuclear power plants, or water pollution caused by the practice of drilling for natural gas

known as "fracking."

Weak or unenforced regulations are at least partially to blame for many of these problems, but the underlying issue is our overdependence on fossil fuels. Some energy companies will go to ever-greater lengths (and depths) to meet our growing demand—except, it seems, to tap into plentiful renewable resources like wind and solar energy and to mine inefficiencies in our use of energy. This inevitably increases the risk of disasters that harm our environment, our health, and our economy.

We need to reduce this risk by building a better energy infrastructure—one that uses less energy and takes advantage of clean, homegrown resources. UCS has been leading this effort by helping more than half the states in this country pass renewable electricity standards, securing strong new federal fuel economy standards, and ensuring that new standards for biofuel production are scientifically sound. Combining these strong new policies with recent policy success and other expected improvements, we could cut projected U.S. petroleum consumption in 2030 by more than half.

Despite this progress, we know conventional fuels will not become obsolete anytime soon. So UCS will continue to push for more effective regulation of energy facilities and the utilities that manage them, while bringing attention to loopholes and abuses that put the public at risk.

In mid-September, I will travel to visit my daughter, a sophomore at Tulane University, and to join her and many others in helping clean up some of the oil fouling Louisiana's shore. I hope that, with your ongoing support of UCS, we will remember the spill as the moment America finally began to make smart energy choices.


KEVIN KNOBLOCH, *president*

fast facts



Coal use has deadly consequences

The mining, transport, and burning of coal takes a toll not only on the environment but also on human health:

- Pollution from coal-fired power plants (sulfur dioxide, nitrous oxide, and particulates) is linked to thousands of premature deaths each year through heart and lung disease. The Environmental Protection Agency (EPA) estimates that proposed emissions limits on these plants would save between 14,000 and 36,000 lives in 2014 alone.
- Some coal plants are worse than others. The National Academy of Sciences estimated that the dirtiest 10 percent of U.S. plants were responsible for 43 percent of the total cost in damages in 2005 resulting from these coal-plant pollutants, with individual plants responsible for hundreds of millions of dollars in damages.
- By implementing emissions limits at coal plants, the EPA estimates that the United States would avoid between \$120 billion and \$290 billion in health-related damages in 2014 alone. 

Give at the Office

An easy way to support UCS is through a workplace giving campaign. If your employer partners with EarthShare, for example, you can make gifts to UCS through automatic payroll deductions. Federal employees can contribute through the Combined Federal Campaign (use code #10637). To learn more, contact us at member@ucsusa.org.

Help Improve Global Security

What's at Stake

International efforts to reduce the threats posed by nuclear weapons.

How You Can Help

Urge your state's senators to approve the New START treaty.

What's Happening

Today, 20-plus years after the end of the cold war, more than 20,000 nuclear weapons remain worldwide—over 95 percent of which are possessed by the United States and Russia. These weapons do not protect us against today's threats. At a time when more nations and some terrorist groups are seeking these weapons, they represent a security *liability* and a growing threat to humanity. The use of just one nuclear weapon would have devastating human, environmental, and economic consequences that extend far beyond any intended target.

On April 8, the United States and Russia signed New START, a landmark treaty named after the original Strategic Arms Reduction Treaty that expired late last year. New START would reduce, by roughly one-third, each country's arsenal of deployed long-range nuclear weapons as well as their delivery systems such as missiles, bombers, and submarines. Crucially, the treaty's verification and enforcement provisions would provide confidence that Russia complies with its reduction requirements.

Former U.S. government officials and well-respected foreign policy experts from both sides of the political aisle have voiced their support for New START. To take effect, the treaty must be approved by both the Russian legislature and the U.S. Senate. Senate approval of



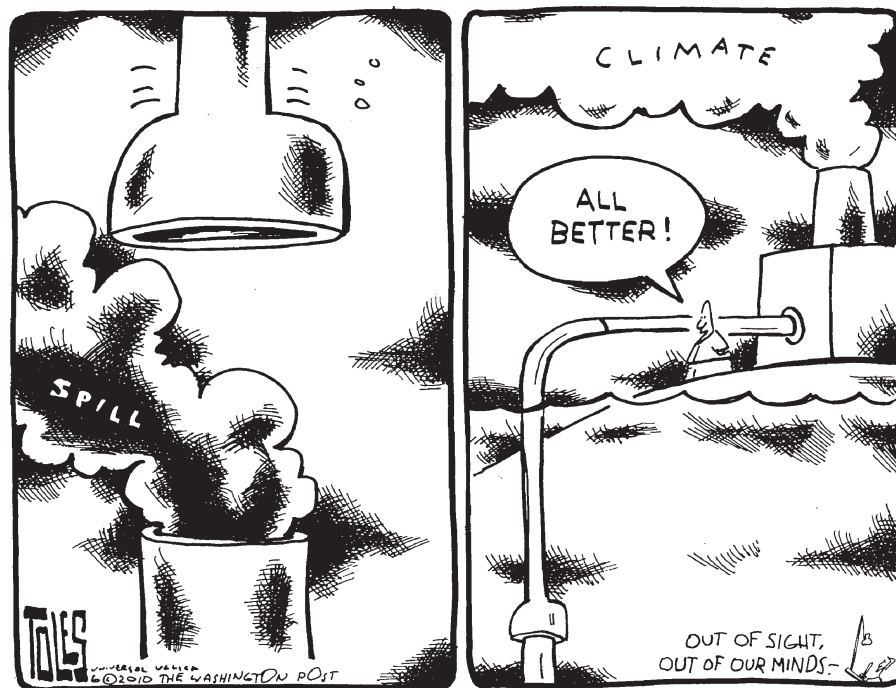
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the treaty, which requires a two-thirds majority of at least 67 votes, would send an unmistakable signal to the rest of the world that the United States is serious about reducing the nuclear threat, and would pave the way for other international risk-reduction efforts such as a treaty prohibiting the production of fissile materials for use in nuclear weapons.

What You Can Do

Contact both your senators today and urge them to support New START as a necessary and critical first step in making the United States—and the world—safer. You can send an email from the online UCS Action Network at www.ucsusa.org/action, or call the Capitol switchboard at (202) 224-3121. 

drawing conclusions



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This Scientist Is a Man of Action *(continued from front page)*

heat-trapping gases. He has also spoken at countless community meetings and in radio interviews to explain how the changing climate will affect our quality of life, and that of generations to come.

Cameron feels strongly that, “Climate scientists need to be more engaged with society. It is simply not enough to publish our research and expect the public to figure out what it means.” He has therefore been promoting an inclusive and mutually beneficial approach called engaged scholarship. Unlike the usual top-down process in which scientists work in isolation and then disseminate their findings, engaged scholarship brings together all the relevant parties—policy makers, business leaders, nonprofits, and scientists—to collaborate on a project from start to finish. As a group, they identify the key scientific questions, shape the research effort, discuss the implications of the findings, and decide how best to communicate the results.

Fifty Heads Are Better Than One

Working with UCS on the Northeast climate report was, in Cameron’s opinion, a prime example of engaged scholarship—a collaborative effort between UCS and more than 50 experts from universities and research institutions. “It took a lot of work to translate the scientists’ complex research into key messages that non-scientists could understand,” he recalls, but the end result was well worth the effort. The report is widely viewed as the definitive study of how emissions choices made today will affect the region over the coming decades.

Cameron credits UCS for making him a more vocal agent for change. “UCS showed me why both science *and* advocacy are important. It is gratifying to see that my efforts can help policy makers make better decisions,” he explains. “We might actually be able to meet the challenges we face if scientists are more willing to engage with society.” 

UCS on the web

How safe is the nuclear power plant down the road? With our recently updated, interactive Nuclear Power Information Tracker (www.ucsusa.org/nucleartracker), you can learn about known safety issues at every nuclear plant in the United States. By highlighting unresolved concerns, we empower ordinary citizens to demand better reactor oversight and protect their communities from harm.

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dialogue

What is the environmental impact of the batteries in hybrid vehicles compared with those in conventional vehicles?

In terms of global warming, a recent study by Argonne National Laboratory found that manufacturing a gasoline-electric hybrid vehicle (including the large battery pack) generates slightly more heat-trapping emissions than a conventional gasoline-only vehicle. However, global warming emissions generated while the vehicle is being driven are notably lower for an efficient hybrid than a conventional vehicle, far outweighing the difference in manufacturing-related emissions.

For example, a number of hybrids achieve a combined city/highway fuel economy rating of more than 40 miles per gallon—better than many conventional cars currently on the road (which average less than 30 miles per gallon). Over the typical 150,000-mile life span of a vehicle, these savings in both gasoline consumption and heat-trapping emissions really add up.

Lastly, in terms of hazardous waste, most hybrids on the road today use nickel-metal hydride (NiMH) batteries, which are less toxic than the lead-acid batteries used in conventional vehicles. And some of the latest advanced-technology vehicles, such as the Chevy Volt and Nissan Leaf, are starting to use lithium-ion (Li-Ion) batteries, the raw materials for which have even less environmental impact and greater energy-storage capacity than those in NiMH batteries. All of these factors combine to make hybrids a clear winner for consumers concerned about making the safest environmental choice.

UCS is continuing to monitor the latest developments in advanced vehicle technologies; to learn more, visit our website at www.HybridCenter.org. 