



earthwise

News and Ideas for UCS Members and Activists

A New Voice for Scientific Integrity

The Department of the Interior (DOI) issued a new policy in September that will 1) give the public more information about how science is used to make decisions, 2) protect whistle-blowers that expose political interference in science, and 3) clarify the right of government scientists to share their analysis with the press and the public.

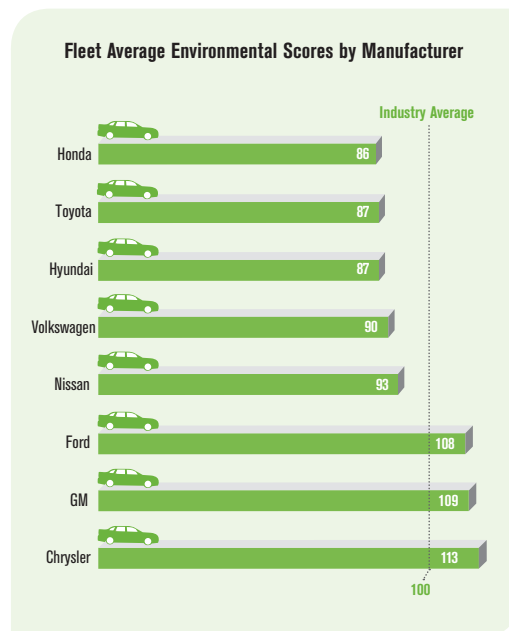
This is a major improvement on the policy originally proposed, which, by only targeting rank-and-file scientists who engage in scientific misconduct, would have done little to prevent the political interference that led to flawed department decisions on issues as varied as underwater oil exploration and endangered species. UCS spoke out strongly against the draft policy, submitting official comments and organizing more than 10,000 citizens and scientists to call for broader reform.

DOI staff told UCS they were surprised at the scale of the response, and it is clear the final policy relied heavily on our input. We are now working with department officials to ensure the new policy is implemented effectively, and are pushing for similarly strong standards throughout the federal government. Track the administration's progress at www.ucsusa.org/integrityprogressreport.

close to home

Whose Cars Are Greenest?

Eight automakers account for more than 90 percent of all cars and trucks sold in the United States. A growing number of these automakers' ads tout their concern for the environment, but many of these assertions ring hollow given the results of our *Automaker Rankings 2010* report (online at www.ucsusa.org/clean_vehicles), which uses government data to evaluate the environmental performance of each of the top-selling automakers. We assessed each manufacturer based on the smog-forming and global warming emissions of its entire vehicle fleet for model year 2008—the latest year for which data were available.



Our *Automaker Rankings 2010* report objectively measures manufacturers' true environmental performance. Scores are proportional to average per-mile smog and global warming emissions. Lower scores indicate less pollution.

How the Automakers Stack Up

For the fifth consecutive time over the past 10 years, Honda claimed our Greenest Automaker award, this time narrowly beating out Toyota and Hyundai (which tied for second place). At the other end of the spectrum are the Detroit Three—Ford, General Motors, and Chrysler—which have shared the lowest slots in all five of our assessments due to their higher-than-average pollution levels. Volkswagen and Nissan round out the rankings in fourth and fifth place, respectively.

Automakers' efforts—or lack thereof—to improve their products had a major impact on the final rankings. Toyota, buoyed by its strong gasoline-electric hybrids, could have overtaken Honda as the greenest automaker if it had made even modest fuel economy improvements to its conventional vehicle fleet. Conversely, without the Prius (the cleanest and best-selling hybrid on the market today), Toyota would have finished fourth.

(continued on back page)

on a personal note

Facts Are No Longer Enough



“The truth will set you free.” When it comes to global warming, this seems like common sense. Yet, despite increasingly urgent calls for action from scientists for more than 20 years, progress is achingly slow. It’s clear that in today’s increasingly polarized media and political landscape, the facts alone are not enough to drive policy makers to make the changes they know we need.

Addressing this dilemma was the main focus of a fall workshop that brought together our National Advisory Board members, UCS staff, and field experts to explore ways in which we can effectively combine our scientific research with skillful communication to maximize our impact. Science journalist Chris Mooney emphasized that supporters of the status quo excel at framing climate action as harmful or unnecessary. To counter their efforts we need to be just as vocal and relentless. Case in point: Our staff and activists helped block oil companies’ multi-million-dollar efforts to derail California’s landmark global warming policies, rebutting their misleading claims of economic calamity with the clear message that investments in clean technology have been an economic engine for California, while cleaning up the air and water.

The workshop also highlighted some inherent obstacles scientists face in conveying their work to the public. For example, while scientists may feel uncomfortable simplifying the science of global warming, cognitive researchers showed us that conveying this concept as a simple image (such as heat-trapping gases acting like a blanket around the earth) leads to greater public understanding, and motivation for action, than a detailed scientific explanation.

This workshop came at a time when we face an influx of several newly elected state and federal policy makers who have pledged to delay, block, and reverse course on climate action. UCS will work tirelessly to help people understand their stake in this issue—whether they are scientists, policy makers, businesses, economists, activists, or community leaders—and empower them to be proud and powerful messengers of the importance of keeping science in the national debate on global warming.


KEVIN KNOBLOCH, *president*

fast facts



What price nuclear power?

The nuclear power industry is calling for unprecedented public investment in new reactors, but its cost projections ignore billions of dollars in taxpayer subsidies to existing plants:

- A nuclear reactor withdraws up to 1.4 billion gallons of water per day—the most of any conventional electricity-generating technology—but pays only a fraction of the \$600 million to \$700 million in associated water-usage costs each year (conservatively estimated).
- While the government collects funds from plant operators to pay for a reactor’s eventual decommissioning, reduced tax rates provide the industry with an annual subsidy of between \$450 million and \$1.1 billion.
- The nuclear industry has incurred massive construction cost overruns during its history, leading to the abandonment of more than 100 reactors and higher electricity rates from reactors that *were* built. These industry missteps have cost ratepayers and taxpayers almost \$300 billion in today’s dollars. 

Looking for Partners

Almost 6,000 UCS members already support our work through the Partners for the Earth program, which allows you to make small monthly gifts automatically, through your bank account or credit card. To join this community of committed donors, go to www.ucsusa.org/pfe or call our membership department at (800) 666-8276.

Tell Automakers They Need to Do Better

What's at Stake

Air quality, the global climate, and consumer choice.

How You Can Help

Tell automakers to improve the environmental performance of their fleets.

What's Happening

Chrysler, Ford, General Motors, Honda, Hyundai, Nissan, Toyota, and Volkswagen together account for more than 90 percent of the cars and trucks sold in the United States. With passenger vehicles accounting for about 20 percent of U.S. global warming emissions, and about 16 percent of U.S. smog-forming emissions, the product-planning decisions of this small number of companies have an immense impact on our environment and health.

Our new report *Automaker Rankings 2010* sheds light on these decisions by assessing fleet average global warming and smog emissions performance for each company, with the overall score reflecting the automaker's environmental bottom line (see "Close to Home" on p. 1 for details). While all of the automakers' fleets have been making some improvement due primarily to stronger state and federal tailpipe emissions standards, every automaker—even those leading our rankings—can and must do better, especially in the area of global warming emissions. Off-the-shelf technologies and advanced drivetrains (such as hybrids) offer the potential for cost-effective yet dramatic reductions in emissions and oil use.

What You Can Do


Help push automakers in the greenest direction by reinforcing how important environmental performance is to you—



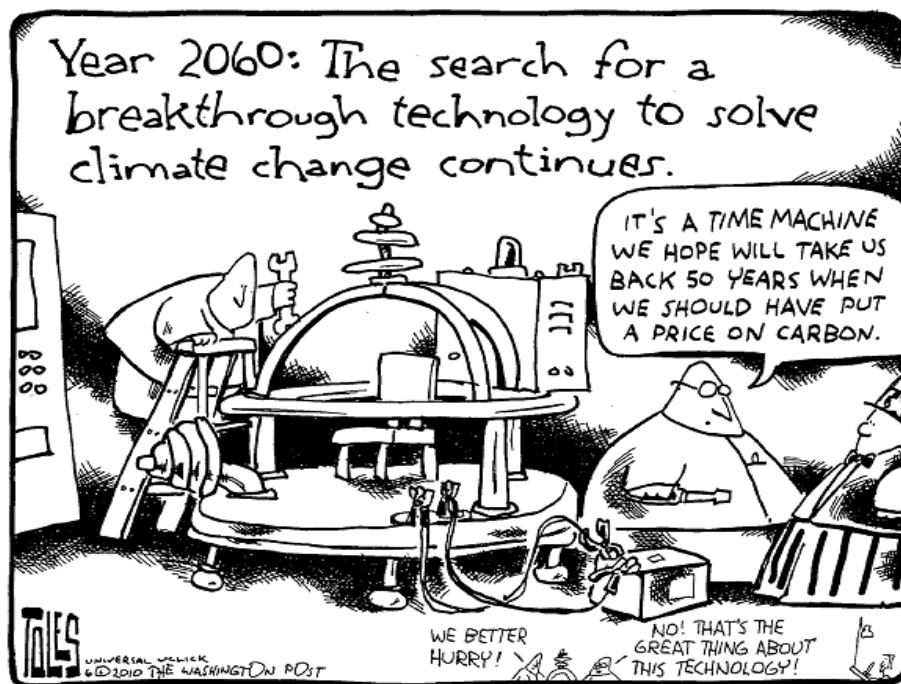
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the prospective customer. Contact the automaker(s) whose car(s) you currently own or are most interested in purchasing and tell them they need to work harder to reduce smog-forming and global warming emissions if they want to earn your business. You can send an email or obtain automakers' contact information from the online UCS Action Center at www.ucsusa.org/action.

And when it comes time for you to buy a car or truck, choose the one with the

lowest global warming and smog-forming emissions that meets your needs and budget. If you're interested in buying a hybrid, check out the UCS Hybrid Scorecard (www.hybridcenter.org) to find out which models truly deliver on their environmental claims. If you don't own a car, don't plan on buying one, or have a car from an automaker not listed above, you can still make a difference by encouraging your car-owning friends to take the actions described here. 

drawing conclusions



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Whose Cars Are Greenest? (continued from front page)

Volkswagen benefited from its decision to drop diesel vehicles from its model year 2008 U.S. offerings in order to help meet tailpipe emissions regulations. Today's diesels provide better fuel economy (and thus lower global warming emissions) than comparable gasoline-powered vehicles, but typically generate more smog-forming emissions; in Volkswagen's case, a diesel-free fleet helped improve the automaker's overall score.


Lessons Learned

Sales matter. Fairly mundane improvements to the engines and transmissions of *all* vehicles can have a much larger impact on the environment than offering the most advanced technologies in only a few vehicles.

Consistency is key. The top-ranking automakers deliver best- or near-best-in-class performance, both on smog and global warming, in all or most of the vehicle classes in which they compete.

Full lines can compete. Top-ranked Honda and Toyota both produced vehicles in seven of the eight classes considered in our report (including pickups and SUVs), and Hyundai competed in six of the eight classes. Clearly, an automaker's claim to the crown does not depend solely on production of small cars.

Standards work. Today's cars and trucks pollute less than those made just five years ago thanks to policies that required automakers to clean up their products. As new standards are phased in over the coming years—including groundbreaking fuel economy and global warming emissions regulations that UCS helped secure—we expect the gap between the cleanest and dirtiest automakers to narrow even further.

Each automaker has the potential to greatly improve its overall emissions. See "Act Now" (p. 3) to learn how you can help push the automakers in a greener direction. 




dialogue

What are the risks of extracting natural gas by means of hydraulic fracturing ("fracking")?

Ninety percent of new natural gas wells utilize fracking, in which high-pressure water and sand are used to free up gas trapped in impermeable rock (such as shale and coal beds) deep underground. These operations can have a significant negative impact on local water systems. For example, fracking just one well typically requires 2 million to 4 million gallons of water, as well as a variety of chemicals—some of them toxic—to reduce friction, prevent corrosion, and kill bacteria in the well. Though most shale gas deposits are far deeper than freshwater aquifers, reducing the potential for groundwater contamination from fracking chemicals, there have been incidents of aboveground chemical spills and gas leaks into well water, which can make people sick and increase the risk of fires and explosions.

Once a well has been tapped, the fracking chemicals are pumped out along with any naturally occurring water. This "flow-back" water is often temporarily stored in open-air pits that, while lined, can leak or overflow during heavy rains. Because of its large volume, high salinity, and the presence of fracking chemicals, flow-back water is difficult to process in municipal wastewater treatment plants.

We therefore need strong policies to support renewable energy and energy efficiency, which can reduce natural gas demand, and regulations to minimize the environmental damage caused by fracking and other methods of fuel extraction. To learn more, visit the UCS website at www.ucsusa.org/naturalgas. 

UCS on the web

Facts you need from experts you trust. If you're not already receiving our monthly e-newsletter, *The Pulse*, subscribe today at www.ucsusa.org/pulse and start getting the latest UCS news and commentary. If you are receiving it, be sure not to miss all the great content it provides every month, including green living tips and opportunities to get involved.

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