



earthwise

News and Ideas for UCS Members and Activists

Coal Power Plant Scrapped

In November, plans to build the Big Stone II coal-fired power plant in South Dakota—which UCS and others had been fighting to stop for five years—were finally abandoned. The plant would have emitted about 4 million tons of heat-trapping carbon dioxide annually.

In hearings before the Minnesota Public Utilities Commission (PUC), which had to approve transmission lines extending into its state from South Dakota, UCS and our allies contended that utilities were underestimating the plant's ultimate price tag by ignoring the likely costs of future regulations that would limit global warming emissions. We also provided technical analysis showing that energy efficiency and renewable energy were cost-effective alternatives to the plant. The PUC warned Otter Tail Power, the lead utility backing the project, that it might have to pay future regulatory costs itself—not Minnesota's ratepayers. Otter Tail Power declined to take that risk and pulled out of the project, forcing other backers to cancel it.

Many proposed coal plants remain on the drawing board. We will draw on our success with Big Stone II to displace more of these plants with cleaner, less expensive resources. 🌱

close to home

A New Tool for Hybrid Buyers

The hybrid market has exploded since the first-generation Honda Insight and Toyota Prius hit America's roads 10 years ago. Today, consumers can choose from more than 30 different models, including four-wheel-drive hybrid SUVs. But as UCS analysis has shown, not all hybrids are created equal—and with our new Hybrid Scorecard feature on the UCS *HybridCenter.org* website, you can see firsthand which models offer the most bang for their environmental buck.

How the Hybrids Stack Up

The Hybrid Scorecard rates 31 models on three criteria. First, the **Environmental Score**, on a scale of 0 (worst) to 10 (best), is our measure of a vehicle's reduction in global warming pollution over its closest conventional counterpart, averaged with its smog-forming emissions performance. The 2010 Toyota Prius earns a 10 for its industry-leading 44 percent reduction in global warming emissions compared with its closest conventional counterpart, the Toyota Matrix, while the Saturn Aura Hybrid earns a zero for having the lowest (10 percent) reduction compared with the conventional Aura. In terms of smog-forming emissions, the Prius earns a 9.5 while the Aura Hybrid earns a 6.0. The Prius earns the best overall Environmental Score (9.8) and the Aura Hybrid the worst (3.0).

The **Hybrid Value** rating, ranging from "Very Low" to "Very High," measures the cost-effectiveness of each hybrid's global warming emissions reductions. For example, the Cadillac Escalade Hybrid SUV earns a "High" rating because its hybrid technology achieves a 25 percent reduction in global warming emissions at a cost



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Looking to buy a hybrid? Our new Hybrid Scorecard Web feature can show you which hybrid gives the best environmental performance for your money.

(continued on back page)

on a personal note

Celebrating Our Past by Looking Ahead



In late October, UCS marked its fortieth anniversary by hosting a symposium in Boston on science and public policy in the twenty-first century. We invited leading scientific, policy, and media experts to look ahead at emerging issues and the civic responsibility of scientists.

We opened the symposium with a panel discussion in which a Northeast wind energy developer, a Ford automotive engineer, and a state regulator described the challenges facing new and emerging technologies. Attendees then broke out into expert-led sessions on nuclear weapons, space security, agriculture's impact on climate change, and the role of science in public policy. These constructive discussions were bolstered by the keynote address of Representative Edward Markey (D-MA), who underscored the importance of science—and UCS—in legislation such as the landmark climate bill he co-authored last year. These sentiments were echoed by former Representative John Porter (R-IL), who spoke on our closing panel about the interconnected role science, policy, and the media play in creating change.

These sessions demonstrated to me that an important element of our continued success is bringing together key stakeholders on important issues to promote practical solutions. Our speakers were emblematic of some of the relationships we've built and continue to build—for example, distributors of locally grown produce and grass-fed beef participated in a session on the role of the private sector in sustainable agriculture. Strengthening these partnerships will help us achieve the victories we need to create a healthier, cleaner environment.

But even as we hone our advocacy strategies, science will remain the driving force behind our work. Indeed, our 1969 founding statement, which called for scientists to join us in “a concerted and continuing effort to influence public policy in areas where your own scientific knowledge and skill can play a significant role,” rings as true today as it did then.

In speaking with the experts and members who attended, I was reminded of the powerful change that can happen when we bring everyone to the table. I look forward to sharing these exciting new endeavors with you in future issues of *Earthwise*.


KEVIN KNOBLOCH, *president*

fast facts



Why grazing is better than grain

About 30 percent of all meat consumed in the United States is beef. Reducing overall beef consumption can provide environmental and health benefits, and choosing beef verified as “grass-fed” by the U.S. Department of Agriculture can further extend these benefits:

- Cows' digestive systems are naturally adapted to pasture-based diets; the grain-based diets typical of large feedlots increase the risk of disease, which in turn increases the use of antibiotics. This overuse of antibiotics can lead to antibiotic-resistant human diseases.
- When cattle are spread out on pastures rather than crowded into feedlots, their manure serves to fertilize and enrich the soil instead of accumulating in large amounts that cause air and water pollution.
- Steak and ground beef from grass-fed cattle are almost always lower in total fat and tend to have higher levels of certain fatty acids that may protect against cardiovascular-related illness. 

A Special Opportunity

More than 5,000 UCS members support our work through small monthly gifts automatically withdrawn from their bank accounts or charged to their credit cards. If you're not already one of them, consider joining the **Partners for the Earth** program today—it saves time, postage, and paper. For more information, go to www.ucsusa.org/pfe or call (800) 666-8276.

Demand Strong Climate Action in the Senate



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What's at Stake

A clean energy economy that creates jobs and curbs global warming.

How You Can Help

Urge your senators to pass strong, science-based climate and energy legislation.

What's Happening

To avoid the most dangerous consequences of global warming, we must act now to implement strategies that rein in heat-trapping emissions and establish a cleaner approach to our nation's energy system.

In fall 2009 the Clean Energy Jobs and American Power Act passed out of the Senate Environment and Public Works Committee. While this bill is a critical starting point for further Senate action, special interests such as the coal and nuclear power industries are working hard to weaken emissions reduction targets, secure handouts, and delay needed progress. We must ensure that any final climate and energy bill has provisions that maximize the opportunity to curb heat-trapping emissions, save consumers money, and put Americans back to work.


What You Can Do

Tell your senators to support global warming solutions by swiftly passing strong

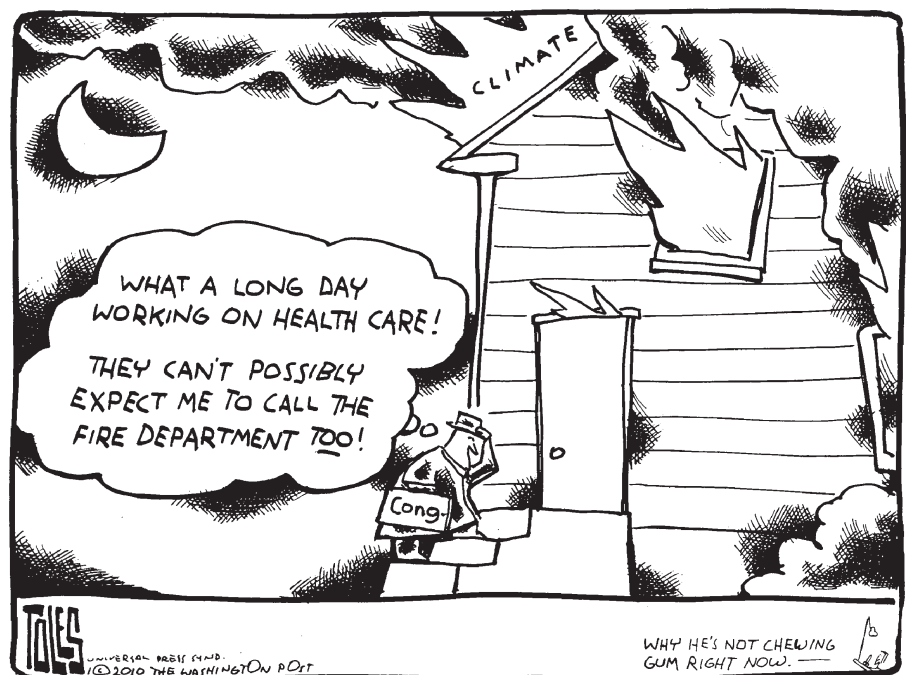
climate and energy legislation. In particular, urge them to:

- support a short-term emissions reduction target of at least 20 percent below 2005 levels by 2020;
- secure an additional 10 percent reduction by directing 5 percent of the revenue from a cap-and-trade system toward efforts to prevent tropical deforestation, which currently accounts for about 15 percent of global emissions;

- retain and strengthen a provision that requires the Environmental Protection Agency (EPA) and National Academy of Sciences to recommend policy changes in response to emerging climate science;
- preserve the EPA's ability under the Clean Air Act to control emissions from coal-fired power plants;
- invest more money in renewable energy and energy efficiency incentives and programs that will save consumers money; and
- require that 25 percent of our electricity comes from renewable sources such as the wind and sun by 2025.

You can send an email to your senators from the online UCS Action Center at www.ucsusa.org/action or call the Capitol switchboard at (202) 224-3121 and ask to be connected to the appropriate office. 

drawing conclusions



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A New Tool for Hybrid Buyers *(continued from front page)*

of approximately \$3,600. The same company's Chevy Malibu Hybrid achieves only a 14 percent reduction for almost the same cost, earning the Malibu a score near the low end of "Medium."

Finally, the **Forced Features** rating, ranging from "none" to "\$\$\$\$\$," reflects how many premium or upgraded features are included as standard equipment in a hybrid vehicle but not in its base-model conventional counterpart. The ratings vary significantly among models, even within one automaker's fleet: Forced Features ratings for Lexus hybrids range from "\$" for the HS 250h sedan to "\$\$\$\$\$" for the LS 600h L sedan (which includes an astounding \$17,120 in extras such as a power-close trunk and 19-speaker audio system).

Knowledge Is Power

Taken together, these three criteria help prospective buyers judge the seriousness with which automakers use hybrid technology to improve environmental performance, and whether the performance justifies the higher price. The benefits of a vehicle with a good Hybrid Value rating, for example, can be undermined by "forced features" that inflate the sticker price, while a hybrid priced only slightly higher than its conventional counterpart might have correspondingly low emissions reductions.

The Hybrid Scorecard's comprehensive comparison of hybrid vehicles will empower consumers not only to choose the cleanest, most fuel-efficient hybrid that fits their needs, but also to push the auto industry to improve its fleet. If dealers repeatedly hear complaints about hybrid technology not being used to its full potential, or about forced features that make hybrids too expensive, automakers could be motivated to offer hybrids that focus on providing the maximum environmental benefit at a competitive price—a win-win for consumers and the environment. 




dialogue

What is the potential for geoengineering to help solve global warming?

Many scientists support research to determine whether geoengineering—technologies that alter the land, ocean, or atmosphere to "fix" some of the consequences of global warming—can work in the real world. While feasibility may be geoengineering's biggest hurdle, there are several other factors and risks that must be considered.

For example, the October 2009 book *SuperFreakonomics* highlighted one proposal in which tiny particles would be injected into the atmosphere, under the premise that they would cool Earth's surface by reflecting incoming sunlight back to space. This strategy, however, does not address the root cause of global warming; if our heat-trapping emissions continue to increase, light-blocking particles would only provide temporary relief (because gases such as carbon dioxide remain in the atmosphere much longer). Plus, this strategy could hurt agriculture, as plants require sunlight to grow.

Because many geoengineering proposals do not directly reduce the concentration of heat-trapping gases in the atmosphere, they also fail to address important problems associated with global warming. For example, as oceans absorb more carbon from the atmosphere they become more acidic, which can harm marine ecosystems.

To address the global warming crisis effectively, we need a comprehensive and complementary set of strategies to reduce heat-trapping emissions. And we must consider the potential side effects that could come with new technological "fixes." To learn more about global warming science and solutions, visit www.ucsusa.org/global-warming-faq.html. 

UCS on the web

News you can use. UCS has redesigned its online News Center to make it easy for you to find the exact type of information you need on important issues. Visit www.ucsusa.org/news to subscribe to our news feed, meet our staff experts, or read our "Fact Checker" updates on erroneous or distorted statements about science in the media.

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