



Union of Concerned Scientists  
Citizens and Scientists for Environmental Solutions

# press release

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FOR IMMEDIATE RELEASE

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## U.S. CAN CURB GLOBAL WARMING AND LOWER ENERGY COSTS WITH CARBON CAP AND SMART ENERGY, TRANSPORTATION POLICIES, NEW STUDY FINDS

### CONSUMERS AND BUSINESSES IN ALABAMA, KENTUCKY, MISSISSIPPI AND TENNESSEE WOULD SAVE BILLIONS

WASHINGTON (May 19, 2009) - With the right policies in place, the United States could dramatically cut the heat-trapping emissions that cause global warming and, at the same time, lower energy costs in every region of the country, according to the findings of a two-year, peer-reviewed study by the Union of Concerned Scientists (UCS).

"We can protect the environment and Americans' pocketbooks by adopting the right policies," said UCS President Kevin Knobloch. "Our analysis shows we have the technology and the know-how to do this. What we now need is the political will."

["Climate 2030: A National Blueprint for a Clean Energy Economy,"](#) which used a modified version of the Department of Energy's National Energy Modeling System, concluded that the United States could meet an emissions-reduction cap of 26 percent below 2005 levels by 2020 and 56 percent below 2005 levels by 2030. The average U.S. household would realize net savings of \$300 in 2020 and \$900 in 2030, while businesses collectively would see net savings of \$35 billion in 2020 and nearly \$130 billion in 2030. Collectively, households and businesses would see net savings of \$255 billion in 2030.

How would it work? UCS found that implementing a cap on emissions with a suite of energy and transportation policies would trigger investments in efficiency improvements, renewable energy technologies, clean vehicles, better transportation choices, and low-carbon technologies and fuels. Household and business savings on transportation fuel costs and on electricity, natural gas and heating oil bills would more than offset those investments and any rise in energy prices.

UCS calculated net savings for nine regions of the country, basing these geographic designations on the Department of Energy's modeling system. In the East South Central region, which includes Alabama, Kentucky, Mississippi and Tennessee, the UCS blueprint's combined policies would provide net savings of \$136 for the average household in 2020 and \$602 in 2030. Businesses in the region would collectively save \$1.9 billion in 2020 and \$10.2 billion in 2030.

Congress is currently considering a bill sponsored by Reps. Henry Waxman (D-Calif.) and Edward Markey (D-Mass.) that contains some of the elements of the UCS analysis, including an emissions cap, a national renewable electricity standard, and building and appliance energy efficiency standards. The provisions in "The American Clean Energy and Security Act" are not as strong as those in the UCS analysis, however, and it does not include some key transportation policies. As a result, the bill would not provide as many climate and economic benefits as the

UCS's blueprint. The House Energy and Commerce Committee is expected to vote on the bill this week.

"To reduce emissions, save people money and move us to a clean energy future, Congress must take a comprehensive approach," said Rachel Cleetus, a UCS climate economist and co-author of the study. "A strong cap would get us the emissions reductions we need. The energy and transportation policies would help deliver them cost-effectively."

#### SMART POLICIES WOULD LOWER ELECTRICITY BILLS

UCS's blueprint policies would reduce U.S. power plant carbon emissions 84 percent below 2005 levels by 2030 and lower consumer and business electricity bills across the country. Households in the East South Central region, for example, would see annual net savings on electricity bills of \$76 in 2020 and \$145 in 2030, while businesses and industries would realize net savings of \$1.6 billion in 2020 and \$3.9 billion in 2030.

"Efficiency and renewable energy technologies are ready today to power our economy with carbon-free electricity," said Steve Clemmer, UCS Clean Energy Program research director and a study co-author. "Our analysis shows that clean energy sources can lead the way in cutting U.S. emissions, lower electricity bills, and curb our addiction to dirty, high-carbon coal power."

The policies that would help bring about the savings include new energy efficiency standards and incentives that would steadily improve efficiency in homes, schools, hospitals, office buildings and industrial facilities. Homeowners and businesses would invest in more efficient heating systems, air conditioners, lighting and appliances to lower electricity and heating bills. In addition, a renewable electricity standard would reduce the nation's reliance on coal and natural gas to generate electricity, which would drive down prices for those fuels and help stabilize electricity prices.

UCS's blueprint policies have a proven track record at the state level. For example, 28 states and Washington, D.C., have adopted renewable electricity standards requiring utilities to increase their reliance on renewable energy sources. Meanwhile, 18 states have adopted energy efficiency resource standards requiring utilities to reduce their customers' electricity and natural gas consumption.

"Our policy recommendations also would cut the cost of natural gas, home heating oil, and industrial and commercial oil use," Clemmer said. "But the lion's share of the savings would come from cutting electricity demand."

#### MOTORISTS WOULD SAVE MONEY AT THE PUMP

UCS's blueprint found that a number of transportation policies would curb global warming emissions from cars and light trucks to 40 percent below 2005 levels by 2030 -- and save motorists money. Under the analysis, these policies would increase gasoline prices by no more than 24 cents per gallon over the next 20 years -- less than the amount prices went up over the last month. That modest increase -- and the cost of investing in the cleaner vehicles, better transportation choices, and low-carbon fuels required by the new policies -- would be more than offset by savings. Households in the East South Central region would see a net savings of \$173 in 2020. Businesses collectively would net \$1 billion in savings that same year. In 2030, transportation net savings would rise to \$590 for a household and \$6.1 billion for all businesses in the region.

The blueprint's transportation policies include vehicle carbon emission standards, which would lead to more efficient cars and trucks and improved vehicle air conditioning systems; and smart growth policies that would provide better transportation choices, reducing the number of miles motorists drive every year. Another blueprint policy, a low-carbon fuel standard, would require cleaner fuels to reduce oil consumption and strengthen U.S. energy security. All of these policies would contribute to overall transportation cost savings.

"Our transportation system needs a major tune-up to help consumers fight rising gas prices, curb our oil addiction, and reduce our carbon emissions," said David Friedman, UCS Clean Vehicles Program research director and a co-author of the study. "Our analysis shows that cleaner cars, low-carbon fuels, and alternatives to getting stuck in traffic can cut emissions and transportation costs at the same time."

Currently Washington, D.C., and 14 states have adopted a single set of vehicle carbon emission standards. In a sign of significant progress, the Obama administration today announced strong vehicle carbon emissions standards, consistent with state efforts.

#### OUTSIDE EXPERTS AVAILABLE FOR COMMENT ON UCS'S ANALYSIS

The following scientists are available for comment:

John Byrne, distinguished professor of energy and climate policy and director of the Center for Energy and Environmental Policy at the University of Delaware, [bmaler@udel.edu](mailto:bmaler@udel.edu), 302-831-8405. Dr. Byrne, a contributing author for the U.N. Intergovernmental Panel on Climate Change (IPCC) from 1992 to 2007, was on the panel that reviewed the UCS study. The IPCC and Al Gore shared the 2007 Nobel Peace Prize.

Daniel Kammen is the class of 1935 distinguished professor of energy at the University of California, Berkeley, where he holds appointments in the Energy and Resources Group, the Department of Nuclear Engineering, and the Goldman School of Public Policy, 510-642-1640, [kammen@berkeley.edu](mailto:kammen@berkeley.edu). Dr. Kammen was a contributing author for the IPCC from 1999 to 2009. He is the host of the Discovery Channel series "Ecopolis." The IPCC and Al Gore shared the 2007 Nobel Peace Prize.

Chuck Kutscher, principal engineer and group manager of thermal systems, electricity, resources and building systems integration, National Renewable Energy Laboratory, [chuck.kutscher@nrel.gov](mailto:chuck.kutscher@nrel.gov), 303- 384-7521. Dr. Kutscher, a former American Solar Energy Society chairman, was on the panel that reviewed the UCS study.

William Moomaw, professor of international environmental policy and director of the Center for International Environment and Resource Policy at Tufts University's Fletcher School of Law and Diplomacy, 617-627-2732, [william.moomaw@tufts.edu](mailto:william.moomaw@tufts.edu). Dr. Moomaw, a lead IPCC author from 1995 to 2007, was on the panel that reviewed the UCS study. The IPCC and Al Gore shared the 2007 Nobel Peace Prize.

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The Union of Concerned Scientists is the leading U.S. science-based nonprofit organization working for a healthy environment and a safer world. Founded in 1969, UCS is headquartered in Cambridge, Massachusetts, and also has offices in Berkeley, Chicago and Washington, D.C. For more information, go to [www.ucsusa.org](http://www.ucsusa.org).