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Contact:

**Dan Sarewitz, Consortium for Science,
Policy and Outcomes, Arizona State
University 202-446-0384**

**Armond Cohen, Clean Air Task Force
617-680-0341**

Emission Limits Alone Won't Solve Global Warming;

Government Must Fund Demonstration and Scale-Up of New Technology

(WASHINGTON, DC, September 28, 2009) – The United States must do more than simply adopt limits on heat-trapping emissions in order to deal successfully with global warming, an expert report warned today. The report called for a rapid, public works-type federal initiative to stimulate private sector innovation and get better global warming technologies into widespread use.

The report, issued by Arizona State University and the non-profit Clean Air Task Force, concludes that federal government programs must move beyond long-term research and deploy advanced anti-global warming technologies that could be practical in the next decade; demonstrate these technologies at commercial scale; use its large purchasing power to coax new innovations; and not leave the job only to the Department of Energy.

“There is finally a consensus that we need to invest in better technology to combat global warming,” said Dan Sarewitz, a science and technology policy expert at Arizona State University and a lead author of the report. “But we need to be smart about how we do it. We need to demonstrate technologies that are beyond the basic research stage, and we need to do it quickly, at commercial scale. That will require serious public money and we must create healthy competition within government rather than relying on just one agency.”

The report, based on a six-month study drawing on 40 climate, energy and technology experts from government, business, and universities, says federal energy innovation policy has lacked a clear mission, and has not used its expenditure or purchasing power in a way that commercializes promising low carbon technology. The report also notes that relying on “breakthroughs” to control global warming is a bad strategy and will likely not yield big gains in the next two decades.

A better approach, the report argues, is a sustained “public works” effort to purchase and support early deployment of low carbon technology to spur innovation in areas such as next-generation solar cells, capture of carbon emissions from coal plants, and even capture of carbon from the atmosphere. The report notes that carbon caps being considered by Congress are unlikely to, by themselves, bring advanced technologies to large scale application because cap-driven carbon prices will likely be modest and will not offset new technology risks.

“Everyone talks about needing a ‘Manhattan Project’ for clean energy, but we found that can be a misleading guide,” said Armond Cohen, Executive Director of the Clean Air Task Force, a co-sponsor of the report. “The Manhattan Project was a

sprint, and we're running a marathon. A sustained, multi-faceted effort will be needed to transform energy use and production, and we're going to need multiple agencies and approaches."

The report, which will be presented to the Obama Administration and Congress, makes four major findings and recommendations for the reform of US energy innovation policy:

- Competition between different government agencies has been critical for key areas of innovation ranging from US military technologies to the information technology revolution. Energy innovation policy and programs should not be a monopoly of the Department of Energy; other agencies such as Department of Defense have much to contribute.
- Carbon reduction must be recognized as a public good, like sanitation. The government must be prepared to make major public expenditures for efforts like scrubbing carbon from coal plants, which provide half of the nation's electricity.
- The federal government needs to pay for multiple large scale demonstrations of technologies like coal plant carbon removal, and next generation solar cell systems. Research alone will not provide the necessary innovation at the pace we need.
- The US government spends tens of billions of dollars a year on energy and energy production. The government must consciously steer its large purchasing power to catalyze clean energy innovation.

“We know from history how to innovate our way out of many problems through technology, but, to date, we haven’t applied that knowledge in a serious way to the climate problem”, noted Sarewitz. “This report tells us how to start down that path.”

The report, called, “Innovation Policy for Climate Change,” is available at <http://cspo.org/projects/eisbu/>.