U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
SUBCOMMITTE ON ENVIRONMENT

HEARING CHARTER

Policy Relevant Climate Issues in Context

Thursday, April 25, 2013
10:00 a.m. – 11:30 a.m.
2318 Rayburn House Office Building

Purpose

On Thursday, April 25, 2013, the Subcommittee on Environment will hold a hearing entitled *Policy Relevant Climate Issues in Context.* The purpose of the hearing is to provide Members a high level overview of the most important scientific, technical, and economic factors that should guide climate-related decision-making this Congress. Specifically, this hearing will examine the current understanding of key areas of climate science necessary to inform decision-making on potential mitigation options.

Witnesses

- **Dr. Judith Curry**, Professor, School of Earth and Atmospheric Sciences, Georgia Institute of Technology

- **Dr. William Chameides**, Dean and Professor, Nicholas School of the Environment, Duke University

- **Dr. Bjørn Lomborg,** President, Copenhagen Consensus Center

Background

Climate science—and climate-related regulatory actions informed by such science—are among the most complex and controversial issues facing policymakers. After several years of relatively quiet legislative and regulatory activity within Congress and the Executive Branch, climate policy is again receiving renewed attention.

Since winning re-election in November, 2012, President Obama has increasingly signaled his intention to propose significant, new executive actions and regulatory measures aimed at addressing climate concerns. At his inaugural address in January, the President stated:

> We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations. Some may still deny the overwhelming judgment of science, but none can avoid the devastating impact of raging fires and crippling drought and more powerful storms.

The President elaborated on this at last month's State of the Union address, and indicated he would direct his Cabinet to propose specific actions for his consideration. Specifically, he stated:

> But for the sake of our children and our future, we must do more to combat climate change. Yes, it's true that no single event makes a trend. But the fact is, the 12 hottest years on record have all come in the last 15. Heat waves, droughts, wildfires, and floods – all are now more frequent and intense. We can choose to believe that Superstorm Sandy, and the most severe drought in decades, and the worst wildfires some states have ever seen were all just a freak coincidence. Or we can choose to believe in the overwhelming judgment of science – and act before it's too late.
>
> The good news is we can make meaningful progress on this issue while driving strong economic growth. I urge this Congress to pursue a bipartisan, market-based solution to climate change, like the one John McCain and Joe Lieberman worked on together a few years ago. But if Congress won't act soon to protect future generations, I will. I will direct my Cabinet to come up with executive actions we can take, now and in the future, to reduce pollution, prepare our communities for the consequences of climate change, and speed the transition to more sustainable sources of energy.

While it is unclear what specific form the President's proposals will take, it has been widely reported that new Environmental Protection Agency (EPA) regulations restricting greenhouse gas emissions from existing power plant facilities will serve as a centerpiece of the President's climate efforts. In March 2012, EPA proposed greenhouse gas regulations for new power plants.[1] While this rule has yet to be finalized, the Agency's Regulatory Impact Analysis that accompanied this proposal emphasized some of the key challenges associated with incorporating uncertain scientific, technological, and economic information into such regulatory decisions:

> When attempting to assess the incremental economic impacts of carbon dioxide emissions, the analyst faces a number of serious challenges. A recent report from the National Academies of Science (NRC 2009) points out that any assessment will suffer from uncertainty, speculation, and lack of information about (1) future emissions of greenhouse gases, (2) the effects of past and future emissions on the climate system, (3) the impact of changes in climate on the physical and biological environment, and (4) the translation of these environmental impacts into economic damages. As a result, any effort to quantify and monetize the harms associated with climate change will raise serious questions of science, economics, and ethics and should be viewed as provisional.[2]

This characterization is indicative of the likely challenges associated with future climate-driven regulatory proposals as well. Therefore, it is likely that Congressional review and response of such proposals will be heavily informed by the understanding of a combination of science, technological feasibility, and value judgments such as economic tradeoffs and opportunity costs.

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[1] http://yosemite.epa.gov/opa/admpress.nsf/79c090e81f0578738525781f0043619b/9b4e8033d7e641d9852579ce005ae957!OpenDocument

[2] http://www.epa.gov/ttnecas1/regdata/RIAs/egughgnspsproposalria0326.pdf

The purpose of this hearing is to examine key factors that will guide these decisions, particularly as they relate to the understanding of climate change-related risks facing the country, associated probabilities and uncertainties, and the costs and benefits of various mitigation proposals.

Resources

At the Federal agency level, climate-related regulatory and programmatic decision-making relies significantly on the following scientific entities:

- International Governmental Panel on Climate Change (IPCC)—international scientific body organized under the United Nations Environment Programme (UNEP). Notably, the IPCC is currently undertaking work on the Fifth Assessment Report (AR5), which is intended to be completed in 2013/2014 and provide an update of knowledge on the scientific, technical and socio-economic aspects of climate change.[3]

- U.S. Global Change Research Program (USGCRP)—coordinates and integrates Federal research on changes in the global environment and their implications for society. Mandated by Congress as part of the Global Change Research Act of 1990 (PL 101-606), USGCRP oversees 13 agencies supporting approximately $2.6 billion annually in climate change research.[4]

- National Climate Assessment and Development Advisory Committee (NCADAC)—created in December 2010, the NACDAC is a non-governmental advisory committee organized under and reporting to USGCRP. NACDAC is charged with producing a National Climate Assessment that "integrates, evaluates, and interprets the findings of the U.S. Global Change Research Program (USGCRP) and discusses the scientific uncertainties with such findings." In January, NACDAC released a major *Draft Climate Assessment Report* for review and comment. The Comment period closes on April 12, 2013.[5]

Additional Information

Witnesses were asked to address the following questions in their testimony:

Dr. Judith Curry

- Summarize your views on the most important policy-relevant climate science issues facing decision-makers. What are the key areas of agreement and disagreement? What is the state of the science and associated strengths and weaknesses on key policy relevant issues, such as attribution, modeling and observations, and climate sensitivity?
- Describe the state of the science on the linkages between climate change and extreme weather. Include a discussion on the key uncertainties of these connections and describe how such uncertainties are treated in the public discussion of extreme weather events. What is needed to reduce misconceptions surrounding this scientific discipline?

[3] http://www.ipcc.ch
[4] www.globalchange.gov
[5] http://ncadac.globalchange.gov/

- Include a broad discussion of uncertainties within climate change science, specifically addressing challenges and opportunities related to decision-making under uncertainty, including how such uncertainties are conveyed to policymakers and the public.

Dr. William Chameides

- Discuss the state of climate science and summarize your views on the most important climate science issues facing decision-makers.
- Describe future projected impacts of most concern in the United States with regard to climate change, and actions the federal government can take to address future impacts.
- Provide a discussion of scientific uncertainties in climate science and the how decision makers can account for uncertainty in crafting climate-related policies.

Dr. Bjorn Lomborg

- Summarize your views on the most important policy-relevant climate issues facing decision-makers. What are the key areas of agreement and disagreement?
- Describe the strengths and weakness of various climate change-driven policies currently in effect around the world, and the costs and benefits of potential mitigation options under consideration here in the United States. How could limited Federal resources be better allocated to address climate, environmental and human health issues facing the U.S. and other nations around the world?