



University Corporation for Atmospheric Research
National Center for Atmospheric Research ♦ UCAR Office of Programs

PO Box 3000, Boulder, CO 80307-3000
303 497-2107 • 303 497-2100 Fax

April 20, 2009

The Honorable Henry A. Waxman
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Joe Barton
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
2322 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Edward J. Markey
Chairman
Energy & Environment Subcommittee
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Fred Upton
Ranking Member
Energy & Environment Subcommittee
U.S. House of Representatives
2322 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Waxman, Ranking Member Barton, Chairman Markey, and Ranking Member Upton:

On behalf of the University Corporation for Atmospheric Research (UCAR), a 73-university member consortium that manages the National Center for Atmospheric Research (NCAR), we submit the following recommendations for the American Clean Energy and Security Act of 2009, based on the discussion draft released March 31, 2009. NCAR operates the Community Climate System Model, a global model that was cited more than any other in the 2007 assessment of the Intergovernmental Panel on Climate Change (IPCC). The laboratory has key leadership responsibilities for the development of the upcoming IPCC assessment due to be released in 2013.

We commend the Chairmen and Ranking Members for drafting a bill that is inspired by science and supportive of an active role for the atmospheric sciences in assessing and addressing climate change and activities to mitigate and adapt to that change. As the Subcommittee and Full Committee revise and amend the discussion draft over the upcoming weeks, we urge you to retain a strong role for science and consider the following principles and specific recommendations, most of which pertain to Title IV.

1) Create One Overarching, Single Entity for Climate Change Leadership and Organization

We recommend the creation of a single entity within the White House for the purpose of leading and managing an integrated, national climate change research, regulation, and adaptation program. This program should be empowered with the strongest possible leadership, as well as sufficient staff and funding to effectively direct an effort that will involve over 20 agencies and some of the most difficult challenges of our time.

The discussion draft creates a national adaptation program, council and service; a natural resources adaptation policy; and a national policy on public health and climate change. These must all be coordinated under a single entity or they are likely to be ineffective, inconsistent, and confusing. The nation's current federal climate program already consists of a confusing and overlapping patchwork of programs and initiatives across 20 agencies of the federal government, working independently for the most part. These programs reside in the Department of Energy, NOAA, NASA, NSF, EPA, Department of Interior, the U.S. Global Change Research Program (USGCRP -- now the Climate Change Science Program), OSTP, CEQ, the Department of Transportation, HHS, USDA, and the Department of State.

A single, authoritative entity, with the resources and power to implement a strong, national climate policy, could examine all federal programs and policies on climate change research, regulation, and adaptation to 1) facilitate communication and collaboration between the programs, Congress, the President, and the states; 2) help to craft an overarching national strategy; 3) organize and manage a unified federal climate change budget; 4) oversee interagency programs in ways that make them more effective and efficient; 5) reduce program overlap and resolve conflicting policies where they exist; and 6) ensure that nothing about the policies, services, and regulations that exist poses barriers or disincentives to decision-makers at the local, regional, and national levels who are planning and preparing for climate change. Such authority can come only through White House leadership. Our experience in partnerships with mayors and governors trying to deal with climate change issues is that there are many conflicting Federal policies in this area.

A model exists from which much can be learned. The coordination of research during the early days of the USGCRP provides examples of tools and approaches that could easily be expanded to include a broader climate policy, regulatory, research, and adaptation services program. The draft bill must incorporate the requirements laid out in the Global Change Research Act of 1990 as well as address current Federal policy problems. ***The bill should direct the single, lead entity to examine all Federal policies to ensure that they are not imposing disincentives or barriers to decision makers at all levels (local, regional, and national) who are trying to deal with climate change planning.***

2) Support a Strong and Ongoing Program of Climate Science

This legislation must ensure a strong, well-funded, ongoing climate research and assessment program that includes all federal science agencies including the National Science Foundation (NSF).

It is only through a strong and coordinated national program of climate research, with frequent and thorough assessments, that society will be availed of the best and latest information on: 1) trends in global temperatures, greenhouse gas concentrations in the atmosphere, trends in sea level, climate variability, weather extremes, and other aspects of the climate system at regional-to-national scales; 2) the impact these changes have on the nation as a whole, its regions, communities, and natural resources; 3) the climate model predictions on which adaptation plans can be based; and 4) whether and how much our mitigation efforts are reducing the rate of emissions and the accumulated atmospheric concentrations of greenhouse gases. An ongoing and robust climate research program is critical, then, for continued assessment of the state of climate change to inform adaptation plans and for continued evaluation and adjustment, if necessary, of economy-wide emissions caps at specific targets. It is also critical for determining whether those specific targets, as well as larger goals, are being met.

This bill needs to ensure that the science support will always be there to provide critical information into the policy making process and to monitor the success of our climate related policies. This must not be taken for granted. I would bring your attention to the fact that the National Science Foundation which plays a critical, national role in developing this country's climate modeling capability, is not mentioned once in the draft bill. The importance of this agency to the research activities described in the bill must not be ignored.

3) Create a National, Integrated Program to Support Adaptation Planning

This legislation should direct the single entity of authority to establish a comprehensive, integrated climate information service to help decision-makers at national, regional, and local levels predict and manage the impacts of climate change. Direction should be provided within this legislation to examine and consider the recommendations of a study undertaken by the National Research Council, *Informing Decisions in a Changing Climate*, and a recent report commissioned by NOAA in 2008 and released this week – *Options for Developing a National Climate Service*. These documents give options for the leadership and structure of such a service that have been well considered by diverse panels of experts. Their recommendations should form the basis of a plan to establish the service – and that plan should be reviewed by Congress. Because the impacts of climate change will be felt for decades and possibly centuries to come, this service is critical for the safety and quality of life of all people.

In the spirit of these three principles, and in the interest of a central and active role for climate science in climate change legislation, we make the following specific recommendations for the American Clean Energy and Security Act of 2009:

1) Retain and strengthen “Sec. 705” under Title 3, section 311 of the draft legislation, which authorizes a quadrennial National Academy of Sciences Scientific Review.

The integrated and comprehensive approach of the Scientific Review authorized in the discussion draft bill, in combination with the assessments conducted by the U.N.’s Intergovernmental Panel on Climate Change and the U.S. Global Change Research Program (Climate Change Science Program), will provide comprehensive information about global climate change and our response to it. We are supportive of the many requirements the bill makes to ensure a thorough Review, especially of the latest available climate science in all relevant sub-specialties.

In (c)(1), the analysis specifically requires that existing scientific information and reports be addressed, and includes key sources of scientific information. ***We strongly recommend that the enumerated list of sources of scientific information include “data from work conducted through the National Science Foundation, including global and regional climate system models.”*** Some of the most important and cutting edge work in climate science, such as NCAR’s proven Community Climate System Model and programs at some of the nation’s top research universities, is conducted by or through funding provided by the National Science Foundation. We should ensure that this critical body of knowledge is addressed and included in the analysis of the latest scientific information in the Scientific Review.

In (c)(4), we also recommend the Review explicitly include an assessment of the impacts of global climate change on drought frequency and intensity, wildfire frequency and intensity, regional population distribution and migration, and disease prevalence and distribution -- none of which is included in the discussion draft. These impacts have been cited frequently as potential consequences of climate change, and should be called out in any comprehensive review.

2) Incorporate representation from the National Science Foundation in major science-related programs, including the National Academy of Sciences Scientific Review (Sec. 705) and the domestic adaptation programs authorized in Title IV, Subtitle E, Part 1, Subtitles A - C.

The National Science Foundation plays a critical role as a funding source, driver, and clearinghouse for much of the scientific research and other work funded by the federal government. In programs and panels that are science-related or require input from the scientific community, NSF representation is a valuable, even critical, addition. ***We recommend NSF representation on any entities established by the legislation to address climate change research and/or the impacts of climate change***

3) Expand the Green Jobs and Worker Transition Subtitle (Title IV, Subtitle B) to provide support for scientific and interdisciplinary climate change fields.

As written, the Subtitle provides authorization to the Secretary and Education and Secretary of Labor to award competitive grants to develop programs of study and workforce training programs that are focused on emerging careers and jobs in renewable energy, energy efficiency, and climate change mitigation. We support an expansion of this section to provide support for green jobs that are less technical and more scientific in nature, such as those in climate research, analysis, and other studies. ***Specifically, we recommend the inclusion of a section authorizing a National Report assessing the state of climate change education and of the labor market for climate change-related careers and job positions in the United States. We strongly support development of a new section authorizing appropriations for an interagency grant program to support programs of study that are focused on careers and jobs in the scientific and other study, analysis, and research of climate change.***

As demand has increased for scientists who can conduct original research in climate change and other experts who understand climate change trends and systems, many organizations and companies have been unable to find the specialized personnel and expertise they need to address the current and future effects of climate change on their company, field, industry, or organization. An interagency grant program that funds and supports climate change-related studies and jobs would help to fill this demand gap in the labor market for climate change expertise.

4) Establish a centralized Climate Change Council, led by the White House, to unify, streamline, and coordinate programs, panels, plans, funds, and other initiatives relating to domestic adaptation (Title IV, Subtitle E, Part 1, Subtitles A - C) with programs for climate change research and regulation.

Currently, the draft bill divides domestic adaptation activities between a National Climate Change Adaptation Council (Sec. 462); a Natural Resources Climate Change Adaptation Panel (Sec. 485); a National Climate Service (Sec. 465(a)); a National Climate Change Adaptation Program (Sec. 463); a Natural Resources Adaptation Science and Information Program (Sec. 487); National Climate Change Vulnerability Assessments (Sec. 464); a National Climate Change Adaptation Fund (Sec. 467); a Natural Resources Climate Change Adaptation Fund (Sec. 490); a National Policy and Strategy on Public Health and Climate Change (Sec. 471 & 472); and a requirement that each Federal agency complete and submit to the President an agency climate change adaptation plan every four years (Sec. 466). Those programs which fall under Subpart A would be established, directed, or chaired by NOAA, those which fall under Subpart B would be directed by HHS, and those which fall under Subpart C would be established in, directed by, or chaired by various offices and programs, including the CEQ, NOAA, and the USGS.

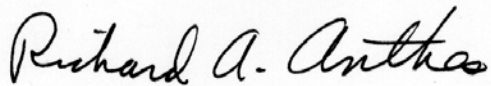
We are concerned that, without a unifying body or structure, these new programs and panels will only add to an already confusing patchwork of federal programs that deal with climate change research, regulation, and adaptation. Furthermore, we are worried that, without centralized and high-profile

leadership and management of these initiatives coming from the White House, some will not be appropriated the resources or be seen as having the authority to achieve their stated purposes. As we have seen in the past, interagency climate change programs and panels without a strong mandate and leadership can easily be ignored or brushed aside by other agencies or even the White House itself.

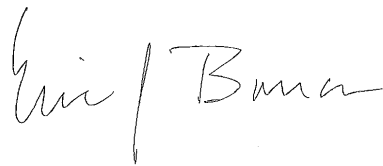
- 5) **Reserve a portion of the proceeds of the cap-and-trade allowance auction to directly fund the key science-based programs that will need to be enhanced to support climate change adaptation and mitigation efforts across this country.** The science community's ability to predict climate change at the regional scale is improving, but is far from optimal. Investments must be made in computing, personnel, and new approaches to modeling in order to achieve the results needed by local stakeholders for water resource management, agriculture, transportation, health, and a host of other issues affected by climate change.

Thank you for your initiative and leadership in crafting legislation that takes bold and necessary steps to begin to address global warming. We are pleased that the major programs in the current draft are designed to be driven by and responsive to science. We would be more than pleased to meet with you and your staff at any time to discuss the principles and specific recommendations of this letter, which we believe to be of critical importance for a healthy and prosperous future for our nation.

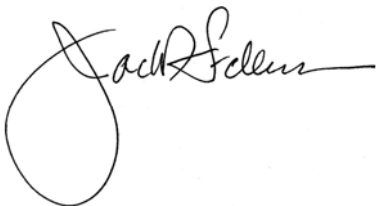
Respectfully,



Richard A. Anthes, President
University Corporation for Atmospheric Research



Eric J. Barron, Director
National Center for Atmospheric Research



Jack Fellows, Vice President
University Corporation for Atmospheric Research