United States Senate
WASHINGTON, DC 20510

July 24, 2009

The Honorable Lisa Jackson
Administrator
Environmental Protection Agency
Ariel Rios Federal Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Administrator Jackson,

On January 23, in a memo to EPA employees, you wrote that "public trust demands that we reach out to stakeholders fairly and impartially," and that the Agency consider, "the views and data presented carefully and objectively, and that we fully disclose the information that forms the bases for our decisions." This is a sound policy that will burnish the agency's credibility and the quality of its work.

We hope this policy will guide the agency's economic analysis of climate change legislation. Getting quality data and analysis based on reasonable assumptions is critical to understanding how cap-and-trade legislation works and how much it costs.

The Waxman-Markey American Clean Energy and Security (ACES) Act of 2009 contains 1,400 pages of complex provisions and programs that will profoundly affect every corner of the American economy. The costs of implementing this bill—and others like it—will be paid by consumers, businesses, and families. And its economic impact will fall disproportionately on our constituents and in similar states in the Midwest, South, and Great Plains, which depend on manufacturing for jobs and coal for electricity. Congress and the public need to understand how such economic burdens will affect their constituents and their communities.

In our view, EPA's recent analysis of Waxman-Markey offers an incomplete account of the bill's major provisions, how they overlap, and how they impact consumers, households, and the economy. Our hope is to work together with your staff to produce a detailed, comprehensive, and objective analysis to inform the upcoming legislative debate in the Senate. Based on your commitment to using the best available science and input from a wide variety of interests to support your decisions, we are confident we can accomplish this task for the benefit of stakeholders and the public.

The following points summarize the assumptions and scenarios that we would like your staff to use in conducting an analysis of Waxman-Markey:

1) A reference case that includes the most recent Energy Information Administration's updated Annual Energy Outlook (April 2009) and incorporates economic policies consistent with the President's 2010 Budget Proposal.

2) A core policy case with changes in underlying assumptions, along with modeling the same provisions as the June 23, 2009, EPA Waxman-Markey analysis, to provide consistency of comparison.

3) Alternative Policy/Sensitivity Cases that include more realistic assumptions about technology deployment.

4) Modeling of the full Waxman-Markey bill using the conditions established in the reference case, including updated alternative policy and sensitivity cases.

5) A detailed discussion of the efficacy of this bill in terms of its contribution to the G-8 agreement to limit global warming to no more than two degrees Celsius.

6) A detailed discussion of EPA's Integrated Planning Model's (IPM) treatment of costs for renewables and natural gas supply and demand.

7) Cost analyses of the Waxman-Markey provisions on households and energy intensive, trade exposed industries.

We request that your agency provide policymakers and the public with the most up-to-date analysis, based on real-world assumptions, about energy production and use, the deployment of new technologies, and a complete account of the bill's cost to the economy. I hope you and your staff can complete this analysis by August 7th.

A detail description of our modeling request is attached. Please contact Todd Johnston or Tom Hassenboehler at (202) 224-6176 for further guidance and discussion.

Sincerely,

James M. Inhofe
United States Senator

George V. Voinovich
United States Senator

Attachment

CHANGE TO REFERENCE CASE

In your analysis of Waxman Markey, please make the following adjustment to your reference case:

President's FY 2010 Budget

- Please use as your underlying reference case the Energy Information Administration (EIA) April 2009 Update of the Annual Energy Outlook 2009 (AEO2009). Along with the AEO 2009, please insert the economic projections in the "Economic Assumptions and Analyses" section of President Obama's FY10 Budget Proposal into your underlying economic assumptions (and please adjust your carbon dioxide emissions accordingly).

CHANGES TO THE H.R. 2454 SCENARIO

Please answer the following questions and modify Scenario 2 (H.R. 2454 scenario) with the following assumptions:

ADAGE

- EPA's existing Waxman-Markey analysis using ADAGE provides electricity generation numbers for fossil fuels without CCS, but does not differentiate between natural gas and coal. This obscures the rate at which fuel switching occurs between coal and natural gas. Please break out these categories individually and the implicit capacity factors.

Natural Gas

- Please provide annual natural gas details including: supply, price and demand for the top 10 (countries) producers and consumers of natural gas.

Uncertainties

- Please include a list of key uncertainties that exist with the modeling and the requisite resources/analyses that are required to reduce those uncertainties.

Nuclear

- EPA's existing Waxman-Markey ADAGE analysis places exogenous constraints on nuclear power. Please explain these constraints.

- Please explain the basis for assuming 150 percent growth in nuclear generation by 2050 in Scenario 2.

- EPA's original Reference Case shows modest annual nuclear generation growth from 2010 to 2030, and no continued growth in nuclear generation from 2030 to 2050. Please explain.

CHANGES TO THE REVISED H.R. 2454 CASE

Please run the revised H.R. 2454 case (as outlined above) with the following assumptions:

Offsets

- For each of the following cases (Constrained Nuclear and Biomass Case; Constrained Biomass, Nuclear, and CCS case; Natural Gas Constrained Case;), including the revised H.R. 2454 case, do a zero international offset case and another case where the annual amount of available international offsets is restricted to 30% of available offsets.

- International offsets are to be purchased at the equilibrium allowance price and not the cost of compliance price.

Biomass

- EPA's core Waxman-Markey analysis shows biomass generation growing to over 500 billion kilowatt-hours by 2050. Please provide a discussion regarding the environmental sustainability and land use impacts of such large biomass use.

Constrained Nuclear Case

- In your ADAGE model, please constrain nuclear power to AEO 2009 Updated Reference Case growth through 2030.

Constrained Biomass Case

- In your ADAGE model, please constrain biomass power to the AEO 2009 Updated Reference Case growth through 2030.

Constrained CCS Case

- In your ADAGE model, assume that carbon capture and storage technology does not become commercially available until 2030.

Low Technology Case

- In your ADAGE model, please assume carbon capture and storage technology does not become commercially available until 2030; constrain nuclear power to AEO 2009 Updated Reference Case growth through 2030; constrain biomass power to the AEO 2009 Updated Reference Case growth through 2030.

Carbon Price, Technology, Generating Capacity: ADAGE and IPM

- Please provide an alternative carbon price case which uses the carbon prices from ADAGE (Alternative Reference Case) in a run using the IPM model. Then when running the IPM model, insert the ADAGE electric sector emissions caps. Report the allowance prices, changes in technology, and the generating capacity (by fuel) required to get to the emissions reductions in ADAGE.

EXPANDED WAXMAN-MARKEY ANALYSIS

- Using the assumptions underlying the Reference Case, including the change to the reference case noted above, please expand the model to include the complete Waxman-Markey bill, including all applicable efficiency and performance standards. Please provide justifications for provisions that cannot be modeled.

- The expanded model should include the 450 ppm GHG concentration trigger for Presidential action beginning in 2015 (Sec. 707).

- Run the Constrained Nuclear Case, Constrained Biomass Case, Constrained CCS Case, and the Low Technology Case for the Expanded Model

INTERNATIONAL EMISSIONS AND GLOBAL CO2 CONCENTRATIONS

- Please conduct an analysis that examines the role this bill plays in the G-8 consensus of limiting global warming to two degrees Celsius (3.6 degrees Fahrenheit) above pre-industrial levels.

- This analysis should show the impact of this bill on temperature change and corresponding global greenhouse gas concentrations with and without a U.S. policy.

- Please provide the emissions trajectories of the top ten developing countries assuming no commitments to reduce emissions and the corresponding global greenhouse gas concentrations with and without a U.S. policy change.

- Run sensitivity analyses of countries with and without firm reduction commitments, based on the following scenarios:

    - No U.S. policy and developed countries agreeing to a 50% reduction below 1990 levels by 2050; No U.S. policy and developed countries agreeing to an 80% reduction below1990 levels by 2050. Both cases should not include Russia or developing country commitments.

- U.S. policy and developed countries agreeing to a 50% reduction below 1990 levels by 2050; U.S. policy and developed countries agreeing to an 80% reduction below 1990 levels by 2050. Both cases without Russia or developing country commitments.
- U.S. policy and developed countries agreeing to a 50% reduction below 1990 levels by 2050; U.S. policy and developed countries agreeing to an 80% reduction below1990 levels by 2050. Each case with top 10 developing countries commitment of 20% reductions of 2005 levels by 2050.
- U.S. policy and developed countries agreeing to a 50% reduction below 1990 levels by 2050; U.S. policy and developed countries agreeing to an 80% reduction below 1990 levels by 2050. Each case with top 10 developing countries commitment of 50% reductions of 2005 levels by 2050.
- U.S. policy and developed countries agreeing to a 50% reduction below 1990 levels by 2050; U.S. policy and developed countries agreeing to an 80% reduction below1990 levels by 2050. Each case with top 10 developing countries commitment of 20% reductions of 2015 levels by 2050.

ADDITIONAL CHANGES

- EPA's current approach for calculating household costs misrepresents the wealth impacts on households by reporting an average annual net present value. Please report the equivalent reduction in household wealth as a one-time upfront payment (i.e. the present value of the annual real dollar consumption losses from 2010-2050).

- EPA should provide data necessary to address questions regarding the adequacy of the Waxman-Markey bill in providing sufficient allowances for energy intensive trade exposed industries (EITE). Specifically, for each year from 2012 to 2050, please provide data on emissions, predicted direct compliance costs and predicted indirect compliance costs for all H.R. 2454 EITE rebate eligible sectors and for all ADAGE energy intensive manufacturing sectors, broken out by 4 digit NAICS code or 6 digit code where available.

- Additionally, please provide the number and predicted value of allowances reflecting the H.R. 2454 EITE rebate set-aside in each year from 2012 to 2050.