## Appendix D Letters from the Committee on Science

## U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON SCIENCE

**SUITE 2320 RAYBURN HOUSE OFFICE BUILDING** WASHINGTON, DC 20615-6301 (202) 225-6371

> TTY: (202) 226-4410 March 3, 1998

The Honorable Jay E. Hakes Administrator **Energy Information Administration** U.S. Department of Energy 1000 Independence Avenue, SW Washington, DC 20585

Dear Dr. Hakes:

We appreciated your verbal offer for the Energy Information Administration (EIA) to undertake an analysis of the Kyoto Protocol, particularly focusing on U.S. energy use and prices and the economy in the 2008-2012 time frame. The purpose of this letter is to confirm that offer and to formally request that analysis. We would also like you to include in your study the impact of the penetration of more major efficient technologies that are or near commercial availability and other assumptions that have a major bearing on carbon reductions in the United States.

Given the uncertainties that exist regarding the level of carbon reductions that the United States must commit to if it is to be in compliance with the Kyoto Protocol, we suggest that several cases be analyzed. Those cases should bound the possible range of carbon reductions and include intermediate reduction targets that provide sufficient information to guide policy decisions. As resources permit, cases should also be examined that deal with major policy alternatives in the energy area.

Our staffs will be happy to work with you on this study. We realize that there are numerous alternatives to how the Nation can proceed to reduce carbon emissions and our mutual discussions of those issues should help to frame the analysis. We would appreciate the results of your analysis by this fall. In advance, thank you for your assistance and we commend you and your agency for your consistently reliable energy information and analyses.

ES SENSENBRENNER, JR.

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April 22, 1998

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The Honorable Jay E. Hakes Administrator Energy Information Administration U.S. Department of Energy 1000 Independence Avenue, SW Washington, DC 20585

Dear Dr. Hakes:

On March 3, 1998, we formally requested that the Energy Information Administration (EIA) undertake an analysis of the impact of the Kyoto Protocol on U.S. energy use, prices and the economy in the 2008-2012 time frame. The purposes of this letter are to more fully define the assumptions for that study and to recommend the specific cases we would like you to consider.

Because of the uncertainties associated with the level of sinks, offsets, emissions of all six greenhouse gases, and carbon trading that could result, we would like you to examine several different targets for U.S. energy-related carbon emissions reductions. The plausible cases should span a range of targets, from 7 percent below 1990 levels as the most extreme case to 34 percent above 1990 levels, representing the 2010 emissions level in the *Annual Energy Outlook 1998 (AEO98)* reference case. Also, for this set of cases we would prefer that you use *AEO98* policy, technology and market assumptions—that is, no additional policies or funding should be assumed unless those changes can be justified solely based on the existence of the Protocol. Also, the nuclear option should be limited to life extension of existing nuclear units, if they are economic.

## The recommended cases are:

- 7% below 1990 levels (the Kyoto Protocol target without offsets, sinks and international trading);
- 3% below 1990 levels (State Department estimate of sinks and offsets from reforestation, afforestation, and reductions in other greenhouse gases);
- stabilization at 1990 levels;
- 9% above 1990 levels (State Department estimate of sinks and offsets, plus the EIA estimate
  of permits available from Annex I countries of the Former Soviet Union);
- 14% above 1990 levels (stabilization at 1998 emissions levels),

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- 24% above 1990 levels (State Department estimate plus global international trading as defined by Dr. Janet Yellen's testimony of March 4, 1998 before the House Commerce Subcommittee on Energy and Power); and
- 34% above 1990 levels (EIA reference case levels in AEO98).

With this set of cases, we expect that the EIA will be able to closely estimate the impact on the U.S. energy system and economy for a wide range of values for offsets, sinks, and carbon trading. For example, if sinks and offsets from reforestation, afforestation, and reductions in other greenhouse gases relax the Kyoto target by 4 percent as the State Department has estimated, and if the United States could purchase all of the estimated 165 permits from the Annex I countries of the former Soviet Union, and if no permits were allowed for the Clean Development Mechanism, the carbon target to be examined for the United States would be 9 percent above 1990 levels, or 1,471 million metric tons.

For each case examined, the target should be achieved on average for the 2008 to 2012 period and stabilize at that target post-2012. You should assume that the United States will begin to respond by 2005 to both reflect anticipatory actions by industry and consumers, and to meet the Kyoto Protocol's Article 3.2 requirement that "Each Party included in Annex I shall, by 2005, have made demonstrable progress achieving its commitments under this Protocol."

We would also like you to evaluate other uncertainties regarding: (1) economic growth; (2) construction of new nuclear plants; and (3) technology cost, performance, and penetration as sensitivity cases for some of the target cases described above (e.g., carbon stabilization at 1990 and 1998 levels).

If you have questions concerning these assumptions, please contact Harlan Watson and Mike Rodemeyer of the Science Committee staff.

F. JAMES SENSENBRENNER, JR.

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GEORGE E. BROWN, JR. Ranking Minority Member