



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OCT 02 2007

OFFICE OF
AIR AND RADIATION

The Honorable Jeff Bingaman
United States Senate
Washington, DC 20510

Dear Senator Bingaman:

At your request, the Environmental Protection Agency (EPA) has started to conduct a technical and economic analysis of the Low Carbon Economy Act of 2007 (S. 1766).

At this time, I am pleased to present the first part of your request:

- A chart showing individual nations' and regions' historic contribution to greenhouse gas concentrations.
- A chart showing the effects of the emission targets of the three climate bills (S. 280 from Senators Lieberman and McCain, S. 485 from Senators Kerry and Snowe, and your legislation, S. 1766) on global greenhouse gas concentrations.

In developing these charts, EPA used the MiniCAM model (a well respected tool within the climate economics community) and the Climate Analysis Indicators Tool (CAIT) developed by the World Resources Institute, which compiles global emissions data.

Some of the key insights from the initial analysis include the following:

- From 1850-2000, energy-related CO₂ emissions from four regions (USA, EU 25, the former Soviet Union countries (CIS), and China) contribute to 74% of the increase in CO₂ concentrations, while the rest of the world contributes the remaining 26%.
When considering both energy-related CO₂ emissions and emissions from land-use change from 1950 – 2000 (1950 was the year when land use data became sufficiently available and reliable), the contribution to the increase in CO₂ concentrations is much more evenly shared. The top 7 contributors make up 86% of the increase, while an additional eight countries contributed the remaining 14%.
 - Contributions to the 86% were as follows: Africa, 5%; China, 10%; Commonwealth of Independent States, 12%; Latin America 12%; Asia 13%; EU 16%; and the USA, 17%.
- The three bills achieve similar levels of cumulative GHG emissions abatement, assuming under Bingaman-Specter (S. 1766) the Technology

Accelerator Payment (TAP) is not triggered and the 2050 targets of 60 percent below 2006 emissions levels are adopted.

- Compared to Lieberman-McCain (S. 280), Bingaman-Specter (S. 1766) requires a smaller percentage reduction of emissions in covered sectors, but since S. 1766 has broader coverage than S. 280, the total abatement achieved by both bills is similar.
- In 2095, the cumulative effect of the bills on lowering global CO₂ concentration is estimated to be between 23 and 25 ppm. For context, the reference scenario assuming no one in the international community changes their current policies projects a global concentration of 718 ppm in 2095 and the scenario assuming aggressive international action projects a global concentration of 496 ppm.

My staff is available to you and your staff to answer any questions you may have on this portion of the analysis. We look forward to delivering the complete analysis to you by November 15, 2007.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert J. Meyers", written in a cursive style.

Robert J. Meyers
Principal Deputy Assistant Administrator