



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
AIR AND RADIATION

The Honorable James M. Inhofe
United States Senate
Washington, DC 20510

Dear Senator Inhofe:

Thank you for your letter dated June 9, 2009, to Administrator Jackson concerning EPA's recent analysis of the Waxman-Markey American Clean Energy and Security (ACES) Act, H.R. 2454. The Administrator asked me to respond on her behalf.

The Agency's most recent modeling of H.R. 2454 was delivered to the House Energy and Commerce Committee on June 23, 2009, and is also online at: <http://www.epa.gov/climatechange/economics/economicanalyses.html>. That analysis (analysis and appendix are attached) addresses many of the questions and comments posed in your letter, as discussed below.

Offsets availability – Our analysis shows that without international offsets, the allowance price would increase 89 percent relative to the core policy scenario. However, we have found that the bill's annual limit on domestic offsets would never be reached. While the limits on the usage of international offsets (accounting for the extra international offsets allowed when the domestic limit is not met) would also not be reached, we have found that the usage of international offsets would average over 1 billion tons of carbon dioxide equivalent (tCO₂e) each year. Our analysis also shows that if international offsets were not available for the first ten years of the policy, the allowance price would increase by three percent. Additional side scenarios showing the effects of delayed or limited availability of international offsets are also included in the analysis (slides 39 and 40).

In your letter, you note that the U.S. will face competition for available offsets which will increase offset costs. Our analysis does reflect competition from other countries for international offsets. Slides 31 through 40 of the document and slides 19 through 32 of the appendix provide more information on the domestic and international offsets analysis.

Technology availability – Our short-term analysis (slide 27) indicates that early deployment funding and bonus allowance provisions for carbon capture and storage (CCS) result in some penetration of new coal capacity with CCS technology (about 3 GW in 2015 and 16 GW by 2025). EPA's analysis of CCS is also presented using two long-term economy-wide models over the period 2015 to 2050. The ADAGE model projects that 60 GW of CCS capacity will be built by 2050 (slide 17). Also, please note that slide 89 of the appendix provides more detail on the

short-term CCS assumptions including a list of over 4 GW of projects being pursued for deployment by 2015 or earlier.

Overlapping requirements – EPA’s most recent analysis of H.R. 2454 includes estimates of both the costs and savings associated with developing and deploying programs complementary to the cap and trade program, such as energy efficiency measures and the renewable electricity standard (see, for example, slide 29).

Nuclear power availability – EPA’s latest analysis shows lower amounts of new nuclear generation in the near term compared to our older Lieberman-Warner analysis primarily because of changes in the reference case that result in lower overall demand for new generation capacity, including low- and zero-carbon sources such as nuclear power. Our Lieberman-Warner analysis used the Energy Information Administration’s (EIA) Annual Energy Outlook (AEO) 2006 to project energy demand and future economic growth while our newer H.R. 2454 analysis is based on EIA’s AEO 2009 projections released in March 2009. The 2009 analysis contains much lower projections of future greenhouse gas emissions growth (see slide 11 for a depiction of this change and slides 17 and 27 for the power sector results).

Regional analysis – EPA’s economy-wide analysis does include some regional results, for the West, the Plains, Midwest, South, and Northeast (see pages 78-82 of the appendix; also see slide 28 for projected changes in coal production in several regions). We analyze both primary energy use (outlined by energy type) and consumption for these five regions, from 2010 to 2050. Our analysis takes into account such factors as an area’s economic base, its existing fossil fuel capacity, and how allowance allocations may impact regional consumption, income, and GDP.

For the Plains region, for example, our results show that this area appears to experience declines in consumption that are above average. In addition to its reliance on energy production, the Plains region has a higher overall energy intensity for its economy (Btus of energy per dollar of GDP) than the national average, and also depends more on fossil-fuel electricity generation than other regions.

Overall, we found that impacts on consumption in several regions are close to U.S. averages.

Again, thank you for your letter. If you have further questions, please contact me or your staff may call Patricia Haman in EPA’s Office of Congressional and Intergovernmental Relations at 202-564-2806.

Sincerely,



Gina M. Carthy
Assistant Administrator

Attachments:

- HR 2454 Analysis
- Appendix to Analysis