

Congress of the United States
House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

2321 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6301

(202) 225-6371
www.science.house.gov

August 13, 2014

The Honorable Adam Sieminski
Administrator
Energy Information Administration
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Administrator Sieminski,

As the Administration considers regulations to reduce carbon emissions from fossil-fired power plants, the need for robust, objective, and well-grounded technical analysis of impacts on the American economy is imperative. The Environmental Protection Agency (EPA) has performed some analysis of its proposed Emissions Guidelines for Greenhouse Gas Emissions from Existing Stationary Sources: Electric Utility generating Units. Setting aside key legal and technical problems with EPA's novel approach to setting standards, EPA's compliance modeling disregards a number of confounding factors and broader economy-wide impacts.

We applaud the Energy Information Administration (EIA) for providing credible, transparent historical analyses over the years. As a result, we request that EIA analyze the impacts of the proposed guidelines using the specifications provided below. Given the magnitude of EPA's proposal, an expedited process would be greatly appreciated.

Because multiple analyses are important for understanding the possible impacts of the proposal, we are simultaneously asking EPA to re-run its model using the same specifications. This will allow for a side-by-side comparison of results. As requested of EPA, please provide your analysis by September 15, 2014. My staff is available to work with you to clarify any questions. Thank you for your prompt attention to this critical matter.

Sincerely,



Lamar Smith
Chairman
Committee on Science, Space, and
Technology

cc: Gina McCarthy, Administrator, Environmental Protection Agency
Eddie Bernice Johnson, Ranking Member, Committee on Science, Space, and Technology

Specifications for Analysis

Baseline Case:

The analysis should be based on EIA's Annual Energy Outlook 2014 (AEO2014) through 2040: baseline case "No GHG Concerns."

Policy Case:

Target reductions: 26% by 2020; 30% by 2030; 45% by 2040.

Alternative Policy Case:

Target reductions: 26% by 2020; 30% by 2030; 45% by 2040. Emissions reduction strategies limited to EPA "Building Blocks" 1 and 2 (heat rate improvement; dispatch changes among affected EGUs).

Sensitivity Analyses:

Run on both the Policy Case and Alternative Policy Case described above.

1. Accelerated nuclear retirement pursuant to the AEO 2014 side case;
2. Low natural gas supply pursuant to AEO 2014;
3. High LNG exports: 10 bcf/d by 2020, 15 bcf/d by 2025, and 20 bcf/d by 2030 from Gulf Coast and Atlantic Coast LNG terminals;
4. No market for EGU generated CO₂; and
5. Aggregate of S1+S2+S3+S4.

Model Output and Analysis (state, regional, and national annual data):

All price point information should be reported in both real and nominal dollars.

1. Disposable income.
2. Jobs impact.
3. Greenhouse gas emissions - CO₂ from electric generation, accounting for power plant fuel supply methane leakage.
4. National, regional electric markets, aggregation in NERC regions in 2005 base, 2012, 2015-2040.
5. Coal plants retired: 2005 base, 2012, 2015-2040.
6. Reserve margins in NERC regions.

7. Natural gas supply, accounting for LNG exports.
8. Natural gas prices: domestic, LNG in Europe, LNG in Asia-Pacific.
9. Incremental infrastructure costs: electric transmission, natural gas infrastructure, CO2 infrastructure.
10. Costs: electricity, natural gas to non-electric users.
11. Stranded capital costs by year, aggregate.
12. Cost of power in baseline case and cost of power in Alternative Policy Cases from new plants.
13. Renewables: capacity, % in each NERC region, capacity factors, supplemental backup (spinning reserve), regional loss of load probability (LOLP) analysis.
14. NEMS natural gas information, including:
 - a. Supply curve in AEO 2014, data used to validate new module, results of model validation;
 - b. Retrospective analysis (projections vs. actual) for wellhead prices, production, and net imports: specifically, AEO2008, AEO 2010, AEO 2012; and
 - c. Results of Stanford Energy Modeling Forum critiques/evaluation.
15. MAGICC analysis of sea level rise and global temperature for assume climate sensitivities of 3.0, 1.5, 1.0 for:
 - a. Baseline case using U.S. CO2 emissions through 2040 and Rest of World (ROW) emissions from IEO 2013; and
 - b. Policy Case of 30% power plant emission reductions through 2030 and 45% in 2040.
16. Social Cost of Carbon analysis through 2040 using the U.S. emissions through 2040, ROW emissions from IEO2013:
 - a. FUND and DICE models results using Climate sensitivities 3.0, 1.5, 1.0;
 - b. Provide results based on the use of a domestic-only social cost of carbon for 3% and 7% discount factors; and
 - c. Provide the predicted sea level rise and temperature for each year.