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# United States Senate

COMMITTEE ON  
ENERGY AND NATURAL RESOURCES

WASHINGTON, DC 20510-6150

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August 16, 2011

Mr. Howard Gruenspecht  
Acting Administrator  
Energy Information Administration  
1000 Independence Ave. SW  
Washington, DC 20585

Dear Mr. Gruenspecht:

Over the past decade, Congress has considered many different legislative proposals to drive the development and deployment of clean generating technologies in the power sector and reduce the greenhouse gases resulting from the generation of electricity. During the current Congress I have focused my attention in this regard on a policy to establish a national Clean Energy Standard (CES) that would require an increasing percentage of electricity to be generated from clean sources. To this end, the Senate Committee on Energy and Natural Resources put forward a white paper seeking public input on the design of a CES. As the next step in the development of a legislative proposal, I am writing to request that you conduct an analysis of the effects of such a national Clean Energy Standard (CES) under a series of different scenarios.

The primary elements of the proposal to analyze should be as follows:

- The entities subject to the CES include all electric service providers that sell electricity to retail consumers. The base against which the clean requirement should be calculated is defined as all electric utility retail sales in a given calendar year.
- The yearly clean energy targets should ramp linearly from the current state of qualifying clean energy generation to an overall target of 80% clean energy in 2035 and holding at 80% indefinitely beyond 2035.
- Full or partial clean energy credits should be awarded to generators with a lower carbon-intensity (as measured on a carbon dioxide equivalency basis) than that of new supercritical coal generation (“new scrubbed coal plant” as defined in Table 8.2 of *Assumptions to the Annual Energy Outlook 2011*, <http://www.eia.gov/forecasts/aeo/assumptions/pdf/electricity.pdf>). Zero emission generation technologies should receive 1 credit for each MWh of retail electricity sold. Fossil generation with a carbon intensity equal to or greater than new supercritical coal should receive zero credits. Partial credits should be awarded to fossil-fuel utilities generating with a lower carbon-intensity than supercritical coal

proportional to their improvement over supercritical coal per MWh.

- Clean energy credits may be banked indefinitely.
- Generation from existing nuclear and hydroelectric utilities should be counted towards the overall target, but they should not be awarded credits. That is, the sum of all credited generation and generation from existing nuclear and hydroelectric plants should equal, by 2035, 80 percent of sales. The target for credited generation would therefore be reduced by the generation from existing nuclear and hydroelectric plants.

In addition, please also conduct the seven additional “sensitivity runs” identified below to consider the effects of changing certain important policy variables in the core policy:

#### Alternate crediting mechanisms

- 1) Award credits to all existing clean generation.
- 2) Deduct generation from existing hydroelectric and nuclear generation plants from the base against which a utility’s requirement is calculated.
- 3) Credit technologies as follows:
  - New and uprated nuclear generation, new and incremental hydroelectric generation, and renewable generation should receive 1 credit per MWh of retail electricity sold.
  - New and existing Natural Gas Combined Cycle (NGCC) generators should receive 0.5 credits per MWh of retail electricity sold.
  - Coal equipped with carbon capture and storage at greater than 90% capture efficiency should receive 0.9 credits per MWh of retail electricity sold.
  - Natural Gas equipped with carbon capture and storage at greater than 95% capture efficiency should receive 0.95 credits per MWh of retail electricity sold.
  - Existing nuclear and hydroelectric generators should receive 0.1 credits per MWh of retail electricity sold.

#### Exclusion of small utilities

- 4) Exempt all utilities selling less than 4 million MWh per year from compliance with the standard.

#### Alternative compliance payment:

- 5) Allow compliance alternately to be achieved through a payment that begins at 2.1 cents per kilowatt hour and rises at an inflation-adjusted rate of 5% per year.
- 6) Allow compliance alternately to be achieved through a payment that begins at 3.0 cents per kilowatt hour and rises at an inflation-adjusted rate of 5% per year.

Additional energy efficiency measures

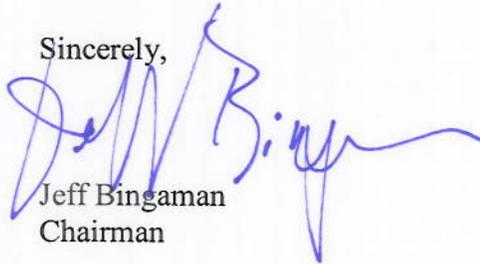
- 7) Implement additional efficiency standards and codes as in the "Expanded Standards and Codes" case of America's Energy Outlook 2011 (as described in Appendix E of the AEO 2011)

In your analysis of these policy scenarios, I ask that you specifically address:

- The impact on deployment of clean technologies in terms of both type and scale nationally and by region, as well as the change in total generation mix to determine what resources new clean generation is displacing.
- The annual impact on electricity and natural gas prices on both a regional and national basis throughout the projection period as compared to a business-as-usual baseline.
- The impact of the proposal on total U.S. greenhouse gas emissions and on power sector greenhouse gas emissions.
- The feasibility of achieving clean energy targets and the anticipated use of the alternative compliance payment.

Thank you for your attention to this request. I ask that my staff be briefed prior to the release of information. Should you or your staff have any questions, please contact Kevin Rennert with the Senate Committee on Energy and Natural Resources at (202) 224-7826.

Sincerely,



Jeff Bingaman  
Chairman