



June 12, 2009

Honorable John F. Kerry  
United States Senate  
Washington, DC 20510

Dear Senator:

I am writing in response to your questions about an analysis by the Congressional Budget Office (CBO) that I discussed in my May 7 testimony before the Senate Finance Committee.<sup>1</sup>

That testimony addressed the impacts of a possible cap-and-trade program for reducing U.S. emissions of carbon dioxide (CO<sub>2</sub>). In that testimony, I indicated that the price increases associated with an illustrative cap-and-trade program that CBO considered would result in an average cost per household of \$1,600 a year. That figure is an estimate of the *gross* per-household cost due to the imposition of a price on emissions; the *net* per-household cost, which accounts for other features of the program that would reduce households' costs or raise their income, would be substantially lower. In addition, the \$1,600 cost estimate derives from the particular cap-and-trade program that CBO examined. The cost of cap-and-trade programs that have significantly different design features, such as the one that would be established under the bill recently approved by the House Energy and Commerce Committee (H.R. 2454, the American Clean Energy and Security Act of 2009), could be significantly different.

More specifically, under the illustrative cap-and-trade program that CBO analyzed, the government would create allowances (that is, rights to emit CO<sub>2</sub>) and firms that are regulated under that program would need to acquire such allowances. The government could either sell them (obtaining revenues that it could use in various ways, such as reducing taxes, providing rebates to consumers, or paying for other priorities) or give them away. In most cases, firms would pass the cost of acquiring the allowances (as well as their cost of reducing emissions) on to households in the form of higher prices for energy-intensive goods and services. Most of that estimated gross cost of \$1,600 per household consists of the market value of the allowances that firms would have to acquire.

But much of the value of those allowances would ultimately accrue to households in people's various roles as workers, investors, consumers, and taxpayers. The average *net* per-household

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<sup>1</sup> Statement of Douglas W. Elmendorf, Director, Congressional Budget Office, before the Senate Committee on Finance, *The Distribution of Revenues from a Cap-and-Trade Program for CO<sub>2</sub> Emissions* (May 7, 2009).

cost would account for both the loss of purchasing power that households experienced because of higher prices and the share of the allowance value that they received (either directly by being given allowances or indirectly by benefiting from the revenues that the government or other entities received from selling the allowances).

Entities that received free allowances could readily convert them into cash by selling them in a large and liquid secondary market. Which households would ultimately benefit from free allocations would depend on how those allowances were distributed. For example, allocations to existing producers would tend to benefit their shareholders, while allocations to regulated distributors of electricity that were passed on to households as energy rebates would benefit households more broadly.

Differing characteristics of alternative cap-and-trade programs can have a significant effect on the price of the allowances and thus on the gross costs per household. The particular cap-and-trade program that CBO considered in its illustrative analysis was designed to induce a 15 percent reduction in carbon dioxide emissions. It did not cover other greenhouse gases, and the analysis assumed that firms could comply only by reducing their emissions. In contrast, the program that would be established under H.R. 2454 would cover six greenhouse gases (including CO<sub>2</sub>) and would allow firms to comply with the cap on emissions by purchasing offset credits. Those credits would be generated when entities that were not covered by the cap reduced or sequestered emissions in ways approved by the Environmental Protection Agency—by capturing methane from landfills, altering agricultural practices or avoiding deforestation in developing countries, for example. Those differences in design features could have significant implications for compliance costs:

- To the extent that emissions of other greenhouse gases could be reduced at a lower cost than that required for CO<sub>2</sub> emissions, the inclusion of those other gases would reduce the cost of achieving a given target for emissions.
- If firms could obtain offset credits more cheaply than cutting their own emissions, allowing firms to comply by purchasing credits could significantly lower the cost of achieving a given target.

Differences between the design features of the illustrative cap-and-trade program that CBO considered and the one that would be established under H.R. 2454 would lead to different allowance prices for any given target and, in turn, to a different per-household cost. In fact, CBO's estimate of the price of an allowance necessary to achieve a 15 percent reduction in greenhouse gas emissions under H.R. 2454—\$16—is significantly less than the \$27 price previously estimated for the illustrative cap-and-trade program for CO<sub>2</sub> emissions.<sup>2</sup> As a result,

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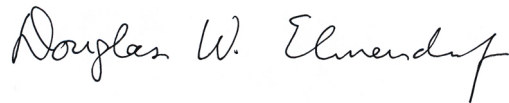
<sup>2</sup> See Congressional Budget Office, cost estimate for H.R. 2454, the American Clean Energy and Security Act of 2009 (June 5, 2009).

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the average gross cost per household in CBO's illustrative analysis does not reflect the cost of achieving a similar reduction under H.R. 2454. CBO is in the process of estimating a per-household cost of the greenhouse gas cap-and-trade program that would be established under H.R. 2454.

CBO would be pleased to address any further questions that you might have. I can be reached at (202) 226-2700. The staff contact for this analysis is Terry Dinan, who can be reached at (202) 226-2927.

Sincerely,



Douglas W. Elmendorf  
Director

cc: Honorable Barbra Boxer, Chairman  
Honorable James M. Inhofe, Ranking Member  
Senate Committee on Environment and Public Works

Honorable Jeff Bingaman, Chairman  
Honorable Lisa Murkowski, Ranking Member  
Senate Committee on Energy and Natural Resources

Honorable Max Baucus, Chairman  
Honorable Chuck Grassley, Ranking Member  
Senate Committee on Finance

Honorable Henry A. Waxman, Chairman  
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House Committee on Energy and Commerce

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