



April 14, 2009

Rep. John Boehner (R-OH)  
H-204, The Capitol  
Washington, DC 20515

**Joint Program on the Science  
and Policy of Global Change**

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Dear Representative Boehner,

I write to correct an estimate I sent on April 3 to counter what we feel is a misrepresentation of our work by the National Republican Congressional Committee. Because the Committee did not specify how they got their number of \$3150 per family we appear to have made an apples vs. oranges comparison, and there was an error in our calculation. As we now understand it, the Committee's number is our estimate of auction revenue in 2015 divided by the number of households in the country—about 117 million. A correct estimate of that cost (as opposed to auction revenue) for the average household just in 2015 is about \$80 per family, or \$65 if more appropriately stated in present value terms discounted at an annual 4% rate. (Also our number was drawn from an old analysis that is not well calibrated to either current legislative proposals or US economic conditions.)

The reasons for this difference remain as discussed in my previous letter. Auction revenue is determined by the CO<sub>2</sub> price and how many allowances are issued—allowances tell us how many tons of CO<sub>2</sub> (or more broadly greenhouse gases) will continue to be emitted. The cost of reducing emissions depends on how much emissions *are reduced* not on how much *continues to be emitted*. The CO<sub>2</sub> price reflects the cost of the last ton of emissions reduced, but there are many options that cost less than avoiding the last ton and so CO<sub>2</sub> price multiplied by the number of tons (either reduced or emitted) is not a measure of cost to the economy to be spread among families. Also, the cost to households depends on how allowances or allowance revenues are distributed.

Also, focusing on just the costs in a single year of a multi-year policy can be misleading, and it is useful to calculate an average cost per household in present value terms over the entire life of the proposed policy. The present value cost per average current household through 2050, as corrected, is about \$800. Again, this estimate includes the direct effects of higher energy prices, the cost of measures to reduce energy use, the higher price of goods that are produced using energy, and impacts on wages and returns on capital. The cost per household will of course vary from our hypothetical average family depending on the household's circumstances, though the burden on lower income households can be offset through the use of auction revenues.

Sincerely,

John M. Reilly  
Associate Director for Research, Joint Program on Global Change  
& Senior Lecturer, MIT Sloan School