

One Page Summary of Ted Gayer's Testimony

My testimony addresses whether estimates of the social cost of carbon should consider the global or only the domestic costs of greenhouse gas emissions. The key points are:

- A global measure of the social cost of carbon is appropriate if the intent is to use it to support the development of a global system of reducing greenhouse gases, in which U.S actions are completely reciprocated.
- Absent such an approach, for domestic agencies considering domestic regulations, in which the costs are incurred domestically, a global measure deviates from standard practice and seems at odds with the intent of long-standing executive orders and authorizing statutes.
- The global measure is 4 to 14 times greater than the estimated domestic measure, which is significant. By exclusively using the global social cost of carbon, agencies are claiming that their rules provide benefits that in fact largely accrue to foreign citizens.
- Use of a global measure requires much more scrutiny and justification than it has received to date. At the very least, agencies should report the expected domestic benefits and only separately and transparently report the expected foreign benefits of their actions, informed by concrete evidence of reciprocity expected from other countries.

Testimony of Ted Gayer
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Committee on Science, Space, & Technology,
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Chairs Biggs and LaHood, Ranking Members Bonamici and Beyer, and Members of the Subcommittees on Environment and on Oversight, I appreciate the opportunity to appear here today to discuss the social cost of carbon.

The social cost of carbon is an estimate of the monetized damages caused by a one-ton increase in greenhouse gas emissions in a given year. It is a conceptually valid and important consideration when devising policies and treaties to address climate change.

Yet estimating the value of the social cost of carbon is an enormously complex and uncertain exercise. It requires understanding the effect of a ton of a greenhouse gas on global temperatures; the effect of temperature change on agricultural yields, human health, flood risk, and myriad other harms to the ecosystem; monetizing these various damages into dollar terms; and determining how much to balance harm to future generations against the interests of the current generation. In 2009, the U.S. government established an interagency

working group, composed of scientific and economic experts from the White House and a number of agencies, to develop a range of estimates for the social cost of carbon, subsequently used by agencies to evaluate federal regulations.

My focus is on the specific question of whether the social cost of carbon should account for the global or the domestic harm of a ton of a greenhouse gas.¹ In a world in which the United States and all the other major emitters of greenhouse gases adopted a coordinated set of policies to address climate change, a global measure would be appropriate, since greenhouse gases contribute to damages around the world no matter where they occur.

But we don't live in such a world. Instead, in the U.S. we have opted for a suite of regulatory policies, ranging from subsidizing lower-carbon energy sources, mandating energy efficiency levels in buildings, vehicles, and household appliances, requiring transportation fuels to contain minimum volumes of different renewable fuels, and restricting emissions from electric utilities. Given the diversity of regulations directed at climate change, it is useful and important for the agencies to coordinate on a single measure for the social cost of carbon. But the question is

¹ Much of my testimony is drawn from work I have done with W. Kip Viscusi and shorter pieces co-authored with Susan Dudley, Art Fraas, John Graham, Randall Lutter, Jason F. Shogren, and W. Kip Viscusi. I have submitted some of these as part of my written statement.

whether they should report and consider the climate benefits to U.S. citizens or to the world. The interagency working group opted for a global measure, which has since been the basis for considering the benefits associated with all climate-related regulations.

I believe that the exclusive focus on a global measure runs counter to standard benefit–cost practice, in which only the benefits within the political jurisdiction bearing the cost of the policy are considered. It also seems at odds with the expressed intent of long-standing executive orders and of authorizing statutes. For example, the main regulatory guidance document that has been in place for over 20 years is Executive Order 12866, which makes clear that the appropriate reference point for analyzing federal regulatory policies is the U.S citizenry, not the world. And a subsequent guidance document by the Office of Management and Budget (known as Circular A-4) maintained an emphasis on domestic benefits. Similarly, when enacting the Clean Air Act, Congress stated that its purpose was to “protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and productive capacity of its population,” which again suggests a focus on domestic benefits. Similar language is found in other authorizing statutes for environmental regulations.

The difference between global and domestic benefits of greenhouse gas regulations is significant, as the global measure is 4 to 14 times greater than the estimated domestic measure. For example, for its proposed regulations for existing power plants, the EPA estimated climate benefits amounting to \$30 billion in 2030. However, the estimated domestic climate benefits only amount to \$2-\$7 billion, which is less than EPA's estimated compliance costs for the rule of \$7.3 billion. The use of a global social cost of carbon to estimate benefits means that agencies will adopt regulations that could cost Americans more than they receive in climate-related benefits. This approach could be especially problematic if U.S. actions simply shift emissions overseas.

I believe that adopting a global measure for the benefits of a domestic policy would be justified if U.S. actions led to complete reciprocation from other countries. The question is whether efforts by the United States to regulate greenhouse gases might spur reciprocity by other countries to do so as well, generating domestic benefits that are 4 to 14 times as great as the direct domestic benefits to the U.S.-only policy. This is doubtful, since the regulations taken under existing U.S. laws, such as the Clean Air Act, are not tantamount to treaty commitments that can establish a formal basis for other countries matching the efforts undertaken domestically.

By using the global social cost of carbon, the agencies are claiming that their rules—which impose substantial domestic costs—provide benefits that in fact largely accrue to foreign citizens. Of course, many Americans are altruistic and care about the welfare of people beyond our borders. But foreign aid decisions should be made openly, not hidden in an obscure metric used in rulemaking.

A global measure of the social cost of carbon is appropriate if the intent is to use it to support the development of a global system of reducing greenhouse gas emissions, such as through a worldwide carbon tax. I favor a carbon tax for the U.S. that replaces regulations and relies on border-tax adjustments to incentivize other major emitters to follow suit. But, absent such an approach, for domestic agencies considering domestic regulations, in which the costs are incurred domestically, a global measure deviates from standard practice and requires much more scrutiny and justification than it has received to date. At the very least, agencies should report the expected domestic benefits and only separately and transparently report the expected foreign benefits of their actions, informed by evidence of concrete reciprocation expected from other countries. Thank you.