

**Select Committee on Energy Independence and Global
Warming**

“Clearing the Smoke: Understanding the Impacts of Black Carbon Pollution.”

March 16, 2010

10:00 am.

1310 Longworth House Office Building

Questions for the Record

Questions for all panel members:

- 1) Would eliminating or reducing black carbon emissions merely “buy us time” while we figure out how best to deal with GHG emissions, or do we need to include it as a critical component of a balanced portfolio of climate change actions?
- 2) Why did the Kyoto Protocol fail to address black soot and other tropospheric ozone as methods of addressing global warming?
- 3) It seems that most GHG and black carbon emissions are coming from India, China and developing nations. Shouldn't efforts to address global warming be focused mainly on them?

Questions for the scientists (Bond, Ramanathan, Shindell):

- 1) Why is the Antarctic spared from the effects of black carbon?
- 2) As scientists, do you consider the work done by the IPCC to be the “gold standard” of scientific research?
 - Would you use the information and conclusions from IPCC reports, especially the most recent one in 2007, without any reservation?
 - Would you incorporate IPCC data into your body of work without hesitation?
- 3) If you were in the position to do so, how would you structure a comprehensive climate change bill?
- 4) Given the extent of the impact of black carbon on the Arctic and Himalayan glaciers, and the potential consequences for various water supplies, shouldn't this be a number one priority issue for those Asian countries that would be directly affected? Why is this not the case?

Questions for Dr. Bond:

- 1) What source of black carbon emissions should we focus on the most in order to get the most reductions?
- 2) Widely regarded to be the largest regional sources of soot, how can the U.S. address black carbon emissions from biomass burning and brush fires in Asia?
- 3) In the U.S., when using wood as an energy source, do you consider it to be a significant source of black carbon? What about as a source of GHG emissions?

- 4) Given the global warming impact from black carbon, can a global climate change treaty that ignores black carbon and focuses solely on GHG emissions be effective in addressing global warming?

Questions for Dr. Ramanathan:

- 1) Why does the IPCC's latest Assessment Report in 2007 estimate black carbon's radiative forcing to be 0.44 Watts per meter square, which is almost half that of your figures of 0.9 Watts per meter square?

Questions for Mr. Schneider:

- 1) If the U.S. does not address black carbon, and only focuses on GHGs, then even if Congress passed a stringent cap and tax bill today, would the world still experience global warming from the continued black carbon emissions from some developing nations?
- 2) There is tremendous global pressure on developed countries like the U.S. to implement a cap and tax bill. Why is there not an equal push/pressure on developing countries to reduce black carbon emissions through elimination of inferior cooking stoves and the immediate replacement of inefficient diesel engines with new and more efficient products?
- 3) What sort of mechanisms do you think the U.S. can implement to encourage foreign countries, specifically Russia and China, to reduce their black carbon output?
- 4) Despite China's recent reductions in the number of older diesel engines, what has been the overall trend for China's black carbon output? Has the increase of vehicles in China and construction boom resulted in a net increase of black carbon?
- 5) What is the cost of retrofitting existing diesel engines with the necessary diesel particulate filters? How much additional cost is added to clean diesel engines?
- 6) How do you respond to the observation that diesel engine filters that reduce black carbon are known to reduce fuel efficiency and increase GHG emissions?
- 7) How do you encourage poor people to purchase cooking stoves that are better for the environment, but cost more to heat their food than what they currently use? How do you deal with the cultural resistance/issues that lead to skeptical views of new technology?
- 8) In your testimony, you note your support for a provision of the Waxman-Markey bill which "calls for providing assistance to foreign countries to reduce, mitigate, and otherwise abate black carbon emissions, and specifically outlines action to provide affordable stoves, fuels or both stoves and fuels to residents of developing countries."

- How much assistance do you believe will be necessary to make a significant reduction of black carbon?
 - What sort of “assistance” would be most effective and how could the United States hold those countries accountable for responsible use of such assistance?
 - What are your thoughts on ventures between private businesses and countries that appear to be successful, e.g. Envirofit, which has sold 100,000 stoves in India for about \$15 a stove?
- 9) Your encouragement of offsets for stove replacement programs raise some troubling questions about who would get the offsets – manufacturers of the stoves? The government of the foreign country? The individuals who purchase the stoves?
- 10) How much funding do you anticipate a 1% allocation of auction value from an economy wide cap-and-trade bill would generate? Are there other options which may offer a stronger alternative to reduce global warming?