

**Statement of Mary S. Booth, PhD, Partnership for Policy Integrity
Science Advisory Board review of Biogenic C panel draft report
August 31, 2012**

My comments are intended to provide some context for the SAB's report. We think that including this information, if only in the letter to the Administrator, would improve it.

The timing of the report is concurrent with the release of the Massachusetts biomass regulations. These regulations acknowledge the fact that wood-fueled bioenergy facilities emit more CO₂ than coal or gas plants, creating a "carbon debt" that takes decades to pay back.

Like the Massachusetts regulations, the SAB report acknowledges that burning whole trees can have a long-lasting impact on emissions. However, it could be made more useful in the context of Clean Air Act permitting. EPA needs the biogenic accounting framework so that facilities can determine the "Best Available Control Technology", or BACT, for a particular pollutant, in this case carbon dioxide. Under BACT, EPA requires facilities to compare fuels and technologies to determine which combinations will reduce pollution the most.

Any comparison of biomass with fossil fuels under BACT should acknowledge that because of low energy density and high water content of biomass fuels and the resulting low efficiency of energy conversion, biomass facilities emit more CO₂ per unit energy than fossil fueled facilities. I don't think this information appears anywhere in the SAB report, though I may have missed this.

These factors are also critical to the concept of "carbon debt". When you compare a bioenergy scenario that has greater CO₂ emissions per unit energy and forest harvesting that degrades the forest carbon sink, with the "business as usual" fossil fuel scenario, with lower emissions per unit energy and a forest carbon sink that is continually taking up CO₂, of course the atmosphere "sees" more carbon under the biomass scenario. In the near term, and by "near term" I mean over at least a couple decades, wood-fueled bioenergy is a disaster from a CO₂ emissions perspective.

In contrast, the approach called for in the Sedjo dissent, which claims bioenergy is carbon neutral as long as growth exceeds harvesting on a landscape scale, ignores the central drivers of the carbon debt – the fact that biomass emits more CO₂ than fossil fuels, and that forests are currently sequestering energy emissions. It is little more than magical thinking.

Some additional context would also improve the report. The report should acknowledge the explosive growth that is occurring in the bioenergy industry, growth that is driven in large part by treatment of bioenergy as carbon neutral.

According to the Forisk database, bioenergy plants built between 1980 and 2005 consume about 13.8 million tons of wood a year. Wood use at pellet plants of this vintage is 374 thousand tons per year. However, wood use at bioenergy plants built and under construction just since 2005 is an additional 20.8 million tons a year, and wood use at pellet plants of this vintage is 16 million tons a year, with much of the pellets shipped overseas to Europe. Wood use at liquid biofuels plants, an emerging sector, is 10.5 million tons a year.

EPA justified the deferral of counting biogenic emissions saying that bioenergy facilities only burned waste wood. This has never been true and becomes a more dangerous fiction by the day. We encourage the panel to put the report in context by acknowledging the influence of the exploding bioenergy industry on the nation's forests and greenhouse gas emissions.