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To: Science Advisory Board Panel on Biogenic C Accounting
From: Mary S. Booth, Director, Partnership for Policy Integrity

Our comments today consider the panel's treatment of the timeframe issue.

EPA asked the panel whether the timeframe for computing a BAF should vary by policy, or be fixed. This question has driven the panel's current stance, that the timeframe is determined by finding that point at which the modeled carbon stocks of the reference and bioenergy scenarios are no longer changing relative to each other. Critically, the panel appears to think that a single timeframe – determined by the feedstock with the longest perturbation cycle – should be applied to all feedstocks.

However, EPA asked the wrong question about timeframes, or at least, the panel has answered it in an unnecessarily narrow way. As the panel knows, the BAF is *not* a single number – it's a dynamic curve, that changes over time. Only by comparing those curves for different feedstocks can we determine the carbon implications for different biomass fuels.

Tying calculation of the BAF to a single year in the distant future collapses the BAF down to a single number – completely eliminating the dynamic nature of the BAF and the information it contains. Further, calculating the BAF by averaging over the whole period gives credit for carbon sequestration occurring over very long timeframes where outcomes become less and less certain. Also, because the BAF is simply a ratio, under the panel's current averaging approach, it is possible for feedstocks with greatly differing carbon debt payoff times to have identical BAF's.

The solution is to run the modeling out over however many years you want, acknowledging increasing uncertainty, but generating a BAF for each year. Then for any given policy context – for instance, the need by the Clean Power Plan to reduce emissions by 2030 – read the BAF for that year off the curve.

To make this example more specific, suppose we want to know the net emissions profile of a coal plant cofiring biomass in 2022 and 2030, benchmarking years for the Clean Power Plan. Under the panel's approach, the net emissions impact of this in the years of interest would be reduced by using a BAF that assumes full knowledge of forestry practices for 100 – 150 years into the future, and thus grants credit for cycles of planting and carbon resequestration that may never occur.

In contrast, using the BAF taken off the curve at the years 2022 and 2030 would have a much higher degree of certainty, because it would be derived from from the gross emissions and the carbon re-sequestration that is modeled as happening up to that point, and no further.

The one thing that's certain about burning biomass for energy is that emissions are front-loaded. The eventual offsetting of emissions that occurs with forest regrowth is not certain. The consequences of being wrong about those frontloaded emissions are far greater than the consequences of being wrong about resequestration. If you underestimate resequestration and you're wrong, all that happens is you're pleasantly surprised by a resequestration bonus. But if you underestimate net emissions and you're wrong, the impacts are real and lasting. Further, the mistake can be compounded by this Heisenberg-ian quality where the industry itself is affected by how you make the measurement, and will be incentivized to cut more trees for fuel if the carbon cost of cutting trees is underestimated.

There's also a policy side to this. The Framework needs to consider the realities that EPA faces – the need to achieve emissions reductions in legislated timeframes, as with the Clean Power Plan, and the need to be able to demonstrate that emission reductions are real, verifiable, and lasting.

Thank you.