

Preliminary summary comments on EPA's
Draft Accounting Framework for Biogenic CO₂
Emissions Charge #4 Questions (“Evaluation
of Accounting Framework”)

Marilyn Buford, Steven Rose, Ken
Skog, Peter Woodbury,

- Preliminary recommendations for all charge questions under development

Does the framework accurately represent the changes in carbon stocks that occur offsite, beyond the stationary source (i.e., the BAF)?

First, we assume that the “carbon outcome” to be estimated as a result of stationary biogenic emissions is net atmospheric CO₂ change over a time period such as 100 years

No

- Not properly accounting for carbon recovery in forests or “anyway” emissions, which occur over a few to many decades
- Reference point baseline not estimating actual C gains/losses associated with biogenic emissions
- Regions by default “sourcing” and “non-sourcing” regions, but actual C changes may or may not be consistent.
- No consideration of uncertainty of whether likely to achieve our assumed goal
- ...

Does the framework accurately represent the changes in carbon stocks that occur offsite, beyond the stationary source (i.e., the BAF)?

Continued

- Landfill CH₄ treated via CO₂. However, the change of form should not be ignored in avoided emissions due to the different GWP.
- Inconsistencies need to be resolved – (1) relative to stationary fossil fuel emissions accounting, (2) land management and GHG flux accounting, (3) baseline use, (4) treating all forests as a C debt and ag as C credit
- However, most of the accounting variables *for evaluating carbon fluxes directly from the feedstock source to the stationary source are appropriate*. Mistake in computing L and the non-intuitive formulation and terminology should be addressed.

Is it scientifically rigorous?

No

- Many elements not adequately discussed and scientifically supported – e.g., reference point approach, leakages, losses.
- Insufficient justification for substituting space for time – facility engages landscape (v. parcels)
- Did not consider starting point for commercial forest C accounting as regeneration
- BAF value for roundwood & logging residue unlikely to reflect “difference in CO₂ concentrations” in atmosphere in 50 – 100 yrs
- Uncertainty is not acknowledged and considered

Does it utilize existing data sources?

Yes, but...

- Data source unclear for some of the information required
- Data considered are not adequate to attribute emissions to a facility
- Dubious data sufficient to support proposed framework
- Data from individual feedstock producers appears necessary – costly and burdensome

Is it easily updated as new data become available?

Don't know

- Some pieces updatable – e.g., FIA data
- Others, not clear given that implementation is unclear
- Also, may not be meaningful to update annually for some data (e.g., soil & forest carbon)

Is it simple to implement and understand?

No

- The framework is not easy to understand and non-intuitive
- The framework appears to be difficult to implement, possibly unworkable, especially due to data and facility-by-facility requirements and calculations
- More implementation specifics are needed – e.g., frequency and timing of calculations and crediting, specific data sources and updating processes over time

Can the SAB recommend improvements to the framework to address the issue of attribution of changes in land-based carbon stocks?

- Yes, given our assumption about goal – recommendations under development

Are there additional limitations of the accounting framework itself that should be considered?

Yes

- Many issues left open, yet actual proposals made. Ambiguity should be removed. e.g., 3 feedstock categories or more, leakage not included but it is.
- Feedstock groupings – not sure what these mean, if anything.
- Additional and more detailed case studies would be useful – landfills, switchgrass, waste, other regions
- Without specifying goals of the policy clearly, and without specifying the different policy contexts for this accounting framework, it is challenging to evaluate the utility of the framework.
- Undesired consequences due to this kind of partial accounting – perverse incentives for investors and land-owners
- Cost-benefit analysis of the framework implications would be valuable
- Actual feedstock use will be market driven – framework doesn't appear to provide flexibility to accommodate (i.e., facilities limited to “approved” feedstock(s) and their BAF(s))