

Preliminary summary comments on EPA's  
Draft Accounting Framework for Biogenic CO<sub>2</sub>  
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 CO<sub>2</sub> 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 CH<sub>4</sub> treated via CO<sub>2</sub>. 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 CO<sub>2</sub> 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))