

The National Rural Electric
Cooperative Association

Comments
on

Call for Information on Greenhouse Gas Emissions
Associated with Bioenergy and Other Biogenic Sources
(75 *Fed. Reg.* 41173, July 15, 2010)

Submitted Electronically to:
The Environmental Protection Agency
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Introduction

The National Rural Electric Cooperative Association (NRECA) respectfully submits the following comments in response to the the U.S. Environmental Protection Agency's (EPA) notice and call for information on Greenhouse Gas Emissions Associated with Bioenergy and Other Biogenic Sources (75 *Fed. Reg.* 41173, July 15, 2010). We appreciate the opportunity to submit comments on the call for information on greenhouse gas (GHG) emissions associated with bioenergy and other biogenic sources, and request that they be made part of the public docket.

NRECA is a not-for-profit national service organization representing more than 930 not-for-profit, customer-owned rural electric cooperatives located in 47 states. NRECA's members serve more than 42 million end-use electric customers. NRECA's membership includes both distribution cooperatives that deliver electricity to the consumer and generation and transmission cooperatives that generate and transmit electricity to distribution co-ops. All or portions of 2,500 of the nation's 3,141 counties are served by rural electric cooperatives. Collectively, cooperative service areas cover 75 percent of the U.S. landmass.

Rural electric cooperatives differ in size, financial characteristics and other material characteristics when compared to overall electric power industry traits. Electric co-ops are small businesses that provide at-cost electric service. They serve an average of 7 consumers per mile of line and collect annual revenue of approximately \$10,565 per mile of line. This is in contrast to investor-owned utilities that average 35 customers per mile of line and collect \$62,665 per mile of line, and publicly owned utilities, or municipals, that serve an average of 47 customers per mile of line and collect \$86,302 per mile of line. This "small utility" characteristic distinguishes most NRECA members from a majority of the electric power sector. More than 90 percent of NRECA members are small entities under the threshold or definition of the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA). While these characteristics are not factors for the utility sector's SBREFA threshold, they illustrate rural electric cooperatives' concerns with potential additional permitting burdens for renewable energy sources.

NRECA is an active member of the Utility Air Regulatory Group (UARG) and fully supports the comments submitted by UARG in this rulemaking.¹ UARG's comments include a more expansive discussion of issues described below.

NRECA reserves the right to submit supplemental comments to augment the comments provided here or to provide examples.

¹ UARG is a voluntary, nonprofit group of electric generating companies and organizations and four national trade associations (NRECA, the Edison Electric Institute, the American Public Power Association, and the National Mining Association). UARG's purpose is to participate collectively on behalf of its members in EPA rulemakings, related litigation, and other Clean Air Act proceedings that affect the interests of electric generators.

Summary

In its Call for Information, EPA seeks “information and viewpoints from interested parties on approaches to accounting for greenhouse gas emissions from bioenergy and other biogenic sources.” EPA defines GHG emissions from bioenergy and other biogenic sources as emissions “generated during the combustion or decomposition of biologically-based material.” Among other things, EPA requests information on treatment of biomass under the PSD program; national-scale, smaller-scale and alternative accounting for biomass emissions and considerations of carbon neutrality; comparisons of the impacts from bioenergy and fossil fuel emissions as well as of the impacts of various kinds of bioenergy sources; considerations of whether some bioenergy sources may be distinguished as “renewable” or “sustainable”; and the potential treatment of other biogenic sources of carbon dioxide (CO₂).

This Call for Information addresses EPA’s radical departure in its final Tailoring Rule from prior bioenergy accounting and policy practices specified by EPA, other federal agencies, and global policy and practice. GHG emissions from the combustion of biomass – biogenic emissions – have been exempt from inclusion in GHG accounting totals since they are reabsorbed from the atmosphere as new biomass is grown in relatively short time frames—in contrast to fossil fuels which were removed from the atmosphere millions of years ago. Under the Tailoring Rule’s revised accounting procedure, if biomass is substituted for fossil fuel, it will show a net atmospheric increase in CO₂ emissions. This is inaccurate, and fails to reflect reality under a widely accepted set of bioenergy accounting and policy constructs.

This lack of recognition in the Tailoring Rule of the carbon neutrality of biomass will be an impediment to the use of biomass fuels in the shift of electric utilities to lower carbon fuel sources and renewable energy. This will undercut our efforts to increase fuel diversity and national energy security.

NRECA urged EPA to exempt CO₂ emissions from biomass from being counted in the PSD applicability threshold in its comments filed on the proposed Tailoring Rule. NRECA explained that biomass is widely considered to be a carbon neutral fuel. As is discussed in more detail below, NRECA believes that there is strong evidence supporting EPA’s exemption of biomass-related emissions of CO₂ from EPA’s PSD and Title V programs based on its previous actions and those of other U.S. agencies, states and international bodies.

Exempt Greenhouse Gas Emissions from Biomass Combustion or Oxidation under PSD/BACT

There is a substantial body of science to support the conclusion that biomass is a carbon neutral fuel. In its Call for Information, EPA cites sources of support for the carbon neutrality of biomass including the Intergovernmental Panel on Climate Change, the World Resources Institute, and EPA, among others. EPA itself, based upon prior work, has until recently promulgated rules that employ this same exemption. The history of exempting biogenic emissions from GHG accounting rules includes: EPA’s Renewable Fuel Standard life cycle analysis, EPA’s Mandatory Reporting of Greenhouse Gases rule, EPA’s Endangerment Finding, the California Low Carbon Fuel Standard life cycle analysis, the United Nation’s Framework Convention on Climate Change National Inventories, and Kyoto Protocol offsets. In addition, biomass is generally included as an

eligible energy category in state renewable portfolio standards, equivalent to wind, hydropower and solar energy.²

The Tailoring Rule is a significant paradigm shift that warrants delay while EPA sorts out the issues and implications more fully.

Bioenergy and fossil energy emissions are qualitatively and quantitatively different. There is a relatively fixed-sized, active pool of carbon that circulates between the atmosphere, the oceans, and terrestrial systems. Biomass carbon is part of this active pool. When released—upon combustion for energy production, or as a result of fire or decay—it is reabsorbed in new plants and trees. This is unlike carbon in fossil energy that was sequestered over geologic timescales and when released during combustion is not readily absorbed from the atmosphere. The life cycle of carbon from biomass is balanced so that the net of emissions and absorption is near zero.

The argument that biomass is not carbon neutral ignores appropriate temporal and spatial scales of carbon cycling and accounting. The appropriate temporal scale is a full cycle, starting with initial biomass growth and extending through the cycle to harvest and combustion. The appropriate spatial scale will capture biomass stocks across rotating age classes and management activities. A spatial scale that is too small—e.g., focusing on a harvested forest stand instead of its place within a larger system—is misleading. A scientifically defensible approach to assessing the CO₂ impacts of using biomass as fuel for electricity production is to compare biomass-related CO₂ emissions and sinks on a national scale. At this scale, forest health and volume are relevant to atmospheric concentrations of CO₂. Consistently produced, reliable data on U.S. forests and other land uses are assessed at the national scale through the U.S. Forest Service Forest Inventory and Analysis program and the U.S. Department of Agriculture's National Resources Inventory.³

Given the scientific evidence of carbon neutrality of biomass and the policy reasons for encouraging its use, EPA should consider available mechanisms to exempt biomass-combustion CO₂ emissions from PSD and Title V requirements. Options include:

- Revise the Definition of GHGs To Exclude CO₂ Emissions from Combustion of Biomass. EPA can revise the definition of pollutants subject to Clean Air Act (CAA) regulations to exclude CO₂ emissions to the extent those emissions result from biomass combustion. For example, EPA has adjusted the definition of an aggregated pollutant under the CAA to exclude emissions that do not share the harmful attributes common to the other components in the aggregate. In its regulation of ozone precursors, EPA has exempted from its definition of volatile organic compounds (VOCs) those compounds that are found to have negligible photochemical reactivity and therefore do not produce the harm – ozone formation – presented by other VOCs, which remain within that definition for regulatory purposes. Accordingly, EPA could revise its definition of GHGs for regulatory purposes to

² See the Database of State Incentives for Renewable Energy & Efficiency, <http://www.dsireusa.org/>

³ <http://www.fia.fs.fed.us/>; <http://www.nrcs.usda.gov/technical/NRI/>

include only those emissions that give rise to the effects identified by EPA and described as endangering the public health and welfare in the Endangerment Finding, and to exclude emissions that do not share those attributes. Specifically, EPA could define GHGs for PSD and Title V regulatory purposes as the aggregation of pollutants regulated under its Light-Duty Vehicle Rule, with the exception of CO₂ emissions from biomass combustion because those emissions do not make a net contribution of GHGs to the atmosphere—the basis for the Endangerment Finding and its subsequent promulgation of GHG emission standards in the Light-Duty Vehicle Rule. Alternatively, EPA could exclude CO₂ emissions from biomass combustion by revising its definition of “subject to regulation” under 40 C.F.R. §52.21(b)(49) and corresponding provisions.

- Exclude CO₂ Emissions from Biomass Combustion Under the “Absurd Results” Doctrine. In the Tailoring Rule, EPA justified its significant departure from statutory provisions establishing PSD and Title V applicability thresholds in part by invoking the “absurd results” doctrine. According to EPA, “under the ‘absurd results’ doctrine, the literal meaning of statutory requirements should not be considered to indicate congressional intent if that literal meaning would produce a result that is senseless or that is otherwise inconsistent with—and especially one that undermines—underlying congressional purpose.” However, with respect to exempting biomass emissions from the PSD program, EPA took a narrow view of the doctrine it otherwise expansively used, stating that a biomass exemption would not obviate the need for using the doctrine because such an exemption would not necessarily reduce to a substantial extent the number of PSD or Title V permits that would result from applying the statutory emission thresholds to sources of GHG emissions. Consistent with its expansive use of that doctrine, EPA could find that it should exclude biomass-combustion CO₂ emissions from PSD and Title V, even if those emissions were otherwise deemed “subject to regulation” under the Act.

Congress established the PSD program with the objective of ensuring that air quality is not made significantly worse by the construction of new major sources and the modification of existing major sources. Given the substantial scientific evidence that CO₂ emissions from biomass combustion do not contribute to a net increase in atmospheric concentrations of GHGs, these emissions will not deteriorate air quality as it relates to climate change. Therefore EPA can use the “absurd results” doctrine to exempt biomass-combustion CO₂ emissions from PSD and Title V requirements.

Adopt Simple Accounting Practices for Biomass Emissions

Consistent with EPA’s approach to the Mandatory Reporting of Greenhouse Gases rule, accounting practices for bioenergy should be as simple as possible to minimize compliance costs for newly regulated entities. Issues for consideration include:

- Bioenergy accounting and policy must recognize that bioenergy combustion returns an equal and opposite quantity of previously sequestered CO₂ to the atmosphere.
- Bioenergy accounting and policy must be separate from and independent of land use policy, given that land use policy must encompass food, feed, and fiber production systems and value chains as well as bioenergy systems, and must also account for broader social, cultural, and economic land use drivers.

- Bioenergy accounting and policy must not be disadvantaged relative to fossil fuel combustion if accounting includes full life cycle analysis.
- Bioenergy accounting and policy must employ successive full cycle temporal boundaries that start with the initial biomass growth and extend through the cycle to harvest, processing, transportation, and combustion.
- Bioenergy accounting and policy must acknowledge and reward the climate change benefits of temporary removal of atmospheric CO₂ and its storage in biomass systems, even when that biomass is subsequently harvested for bioenergy use.

Potential Impacts on Electric Generation

Biomass is a renewable fuel that is considered by many agencies, scientists and others to be environmentally sustainable. Because biomass is derived from forest and wood products as well as other plant materials, agricultural residues and urban and industrial wastes, it is relatively abundant. It is a domestic fuel and helps reduce U.S. reliance on imported fuels. It is also one of the few renewable fuels that can provide reliable baseload power. There is a significant potential for expanding the use of biomass domestically.⁴

However, a lack of recognition by EPA in CAA regulation of GHGs of the carbon neutrality of biomass will be an impediment to the use of biomass fuels in the shift of electric utilities to lower carbon fuel sources and renewable energy. This will undercut our efforts to increase fuel diversity and national energy security. Moreover, EPA would create similar disincentives were it to subject biomass to complicated and unnecessary accounting and other procedures under PSD, such as local or regional accounting.

Closing

NRECA appreciates the opportunity to provide comments on the call for information on GHG emissions associated with bioenergy and other biogenic sources. NRECA would be glad to answer any questions regarding these comments or provide additional information.

⁴ Estimates indicate that approximately 1.3 billion tons of biomass could be available by 2025, with significant agricultural- or forestry-based resources available in most states. *Biomass as Feedstock for a Bioenergy and Byproducts Industry: The Technical Feasibility of Billion-Ton Annual Supply*, U.S. Dept. of Energy (2005).