Joint Comments of the Green Power Institute and the California Biomass Energy Alliance on the ARB's *Climate Change Proposed Scoping Plan*

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Respectfully Submitted by:

Gregory Morris
Green Power Institute / Pacific Institute
2039 Shattuck Ave., Suite 402
Berkeley, CA 94704
(510) 644-2700

Introduction

The Green Power Institute (GPI) and the California Biomass Energy Alliance (CBEA) wish to comment jointly on two important points in the *Climate Change Proposed Scoping Plan*, the definitions in the *Errata Sheet* of anthropogenic and biogenic carbon, and the issue of double counting of fossil fuel use by biomass, biogas, and other renewable power generators who use small amounts of fuel for on-site rolling stock and other machinery applications such as pumps and diesel motors, and for the occasional start-up of boilers.

Definitions of Anthropogenic and Biogenic Carbon

The *Errata Sheet* provides the following definitions for anthropogenic and biogenic carbon:

> Anthropogenic: Emissions resulting directly from human activities, such as the combustion of fossil fuels in transportation and industrial activities, as well as process emissions from industrial activities. They may also include emissions that result from human influence on natural processes and processes subject to human control.
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> Biogenic: Emissions that are produced through natural processes. Biogenic CO2 emissions, for example, result from the oxidation (e.g., combustion) of biologically-derived carbon of recent origin. Biogenic emissions are not necessarily carbon-neutral.

The problem with these definitions is that they are not only vague and ambiguous, they are overlapping. Anthropogenic clearly includes all emissions of carbon from fossil fuels. However the second sentence in the definition for anthropogenic brings in some kinds of emissions of biogenic carbon. For example, burying biomass in a landfill, with subsequent emissions of CO_2 and CH_4, is certainly an example of "human influence on natural processes and processes subject to human control." On the other hand, the carbon in the landfilled biomass is also biogenic carbon. By the definitions above, the greenhouse gas emissions from a landfill could be classified as **both** anthropogenic and biogenic.

It might be argued that the term "oxidation" in the above definition of Biogenic excludes the landfill CH_4, which is carbon in reduced form. However, the fermentation process is by definition an oxidation process, and when conducted in an anaerobic (limited oxygen) environment, the oxidative fermentation process creates a mixture of oxidized and reduced carbon. Thus, by the definition in the *Errata*, the greenhouse-gas emissions from a landfill are anthropogenic. In addition, it is absolutely correct to say that both the CO_2 and CH_4 emissions resulting from the digestion or fermentation of biomass are biogenic, even by the definitions given above. Similarly, the emissions from biomass combustion, either controlled (power plants) or uncontrolled (open burning, including in piles and forest fires), can be classified as both anthropogenic and biogenic by the definitions in the *Errata Sheet*.

Our preference has always been to classify carbon as fossil or biogenic, rather than anthropogenic or biogenic. Not only are these two categories of carbon easy to define (fossil carbon is carbon in fossil fuels, biogenic carbon is carbon in biomass), they are completely non-overlapping. In addition, they make the important distinction between adding new carbon to the active carbon cycle, and using carbon that is already part of the cycle. As the final sentence in the *Errata* definition for Biogenic points out: "biogenic emissions are not necessarily carbon neutral." Of course, fossil emissions are never carbon neutral. Here are our proposed definitions:

Fossil: Emissions resulting from the use of fossil fuels and their derivates. Fossil emissions are never carbon neutral, but are additive to the carbon in the atmospheric circulation system.

Biogenic: Emissions resulting from the use of biologically-derived carbon of recent origin (biomass) and their derivatives. Biogenic emissions do not add new carbon to the carbon in the atmospheric circulation system, but they are not necessarily carbon neutral.

Double Counting of Fuels that are Regulated at the Distributor Level

CARB reporting requirements for biomass and biogas power generators requires the reporting of CO_2 emissions resulting from the combustion of fossil fuels used for burner startup and other on-site applications, such as motors and pumps. On the other hand, the *Proposed Scoping Plan* imposes reporting and compliance requirements for these fuels upstream on the fuel suppliers, who will report the emissions in their own sector, and will be required to retire the emissions with allowances or offsets. As a result, the reporting of emissions from the use of these fuels by biomass and biogas generators represents direct double counting. In order to correct this situation, CARB should drop the reporting requirement for these already-regulated fuels from the generator reporting protocols, and should make clear that the generators do not have to procure allowances or offsets for the emissions from these fuels, which are regulated at the fuel-supplier stage in the supply chain.