From: Bob Atchinson
To: Info
Subject: RGGI Program Review Comment
Date: Tuesday, October 24, 2023 5:31:24 PM

To Whom It May Concern,
I am presenting the following comments, as an energy coordinator and resident of Vermont, one of the RGGI coalition states:
Since the last RGGI program review, the U.S Environmental Protection Agency (EPA)
has confirmed that emissions from biomass power plants exceed those from fossil fuel-fired
EGUs. EPA's 2019 "Affordable Clean Energy Rule" stated that "when measuring stack
emissions, combustion of biomass emits more mass of emissions per Btu than that from
combustion of fossil fuels, thereby increasing CO2 emissions at the source" (emphasis added).7
Likewise, the IPCC has acknowledged on numerous occasions that biomass combustion should
not be considered "carbon neutral" "even in cases where the biomass is thought to be produced
sustainably" (emphasis added). These conclusions have likewise been affirmed by the court
system; then D.C. Circuit Court of Appeals Judge (and now U.S. Supreme Court Justice)
Kavanaugh held that "the atmosphere makes no distinction between carbon dioxide emitted by
biogenic and fossil-fuel sources," noting that there is "zero basis" to "distinguish biogenic carbon
dioxide from other sources of carbon dioxide."
From its inception, the RGGI program has failed to follow the science with regard to
regulating biomass emissions. The program allows "eligible" biomass to be treated as having
zero emissions when co-fired with fossil fuels, and does not cover emissions from stand-alone
biomass power plants at all. The Model Rule allows "eligible biomass" to include "sustainably
harvested" trees, when it has been well documented that sustainable harvesting programs are not
a proxy for carbon neutrality.10 Consequently, the program significantly understates current CO2
emissions from the power sector and lacks a mechanism to reduce these emissions

in the future.
This concern is not insignificant. In 2020, wood-burning biomass power facilities accounted for 2,315 GWh of electricity in the New England power grid alone.11 According to the most recent RGGI CO_2 monitoring data, non-fossil fuel-fired EGUs in the nine-state RGGI region emitted 18,005,228 tons of CO_2 in 2018 – representing 19.4% of total CO_2 emissions from in-region electricity generation. Furthermore, total CO_2 emissions from non-fossil fuel-fired EGUs more than doubled from 2005 to 2018.12
Large standalone biomass electric plants in the RGGI states typically burn wood chips, most of which are sourced directly from forests. A single facility has the potential to reduce forest biomass on a wide area of the landscape. For instance, the 70 MW Laidlaw Berlin BioPower plant in New Hampshire is permitted to burn 113 tons of wood per hour, including from whole logs chipped on site. This is the equivalent of clearcutting more than an acre of forest per hour.13 Whether burning wood sourced from whole trees or residues, the net carbon emissions from biomass combustion will impact the atmosphere on a timescale from decades to over a century – long past the time when steep emissions reductions must be achieved.14
As has been shown in the European Union, where the Renewable Energy Directive has driven a steep increase in combustion of wood fuels for electricity and heat, counting bioenergy generation, but not emissions, increases bioenergy buildout and carbon pollution while undermining deployment of clean renewable energy.15 In order to avoid such an outcome here, the RGGI program must include all carbon emissions from the electricity sector under the cap, not just fossil fuel emissions.
(2) Recommendations for modeling CO_2 emissions from bioenergy production
In order to accurately model carbon emissions from the electricity sector under various policy scenarios, the IPM must incorporate and model emissions from biomass energy.

In previous RGGI program reviews, PFPI and our colleagues have recommended the
modeling include the following assumptions for woody biomass combustion:
(1) A CO2 emission rate for biomass of at least 3,000 lb/MWh (reflecting direct "stack"
emissions) and,
(2) A CO2 emission rate for biomass that is between 0 lb/MWh and 3,000 lb/MWh (reflecting a partial discounting of CO2 emissions)
Counting stack emissions more closely approximates net atmospheric impact than assuming that emissions are zero, which is the functional outcome of not regulating wood-
burning power plants under the cap. Stack emissions are further an underestimate of the actual
net carbon impact of cutting and burning whole trees that would have otherwise continue to flourish and sequester carbon.

Conclusion

Biomass energy is neither "clean" nor "carbon neutral." Previous RGGI program reviews have failed to analyze the significant contribution of bioenergy emissions to the overall CO2 emissions from the electricity sector. As the most recent monitoring data show, these emissions are now approaching 20% of the CO2 emissions from in-region electricity generation. 24 It makes no sense to continue to allow almost all bioenergy emissions to go unregulated when those emissions are clearly net additive to atmospheric carbon levels. As such, PFPI recommends that RGGI, Inc. take the necessary steps and model those emissions and to include an analysis of these findings and necessary program reforms in the Third Program Review.

Sincerely,
for my children and yours,
Bob Atchinson
Plainfield Energy Coordinator

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Bob Atchinson