

NICHOLAS F. PERSAMPIERI
Burlington, VT
nickpersamp@yahoo.com

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RGGI PROGRAM REVIEW COMMENTS

I write as a concerned resident of Vermont and a retired attorney with substantial experience on air quality, including climate, issues. On October 30, 2023, I retired from the Vermont Attorney General's office where I worked for over 13 years and was the lead attorney on air quality issues and multi-state air quality and climate issues. Prior to that I worked for Earthjustice for 4 years, the U.S. Department of Justice's Environment and Natural Resources Division for 6 years, and the New Mexico Environment Department for 2 years. I have been involved in commenting on federal rulemakings and/or litigation regarding emissions from many types of sources, including power plants, refineries, landfills, residential wood heaters, and light and heavy-duty vehicles.

I write to urge you to fill a major gap in RGGI's coverage by expanding the program to cover wood-burning power plants. There is no justification for excluding these plants from the program. The science is clear that burning wood to generate electricity is worse from a climate standpoint than burning any fossil fuel, at least within the timeframe in which we must act to avoid the worst harms of climate change.

Burning wood to generate electricity emits more carbon dioxide per kilowatt-hour generated than fossil fuels- even coal, the most carbon intensive fuel." John Sterman, William Moomaw, Juliette N. Rooney-Varga and Lori Siegel, *Does wood bioenergy help or harm the climate?*, Bulletin of the Atomic Scientists, Vol 78, No. 3 (2022) 130, <https://thebulletin.org/premium/2022-05/does-wood-bioenergy-help-or-harm-the-climate/> Harvesting trees for burning in a power plant not only immediately releases the carbon stored in the trees, but it also impairs the ability of the forests to play their vital role in storing carbon. Older, larger trees store far more carbon than younger trees that may replace them.

While biomass energy proponents often claim that burning wood harvested from forests is carbon-neutral because the trees will grow back, this is specious. No one would claim that the greenhouse gas emissions from a fossil fuel plant can be ignored because forests are absorbing carbon. Further, it takes many years for regrowth to eliminate the carbon debt relative to burning fossil fuels created when wood harvested from forests is burned. A meta analysis of 245 case studies generated a mean payback period of 102 years for roundwood, 74 years for whole trees, 18 years for residues, 14 years for stumps and 75 years for mixed feedstocks. John S. Gunn, William R. Moomaw and Phillip Duffy, *Scientific Evidence Does Not Support The Carbon Neutrality of Woody Biomass, A Review of Existing Literature* (October 31, 2018) 4, available at <https://www.sig-nal.org/reports-and-tools> We simply do not have this kind of time to avoid increasingly dangerous impacts of climate change. In addition to taking time, payback by regrowth is highly uncertain. "Land harvested for bioenergy might be converted to pasture, cropland, or development, preventing regrowth." Sterman, *supra* at 130. "Even if the harvested

land is allowed to regrow, the trees may be harvested again, legally or illegally Even if the recovering forest is somehow protected against all future harvest, the trees face risks from wildfire, insects, disease, extreme weather and drought, all increasing as the climate warms.” *Id.*

Vermont has two wood-burning power plants, the McNeil Generating Station, a 50 MW plant located in Burlington, and the Ryegate plant. The owners of McNeil have proposed a plant expansion to provide steam heat to the University of Vermont Medical Center via a proposed steam pipe of one and one-half miles. In support of the project and continuing operation of the plant, fifty percent owner and operator Burlington Electric has claimed that the plant’s stack emissions can be ignored because the forest carbon stocks in a multi-county area in Vermont and New York have been increasing for decades. This ridiculous claim could be used to support the continuing existence of any type of greenhouse gas emitting source, including a coal fired power plant. Further, it is well known that the forests in Vermont were decimated by out- of- control logging which reduced forest cover to about 20% by the end of the 19th century, and that forest cover has been rebounding since then. Burlington Electric admits that it does include in its consideration of carbon impacts “Site-specific forest inventory change over time from harvest jobs from which wood fuel was procured . . . because McNeil does not own, manage, or directly control the forest management activities of the forestland from which the fuel is sourced.” Darren Lane and Adam Sherman, Summary Memorandum, Assessment of lifecycle GHG emissions from Joseph C. McNeil Generating Station (April 29, 2022), available at <https://www.burlingtonelectric.com/mcneil> at link for “Third-Party analysis by the experts at VEIC.” Burlington Electric also claims to burn mostly residues, and conceals from the public that the material it burns includes whole trees. There is no justification for ignoring the greenhouse gas impacts of a plant like McNeil. In order to address climate change we need to both cut emissions and maximize the ability of our forests to store carbon.

Of course, logging for bioenergy also has harmful impacts on biodiversity, and the ability of forests to hold water and prevent flooding.

For these reasons, which I hope will be explained more fully by others who have more time and resources to devote to this matter, I urge you to takes steps to include wood-burning power plants in your program. Please have the participating states undertake whatever statutory and/or regulatory changes are needed to accomplish this.

Thank you for considering my comments.

Respectfully submitted,

/s/ Nicholas F. Persampieri

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