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via email: karen.sabasteanski@deq.virginia.gov

re: 9VAC5-140. Regulation for Emissions Trading Programs, Revised Proposed

March 6, 2019

Dear Ms. Sabasteanski:

We represent six environmental organizations that are based in Virginia and other states. We are writing to express our concern that the Northam administration may decide to exempt carbon dioxide (CO<sub>2</sub>) emitted by burning biomass for electricity, typically forest wood, from the state's plan to cap and reduce emissions from power plants. Dominion Energy operates five power plants that could be exempted from Virginia's plan, four that burn wood exclusively, and the Virginia City Hybrid Energy Center that burns coal and "up to 20 percent biomass."<sup>1</sup> Allowing CO<sub>2</sub> emissions from biomass combustion to go unregulated – when in fact, wood-burning power plants emit more CO<sub>2</sub> per megawatt-hour than even coal plants – rewards cutting and burning forests for energy, when restoring and expanding forests is actually essential in the fight to reduce greenhouse gases.

Virginia should show leadership on climate issues by accurately counting CO<sub>2</sub> emissions from burning biomass. In previous official comments on Virginia's plan, several environmental organizations have provided the Commonwealth with two ways to accomplish this goal: directly count biomass-related carbon dioxide emissions from power plants, or use a net emissions methodology that calculates emissions assuming some CO<sub>2</sub> is offset. We urge you to adopt one of these approaches.

According to the Intergovernmental Panel on Climate Change (IPCC), reducing greenhouse gas (GHG) emissions by 45 percent from 2010 levels by 2030 is critical in order to keep global temperature increase from exceeding 1.5° C above pre-industrial levels.<sup>2</sup> Virginia's plan to reduce CO<sub>2</sub> emissions by 30 percent between 2020 and 2030 (focusing on commercial electric generating facilities with a capacity of at least 25 megawatts) is an important step forward in reducing GHG emissions. However, the plan should not at the same time incentivize cutting and burning forests for energy. The IPCC is clear that avoiding dangerous climate change requires not just reducing emissions, but increasing carbon uptake. Forest growth represents the only significant terrestrial sink for carbon dioxide emissions,<sup>3</sup> and reducing the forest sink by harvesting forests for energy increases atmospheric CO<sub>2</sub> by reducing carbon storage and sequestration.

At a public meeting in October, the state Air Pollution Control Board rightly removed the unexpected express exemption of biomass emissions from plants that co-fire biomass with coal. The body of the revised proposed rule appears to reflect that change by correctly renewing coverage of co-firing plants.<sup>4</sup>

However, it remains unclear whether the agency intends to cover co-fired biomass emissions because the summary of the revised proposed rule states that “other substantive changes in the re-proposed action include...exemption of fossil fuel units that co-fire with biomass from CO<sub>2</sub> accounting.” The Governor and his agency would be on solid scientific and policy ground in clearly covering woody biomass emissions.

Arguments that biomass carbon dioxide emissions should not be counted or that biomass should be treated as “carbon neutral” are often based on the claim that if forestry residues are used as fuel or pellet feedstock, emissions from combustion are no greater than the emissions from letting the material decompose, rendering the material effectively carbon neutral.<sup>5</sup> However, even under such best-case scenarios, current science shows burning biomass has significant net emissions that persist for decades.<sup>6</sup>

In 2015, Virginia U.S. Representatives Don Beyer and Gerald Connolly criticized a proposed EPA policy that would have counted biomass waste products or “sustainably harvested” biomass as emitting zero carbon dioxide under the Obama Administration’s Clean Power Plan (CPP).<sup>7</sup> Like Virginia’s proposed plan, the Clean Power Plan was intended to reduce carbon dioxide emissions from power plants. Rep. Beyer said he shared the concern of Virginia-based environmental groups that if biomass were exempted from regulation under the CPP, “Virginia will become known as a state that harvests forests to reduce its dependence on coal, rather than one that develops renewable technologies that clearly reduce emissions, such as solar and wind.”<sup>8</sup> Rep. Connolly wrote that “the decision to treat biomass as carbon-neutral may have unintended consequences that could actually undermine and inhibit our ability to reduce carbon emissions.”<sup>9</sup> Rep. Beyer cited a 2015 Washington Post story about how the European Union’s treatment of bioenergy as carbon neutral has driven forest clear-cutting in the U.S. Southeast to manufacture wood pellets that replace coal in the European Union.<sup>10</sup> Multiple scientists also weighed in on the importance of counting bioenergy emissions.<sup>11</sup>

Virginia has indicated that it needs to treat biomass as carbon neutral to be consistent with the Regional Greenhouse Gas Initiative (RGGI).<sup>12</sup> But that is a factually incorrect understanding of what RGGI does. The nine-state program in fact requires participants to count emissions from biomass when it is co-fired with a minimum amount of fossil fuel, providing an exemption for emissions from “sustainably harvested” biomass.<sup>13</sup> Virginia can improve on the RGGI policy and show truly robust climate leadership by counting all CO<sub>2</sub> emissions from biomass at commercial plants of 25 MW and above, and not granting exemptions that allow biomass to be treated as zero emissions.

We urge the Commonwealth to accurately count carbon dioxide emissions from biomass from commercial electric facilities of 25MW and greater. Doing so would affirm the Commonwealth’s leadership role on climate change and ensure a robust program for reducing emissions. Thank you for your consideration.

Sincerely,

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Staff Scientist  
Appalachian Mountain Club

William Snape III  
Senior Counsel  
Center for Biological Diversity (Norfolk)

Harrison Wallace  
Virginia Director  
Chesapeake Climate Action Network Action Fund

Adam Collette  
Program Director  
Dogwood Alliance

Gail Fendley  
President  
Michelle's Earth Foundation (Arlington)

Dusty Horwitt  
Senior Counsel  
Partnership for Policy Integrity

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<sup>1</sup> Dominion Energy. Biomass Energy. See <https://www.dominionenergy.com/about-us/making-energy/renewable-generation/biomass>.

<sup>2</sup> Intergovernmental Panel on Climate Change. Global Warming of 1.5° C, Summary for Policymakers. See [http://report.ipcc.ch/sr15/pdf/sr15\\_spm\\_final.pdf](http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf).

<sup>3</sup> United States Environmental Protection Agency (2015). Inventory of U.S. Greenhouse Emissions and Sinks: 1990 - 2013. United States Environmental Protection Agency. 1200 Pennsylvania Ave., N.W. Washington, DC

<sup>4</sup> Virginia Department of Environmental Quality, Air Pollution Control Board, Regulation for Emissions Trading [9VAC5-140], Revised Proposed Rule. See <http://townhall.virginia.gov/L/ViewStage.cfm?stageid=8476> (providing in 9VAC5-140-6020 that "'fossil fuel fired' means the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil fuel combusted comprises, or is projected to comprise, more than [5.0%] of the annual heat input on a Btu basis during any year" and providing in section 9VAC5-140-6040 that "any fossil fuel-fired unit that serves an electricity generator with a nameplate capacity equal to or greater than 25 MWe shall be a CO2 budget unit, and any source that includes one or more such units shall be a CO2 budget source, subject to the requirements of this part"; taken together, these sections indicate that if a plant uses more than five percent fossil fuel, its CO2 emissions would be regulated. Therefore, biomass-only plants would not have their emissions regulated, but co-fired plants would have their emissions regulated provided they use more than five percent fossil fuel. Dominion's Virginia City plant at least has the potential to be covered by the rule because it "uses coal and up to 20 percent biomass.").

<sup>5</sup> Dominion has made this claim in the past. Commonwealth of Virginia, State Corporation Commission. Transcript of hearings held January 12, 2011. Case No. PUE-2011-00073, Vol. III 01-12-2012. Page 693.

<sup>6</sup> Domke, G. M., et al (2012). "Carbon emissions associated with the procurement and utilization of forest harvest residues for energy, northern Minnesota, USA." Biomass and Bioenergy 36: 141-150; Laganière, J., et al (2017). "Range

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and uncertainties in estimating delays in greenhouse gas mitigation potential of forest bioenergy sourced from Canadian forests.” *GCB Bioenergy* 9(2): 358-369; Walker, T., et al (2013). “Carbon Accounting for Woody Biomass from Massachusetts (USA) Managed Forests: A Framework for Determining the Temporal Impacts of Wood Biomass Energy on Atmospheric Greenhouse Gas Levels.” *Journal of Sustainable Forestry* 32(1-2): 130-158; Mary S. Booth. Not Carbon Neutral: Assessing the Net Emissions Impact of Residues Burned for Bioenergy. *Environmental Research Letters*, Vol. 13, No. 3 (February 21, 2018).

<sup>7</sup> Letter from Janet G. McCabe, U.S. Environmental Protection Agency Acting Assistant Administrator Office of Air and Radiation, to Air Division Directors, Regions 1-10 (Nov. 19, 2014).

<sup>8</sup> Letter from U.S. Rep. Don Beyer to U.S. EPA Administrator Gina McCarthy (June 18, 2015).

<sup>9</sup> Letter from U.S. Rep. Gerald Connolly to U.S. EPA Administrator Gina McCarthy (May 19, 2015).

<sup>10</sup> Joby Warrick. How Europe’s Climate Policies Led to More U.S. Trees Being Cut Down. *Washington Post* (June 2, 2015).

<sup>11</sup> Letter from Dr. Viney P. Aneja et al. to EPA Administrator Gina McCarthy (Feb. 9, 2015). See [https://www.caryinstitute.org/sites/default/files/public/downloads/2015\\_ltr\\_carbon\\_biomass.pdf](https://www.caryinstitute.org/sites/default/files/public/downloads/2015_ltr_carbon_biomass.pdf).

<sup>12</sup> Virginia State Air Pollution Control Board Meeting. Tentative Agenda and Minibook (Oct. 29, 2018). Agency response to comment No. 67. Regional Greenhouse Gas Initiative Model Rule § XX-1.2 Definitions, Fossil fuel-fired. At [http://townhall.virginia.gov/L/GetFile.cfm?File=meeting\1\28304\Agenda\\_DEQ\\_28304\\_v1.pdf](http://townhall.virginia.gov/L/GetFile.cfm?File=meeting\1\28304\Agenda_DEQ_28304_v1.pdf).

<sup>13</sup> In the RGGI states, New York defines sustainable biomass as being sourced from forests that will assuredly be allowed to regrow, a necessary but not sufficient condition for sustainability and reduced carbon impacts.