From: Caroline Eader
To: Honorable Members of the Economic Matters Committee
Date: February 2, 2021 (Hearing date of 2/4/21)
Re: FAVORABLE - HB 332, "Renewable Energy Portfolio Standard [RPS] – Eligible Sources."

The objective of Maryland's Renewable Portfolio Standard (RPS) is to recognize "the environmental and consumer benefits associated with renewable energy."[1] With this goal in mind I respectfully request the Economic Matters Committee to vote in favor of House Bill 332, "Renewable Energy Portfolio Standard [RPS] – Eligible Sources."

It is well known that burning trash is one of the dirtiest forms of energy generation, with SO2 and NOx emissions of Maryland RPS resources being higher than state and PJM levels since 2010 due to the eligibility of black liquor, landfill-gas, and trash incineration to meet Maryland RPS requirements."[2]

The pollution emitted from trash incinerators has detrimental health effects on the citizens of Maryland, "Wheelabrator Baltimore...emits lead, which is implicated in a host of health effects, including developmental delays in children, and methane, a more potent greenhouse gas than carbon dioxide. A 2006 EPA analysis found that in 2000, incinerators were the fourth largest source of dioxins, highly toxic substances that the agency says can cause cancer."[3]

The Department of Natural Resource's "Final Report Concerning the Maryland Renewable Portfolio Standard," predicts that Maryland's **emissions profile may not decline** because its RPS-eligible sources include **combustion technologies such as trash incineration, biomass, black liquor, and LFG**.[4] [Emphasis added.]

In regard to carbon dioxide emissions, please see Table 2-8 from the Maryland Department of Natural Resources report that shows emissions of **CO2 per Mwh:** [5]

MSW (trash) = 2368
Black liquor = 506
Wood Waste = 339

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1 Maryland Public Service Commission, "Maryland Renewable Energy Portfolio Standard Program - Frequently Asked Questions," https://www.psc.state.md.us/electricity/maryland-renewable-energy-portfolio-standard-program-frequently-asked-questions/

2 Maryland Department of Natural Resources, "Final Report Concerning the Maryland Renewable Portfolio Standard as Required by Chapter 393 by the Acts of the Maryland General Assembly of 2017 " page ES-14, (December 2019), https://dnr.maryland.gov/pprp/Documents/FinalRPSReportDecember2019.pdf.

3 Jochem, Greta, *Grist*, "Waste of Energy Burning garbage? Chicken poop? Your state could be getting renewable energy from nasty sources." Dec 12, 2018.

4 Department of Natural Resources report, page 2-43.

5 Department of Natural Resources report, Table 2-8 "Emissions Profile of Resources Used to Meet the Maryland RPS, 2017"

Landfill Gas = 111
Solar, Wind, Hydro, Geothermal = 0

Table 2-8. Emissions Profile of Resources Used to Meet the Maryland RPS, 2017

	Fuel Source	RECs[1] (MWh)	Share	CO_2/ MWh[2]	NOx/ MWh[2]	SO_2/ MWh[2]
TIER 1	Agr. Biomass	345	0.0%	0.000	0.000	0.000
	Black Liquor	1,668,231	18.5	506.736	1.295	7.513
	Geothermal	1,880	0.0	0.000	0.000	0.000
	Hydro	882,114	9.8	0.000	0.000	0.000
	LFG	227,393	2.5	111.173	10.910	0.394
	MSW	732,424	8.1	2,368.188	4.135	0.493
	Biogas	11,284	0.1	55.556	0.000	0.000
	Solar (incl. Solar Thermal)	557,224	6.2	0.000	0.000	0.000
	Wood Waste	491,627	5.4	339.075	1.266	0.220
	Wind	3,002,388	33.3	0.000	0.000	0.000
TIER 2	Hydro	1,450,950	16.1%	0.000	0.000	0.000
	TOTAL	**9,025,860**				
	Weighted Average (Tier 1)			**366.008**	**1.095**	**1.728**
	Weighted Average (Tiers 1 & 2)			**307.170**	**0.919**	**1.451**

[1] ***Source:*** Maryland PSC 2018 ***Renewable Energy Portfolio Standard Report***.
[2] ***Source:*** PJM-GATS.

One of the common fear-tactics employed by the incinerator industry is that landfills emit more carbon dioxide and methane (a potent GHG), than what is emitted from incinerators. However, although methane and carbon dioxide are natural byproducts of the decomposition of organic material in landfills, the gases emitted would be reduced by composting the organic waste instead of land-filling. (Organics typically are 25-40% of the municipal waste stream.) The incinerator industry fails to inform decision-makers of this beneficial use of organic materials. Compost benefits the climate by reducing greenhouse gas emissions at landfills, and in promoting the uptake of carbon dioxide by vegetation.[6]

Support of HB 332 will not require the closure of the existing trash incinerators in Maryland, however, HB 332 will remove subsidies that are paid by Maryland ratepayers.

> "Tier 1 non-solar generators produced fewer than 760,000 RECs in 2011. In 2015, generators in Maryland produced approximately 1.3 million Tier 1 non-solar RECs. While it might appear that there was a significant addition of Tier 1 non-solar facilities between years 2011 and 2012, it was actually a reclassification of certain technologies, **namely municipal solid waste**

6 U.S. Compost Council, "Compost – Combating Climate Change,"
https://www.compostingcouncil.org/page/ClimateChangeBenefits

[TRASH], which led to the illusory increase—not the development of new generation sources."[7] [Emphasis added]

This was a windfall for the incinerator industry - it was (and still is) free money that comes from the pockets of Maryland ratepayers.

For the reasons above, in furtherance of reasonable environmental, climate, and fiscal policy for the benefit of the citizens of Maryland, I give my support to HB 332 to remove trash from receiving Maryland ratepayer subsidies.

Sincerely,

Caroline Eader
Master of Energy Regulation and Law, Juris Doctor

Zero Waste for Zero Loss
Clean Energy & Zero Waste Policy Support and Implementation

7 Maryland Energy Administration. Maryland's Renewable Energy Portfolio Standard, "An Insider's Perspective - What You Should Know", Jan. 30, 2017.