



Testimony Supporting HB0332
House Economic Matters Committee
February 2, 2021

5

Written testimony to the Economic Matters Committee in **support of HB 332** provided by the **Environmental Integrity Project**.

The Environmental Integrity Project supports HB 332 because burning trash does not produce clean or renewable energy. There are two trash-burning incinerators, sometimes called waste-to-energy (WTE) incinerators, operating within the State of Maryland: the Wheelabrator incinerator in Baltimore City and the Montgomery County Resource Recovery Facility (MCRRF) in Montgomery County. Currently, Maryland classifies these incinerators as Tier-1 renewable energy sources under its Renewable Portfolio Standard (RPS), which is inappropriate because these facilities emit significant amounts of health-harming pollution.

2018 Pollution Analysis

Trash incinerators typically emit more air pollution per unit of energy (measured in megawatt hours (MWh)) for many harmful pollutants than coal-fired power plants. Incinerator emissions include pollutants like mercury and lead that have serious and well-documented adverse health effects. In 2018, Maryland’s two incinerators emitted, on average, seventeen (17) times more of the neurotoxin mercury per unit of energy than Maryland’s four largest coal plants: Chalk Point, Morgantown, Brandon Shores, and Herbert A. Wagner. In addition to mercury, the incinerators emitted, on average, five times as much nitrogen oxides (NOx) per unit of energy as those coal plants. NOx is the primary pollutant that causes ground-level ozone to form, and parts of Maryland do not meet federal air quality standards for ozone.¹ Our analysis also showed that the incinerators emitted two times as much carbon monoxide per unit of energy generated than the previously mentioned coal-fired power plants. See the table below.^{2,3}

| Facility | 2018 Mercury Emissions (lbs/TWh) | 2018 NOx Emissions (lbs/MWh) | 2018 CO Emissions (lbs/MWh) |
|--|----------------------------------|------------------------------|-----------------------------|
| Chalk Point Plant | 5.30 | 1.91 | 0.27 |
| Brandon Shores and H.A. Wagner Plants ⁴ | 4.24 | 0.86 | 0.23 |
| Morgantown Plant | 3.40 | 0.57 | 0.22 |
| Wheelabrator/Montgomery County Incinerators | 71.4 | 4.29 | 0.40 |

¹ Maryland Department of the Environment, *Clean Air Progress Report 2020*, p. 1, available at <https://mde.maryland.gov/programs/Air/Pages/AirQualityReports.aspx>.

² U.S. Environmental Protection Agency. Emissions & Generation Resource Integrated Database (eGRID), *eGRID2018* Dataset. Used to gather energy generation data (net generation in MWh) for each facility.

³ Maryland Department of the Environment 2018 Emission Inventories, obtained through request under the Maryland Public Information Act. Used for emissions data.

⁴ The Brandon Shores and HA Wagner plants are located together at the Fort Smallwood coal plant complex.

Notably, when looking at the Wheelabrator trash incinerator in Baltimore City in isolation, our analysis showed that the 2018 mercury emissions rate from that incinerator was, on average, 33 times more per unit of energy than the rate of the coal plants.

Anticipated Changes

Our analysis is based on 2018 data and we understand that the Maryland energy landscape will shift over the coming years. Each of the coal plants included in our analysis has announced a date for retiring its coal-burning units, with Chalk Point plant scheduled to stop burning coal this year.⁵ In addition, Wheelabrator has recently entered into a settlement agreement⁶ with Baltimore City under which the company has agreed to reduce the amounts of NOx, mercury, and other pollutants emitted by its incinerator starting at the end of 2023. Specifically, Wheelabrator has agreed to make changes at the plant, including installation of three fabric filter baghouses, which are primarily used for control of particulates and metals, and agreed to lower pollution limits than those to which it is currently subject for several pollutants.

However, the Wheelabrator incinerator will continue to emit several toxic pollutants that pose significant risks to human health even in very small amounts, including mercury. Mercury is a potent neurotoxin that can cause cognitive development problems in infants that are exposed in utero.⁷ The primary health risk occurs via deposition of mercury in bodies of water, where it can bioaccumulate in fish.⁸ According to the Minnesota Pollution Control Agency, one gram of mercury entering a 20-acre lake over the course of a year “can contaminate the fish in that lake, making them unfit to eat on a regular basis.”⁹ In addition, the pollution controls that remove toxins from the air emitted from facilities like Wheelabrator typically concentrate those toxins elsewhere, such as in water discharges and/or in the incinerator ash that is produced by the facility and then disposed of at a nearby landfill.

Dirty Energy v. Real Solutions

Maryland’s ratepayers have subsidized dirty energy generated by trash incinerators for long enough. According to a recent analysis by Public Employees for Environmental Responsibility, Maryland’s two trash incinerators received renewable energy credits worth an estimated \$47 million from 2008 through

⁵ Shwe, Elizabeth, A Major Energy Operator in Md. Plans to Retire All Its Coal Plants by 2027, Maryland Matters, Dec. 21, 2020, at <https://www.marylandmatters.org/2020/12/21/a-major-energy-operator-in-md-plans-to-retire-all-its-coal-plants-by-2027/>.

⁶ See Condon, Christine, et. al, Baltimore Sun extends trash incinerator contract despite protests, Baltimore Sun, Nov. 5, 2020, at <https://www.baltimoresun.com/politics/bs-md-ci-bresco-contract-20201104-z5rqrc6qmbgg7jloa565p2fo2y-story.html>

⁷ U.S. EPA, Health Effects of Exposures to Mercury, at <https://www.epa.gov/mercury/health-effects-exposures-mercury>.

⁸ World Health Organization, Mercury and Health, at <https://www.who.int/news-room/fact-sheets/detail/mercury-and-health#:~:text=Exposure%20to%20mercury%20%E2%80%93%20even%20small,%2C%20kidneys%2C%20skin%20and%20eyes.>

⁹ Minnesota Pollution Control Agency, Preventing Mercury Pollution, at <https://www.pca.state.mn.us/quick-links/preventing-mercury-pollution>

2019, with another approximately \$9 million during that time going to an incinerator located in Virginia.¹⁰ These are public resources that are being misdirected and ought to go to truly clean energy sources, like offshore wind, that can create sustainable and well-paying jobs in Maryland. Maryland has already approved two offshore wind, but these farms have yet to be built and more offshore wind capacity should be pursued. In 2014, the U.S. Department of Energy has found that jobs associated with the offshore wind industry have average annual earnings (including benefits) of \$140,000 with supply chain job holders earning an estimated \$70,000 annually and induced jobs providing approximately \$50,000.¹¹

Incinerators do not rely on a form of renewable energy, but instead rely on a fixed waste stream, typically consisting of thousands of tons of trash a day. To the extent that incineration avoids methane emissions that would be produced by landfilling the same waste, incinerators are a poor solution to a real problem. Municipal solid waste landfills are a severely under-regulated source of air pollution. The Maryland Department of the Environment (MDE) took steps to begin addressing this in 2020 by initiating a rulemaking process for establishing more stringent regulations to limit landfill gas.¹² However, the most simple and effective solution the landfill methane problem is one that environmental advocates in Maryland have been seeking for years: increased diversion of organic waste away from landfills using composting and anaerobic digestion. In 2013, the EPA estimated that composting and anaerobic diversion practices each achieve a 95% methane reduction efficiency when compared to landfilling organic waste.¹³

Maryland has been subsidizing the false solution of trash incineration for over a decade using funds that were meant to achieve real and meaningful environmental and climate benefits. The millions of ratepayer dollars directed to facilities that pump toxins into the air that people breathe ought to be spent on actual solutions: increased composting and anaerobic diversion of organic waste to reduce landfill methane and increased energy capacity from truly clean energy sources like offshore wind. For all of these reasons, we urge the Committee to vote in favor of HB0332.

¹⁰ Public Employees for Environmental Responsibility, It's Time to Clean up Maryland's Clean Energy Program, Jan. 27, 2021, p. 6, at https://www.peer.org/wp-content/uploads/2021/01/1_28_21-Maryland-Dirty-Energy-Report-Final.pdf.

¹¹ U.S. Department of Energy, Economic Impacts of Offshore Wind, January 2014, at <https://www1.eere.energy.gov/wind/pdfs/57511.pdf>.

¹² MDE PowerPoint Presentation, Updating Maryland's Municipal Solid Waste (MSW) Landfill Regulations, September 21, 2020, at <https://mde.maryland.gov/programs/Regulations/air/Documents/MSWLandfillsPresentation092120.pdf>.

¹³ EPA, Global Mitigation of Non-CO2 GHGs Report: 2010-2030 (2013), Landfills, p. III-6, at https://www.epa.gov/sites/production/files/2016-06/documents/mac_report_2013-iii_waste.pdf (entire report available at <https://www.epa.gov/global-mitigation-non-co2-greenhouse-gases/global-mitigation-non-co2-ghgs-report-2010-2030>).