

THE COST OF BURNING TRASH

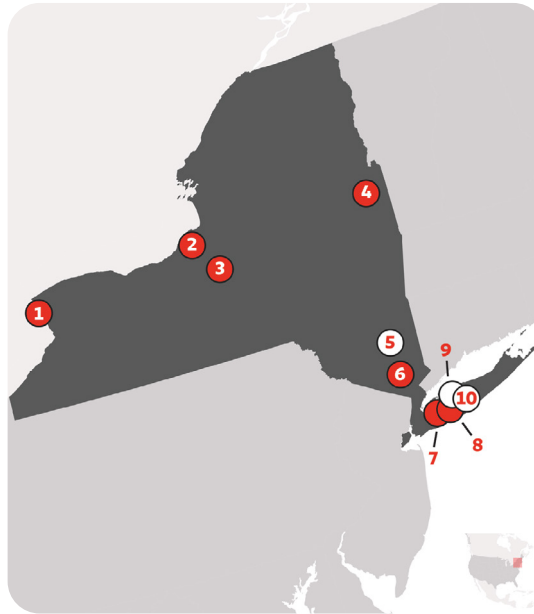
HUMAN AND ECOLOGICAL IMPACTS OF INCINERATION IN NEW YORK

New York (NY) has the second highest number of Municipal Solid Waste (MSW) incinerators in the United States, with ten incinerators. The cost of burning trash in municipal incinerators are significant to human and ecological health, and expensive for community members and municipalities.

VISUALIZING THE COST

EJ Community ●
Non-EJ Community ○

- 1 Niagara Falls Resource Recovery Facility (Niagara Falls)
- 2 Oswego County Energy Recovery Facility (Fulton)
- 3 Onondaga Resource Recovery Facility (Syracuse)
- 4 Wheelabrator Hudson Falls (Hudson Falls)
- 5 Dutchess County Resource Recovery Facility (Poughkeepsie)
- 6 Wheelabrator Westchester (Peekskill)
- 7 Covanta Hempstead (East Garden City)
- 8 Babylon Resource Recovery Center (Wyandanch)
- 9 Huntington Resource Recovery Facility (East Northport)
- 10 MacArthur Waste-to-Energy Facility (Ronkonkoma)



The map shows New York MSW incinerators and their location in environmental justice (EJ) communities (low-income or communities of color disproportionately impacted by environmental burdens and pollution).¹ Incinerators are often located in communities which face cumulative impacts from multiple sources of pollution. **Seven of the ten MSW incinerators in New York are located in an EJ community, within a three-mile radius.**

THE COST TO THE PLANET

Waste incineration **releases significant greenhouse gases** into the atmosphere contributing to climate change. In 2018, MSW incinerators in the U.S. emitted **11 million tons of carbon dioxide** and are nearly as carbon-intensive as burning coal.² Despite these contributions to air and climate pollution, incinerators have tried to re-brand as “waste-to-energy” plants.

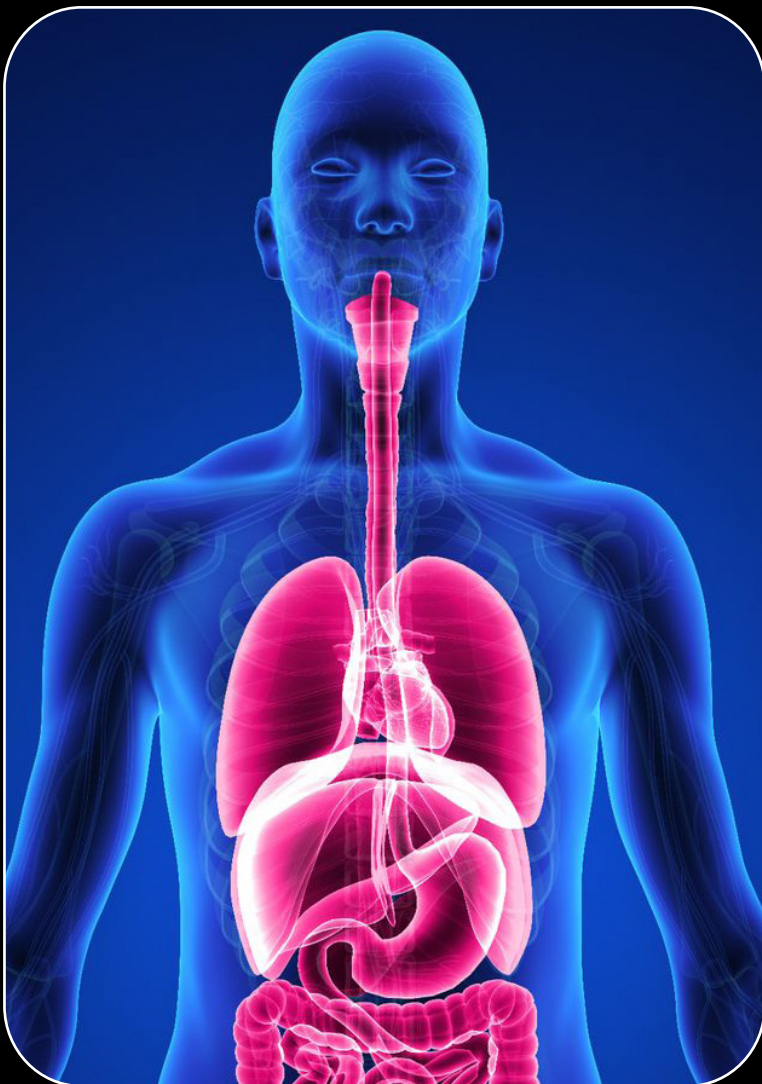
Incineration companies often enter into **long-term (up to 30 years) contracts** with local municipalities that enforce delivery of a set amount of trash (called a put-or-pay contract) with the **threat of a financial penalty** for the town if the requirement is not met. Incineration contracts may:

- lock communities into waste incineration and decades of air pollution and carbon emissions
- disincentivize the transition to recycling, composting, and zero waste programs
- threaten the fiscal stability of communities by incineration industry debt and lawsuits

In spite of **serious environmental and health risks** associated with burning trash, some states and localities promote incineration as an “environmentally-sound” way to manage waste. This idea needs to change.

THE COST TO HUMAN HEALTH

MSW incinerators are **large emitters of toxic air pollutants** that are detrimental to human health. Burning consumer waste emits many toxins such as heavy metals, dioxins, lead, mercury, nitrogen oxides (NOx), and Particulate Matter (PM). People living close to these facilities are exposed through inhalation or through contaminated food and water. These toxins are linked to a variety of problems including **asthma, heart disease, miscarriage, stillbirth, kidney disease, high blood pressure, and lung disease**. Notably, long-term exposure to PM has been shown to increase the risk of death from **Covid-19**.³



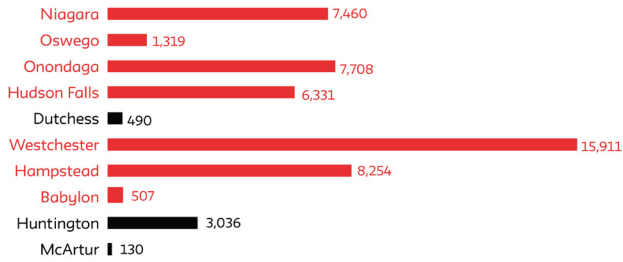
THE COST TO NEW YORKERS' HEALTH

653,708 people live within a three-mile radius of New York's ten incinerators, and are exposed to constant streams of toxic air pollution. Covanta Hempstead, in Westbury, NY, is the largest MSW incinerator in the state burning 2,505 tons of waste per day. In 2017, Wheelabrator Westchester was the largest emitter of PM2.5 emitting 15,911.15 lbs.

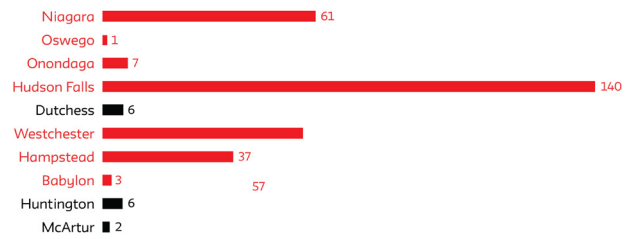
- In the Finger Lakes region of NY, a proposed incinerator was recently blocked by local residents. Governor Cuomo signed legislation barring the construction of new trash incinerators in the Finger Lakes region.⁴
- The region is less diverse than the rest of the state with most of the counties ranging between 87%-96% white non-hispanic, compared with 57% state wide.⁵
- This legislation could push construction of new trash incinerators to other more diverse regions of the state, contributing to environmental racism.

AIR POLLUTANT EMISSIONS FOR NY INCINERATORS (2017)

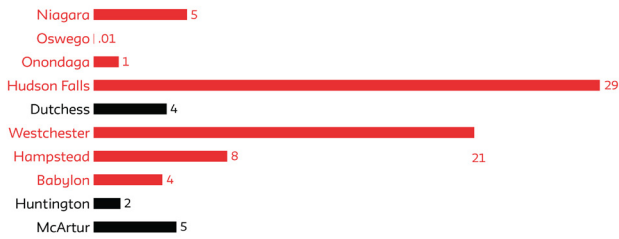
ANNUAL PM 2.5 (LBS)



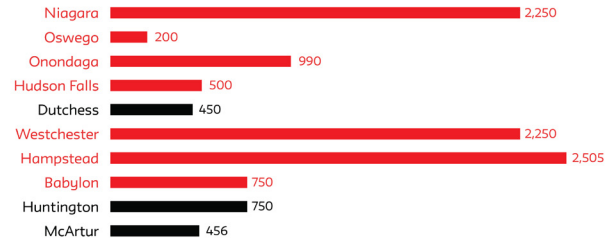
ANNUAL LEAD (LBS)



ANNUAL MERCURY (LBS)



DAILY TONS OF WASTE CAPACITY (LBS)



EJ-Community

Non EJ-Community

THE COST TO NEW YORKERS' WALLET

In addition to paying more for healthcare due to a higher “pollution burden”, residents in NY may also **pay more to have waste burned instead of landfilled**. The U.S. Energy Information Administration reports that burning trash in MSW incinerators is the most expensive way to make energy.⁶

- Residents in NY often pay more to have waste burned instead of landfilled. Average tip fees in NY for incineration is \$76.82/ton compared to an average of \$66.17/ton for landfilling waste.⁷
- Covanta received a tax exempt \$165 million loan from Niagara Falls for upgrades in 2012 and in 2015 two new fixed rate tax-exempt corporate bonds totaling \$130 million.⁸
- Both incineration and landfilling are more expensive than zero waste solutions such as reducing waste, recycling, and composting.

JOIN THE FIGHT

HELP ELIMINATE INCINERATION TO PROTECT NEW YORKERS HEALTH, ENVIRONMENT, AND HARD-EARNED MONEY. ADVOCATE FOR ZERO WASTE SOLUTIONS THAT MINIMIZE MUNICIPAL WASTE STREAMS AND CONSERVE RESOURCES THROUGH RESPONSIBLE PRODUCTION, CONSUMPTION, REUSE AND RECOVERY WITHOUT BURNING:

- End disposal in incinerators and landfills
- Utilize minimum recycled content standards in manufacturing processes
- Invest in infrastructure to recover maximum resources for reuse, recycling and composting
- Ensure community involvement in any state zero waste plan

To learn more, check out GAIA's Zero Waste Master Plan

**Join a Community Group to close MSW incinerators, please contact:
Global Alliance for Incinerator Alternatives (GAIA)**



ENDNOTES

¹ For the purposes of this study, an environmental justice community is defined using thresholds for race, Hispanic origin, and household income derived from the US Census Bureau. To determine the threshold for an EJ community, a review of the state-wide average for these socio-demographic characteristics was completed and an EJ community was defined as any census tract where the thresholds for the socio-demographic data was near the state average. In NY, 49.7% of the population are people of color, including Hispanic origin and 30% of households have income below 200% of the federal poverty level. Based on these averages, any census tract in NY (a) where 33.8% or more of the residents within a three-mile radius of the plant are people of color [all people who are NOT white/non Hispanic] or (b) 25% or more of the households are at or below 200% of the Federal Poverty Level would be considered an EJ community. The demographic indicators for this project came from EJSCREEN. The source of all demographic data in EJSCREEN comes from American Community Survey five-year summary, compiled yearly. For this project, data from the ACS 2013-2017 5-year estimates was gathered and wrangled for analysis which replicates the demographic variables used in EJSCREEN.

² EPA, "Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2018," (EPA, 2020): 2-3 <https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf>

³ Zhaozhong Zhu, Kohei Hasegawa, Baoshan Ma, Michimasa Fujiogi, Carlos A. Camargo, Liming Liang, "Association of asthma and its genetic predisposition with the risk of severe COVID-19" (Journal of Allergy and Clinical Immunology, 2020) <https://www.sciencedirect.com/science/article/pii/S009167492030806X>

⁴ Thomas Giery Pudney, "Finger Lakes incinerators banned after Cuomo approves bill," (Ithaca Journal, May 24, 2019) <https://www.ithacajournal.com/story/news/politics/2019/05/24/governor-cuomo-signs-bill-banning-trash-incinerators-finger-lakes/1225032001/>

⁵ Thomas P. DiNapoli, "Special Report: Finger Lakes Region Economic Profile," (Office of the New York State Comptroller, August, 2017) <https://www.osc.state.ny.us/files/local-government/publications/pdf/fingerlakesregion.pdf> (accessed 08.21.20)

⁶ U.S. Energy Information Administration, Updated Capital Cost Estimates for Utility Scale Electricity Generation Plants, (Washington, D.C.: U.S. Energy Information Administration, 2016), 9.

⁷ Tip fees vary by region and municipality (Tishman Environment and Design Center, "U.S. Municipal Solid Waste Incinerators: An Industry in Decline," Tishman Center, May, 2019: 69-70 https://static1.squarespace.com/static/5d14dab43967cc000179f3d2/t/5d5c4bea0d59ad00012d220e/1566329840732/CR_GaiaReportFinal_05.21.pdf)

⁸ Covanta, "2017 Annual Report," 82 https://www.annualreports.com/HostedData/AnnualReportArchive/c/NYSE_CVA_2017.pdf

This fact sheet was prepared by The Tishman Environment and Design Center in consultation with GAIA and in collaboration with Moja Robison in November 2020.



GAIA is a worldwide alliance of more than 800 grassroots groups, non-governmental organizations, and individuals in over 90 countries whose ultimate vision is a just, toxic-free world without incineration.
www.no-burn.org



Tishman Environment and Design Center

The Tishman Environment and Design Center integrates bold design, policy and social justice approaches to tackle the climate crisis and advance environmental justice.
www.tishmancenter.org