

Connecticut Coalition for Environmental Justice

10 Jefferson Street, C1, Hartford, CT 06106-2515

Sharon Lewis
Executive Director
860-595-8770

environmentaljusticect@gmail.com

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By Email

Commissioner Katie Scharf Dykes
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106

RE: *Replacing the Hartford Waste Incinerator with Zero Waste Programs*

Dear Commissioner Dykes:

The undersigned would like to thank you again for rejecting the Material Innovation and Recycling Authority's ("MIRA") Annual Plan of Operations for Fiscal Year 2021 as "a false choice, and a bad deal for taxpayers across the state, Hartford residents, and the environment." We applaud the State of Connecticut's refusal to continue providing subsidies to a waste incinerator that has damaged the health of Hartford residents for more than 30 years.

Moreover, we support your statement that MIRA's proposed alternative to build a transfer station for out-of-state landfilling is "inconsistent with MIRA's statutory requirements." Connecticut does not need to choose between burning waste and shipping it out of state to be buried. The state can instead implement Zero Waste solutions that would prevent more waste than the Hartford incinerator burns. We are heartened that your July 14 letter to MIRA invoked several of these solutions, and that you and Governor Lamont see this crisis as an opportunity to implement waste reduction and diversion measures that protect Connecticut's communities.

We thank DEEP for your engagement of environmental organizations in this discussion, for focusing on Environmental Justice, and on waste reduction and diversion strategies over disposal by landfilling or incineration. We're glad that you see our July 30th call as the first in an ongoing dialogue.

We look forward to working with you to:

- I. Strengthen the state's environmental justice law and ensure EJ is considered in all decision-making;
- II. Ensure the rapid closure of the Hartford incinerator;
- III. Set a new policy framework to move Connecticut from incineration to Zero Waste;
- IV. Push for legislation in 2021 that will move Connecticut in this direction; and
- V. Engage with towns, cities, their leaders, and their residents to push Zero Waste reforms and education efforts.

I. Strengthen the state's environmental justice law and ensure EJ is considered in all decision-making

We are excited to see the state's ongoing support for environmental justice. In supporting EJ, we want to encourage DEEP to ensure that polluting sources are first prevented and eliminated in low-income and communities of color, and that the policy goal is toward ending polluting industries, not to "equitably" distribute pollution across all communities.

The EJ movement defined environmental justice in 1991 when the 17 Principles of Environmental Justice were written at the First National People of Color Environmental Leadership Summit.¹ While they don't fit neatly into one paragraph, we believe it's important to recognize and defer to the meaning of the term as defined by the environmental justice movement itself.

Nowhere in the Principles is the concept of environmental "equity" (a.k.a. "spread the damage around better and we're cool with it"). Incineration is problematic everywhere, but solutions and transitions need to start in EJ communities like Hartford and Bridgeport.

We'd like to start a dialogue with DEEP about how the state's environmental justice law could be strengthened.

II. Ensure the rapid closure of the Hartford incinerator.

Incineration is an unacceptable approach to waste management. It's the most expensive and polluting way to manage waste or to make energy – dirtier than coal burning, and worse than direct use of landfills.² Incinerators release dangerous levels of toxic pollutants like dioxins, mercury, lead, acid gases, nitrogen oxides, sulfur dioxides, and particulate matter. They leave behind toxic ash, which must be landfilled. Incinerators compete with recycling, composting, and waste reduction, and are more expensive and generate fewer jobs than these alternatives.

Connecticut residents who live within 25 miles of a trash incinerator are disproportionately black and Latinx. While 3 of the state's 5 incinerators are in communities that are wealthier and whiter than average, the two largest and dirtiest ones are in much more populated, and low-income, communities of color in Hartford and Bridgeport.

The following is a spatial analysis by Energy Justice Network's EJ analysis tool, showing the depth of the disparity.³ If Connecticut's incinerators were distributed fairly, all racial groups would follow the ratio of one at all distances. Higher ratios show racial disparities and who is most impacted.

¹ The Principles of Environmental Justice, www.ejnet.org/ej/principles.pdf

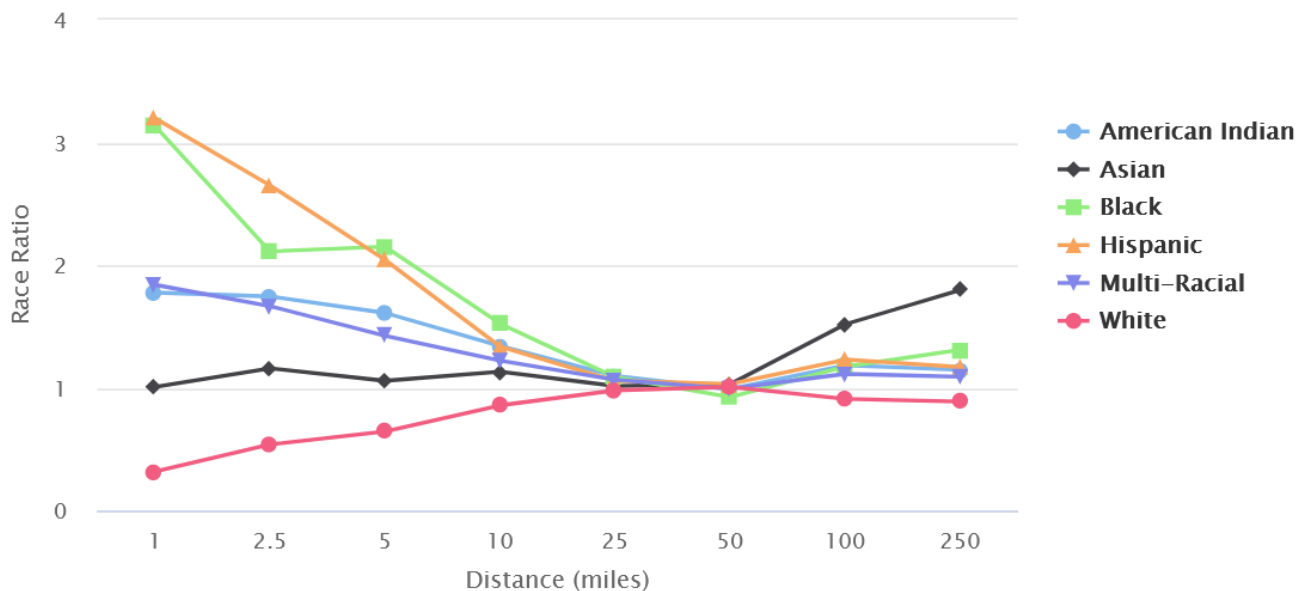
² See www.energyjustice.net/files/incineration/incineration_vs_landfills.pdf and www.energyjustice.net/incineration/

³ Spatial Justice Test, Energy Justice Network, for operating trash incinerators in CT: www.spatialjusticetest.org/test/1796.html

Connecticut Trash Incinerators : Ratio of Percent Race to CT Mean vs Distance



Powered by: JusticeMap.org, Census Data, and Energy Justice



Not included in the above analysis is the size of the incinerators, or their pollution levels. Each of these two large incinerators are bigger than the three smaller incinerators in white communities combined. Together, the Hartford and Bridgeport incinerators account for 76% of the state's trash incineration capacity, along with 78% of the lead emissions and two-thirds of the mercury and nitrogen oxide emissions from the state's trash incinerators.

Shutting down the Hartford incinerator is an essential component to addressing the State's health inequities and racial and environmental injustices. If Connecticut is committed to combatting systemic racism and the health disparities laid bare by the COVID-19 pandemic, the State must advocate for the soonest possible closure of this incinerator. We would like to see the Hartford incinerator closed by end of 2020.

While DEEP is not directly in charge of picking a closure date, we know DEEP has tools at its disposal, whether through review and approval of MIRA's operation plans, direct enforcement of regulations on the incinerator, support to the City of Hartford in setting its own clean air regulations, or encouragement of new state policy directions and development of alternatives.

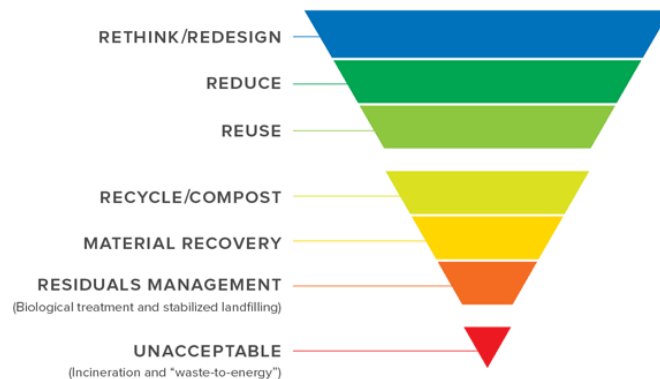
It is past time to put an end to burning trash in Hartford or anywhere else in Connecticut. Let us work together toward a just and equitable Zero Waste future that does not include burning waste.

III. Set a new policy framework to move Connecticut from incineration to Zero Waste.

Zero Waste Policy: Connecticut is more reliant on trash incineration than any other state. In charting a new path to achieve and surpass the waste diversion goals set out in Connecticut’s Comprehensive Materials Management Strategy (“CMMS”) and transition to an incineration-free future, DEEP must commit to moving toward Zero Waste. To that end, we ask that DEEP adopt the internationally peer-reviewed definition of Zero Waste, and the accompanying Zero Waste Hierarchy, as the guiding policy framework for future action.⁴

Zero Waste is defined as: “The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health.”

THE ZERO WASTE HIERARCHY 7.0



© Zero Waste International Alliance zwia.org/zwih

Incineration vs. Landfilling: The understanding in the Zero Waste and environmental justice communities that incineration (and dumping of toxic ash in landfills) is worse than direct use of landfills is based on sound science, as is the common understanding that Zero Waste approaches are far better than either form of disposal. When evaluating incineration vs. landfilling with the most comprehensive life cycle analysis tool available, it was found that incineration was worse for global warming pollution, and pollution from nitrogen oxides, particulate matter, toxic chemical releases, acid gases, and smog – even compared to having to truck waste much further to reach distant landfills. When monetized and turned into one metric of economic harm to health and environment, incineration was twice as harmful as direct use of landfills.⁵ We would like to review this data with DEEP and jointly conduct a similar analysis for Connecticut, after agreeing on data inputs and assumptions, in order that we could come to a common understanding of what is the “lesser evil” last resort for managing the state’s municipal waste.

Linguistic detoxification: We request that DEEP no longer use misleading and unscientific terms such as “waste-to-energy,” “energy from waste,” “trash-to-steam,” and “resource recovery.”⁶ Trash incinerators do not violate the laws of physics and literally turn matter into energy. Every ton of trash burned comes out as air pollution and toxic ash. Resources are not recovered; they are destroyed. Recycling and composting saves 3-5 times as much energy as an incinerator can generate by burning the same materials.⁷ The primary purpose of waste incinerators to burn waste, and they should be described according to that purpose.

⁴ Zero Waste International Alliance: www.zwia.org/zero-waste-definition/ and www.zwia.org/zwih/

⁵ See slides 60-85 in www.energyjustice.net/files/incineration/incineration.pdf

⁶ “Incinerators are NOT ‘waste-to-energy’ facilities,” Energy Justice Network. www.energyjustice.net/incineration/waste-to-energy

⁷ Morris, Jeffrey, and Canzoneri, Diana, “Recycling Versus Incineration: An Energy Conservation Analysis,” Sound Resource Management Group (SRMG) Seattle, Journal of Hazardous Materials, Vol 47, Issues 1-3, pp. 277–293 (1996). www.sciencedirect.com/science/article/pii/0304389495001166

No false solutions: We ask DEEP to reject the following technologies, when framing any RFQ, RFI, or other policy or solicitation:

Incinerators in disguise: two-stage incineration processes such as gasification, pyrolysis, and plasma arc.

Waste to fuels (“WTF”) facilities: facilities that process waste into a fuel to be burned, often off-site, and often without being subject to municipal waste combustor regulations. Includes refuse-derived fuel, processed engineered fuels, “SpecFuel,” Fischer-Tropsch gasification/liquefaction, cellulosic ethanol, biomethanol, hydrothermal decomposition, thermal depolymerization, or other “conversion technologies.”

Mixed Waste Processing / Composting / Anaerobic Digestion: any process that purports to handle unsorted waste and to separate the organic fraction either for burning, or to compost, digest, or otherwise process it for use as soil amendment or fertilizer.

If DEEP is unfamiliar with the critiques of these technologies, or of the long history of failures when using many of these technologies to process municipal solid waste, we welcome any dialogue to ensure that these false solutions are taken off the table from the start. Connecticut should not spend time exploring – nor ask residents to pay for – polluting, wasteful, unreliable, and expensive “solutions” when there are proven, safer, and cheaper options available.

IV. Push for legislation in 2021 that will move Connecticut toward Zero Waste.

As you mentioned, we must take advantage of the current moment to build toward meaningful legislative action during the 2021 legislative session. We are prepared to work with you to help the State adopt reforms that will achieve the 60 percent waste diversion goal set out in the CMMS and move Connecticut toward Zero Waste.

We’d like to set up working groups with DEEP to develop policies around:

- Strengthening the state’s environmental justice law
- Statewide implementation of Pay-As-You-Throw
- Strengthening food waste diversion and composting
- Modernize Connecticut’s bottle bill
- Implement EPR for packaging
- Deconstruction mandate
- Material Recovery and Biological Treatment of residuals prior to landfilling

V. Engage with towns, cities, their leaders, and their residents to push Zero Waste reforms and education efforts

We look forward to working cooperatively with DEEP to ensure that municipalities have the information and tools they need to make informed decisions to advance Zero Waste efforts.

As you mentioned during the July 15 press conference and in your July 14 letter to MIRA, the fiscal impact to, and participation of, towns and cities are crucially important to the steps we must take to stop burning and burying waste. We are eager to work with the 70 towns and cities that currently send their MSW to MIRA – and with towns and cities throughout Connecticut – to adopt Zero Waste principles, implement SMART programs and curbside composting, and to reconsider the impact of burning waste in Hartford, Bridgeport, Preston, Bristol, and Lisbon.

Zero Waste provides an opportunity to MIRA member-towns to not only do right by Hartford residents, but to also reduce their waste costs at a time when municipal budgets are increasingly strained. Compared to incineration, fully functional recycling and composting systems cost significantly less money.⁸ And income from SMART programs can be reinvested in composting and recycling or can otherwise boost a town's budget.

Some specific tools and actions we'd like to work with DEEP to produce together:

- 1) DEEP's RFQ/RFI for Zero Waste solutions, to ensure that the scope follows the many solutions within the Zero Waste Hierarchy;
- 2) A list of Zero Waste consultants and resources to offer to towns; and
- 3) A legal memo affirming and clarifying the rights of municipalities to have local clean air laws as strict or stricter than state and federal minimums, concurrent with state regulation, as per CT Gen Stat § 7-148 (c)(8)(A) and (D) and § 22a-185.
- 4) An outreach plan for DEEP and Zero Waste advocates to lend our expertise to municipalities, educating on environmental justice impacts of waste incineration and on the fiscal and environmental benefits of Zero Waste systems, while presenting a toolbox of Zero Waste policy solutions.

To continue this conversation in a productive and collaborative way...

There are many pieces to this puzzle, and we'd like to plan for a series of follow up meetings to tackle the above issues.

A few places we propose to start:

- 1) Discussion of the incineration vs. landfills life cycle analysis, and the Zero Waste Hierarchy;
- 2) Discussion of the RFQ/RFI and how Zero Waste advocates can have input into it; and
- 3) Prioritizing which other conversations to tackle, with which DEEP staff, and in what order.

We also respectfully ask for DEEP's support in fulfilling the remainder of the FOIA request filed by Sharon Lewis on February 12, 2020, and in responding to the new one we'll be submitting concurrent with this letter.

⁸ See, e.g., Marie Donahue, Institute for Local Self-Reliance, Waste Incineration: A Dirty Secret in How States Define Renewable Energy 15 (2018), www.ilsr.org/wp-content/uploads/2018/12/ILSRIncinerationFinalDraft-6.pdf.

We, the undersigned, thank you in advance for the opportunity to work together to correct the injustices in Connecticut's waste system and build a better future. We stand ready to work with you to implement Zero Waste reforms in Connecticut that will allow the state to expeditiously move past burning and burying and instead save money and protect human health.

Respectfully submitted,

Sharon Lewis
Executive Director
Connecticut Coalition for Environmental and
Economic Justice

Kevin Budris
Staff Attorney, Zero Waste Project
Conservation Law Foundation

Anne Hulick
Connecticut Director
Clean Water Action/Clean Water Fund

Nancy Alderman
President
Environment and Human Health, Inc.

Alex Rodriguez
Community Organizer
CT League of Conservation Voters

Hope O'Shaughnessy
Member
Putnam Neighbors United

Joel N. Gordes
Chief Strategist
Energy & Environmental Security Strategies

Bernard Greene
Greene Consulting LLC

Loretta Wrobel
Chair
Ashford Conservation Commission

Stuart Rabinowitz
President
Bethlehem Land Trust, Inc.

Mike Ewall
Executive Director
Energy Justice Network

Susan Eastwood
Chair
Ashford Clean Energy Task Force

Samantha Dynowski
State Director
Sierra Club Connecticut

Louis Rosado Burch
Connecticut Program Director
Citizens Campaign for the Environment

Sam King
Marketing & Business Expansion
Blue Earth Compost

Teresa Eickel
Executive Director
Interreligious Eco-Justice Network

Tom Swan
Executive Director
Connecticut Citizen Action Group

Chris Schweitzer
Organizer
New Haven Climate Movement

Carolyn Mattoon
Sharon Energy and Environment
Commission

Lois Happe
President
Eastern Connecticut Green Action

Addenda

For the sake of brevity, we wanted to keep the letter short, but are sharing these details and copies of a couple of the footnotes for reference.

Environmental Justice and Trash Incineration in Connecticut

Trash Incinerator	City/Town	Tons/day	Pop.	<u>Population within 2.5 miles</u>	
				% POC	Median Household Income
Mid-Connecticut RRF (MIRA)	Hartford	2,850	47,000	76%	\$35,000
Wheelabrator Bridgeport	Bridgeport	2,250	58,000	70%	\$46,000
Wheelabrator Lisbon	Lisbon	500	6,828	18%	\$65,000
Covanta Bristol Energy	Bristol	650	15,000	18%	\$68,000
Covanta Southeastern CT	Preston	669	4,391	29%	\$72,000

[Click on the company names for links to facility profiles with more detailed demographics.]

Abrupt Closures of Large Trash Incinerators

There are precedents for abrupt closure of large trash incinerators. The 3,300 ton/day Detroit incinerator suddenly closed for good in March 2019. The 3,000 ton/day Covanta Fairfax incinerator in Northern Virginia closed due to a massive fire on February 2, 2017 through the end of that year, and waste from Washington, DC, Fairfax County, VA and other communities was diverted to Virginia landfills. Due to equipment failures, the MIRA incinerator itself closed for months at a time.

The inconvenience of developing short-term waste management plans pales in comparison to the inconvenience of every child hospitalized with asthma because she cannot breathe... and to every family life disrupted by the cancers that we know are associated with incinerator pollution.¹ Please review the attached factsheet on incineration health studies.

While DEEP is not directly in charge of picking a closure date, we know DEEP has tools at its disposal, whether through review and approval of MIRA's operation plans, direct enforcement of regulations on the incinerator, support to the City of Hartford in setting its own clean air regulations, or encouragement of new state policy directions and development of alternatives.

¹ "Trash incineration FACT CHECK" Energy Justice Network, March 2020, www.energyjustice.net/incineration/healthstudies.pdf – a response to Covanta's "Energy-from-Waste & Health Risk" flyer: www.energyjustice.net/incineration/CovantaWP6.pdf

Trash Incinerators Lifespans

It's not a matter of *if* waste incineration in our state will be ended, but *when*. No one is building new incinerators in the U.S. Not a single incinerator has been built at a new site in 25 years in this country, despite hundreds of attempts. One new facility was built at an existing site, and some have been expanded or rebuilt, but the momentum is clear: this industry has none. The trend is that more and more are closing as they age, and communities will not accept new ones.

Of the 29 trash incinerators that closed since 2000, their average age was just 22 years old. Only one trash incinerator has made it past its 40th birthday without being completely rebuilt, and that facility is having serious problems with major noise issues in the community. One other incinerator is older than 40 only because it was completely rebuilt in 2003, at such incredible cost that rebuilding it bankrupted Pennsylvania's capital city. Incinerators have a life-span, and it's rarely one that reaches past their 30s.

The ages of the trash incinerators in Connecticut as of this writing:

<u>Trash Incinerator</u>	<u>City/Town</u>	<u>Opened</u>	<u>Age</u>
Covanta Bristol Energy	Bristol	Dec 1987	32.7
Mid-Connecticut RRF (MIRA)	Hartford	Jul 1988	32.1
Wheelabrator Bridgeport	Bridgeport	Jul 1988	32.1
Covanta Southeastern CT	Preston	Dec 1991	28.7
Wheelabrator Lisbon	Lisbon	Oct 1995	24.8
Average:			30.1

The state's incinerators are generally in their last decade of operational life. As they age, operations and maintenance costs will tend to increase, and breakdowns will become more frequent. Investing in upgrades to these aging facilities would be a waste of resources on facilities that are designed to waste resources. Expansions of these facilities would perpetuate use of the most expensive and polluting waste management method while possibly enabling the facility to continue operating under outdated emissions standards. None of these facilities would be legal to operate today if held to modern air pollution standards.

Legislative Priorities

A. Implement Pay-As-You-Throw Statewide.

Pay As You Throw – also known as unit pricing, utility pricing, or Save Money and Reduce Trash (“SMART”) – has been shown to be the most effective and cost-effective way to quickly reduce waste generation.² As Connecticut scales its composting capacity, SMART and curbside composting together could divert more than 1.3 million tons of waste,³ far more waste than MIRA or any other incinerator burns. We are aware that DEEP has been encouraging towns and cities to adopt SMART programs. We support DEEP’s efforts, and we are interested in helping DEEP implement SMART throughout Connecticut.

SMART can quickly reduce MSW by over 40%, and by as much as 60% especially when coupled with robust food waste diversion and curbside composting. As Connecticut scales its composting capacity, SMART and curbside composting together could divert more than 1.3 million tons of waste,⁴ far more waste than MIRA or any other incinerator burns. SMART will also boost recycling rates – necessary because almost 41% of Connecticut’s MSW is paper, cardboard, plastic, metal, and glass.⁵

B. Strengthen Food Waste Diversion and Composting

According to DEEP’s 2015 Statewide Waste Characterization Study, organic waste comprises more than 33% of Connecticut’s municipal solid waste (“MSW”).⁶ Food waste alone makes up more than 22% of the waste stream, totaling more than 500,000 tons per year.⁷ Diverting this waste from incinerators is vital to reducing waste and transitioning away from incineration. We would like to work with DEEP to: 1) strengthen and enforce the food waste ban in Conn. Gen. Stat. § 22a-226e; and 2) invest in composting infrastructure and processing facilities.

Currently, Connecticut’s food waste ban requires certain commercial entities that generate at least 52 tons of organic waste per year and are located not more than 20 miles from a composting facility to source-separate and compost that waste.⁸ This ban should be expanded over time to apply to all food waste generators (commercial, industrial, and residential) without a tonnage minimum or maximum distance. The food waste ban must also be enforced to ensure compliance. A comprehensive food waste ban will significantly reduce statewide MSW, and it will also provide the density and demand necessary to drive down compost service costs.

Were Connecticut to divert all the food waste in the MSW stream, the State lacks the facilities to process all that material. Capital cost estimates for a facility that can process between 30,000 and

² “PAYT/SAYT – Pros, Cons, and How it Can Work,” Skumatz Economic Research Associates, Inc., February 2019 presentation to Montgomery County, Maryland. See slide 5 (top right on p2) www.montgomerycountymd.gov/SWS/Resources/Files/master-plan/pay-as-you-throw-sera.pdf

³ DEEP, *2015 Statewide Waste Characterization Study*, 3-5 (2016), www.ct.gov/deep/lib/deep/waste_management_and_disposal/Solid_Waste_Management_Plan/CMMS_Final_2015_MSW_Characterization_Study.pdf

Calculation based on a 60% reduction in Connecticut’s estimated 2.3 million tons of MSW per year.

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ See Conn. Gen. Stat. § 22a-226e(2).

40,000 tons of organic waste per year range from \$5 to \$9 million;⁹ a far lower per-ton cost than the \$333 million in subsidies sought by MIRA. Connecticut must invest in composting infrastructure to meaningfully achieve food waste diversion goals.

C. Modernize Connecticut's Bottle Bill.

Connecticut's refundable container deposit program has not been updated in recent years to keep up with changing market trends and inflation. As a result, Connecticut's redemption rate is now the lowest of any bottle bill state in the U.S. (around 50%).¹⁰ As a result, every year Connecticut incinerates more than 20,000 tons of PET plastic bottles, more than 5,000 tons of aluminum beverage containers, and more than 36,000 tons of glass containers.¹¹

We would like to work with DEEP and the Lamont Administration to modernize the bottle bill. Opportunities for modernization include:

- Expanding the program to cover all beverage container categories including juices, teas, coffees, sports drinks, wine, and liquor;
- Increasing the deposit value on covered containers from 5 to 10 cents, to better incentivize container recycling;
- Establishing a process to determine appropriate incentives and fee structures for covered containers over time; and
- Establishing an independent stewardship model with an independent stewardship organization for beverage container recycling.

D. Implement Extended Producer Responsibility (EPR) for packaging.

Almost 41% of the waste burned in Connecticut's incinerators is paper, cardboard, plastic, metal, and glass.¹² A significant portion of that waste is packaging. By implementing Extended Producer Responsibility (EPR) for packaging, Connecticut could divert much of its packaging waste from incineration, while at the same time helping to alleviate recycling costs for towns and cities. Across the world, EPR for packaging programs have improved recycling and diversion rates, incentivized producers to re-design products so that they are easily recyclable or reusable, and reduced recycling costs borne by municipal governments. We would like to work with DEEP and the Lamont Administration to push for legislation in 2021 that implements EPR for packaging in Connecticut.

E. Deconstruction mandate

Construction and demolition waste a large chunk of the waste stream. Much can be avoided if buildings were carefully deconstructed rather than demolished. This would create many more jobs while recovering materials through reuse and recycling. We're compiling a list of policies related to building material reuse that can serve as models in Connecticut.

⁹ See, e.g., Dimitris Komilis & Robert K. Ham, U.S. EPA, *Life Cycle Inventory and Cost Model for Mixed Municipal and Yard Waste Composting* 25 (2000), https://mswdst.rti.org/docs/Compost_Model_OCR.pdf; ReFED, *Centralized Composting*, www.refed.com/solutions/centralized-composting/

¹⁰ "Connecticut," BottleBill.org.

¹¹ Note 3 *supra*.

¹² *Id.*

F. Material Recovery and Biological Treatment

Ecocycle's "What is the best disposal option for the 'Leftovers' on the way to Zero Waste?" report outlines the back end of the Zero Waste Hierarchy.¹³ No matter how you cut it, there's a landfill at the back end of the system. Incineration converts every 100 tons of trash to 30 tons of ash to be landfilled (the other 70 tons become air pollution), making for smaller, but more toxic, landfills. A Zero Waste system similarly reduces the amount of waste to be landfilled, but without the expense and toxicity problems. Material Recovery and Biological Treatment (MRBT) are the final steps prior to landfilling. After source separating compostables and recyclables, this means mechanically removing recyclables people leave in the trash, and stabilizing the organic fraction with anaerobic digestion before landfilling. This ensures that only a small amount (minus water weight) is left to haul to what will be a more stable landfill without the excessive gas and odors. The digestion of the organic fraction ensures that gas can be created in an enclosed environment where it can be collected more effectively than in an open-air landfill environment. It's a much easier sell when the landfill community is faced with a smaller amount of stabilized material in a landfill that won't be so gassy and stinky. Halifax, Nova Scotia has the closest example to this model in North America, and much could be learned from their system. San Francisco has experimented with these pieces as well.

¹³ Dr. Jeffrey Morris, Dr. Enzo Favoino, Eric Lombardi and Kate Bailey, "What is the best disposal option for the 'Leftovers' on the way to Zero Waste?," www.ecocycle.org/specialreports/leftovers