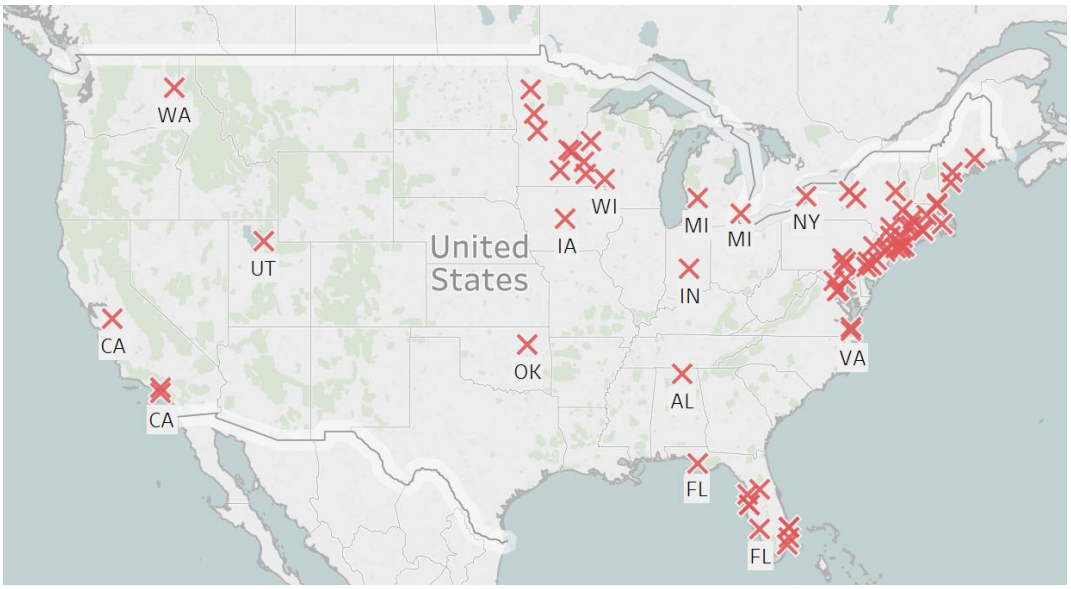
INCINERATORS IN TROUBLE

- *Waste incineration is a flawed approach that is expensive, polluting, and inefficient; aging incinerators are causing trouble with toxic emissions, odor, fires, financial insecurity, and environmental injustice.*
- *We are calling for a just transition to a zero waste society to protect the environment, communities, and workers from harm and to redesign our future by progressively minimizing and ultimately ending waste disposal in incinerators and landfills.*



Currently there are 77 waste incinerators also known as "waste to energy" plants in the U.S. Most of them are reaching their lifespan of 30 years, as all but one of the incinerators were built in the 1980s and 1990s. Proposals for expansion have been popping up all over the country evading local demands for decommissioning and a safer environment. Challenges caused by aging incinerators are still present today, constantly harming communities with an ever-increasing number of emissions violations, explosions and fires, and worker safety issues.

WHAT'S THE PROBLEM WITH WASTE INCINERATION?

Incineration — including gasification, pyrolysis, and plasma arc — is not a viable solution for waste management and is harmful. Here's why:

WASTE OF ENERGY: Waste incinerators generate electricity at a low efficiency rate due to the low calorific value of waste.[1] Still, they emit large quantities of climate pollution including carbon dioxide, mercury, dioxins, and ultra-fine particles. Compared to coal, waste incineration produces higher carbon pollution per unit of energy.[2]

WASTE OF RESOURCES: Waste incinerators create a demand for "waste" once they have been put in place. More than 90% of materials currently disposed of in incinerators and landfills can be reused, recycled, and composted.[3] Compared to more sustainable waste management methods,[4] incinerators and landfills contribute far higher levels of greenhouse gas emissions and overall energy throughout their lifecycles.

WASTE OF MONEY: Waste incineration is the most expensive way to produce electricity.[5] The waste incineration industry has the highest ratio of negative economic impacts from air pollution compared to the financial value added by the industry.[6] In addition waste incineration capital and operation costs exceed those of advanced nuclear energy, coal, solar, and wind.[7]

WASTED OPPORTUNITIES: Zero waste practices such as source reduction, reuse, recycling, and composting serve to mitigate climate change more efficiently, emitting significantly less greenhouse gas throughout the life cycles of the same materials.[8] The same goes for renewable energies including solar and wind power. Opportunities are lost with green jobs as well. In the U.S, recycling creates 10-20 times more jobs than incinerators.[9]

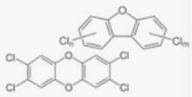
OVERBURDENED COMMUNITIES: Waste incineration industry in the U.S. is disproportionately located in low-income communities and communities of color, burdening residents with high toxicity, accidents, and noise. This leads to significant health risks including asthma[10] and cancers.[11]

POTENTIAL POLLUTANTS GENERATED FROM BURNING OF WASTE

CARBON MONOXIDE

Causes dizziness, headaches and slowed reflexes; affects mental function, visual acuity and alertness and reacts with other pollutants in the air to form ground level ozone

DIOXINS AND FURANS

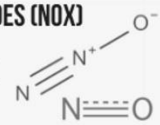


May cause cancer; causes growth defects; affects DNA; affects immune and reproductive systems

POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)

Cancer causing agent in most animal species including mammals, fish and birds

NITROGEN OXIDES (NOX)



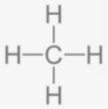
Form ground-level ozone, or smog when combined with other pollutants; long-term exposure can cause respiratory and reproductive damage

CARBON DIOXIDE (CO2)

A major greenhouse gas, representing about 80 percent of all greenhouse gas emissions in the U.S.; can cause hyperventilation, respiratory and neurological damage

METHANE (CH4)

Burning of agricultural waste also produces significant amounts of methane, a major greenhouse gas, due to its generally high water content



VOLATILE ORGANIC COMPOUNDS (VOCS)

May cause problems ranging from cancer risks to nervous disorders, respiratory irritation/illness, chronic lung disease; contributes to low level ozone (smog)

PARTICULATE MATTER (PM)

A complex mixture of extremely small particles and liquid droplets; causes irritation of respiratory tract, aggravated asthma, contributes to chronic obstructive pulmonary disease

ALDEHYDES

Toxic chemicals that result from the combustion of hydrocarbons. An animal carcinogen; causes eye and respiratory illness and headaches

* Modern air pollution control devices can capture and concentrate some of the pollutants in the incinerators. However, they neither prevent captured pollutants from being released into the environment in the form of ash, slag, or sludge, nor can they capture many hazardous emissions such as ultra-fine particles.

Source: Römbke, J., et al. Ecotoxicological characterisation of 12 incineration ashes using 6 laboratory tests. Waste Management, 2009

INCINERATORS IN TROUBLE – A SNAPSHOT

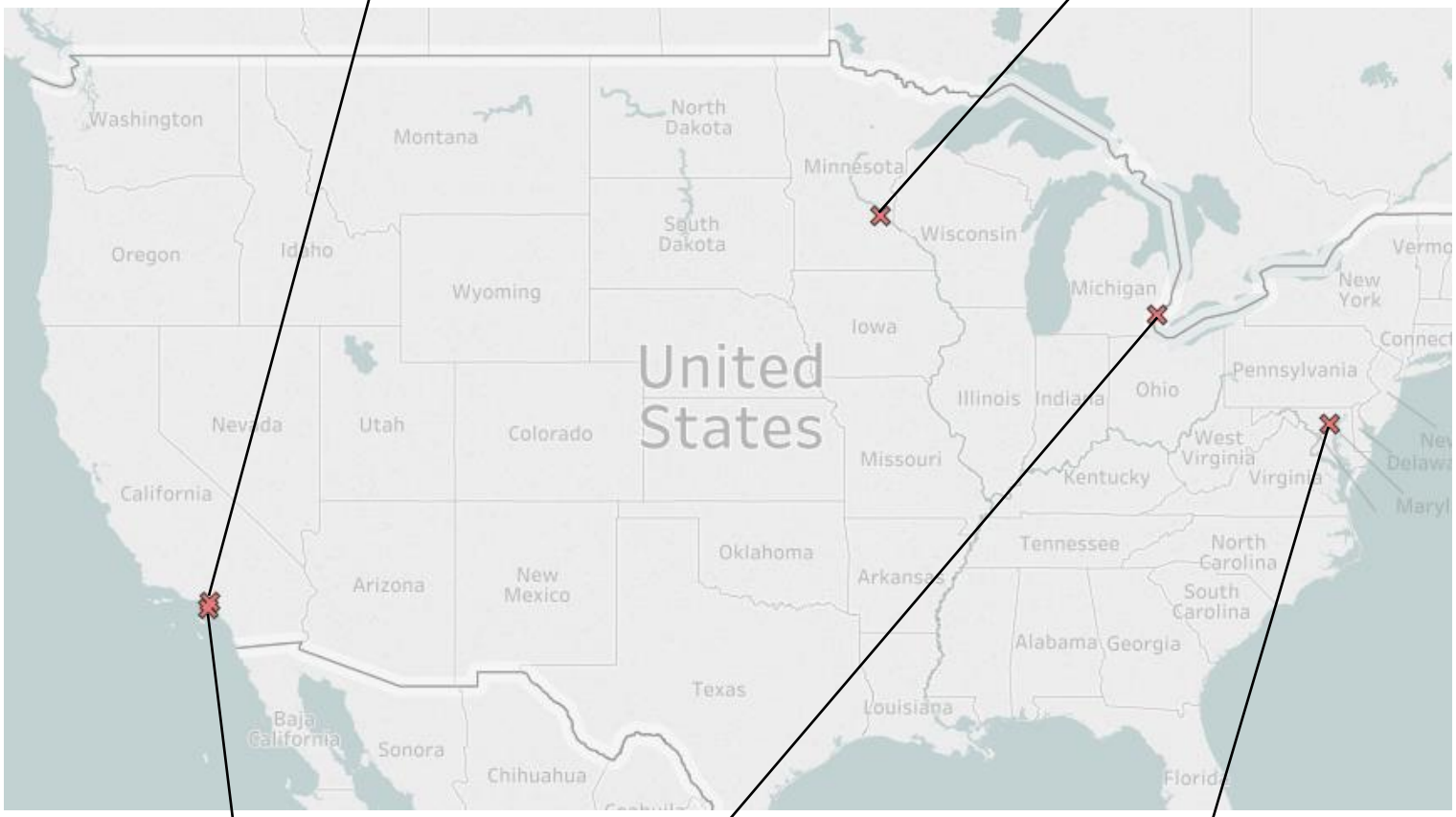
This fact sheet features five key locations where local communities have long raised their voice against waste incinerators through strong organizing. While only a fraction of the whole picture is presented here, each facility's extreme air emission records, accidents, other health- and safety- related concerns and financial issues serve as specific examples of the failure waste incinerators are facing throughout the nation.

Commerce Refuse-to-Waste Facility (CREF)
Commerce, California
Operator: County of Los Angeles
Year: 1986-2018

emission shutdown

Hennepin Energy Resource Center (HERC)
Minneapolis, Minnesota
Operator: Covanta
Year: 1989-2018

emission aging



Southeast Resource Recovery
Long Beach, California
Operator: Covanta
Year: 1988-current

emission aging

Detroit Renewable Power
Detroit, Michigan
Operator: Detroit Renewable Energy
Year: 1989-current

emission odor aging

Wheelabrator Baltimore (BRESCO)
Baltimore, Maryland
Operator: Wheelabrator
Year: 1985-current

emission aging

COMMERCE REFUSE-TO-WASTE FACILITY (CREF)

#Shutdown

1986
Began operation

FACILITY HISTORY

Commerce Refuse-to-Waste Facility (CREF) occupies approximately 5.7 acres of land in an industrial area within the City of Commerce. The facility has combusted an average of 350 tons of solid waste per day since its operation began in late 1986. CREF is owned by Valley Plating Works, Inc. and the Commerce Refuse to Energy Authority, a joint powers authority between the City of Commerce and the County Sanitation District of Los Angeles.[12] The facility claims that it has been awarded and recognized for being the cleanest waste-to-energy plant in the world for its advanced air pollution control.[13]

ISSUES

2018
Shutdown

The air quality in Southeast LA is among the worst in the nation. Residents have been exposed to toxic emissions from industrial sources including the incinerator, rail yards, and ports, which can lead to cancer risks and respiratory conditions. The facility has several records of significant non-compliance of the Resource Conservation and Recovery Act (RCRA) in 2013 and through 2016 to 2018, that were reported to EPA by Los Angeles County Fire Department with no further details available to the public.[14] California's monthly inspection report also raises concerns about an unusual occurrence of purple smoke, emission exceedances of nitrogen oxide (NOx), exceedances of permitted tonnage and forced outages from 2011 to 2017.[15]

From left to right, the EPA EJScreen map shows that communities near the incinerator face the country's greatest health risks in respiratory hazards, fine particulate matters levels in the air and cancer risks.[16]

COMMUNITY EFFORTS

The local community group East Yard Communities for Environmental Justice (EYCEJ) has raised their voice against state incentives and legislation favorable to the incinerator. Lobbying efforts to block renewable energy subsidies for incineration paid off when the facility was forced to cease operation after losing its Power Purchase Agreement (PPA) with its energy suppliers. Community activists are excited about the facility's closure, an achievement made possible by more than 30 years of community efforts against incineration. EYCEJ has led the conversation on air quality regulations and lead contamination in the area, placing a strong emphasis on environmental justice to ensure that communities of all races and incomes have strong environmental protections and equal access to a safe and healthy environment.

LATEST DEVELOPMENTS

The closure of Commerce Refuse-to-Energy Facility is scheduled for June 30, 2018. Officials cited insufficient funds as the main cause. Local community groups will watch and guide the decommissioning process to ensure a just transition of the post-incinerator site. As two other incinerators are still present in California, they will continue to demand a shift from trash incineration to zero waste systems placing environmental justice and safety as a priority for nearby communities.

HENNEPIN ENERGY RECOVERY CENTER (HERC)

#Emissions #Asthma

1989
Began operation

2012
Expansion plans

2018
Contract extended

2020-2021
Contract set to renew

FACILITY HISTORY

The Hennepin Energy Resource Center (HERC), a 15-acre facility located on the edge of downtown Minneapolis, Minnesota, began commercial operation in October 1989. Owned by Covanta and operating as Covanta Hennepin Energy Resource Co., LLC, the facility processes 1,212 tons per day of mixed municipal solid waste in its two 606-ton-per-day mass burn units.

ISSUES

HERC has been one of the city's most controversial power-generating facilities because of its pollution impacts. Even though the state of Minnesota prioritizes reuse and recycling, it places a higher value on incineration with energy recovery than landfilling. Minnesota is considered a national leader in utilizing waste-to-energy incineration, burning roughly 20% of its waste in incinerator. EPA data showed that in 2011 HERC ranked number one in arsenic emissions.[17] The plant was in the upper ranks for chromium III and VI as well as condensable particulate matter.[18] 2012 EPA data showed that nitrogen oxide emissions are twice as high at waste-to-energy facilities in Minnesota than in coal-fired plants.[19] HERC is also seen as an issue of environmental justice. There are several elementary schools and low-income African American neighborhoods north of the plant that are particularly impacted by the emissions.[20]

COMMUNITY EFFORTS

Since 2009, the question of whether the facility should be expanded or shut down has been a point of contention among environmental advocates and city and county leaders. A joint campaign organized by the Sierra Club, Neighbors Against the Burner (NAB), and other organizations led to a successful stop to an expansion plan in 2012. Since 2016, environmental groups including the Minnesota chapter of Sierra Club, the Minnesota Public Interest Research Group and Eureka Recycling actively joined forces to phase out the HERC. Their ultimate goal is to halt operations at the facility and to facilitate community efforts to make the best use of the site.[21] The groups urged the state to comply with new federal regulations that encourage a transition from coal and gas power plants by 2030 by closing down the HERC. Financial support provided to the polluting facility by the state's Renewable Development Fund has also been a major controversy. The fund financed by ratepayers in Minnesota and Wisconsin has been managed by Xcel Energy, a utility holding company that operates its own power plants and waste incinerators, to benefit incinerators in the name of "renewable energy."

LATEST DEVELOPMENTS

In October 2016, Covanta lost their incineration contract with Hennepin county to Great River Energy, a Minnesota-based electric cooperative. The district court also denied Covanta's request for a temporary restraining order against the county.[22] Moreover, the Power Purchase Agreement (PPA) between the incinerator and Xcel Energy, that serves as a significant revenue source for the facility, expired at the end of 2017.[23] Environmental advocates are keeping an eye on the next contract renewal, which is expected to take place in 2020 or 2021, as well as the expiration of the PPA. The momentum is gaining as the city of Minneapolis explicitly mentioned in the Zero Waste Plan adopted by its City Council on December 8 that energy recovery is not an applicable method for achieving its zero waste goals. They have set a laudable goal to recycle and compost 50% of the city's waste by 2020, and 80% by 2030.[24]

WHEELABRATOR BALTIMORE (BRESCO)

#NOx_emissions

1985
Began operation

2016
#1 NOx emitter in the city

2017
Resolution on stricter NOx regulations adopted

2021
Contract set to expire

FACILITY HISTORY

The Baltimore Refuse Energy Systems Company (BRESCO) is a waste incinerator located in Southwest Baltimore. BRESCO began operation in 1985 and later Wheelabrator Technologies Inc. became a new owner in 2014. The city of Baltimore has been the main supplier of waste burned at the facility, and the facility's ash is in turn, the largest source of waste for the city's Quarantine Road Landfill, which is also located in South Baltimore.[25] More than a dozen sites near the facility are declared Brownfields by the EPA.

ISSUES

The facility has been the city's largest source of air pollutants including nitrous oxides (NOx)[26], sulfur dioxide, formaldehyde, mercury[27], and hydrochloric acid.[28] BRESCO released 82% of the sulfur dioxide and 64% of the nitrogen oxides emitted by smokestacks within city limits in 2014.[29] All these toxic emissions pose a serious public risk, especially to elders and children. Baltimore already has an unusually high rate of asthma, which is present among one in every five children, and the city has the highest emissions-related mortality rate in the U.S.[30] It is estimated that the facility's emissions cost Maryland $21.8 million in health care expenses annually.[31] The state Renewable Portfolio Standard (RPS), however, classifies trash incinerators as a source of renewable power, allowing them to collect subsidies.[32] The facility has received over $10 million in "renewable" energy subsidies from the electric bills of Maryland residents since 2012.[33]

COMMUNITY EFFORTS

Activists and residents in Baltimore have fought against BRESCO for a long time, taking part in public processes regarding the incinerator's pollution and advocating for zero waste.[34] Organizations including United Workers, Energy Justice Network, Institute for Local Self Reliance (ILSR), Environmental Integrity Project (EIP) and others have pushed the city for stricter regulations on NOx emissions and for more long-term sustainable solutions, demanding an independent investigation of the facility's toxic emissions, and for better disclosure of data.[35] On September 28, 2017, the City Council Committee unanimously approved a resolution to drastically reduce BRESCO's NOx limits.[36] The Council has also adopted resolutions on zero waste and the Paris Climate Agreement, which included pledges to disincentivize waste-to-energy and to develop a waste management plan to ultimately eliminate incineration.

LATEST DEVELOPMENTS

As the city's contract to send trash to BRESCO is set to expire in 2021, the need to create political momentum for phasing out trash incineration is gaining urgency. As of May 2018, there have been many legislative attempts to limit subsidies for trash incinerators and eventually phase out incineration. Although it did not advance to the House of Delegates during the last rule-making session the Senate passed a bill that would have removed trash incineration from the states Renewable Portfolio Standard.[37] Also in May, the City Council adopted a resolution to terminate BRESCO's operation by December 2021.[38] Recently the City of Baltimore's Department of Public Works issued a request for proposals to develop a plan that would keep the incinerator open through 2040, a move that was strongly opposed by Baltimore's own City Council[39]. Despite these attempts to give a lifeline to the BRESCO incinerator, community groups and Baltimore's City Council remain committed to clean air and a zero waste future for the city of Baltimore.

SOUTHEAST RESOURCE RECOVERY

#no_subsidies_for_WtE

1989
Began operation

2015
Operation extended until 2024

2018
30-year agreement set to expire

FACILITY HISTORY

The Southeast Resource Recovery Facility (SERRF) is a waste-to-energy plant operating as "Covanta Long Beach Renewable Energy". The facility, the largest among three incinerators in California, began commercial operation in July 1988 partly in response to a closure of a nearby landfill in 1980. Covanta, a corporation that operates 45 waste-to-energy plants in North America, China and Europe, took over the 30-year operating lease in Long Beach in 2009. It processes 1,380 tons of solid waste a day generated from the City of Long Beach. The County Sanitation Districts of Los Angeles County owns the facility with the city under a joint agreement.

ISSUES

Like many trash incinerators in the nation, the facility has raised health and environmental issues around its air pollution, sewage treatment and ash management. The Department of Environmental Conservation has also cited this incinerator with $500,000 in fines, with scant information available on the details of this citation.[40] Just recently in March 2018, an excessive ash build up near the facility roads was reported following CalRecycle's monthly site inspection, with heavily clogged sewage drain grates near the bottom ash building.[41] Off-site migration of ash, a thick buildup of muddy residue as well as inadequate measures to minimize the creation, emission, or accumulation of excessive dust and particulates have been constantly raised as concerns during inspections since 2005.

COMMUNITY EFFORTS

Environmental groups including East Yard Communities for Environmental Justice (EYCEJ), California Communities Against Toxics, and Long Beach Alliance for Children with Asthma represent hundreds of residents from East Los Angeles, Commerce, Southeast Los Angeles, Wilmington, and Long Beach, and have advocated for a clean, pollution-free environment. In an open letter sent to a state member in April 2017, the groups expressed strong opposition to a proposed bill AB655, which would have allowed trash burning to qualify as a form of renewable energy and be eligible for credits under California's Renewable Portfolio Standard (RPS).[42] Emphasizing the firsthand and ongoing impact of living in the shadows of California's three waste incinerators, including Long Beach's, the groups called for zero-waste policies and waste diversion through recycling and upcycling that can protect low-income communities of color from being sacrifice zones. The bill was brought to a halt in January 2018 following a public hearing and fierce resistance from residents living near the facility.

LATEST DEVELOPMENTS

The 30-year agreement between the city and Covanta Long Beach Renewable Energy, a subsidiary of Covanta Holding Corporation, was supposed to end in 2018. Long Beach City Council, however, approved an extension of the contract in 2015 celebrating the long-term, successful partnership with Covanta and keeping the facility viable until June 30, 2024.[43]

DETROIT RENEWABLE POWER #emissions #odor #lawsuit

1989
Began operation

FACILITY HISTORY

Detroit Renewable Power[44] – also known as the Detroit incinerator – is the largest municipal solid waste incinerator in the state of Michigan. The facility was originally built by the City of Detroit in 1986 and began operation in 1989. It was sold to private hands including Detroit Renewable Energy a consortium formed in 2010. The incinerator has processed up to 3,300 tons of municipal solid waste per day into refuse-derived fuel.[45] The facility is located on the east side of Detroit, where over 7,000 people—including 1,544 children— live within just one mile of the incinerator.[46]

2015 & 2016
Emissions & Odor violations

2014 & 2017
Consent agreement reached over previous emission violations

ISSUES

Ever since the incinerator came online in the 1980s, residents and activists have raised serious concerns over its environmental impact and the cost for Detroit. According to Breathe Free Detroit, the facility has violated the Clean Air Act more than 400 times in 2016 and 2017 alone.[47] This includes carbon monoxide, sulfur dioxide and particulate matter from the RDF-fired boilers. In addition, the facility has failed to meet quality assurance requirements for emission monitoring.[48] In 2015 and 2016 alone, the incinerator was cited 21 times for odor violations and 19 times for toxic emissions, exceeding the amount of certain pollutants allowed in its permit.[49] In Detroit, asthma-related emergencies are five times more prevalent among children living in the city than children living throughout the state of Michigan.[50] The incinerator further raises environmental justice issues as more than 80% of the waste burned at the incinerator originates outside the county.[51] Also 60% of the population in the nearby community exposed to toxic pollutants of the incineration are residents below the poverty line and over 87% are people of color.[52] In 2014 and 2017, the facility was subject to state enforcement action as a result of odor and emissions violations, respectively.

COMMUNITY EFFORTS

Environmental groups have pushed for years to halt operations at the incinerator. Following dozens of emission and odor violations, the Great Lakes Environmental Law Center filed a notice of intent to sue the operator, the state, and the U.S. EPA on October 17, 2016.[53] In a press release, the organization placed a strong emphasis on environmental injustice caused by the incinerator, stating that as little as 19% of garbage actually comes from Detroit households. In late February 2017, 'Breathe Free Detroit' (BFD) was formed to protect nearby communities by shutting down the incinerator and working toward zero waste policies. East Michigan Environmental Action Council, Ecology Center, Great Lakes Environmental Law Center, Global Alliance for Incinerator Alternatives, and numerous residents of Detroit and surrounding communities are working together in BFD to achieve this goal.[54] In addition, the Zero Waste Detroit coalition has been a longtime advocate against waste burning at the incinerator and is working to get the city of Detroit to adopt a zero waste system of waste management.

LATEST DEVELOPMENTS

In early 2017, the state reached a consent agreement with the incinerator over some of the violations. The facility agreed to update its shutdown/start-up procedures, pay a $149,000 penalty and be liable for any fines related to future violations. The agreement is seen as insufficient to local groups and residents because it only covers part of the facility's recent violations.[55] Detroit's waste contract with Detroit Renewable Power ends in 2021, providing a great opportunity to move Detroit toward sustainability. The city is already moving in this direction. In 2017, the Mayor endorsed a goal of 100% renewable energy by 2035, which excludes incineration. Detroit can and must take action to stay on the right path.

SOLUTIONS: ZERO WASTE SYSTEMS

INCINERATION: A FLAWED APPROACHED

In many cities, incinerators came online as a remedy for worsening waste crises. Their cheerful prognosis had strings attached however, including toxic emission violations, odors, noise, and the constant demand for a sufficient amount of waste to be used as a daily feedstock. Beyond the extremely high costs of building, operating, and maintaining them, incinerators inflict economic and environmental damage on communities by discouraging much-needed efforts to conserve resources, reduce waste, and encourage recycling and composting. In addition to exposing health impacts and heavy financial cost, zero waste can be a powerful strategy to close incinerators because it allows cities to dramatically prevent and reduce waste, replacing obsolete waste burning with vibrant, people-led zero waste systems, the real remedy for the world's trash crisis.

ZERO WASTE TO LANDFILL ≠ ZERO WASTE!

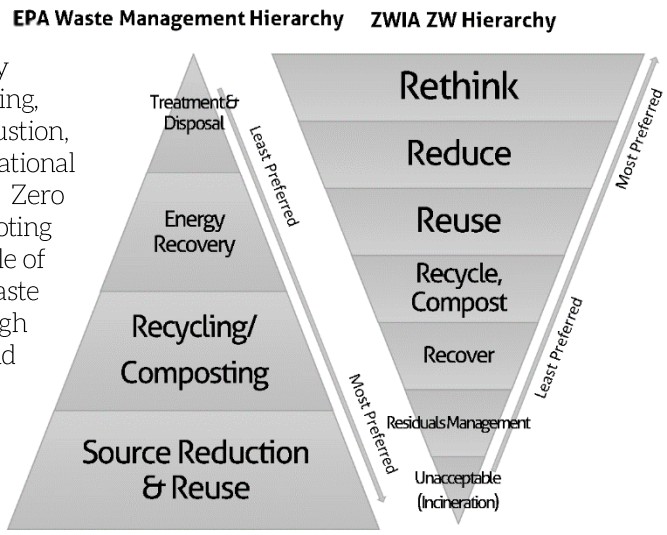
Despite its similar look to "Zero Waste," "Zero Waste to Landfill" misrepresents the concept of zero waste by implicitly allowing trash burning. While there can be diverse ways to define Zero Waste, diverting waste from incinerators as well as landfills is an ultimately essential element. Simply put, understanding what zero waste is NOT makes it easier to understand what it really is: **"no burn, no bury, no toxics"**

KEY ELEMENTS OF ZERO WASTE

Zero Waste **rethinks** current consumption and production patterns to align them within planetary boundaries. Zero waste systems set goals and implement policies, prioritizing **upstream design** of products and processes, to use **less resources**, **conserve and recover** materials through sustainable and just practices such as **reuse, recycling and composting**, in an environmentally safe and socially inclusive way. Ultimately, Zero Waste aims at progressively reducing residual waste to end waste incineration and burial.

RETHINKING WASTE MANAGEMENT

Many governmental bodies in the U.S. follow a waste management hierarchy developed by EPA. The hierarchy ranks various waste management strategies to guide policy planning. While it prioritizes reducing, reusing, and recycling, unfortunately EPA prefers "energy recovery" including combustion, gasification, and pyrolysis to landfilling. Zero Waste International Alliance (ZWIA) counter-argued this norm by adopting the Zero Waste Hierarchy, pointing out the problem of promoting incineration over landfilling and highlighting the core principle of the highest and best use.[56] According to ZWIA's Zero Waste Hierarchy, which many environmental groups endorse, high temperature systems are classified as "Unacceptable" and recovering energy is only acceptable using systems that operate at biological temperatures and pressure. The highest tier, "Rethink," lists measures to be taken for a systemic change such as redesigning, financial incentives, reduction of consumption, and community engagement.



ALTERNATIVES EXIST

Fortunately, the transformation toward a waste-free, just society has already begun. Many cities have implemented zero waste plans and comprehensive strategies getting close to their zero waste goals. Driven by local leaders and recyclers, zero waste solutions are changing our perception and the narrative around resource consumption, protecting the environment and marginalized communities from toxic pollution.

KEY STRATEGIES

Zero waste provides a long-term goal and framework to guide decision making. In order for zero waste solutions to replace waste burning in the most heavily impacted areas, all stakeholders need to band together to move forward with strategies. There are comprehensive guidelines and tools designed to provide a concrete action plan featuring community-led alternatives. To name just one, the Zero Waste Masterplan published by Zero Waste Europe is a great resource for city planners, policy-makers, and community leaders. The guidelines and toolkits have commonly highlighted the following as some of the key steps toward a zero waste society.

IDENTIFY WHERE YOU ARE AND KEY CHALLENGES AHEAD. Evaluate the existing waste management system and identify additional potential for reuse and recycling of specific waste fractions. How is the waste steam currently managed? Is there separate collection in place? Does the city provide any economic incentives to reduction, recycling, and composting? How much infrastructure is needed for waste collection and processing?

BUILD ON YEARS OF EXPERIENCE AND LESSONS LEARNT BY OTHER CITIES AND GROUPS. Large cities in the U.S. and Europe have already paved a way to one of the fastest, easiest and most effective local solutions to tackle environmental, social, and economic challenges caused by waste: the Zero Waste system. As of 2015, 10 major cities in the U.S. have declared a zero waste goal pledging to achieve a diversion rate of 40-100% by 2020-2040.[57] Among them, San Francisco, Austin, Seattle, and Dallas all process less than 1% of their waste through WtE and are striving to rule out incineration.[58] In Europe, the Zero Waste Municipalities network has grown rapidly and it now has more than 400 members.[59] Strong political will, community leadership and engagement, and a locally-adapted strategy have emerged as the keys for success in these cities at the forefront of zero waste movement.

ESTABLISH A ZERO WASTE MASTER PLAN – FROM PLANNING TO EVALUATION. Enforce legislative efforts to institutionalize Zero Waste initiatives, allocate adequate budget and unleash investments. Set higher standards for compliance to ensure environmental justice.

- Apply policy tools such as Pay-As-You-Throw (unit pricing waste collection system).
- Ban products that cannot be recycled easily such as disposable food containers and plastic bags, as Los Angeles, Seattle, Portland, and other cities have.
- Phase out of subsidies for waste-to-energy incineration (i.e. tax credits, tax exemption, premium taxes, etc.) and provide financial incentives for in-city processing of recyclables and compostables.
- Set short-term and long-term milestones such as organizing separate collection, food waste composting, developing prevention strategies, and infrastructure planning.
- Put most-impacted low-income neighborhoods at the core of policy planning, investigation, investment, and training opportunities.

PHASE OUT OF INCINERATION. Cities can expand renewable energy sources by phasing out unneeded incentives for trash incineration and excluding harmful energy from renewable energy policies (e.g. the renewable portfolio standard). In the process of decommissioning an incinerator, ensuring a just transition for employees is a top priority. Cities must plan ahead to find ways to safeguard workers and communities' livelihoods through social protection, training, and relocation. Local groups have well-archived step-by-step action plans for this (See Resources).

DEVELOP A STAKEHOLDER-DRIVEN PLANNING PROCESS. Provide a space for open discussion among city planners, decision makers, civil society organizations, local residents, and academia. Building on enhanced public ownership and transparent democratic processes, joint efforts will yield the best solutions. Involve informal recyclers as well as social enterprises already operating in the city to share valuable on-the-ground experience and expertise.

CONCLUSION

Incinerators in the U.S. are failing, polluting, and threatening environmental justice communities. The most vulnerable populations —including children and the elderly— are exposed to the worst emission-related health risks and environmental damages that will pass down through generations. We have witnessed that incinerators fail to control toxic emissions and accidents even with the most modern technologies.

A people-powered zero waste system is the one and only solution to respond to the mounting waste crisis with an ecologically and socially sustainable, safe and economically efficient approach. Only with the premise of minimizing consumption and rethinking the relationship between humans and resources can we get to the bottom of the problem. No other advanced technologies and innovations can solve the crisis without adopting the key underlying principle of zero waste, which is to move away from the consumption-oriented, throw-away society.

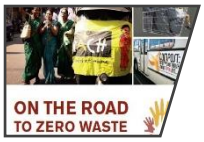
As Eureka Recycling, a mission-based recycling company points out, waste is preventable. Experience shows small and big victories around the globe. Community-led programs for waste reduction, redesign, reuse, composting, and recycling have proven to be efficient, cost-effective, sustainable, and environmentally sound and just. Various tools and guidelines exist to walk city planners through the entire journey toward zero waste with a vibrant vision and concrete action points.

Incineration is an outdated solution from the 1980s. Instead of struggling to give it a new life, we can move forward to a just, safe, toxic-free circular economy by adopting a zero waste philosophy that is suitable for the 21st Century. GAIA, along with community leaders and those who are concerned, invite policy planners and local officials to work with us for the systemic shift toward zero waste, pledging to continue contributing to, support and lead with solutions.

RESOURCES

Zero Waste Masterplan zerowastecities.eu
This Masterplan developed by Zero Waste Europe provides a framework for action to promote the Zero Waste model in Europe and mainstream the Zero Waste philosophy.

Zero Waste Case Studies – Zero Waste Europe zerowasteeurope.eu
Best practices of successful development and implementation of zero waste strategies in Europe are featured on the website of Zero Waste Europe.

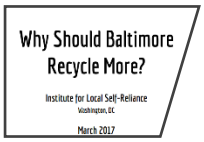


Zero Waste Case Studies – GAIA www.no-burn.org
Community-led zero waste solutions are leading the way throughout the world. Key case studies were featured in a report titled "On the Road to Zero Waste: Successes and Lessons from Around the World" in 2012.

Zero Waste Community Toolkit – Zero Waste USA zerowasteusa.org
This toolkit provides a step-by-step guide for community planning with analyses on waste diversion and markets for commodities. Zero Waste USA also organizes various zero waste training programs throughout the nation.

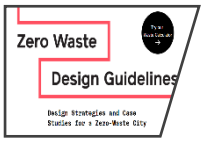
Community Zero Waste Roadmap – Eco-Cycle ecocyclesolutionshub.org
Eco-Cycle Solutions Hub provides a compact guidebook that includes a high-level overview, key policies and programs to support communities to reach a goal of 90% or more material recovery with a 10-year plan.

EPA Managing and Transforming Waste Streams: A Tool for Communities www.epa.gov/transforming-waste-tool
The U.S. EPA provides information on zero waste policies, contract, and programs that communities can implement.



Why Baltimore Should Recycle More – ILSR ilsr.org
This report published by Institute for Local Self-Reliance in 2017, captures the voices from the ground with examples of alternative, more sustainable strategies to deal with the city's solid waste crisis.

From Waste to Resource: Restoring Our Economy with Recycling Careers – LAANE laane.org
This report published by Los Angeles Alliance for a New Economy in 2014 is a comprehensive guideline for greener and safer recycling jobs.



Zero Waste Design Guidelines www.zerowastedesign.org
This website guides visitors through zero waste design strategies and case studies with practical designing solutions for building a zero waste city.

FOR MORE INFORMATION:

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WWW.NO-BURN.ORG

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