



Garbage Incineration is Dirty Energy

Waste burning facilities are the most toxic, expensive, and climate-polluting energy industries in the U.S. These facilities are predominantly sited and built in low-income communities and communities of color across the countryⁱ burdening these communities with mercury, dioxins, and particulate matterⁱⁱ while undermining investments for local economic resilience and job creation.ⁱⁱⁱ

Waste of energy: Due to the low calorific value of waste, incinerators are only able to make small amounts of energy while destroying large amounts of reusable materials. While older incinerators generate electricity at very low efficiency rates of 19-27%, a UK study found that conversion efficiencies of new incineration technologies are even lower.^{iv} **While producing very little energy, incinerators emit large quantities of climate pollution.** In fact, incinerators emit more carbon dioxide per unit of electricity than coal-fired power plants.^v According to the U.S. EPA, “waste to energy” incinerators and landfills contribute far higher levels of greenhouse gas emissions and overall energy throughout their lifecycles than source reduction, reuse and recycling of the same materials.^{vi} The 2017 Conference of Mayors also excluded incineration from their clean energy resolution.^{vii}



Waste of resources: Municipal waste is non-renewable, consisting of discarded materials such as paper, plastic and glass that are derived from finite natural resources such as forests. Burning these materials in order to generate electricity creates a demand for “waste” and discourages much needed efforts to conserve resources, reduce packaging and waste and encourage recycling and composting. **More than 90% of materials currently disposed of in incinerators and landfills can be reused, recycled and composted.**^{viii}

Waste of money: Two studies done for the Energy Information Administration since 2010 show that **trash incineration is the most expensive way to make electricity.**^{ix} According to 2013 U.S. Energy Information Administration data, the operating costs of waste incinerators are over ten times that of coal power plants, and the capital costs are twice that of nuclear.^x In addition to extremely high initial building costs^{xi}, incinerators incur high ongoing operation and maintenance costs.^{xii} This exorbitant price tag makes it impossible for an incinerator proposal to be a profit-generating activity. Incinerators may provide a financial return to the companies that operate them, **but the costs are borne by the public in the form of billions of dollars in public financing and fees, sometimes even running cities into bankruptcy.**^{xiii}

Wasted opportunity: Cities around the world are promoting zero waste practices that benefit public health and the climate.^{xiv} **Zero waste practices such as recycling and composting serve to conserve three to five times the amount of energy produced by waste incineration,^{xv} and create significantly more jobs.^{xvi}** The amount of energy wasted in the U.S. by *not* recycling aluminum and steel cans, paper, printed materials, glass, and plastic is equal to the annual output of 15 medium-sized power plants.^{xvii} Incinerators directly undermine zero waste efforts by diverting valuable resources (both money and materials) and locking cities in to wasteful systems. Instead of promoting expensive and polluting facilities that distract attention from the real problem, we can and should be giving zero waste practitioners the credit and resources they need to expand and strengthen their work.

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- ⁱⁱⁱ Global Alliance for Incinerator Alternatives: Burning Public Money for Dirty Energy: Misdirected Subsidies for “Waste-to-Energy” Incinerators, 2011. Available at: <http://www.no-burn.org/burning-public-money-for-dirty-energy>
- ^{iv} Fichtner Consulting Engineers Limited, The Viability of Advanced Thermal Treatment in the UK, 2004, p.4.
- ^v Energy Justice Network, EPA eGRID 2010 CO₂, SO₂ and NO_x Emissions Data for U.S. Electric Power Plants. Available at: <http://www.energyjustice.net/egrid>
- ^{vi} U.S. EPA, “Solid Waste Management and Greenhouse Gases, A Life-Cycle Assessment of Emissions and Sinks 3rd edition,” 2006.
- ^{vii} Global Alliance for Incinerator Alternatives, U.S. Mayors Stand Up to Incinerator Industry in Landmark Renewable Energy Resolution. Available at: http://www.no-burn.org/incinerators_denied/
- ^{viii} Platt, Brenda et al, Stop Trashing the Climate, ILSR, Eco-Cycle & GAIA, 2008.
- ^{ix} U.S. Energy Information Administration, Updated Capital Cost Estimates for Utility Scale Electricity Generating Plants, April 2013. Available at: <https://www.eia.gov/outlooks/capitalcost/>
- ^x U.S. Energy Information Administration (Department of Energy), Updated Capital Cost Estimates for Electricity Generation Plants, November 2010. http://www.eia.gov/oiaf/beck_plantcosts/pdf/updatedplantcosts.pdf
- ^{xi} Global Alliance for Incinerator Alternatives: Technical Critique of “Stemming the Tide.” Available at: http://www.no-burn.org/wp-content/uploads/Technical_critique_Stemming_the_Tide_report.pdf
- ^{xii} Eunomia Research and Consulting, “Costs for Municipal Waste Management in the EU.” Available at: <http://ec.europa.eu/environment/waste/studies/pdf/eucostwaste.pdf>
- ^{xiii} Tavernise, Sabrina, City Council in Harrisburg Files Petition of Bankruptcy, The New York Times, October 2011.
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- ^{xv} Morris, Jeffrey, Comparative LCAs for Curbside Recycling Versus Either Landfilling or Incineration with Energy Recovery, The International Journal of Life Cycle Assessment, July 2005. Available at: <http://www.springerlink.com/content/m423181w2hh036n4/>
- ^{xvi} Tellus Institute with Sound Resource Management, More Jobs Less Pollution. Available at: <http://www.no-burn.org/wp-content/uploads/MoreJobsLessPollutionFinal.pdf>
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