Incinerators vs Zero Waste: Energy and the Climate

The growing disposal of resources is unsustainable for communities and the climate. Incinerating, instead of recycling and composting these materials, releases high levels of greenhouse gases into the atmosphere and wastes large amounts of energy.

Dumping and landfilling organic wastes is also a critical problem. Landfill disposal accounts for 34 percent of human related methane emissions to the atmosphere, a global warming gas that has 23 times more heating trapping power than carbon dioxide.

Dirty Technologies Can't Clean Up the Climate Mess

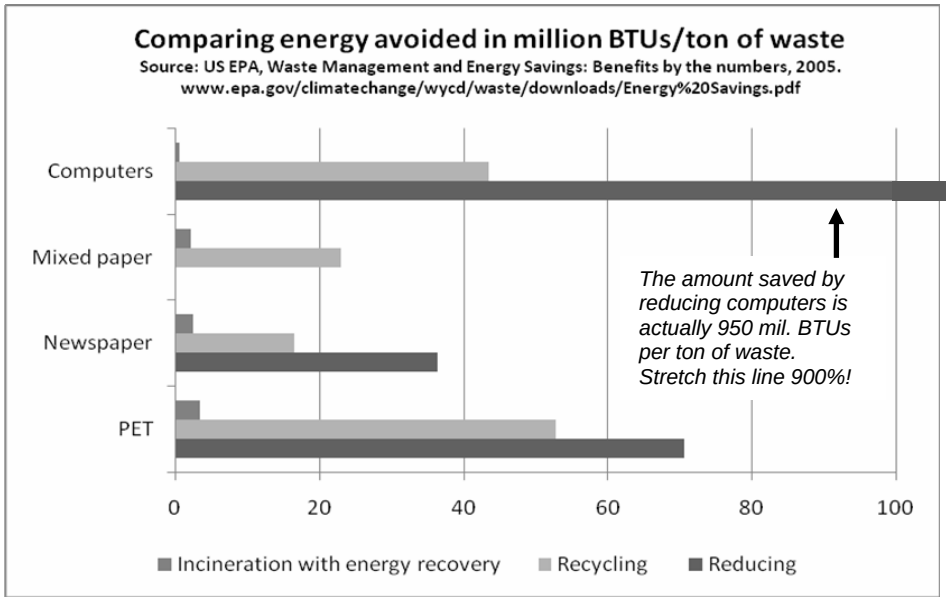
Incinerator and landfill industries are trying to shed their dirty reputations and profit from the climate crisis by "greenwashing" waste disposal as a source of clean and renewable energy around the globe. Using names like "waste to energy", gasification, and plasma, waste companies have gained access to subsidies in some national and global renewable energy programs. Subsidies encourage the construction and expansion of expensive, pollution-ridden and climate-changing incinerator and landfill projects—and it obstruct community-based efforts to stop waste and global warming.

But instead of being a solution to safely meet our energy needs and combat climate change, incinerators are a hazard to communities and the climate. The truth is that incinerators blow more CO2 out of the stack per unit of electricity generated than coal-fired powerplants, and landfills are the largest source of methane in the U.S .. Disposal technologies feed on diminishing resources that should be recycled or composted like paper, food waste, plastic, and aluminum, and undermine efforts to reduce what we waste in the first place.

With limited resources to fix the colossal climate problem,we cannot affordwaste resources on climate cons like incinerators and landfills. Climate change demands that we strengthen waste reduction, reuse, recycling and composting as a means to reduce greenhouse gas emissions and energy use—and that we stop waste incineration.

Waste prevention, recycling and composting save energy and prevent greenhouse gases by:

- Reducing emissions from incinerators. Incinerators waste the climate by releasing greenhouse gases. As a recent European study shows, when the full extent of carbon emissions coming out of the stack of incinerators are considered, incinerators emit significantly more greenhouse gas emissions for each kWh of electricity generated than coal-fired power plants.[i]



- Reducing emissions from dumps. Keeping organic wastes separated for composting means that methane will not be created in dumps.

- Reducing energy use. Recycling saves energy: the amount of energy needed to produce products from raw materials is far greater than the energy needed to produce products from recycled materials. For example, the amount of energy wasted by *not recycling* aluminum and steel cans, paper, printed materials, glass, and plastic in the United States equals the annual output of 15 medium sized power plants.[ii] In the U.S. alone, the current level of recycling conserves an equivalent of 11.9 billion gallons of gasoline, and reduces greenhouse gas emissions equivalent to taking one-fifth (40 million) of all U.S. cars off the roads every year.[iii] The U.S. only recycles 30 percent of municipal solid waste – only the tip of the "wasteberg".

- Leaving carbon in forests. Deforestation accounts for 25 percent of global carbon emissions, and the pulp and paper industry represents 10 percent of all greenhouse gas emissions, making it the fourth largest emitter of greenhouse gases. By reducing paper consumption and recycling paper, more trees are left standing and ancient forest soils (which hold a great deal of carbon) are left undisturbed. Despite this, the incinerator industry falsely promotes the combustion of paper as a sustainable resource!

As shown in the chart, *reducing waste is even more effective than recycling at saving energy*. That means waste reduction also prevents more greenhouse gases than recycling.

Incinerators Waste the Climate

Some incinerators generate energy, so-called "waste to energy" or "energy from waste" incinerators. But because waste prevention and recycling save energy, the energy generated by incinerating waste is small compared to the energy saved by recycling and reducing the same materials. For example: recycling, rather than incinerating mixed paper, saves more than 9 times the amount of energy. Incinerating plastic generates nearly 3 times more lifecycle greenhouse gas emissions than recycling plastic. Reducing computers saves over 1700 times as much energy as can be generated by incinerating computer waste!

Think of the *lifecycle* of the things being used and thrown out to get the full picture. For every product that is incinerated or landfilled, a new product must be created from raw resources, rather than from reused materials. This means that additional natural resources must be depleted, dug up, chopped down, processed, and shipped around the world—causing large amounts of wasted energy and unnecessary global warming emissions.

Zero Waste for Zero Warming

Climate change demands that local, national and international policies and programs support and strengthen zero waste as a core strategy to reduce greenhouse gas emissions. In the face of global warming, handing out public money to incinerator and landfill industries must be stopped. Far from being a solution to safely meet our energy needs and combat global warming, incinerator and landfill disposal is a hazard to the health of our communities and the climate. We can and will shift the fight against waste and global warming—and we can start with zero waste in our communities.

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[i] Hogg, Dominic "A Changing Climate for Energy from Waste?" Friends of the Earth UK, March 5, 2006

[ii] RISE bill, 2007 bill in the U.S. Senate.

[iii] U.S. Environmental Protection Agency. "Solid Waste Management and Greenhouse Gases, A Life-Cycle Assessment of Emissions and Sinks 3rd edition," September, 2006