



GiNRE - Facts

Facts on Why Garbage is NOT Renewable Energy

What is landfill gas?

Modern landfills isolate our discards from water and air, and in particular, oxygen. This creates an anaerobic (oxygen-depleted) environment ideal for the proliferation of methanogenic bacteria. As these bacteria break down the organic (biodegradable) materials, the bacteria in turn release methane gas, a greenhouse gas 23 times more powerful than carbon dioxide. [more info](#)

Legislative history

Prior to 2004, renewable energy legislation did not include municipal solid waste (MSW), even though the EPA began requiring landfill gas collection at select sites in 1996. The American Jobs Creation Act of 2004 was the first to label landfill gas and incinerators as sources of renewable energy, and numerous pieces of legislation have followed suit. [more info](#)

Recycling is more effective at saving energy.

When new products are made from recycled materials instead of using freshly cut trees, raw metals or crude oil, the energy and pollution used to extract and transport these virgin materials is avoided. By recycling 30% of our discards in 2003, U.S. communities saved 1,486 trillion Btu (compared to landfilling/combustion disposal)-an amount equivalent to the consumption of 11.9 billion gallons of gasoline or 256 million barrels of crude oil. [more info](#)

Composting organics restores our soils and cools our atmosphere.

Composting food scraps, yard trimmings, wood waste and other organic materials not only reduces greenhouse gas emissions by avoiding methane emissions, but it also decreases fertilizer and pesticide use, improves soil structure, reduces irrigation needs, decreases the effects of high salinity, increases soil productivity, limits erosion, and helps store carbon in our soils. [more info](#)

Composting organics and generating landfill gas are not compatible.

A community committed to source separating organics for composting will greatly reduce or eliminate its landfill's generation of methane over the future life of the landfill. Landfills depend upon organic materials to generate the methane, and then convert the methane into energy, so no methane simply means no energy. [more info](#)

Organic materials in the landfill threaten groundwater.

Organic materials in the landfill also lead to the production of leachate. The liquids produced from the biodegradation of these organic materials seep through the landfill and, along the way, collect toxic chemicals and heavy metals from the

contents of the landfill. This leachate migrates to the bottom of the landfill and eventually leak through the liner, potentially contaminating local groundwater. [more info](#)

Communities around the world are removing organics from landfills.

Around the world, communities and countries are recognizing the inevitable harm caused by landfilling and are committing to reducing this harm by removing organic materials from the landfill and reducing waste. From U.S. cities banning food and yard waste from landfill to the European Union committing to greatly reducing organic materials in the landfill, big commitments are happening in the effort to protect environmental and human health. [more info](#)

Methane emissions could be largely understated.

The contribution of landfill gas to climate change may be dangerously understated due to a number of factors affecting methane generation and capture. While the EPA estimates that landfills typically collect 75% of the methane gas released, the IPCC suggests that number may be only 20%, and studies show collection rates as low as 9 percent. If landfills are not collecting as much methane as once thought, this means more is emitted into the atmosphere and our wasted resources have a bigger impact on climate change. [more info](#)

Incineration is a waste of energy and a dangerous source of pollution.

Burning our discards releases harmful pollutants into the air, recovers only a fraction of the energy used during the products' life cycle, and perpetuates the cycle of destroying natural resources to make new products. Furthermore, the EPA has proven that recycling provides greater net energy and greenhouse reductions than incineration across a wide range of materials, and that the incineration of common plastics was a net contributor of greenhouse gases. [more info](#)

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