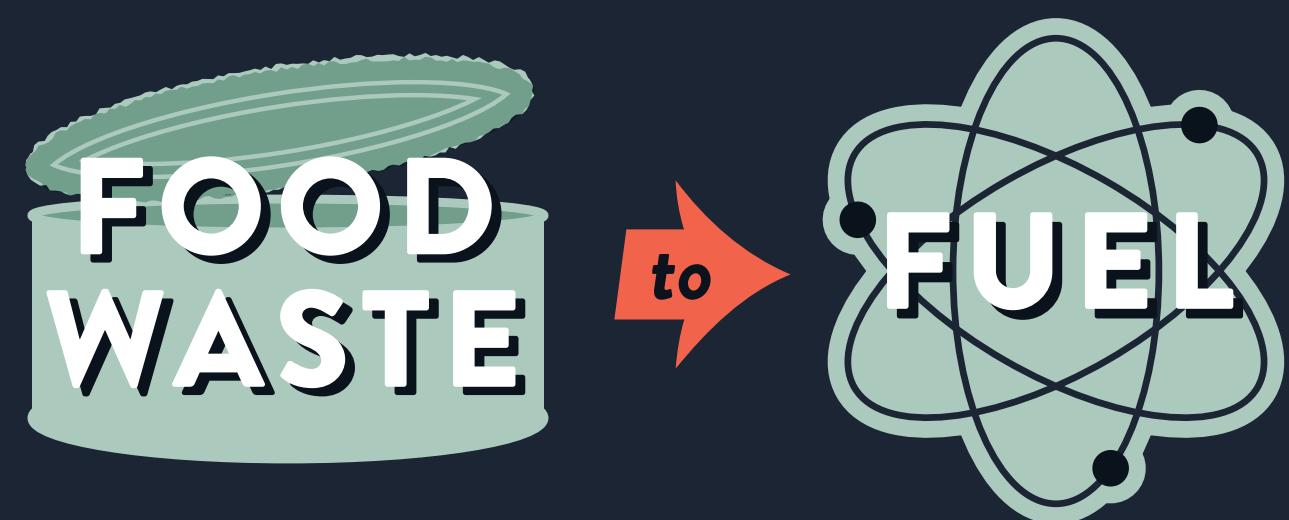


Will Waste-to-Energy be the Solution to Rising Energy Demand Across the Globe?



WHAT IS WASTE-TO-ENERGY?

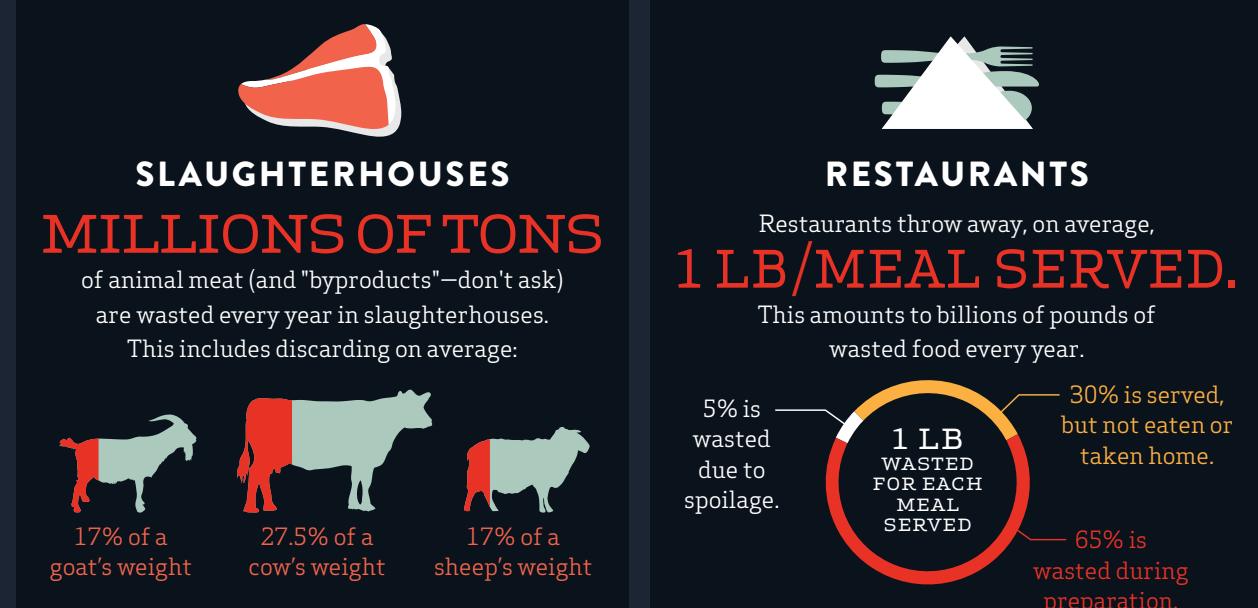
Waste-to-energy is the process of generating energy – electricity, heat or fuel – through the treatment of various waste products. Waste-to-energy doesn't involve drilling, fracking, or mining, and it doesn't rely on scarce and politically-charged resources like oil.

Waste-to-energy involves repurposing organic waste – a “resource” abundantly available all over the world.

Wouldn't it be nice if we could turn food waste into a source of fuel, rather than dumping it in a landfill?

WHO'S WASTING FOOD?

Along the journey from food production to distribution to consumption and finally disposal, food is lost or wasted every step of the way.



THIS AMOUNTS TO ABOUT
1.3 BILLION TONS
OF FOOD WASTED EACH YEAR

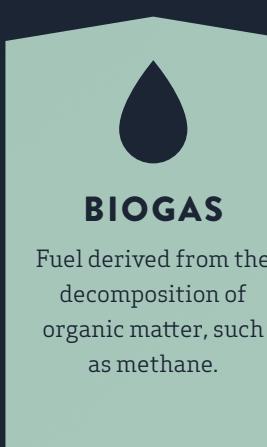
THAT'S APPROXIMATELY
1/3
OF ALL FOOD PRODUCED GLOBALLY FOR HUMAN CONSUMPTION



WHAT HAPPENS TO ALL THAT WASTE?



FUELS MADE FROM LEFTOVERS



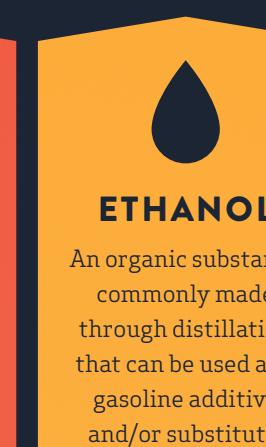
BIOGAS

Fuel derived from the decomposition of organic matter, such as methane.



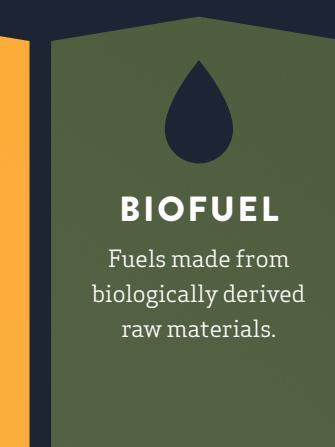
BIODIESEL

Animal or vegetable oil used in lieu of – or combined with – petroleum-based diesel fuels; can also be used as a heating fuel.



ETHANOL

An organic substance commonly made through distillation that can be used as a gasoline additive and/or substitute.



BIOFUEL

Fuels made from biologically derived raw materials.



Whey from dairy wastewater can be converted into biofuel and ethanol, which can replace petroleum-based transportation fuels.



Tofu wastewater converted into biogas could replace over 56,000 tons of fossil fuel...in Indonesia alone!



Up to 20% of the olive crop is wasted when making olive oil. 5% of the olive mass can be converted to biodiesel, and the pit to cellulosic ethanol.



Around 20% of global rice paddy production is rice husk, a waste product that can be used as a biofuel.



For every 10 tons of sugarcane crushed, a sugar factory produces about 3 tons of wet bagasse, a waste product that can be used as a biofuel.



Used coffee grounds – from the 16 billion pounds of coffee produced annually – could produce 340 million gallons of biodiesel.

FOOD WASTE BECOMING FUEL TWO CASE STUDIES FROM RWL WATER GROUP



AT A BREWERY

in Bari, Italy – which produces 53 million gallons of beer annually – waste from the brewing process can produce 3,700 Nm³ of Methane per day.

*Enough biogas to power
ABOUT 280 HOMES
PER DAY!*



AT A SLAUGHTERHOUSE

in Verona, Italy – which processes over 300 million lbs of poultry annually – waste is converted into 6,000 Nm³ of Methane per day.

*Enough biogas to power
ABOUT 480 HOMES
PER DAY!*

These are just two examples of successful waste-to-energy facilities around the world built and operated by The RWL Water Group. Imagine if waste-to-energy solutions like these were implemented at every slaughterhouse and brewery across the globe!

THE ANSWER TO OUR ENERGY NEEDS?

Anaerobic digestion is the main process in waste-to-energy, and there are currently fewer than 1,500 significantly-sized anaerobic digesters across the entire world. We're barely scratching the surface of this potential -- dumping over 70% of the world's food waste into landfills, rather than harnessing it for fuel and electricity. Over the next 25 years, global energy demand will grow by 50%, while global oil supply dwindles at a rapid pace. Waste-to-energy is an obvious solution to meet the world's burgeoning energy demand.

RWL
Water
GROUP

Produced by RWL Water Group, a global water treatment and waste-to-energy systems integrator intent on solving the world's growing need for clean water and clean energy.

Learn More at www.RWLwater.com

SOURCES:

<http://www.cedindia.org/wp-content/uploads/2011/03/slaughter-house-waste-management.pdf>
<http://edition.cnn.com/2012/12/21/world/food-waste-infographic/index.html>
<http://www.fao.org/news/story/en/item/74192icode/>
<http://californiawatch.org/health-and-welfare/food-waste-remains-persistent-problem-farms-grocery-stores-and-restaurants>

<http://extension.missouri.edu/p/G1881>
<http://www.nrdc.org/food/files/wasted-food-IP.pdf>
<http://www.bionomicfuel.com/municipal-waste-to-energy-process-top-10-benefits-we-can-share/>
<http://www.thesra.org/wp-content/uploads/2012/02/SRA002-SRA-Food-Waste-Survey-Full-Report.pdf>