

A PILE of ENERGY:

HOW COW POOP BECOMES POWER

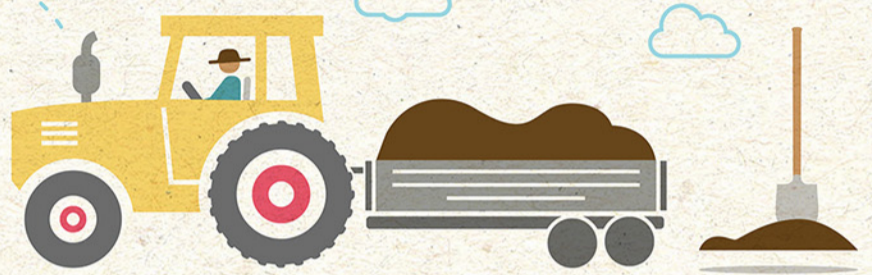
First, the cow...well...



...you know...

THE MANURE IS THEN TRUCKED, WASHED, CARRIED, OR FLUSHED TO THE DIGESTER.*

*A **digester** is a processing tank equipped to capture biogas from cow droppings.



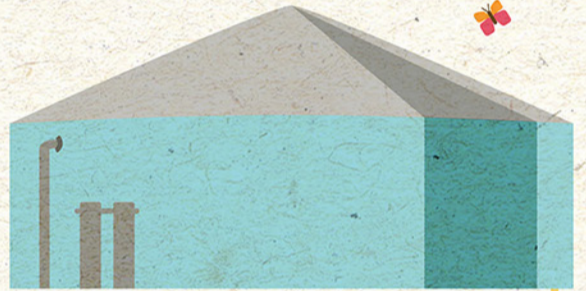
The cow pies are put into the digester and heated to a

WHOPPING 100°F

THAT'S HOT POO!

This is where things get exciting!

BACTERIA/MICROORGANISMS BREAK DOWN THE DUNG INTO RAW BIOGAS* AND DIGESTED MATERIAL.



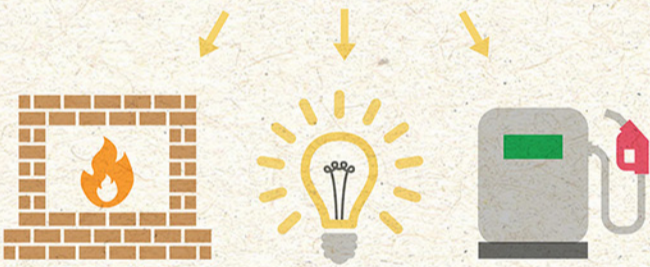
*Biogas is a renewable resource and is composed of mostly methane and CO₂. It can replace natural gas in most applications once non-methane compounds are removed.



RAW BIOGAS

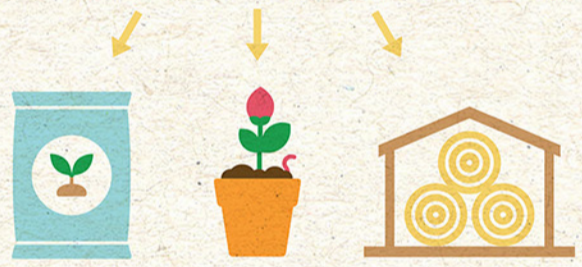
Raw biogas is then sent to a generator to make clean, renewable electricity or converted into renewable natural gas to be used as fuel.

Electricity Abounds!

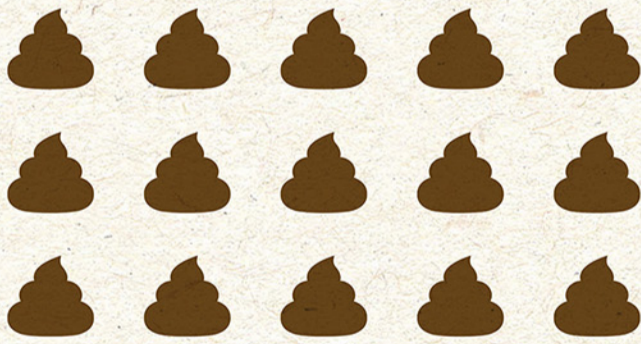


THE LEFTOVERS

But what about the digested material? Leftovers are used to produce fertilizer, compost, soil amendments, or animal bedding.



Fun Facts



15 COWS

The "number two" from 15 cows is enough to power an average home for one day.

<http://www.xprize.org/news/cow-power-turning-manure-moolah>
<http://www.eia.gov/tools/faqs/faq.cfm?id=97&t=3>

Guess what?

Last year, digesters helped prevent more than **3 MILLION TONS** of greenhouse gas emissions from being released into the atmosphere.

<http://phys.org/news/2015-08-cow-poo-power-profitable-farm.html>



BELIEVE IT OR NOT...



65% OF THE GAS FROM MANURE IS METHANE.

<http://science.kqed.org/quest/2013/08/29/harnessing-the-hidden-power-of-cow-manure/>

USDA PLANS TO SUPPORT 500 NEW DIGESTERS OVER THE NEXT TEN YEARS.

<http://www.usda.gov/wps/portal/usda/usdamediafb?contentid=2015/04/0109.xml&printable=true&contentidonly=true>

