

The Power of Pet Poop

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Problem: Most pet owners place their pets waste into the trash. When this waste is deposited into landfills it can later seep into and contaminate municipal water supplies.

Solution: Methane digesters can recycle pet waste into methane gas which can be used as a fuel for producing energy.

According to Will Brinton, an environmental scientist and director of Woods End Laboratories in Maine, dogs and cats in the US produce over 10 million tons of organic waste each year. Most of that waste ends up in public landfills. In Oakland, CA they had to close local beaches when too much pet waste ended up in the local creeks that flowed into the San Francisco Bay. The problem was significant enough to motivate several Bay Area cities to look into ways to recycle this waste.

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It turns out that dog and cat poop contains more energy per pound than any other form of organic waste. It is estimated that one ton of dog and cat poop might produce up to 50 gallons of fuel. This is enough to heat an average home during a cold winter for about two weeks.

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Fortunately, a technology already exists than can turn poop into fuel. Methane digesters have been in use in Europe for about 20 years. There about 600 digesters operating in the EU and about 9 are in use on California dairy, chicken, and hog farms. Methane digesters are proven in farm situations and units are in use in the EU successfully recycling waste from companion animals that live in cities.

Methane burns in a manner similar to natural gas and can be used to power turbines that produce electricity.

In cities the process of recycling dog and cat poop is slightly more involved than on farms. Poop is picked up in biodegradable bags just like any other kind of recycled waste product and transported to a central location. The methane digesters function just like a compost bin. The digesters use bugs and bacteria to breakdown (digest) the waste. The bugs and bacteria emit substantial amounts of methane gas which is trapped and stored for use as an energy source. Methane burns in a manner similar to natural gas and can be used to power turbines that produce electricity. The great thing about these digesters is that they do not require any energy to convert the poop into fuel.

San Francisco has started an ambitious program to recycle the poop produced from its citizen's beloved companion animals. San Francisco, which is named after St. Francis the patron saint of animals, produces over 6,500 tons of pet poop each year from the quarter of a million dog and cats that reside in this progressive west coast city.

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It is not surprising that San Francisco would lead the way to recycling poop in the US. SF already has the most successful recycling program of any large city in the country. Nearly two-thirds of the SF's solid waste is already being recycled. San Francisco has been running a successful recycling program for over 10 years that processes food waste from restaurants and homes into a rich compost that is used to fertilize local farms and vineyards. San Francisco is going about their pet poop recycling program in the same manner as they did for their other successful recycling programs. They have set ambitions goals and made a long-term commitment to the program. Citizens are involved along with local

government officials in their commitment to the project.

For centuries our pets have enriched our lives with love and companionship. Now they can contribute to our energy needs as well.