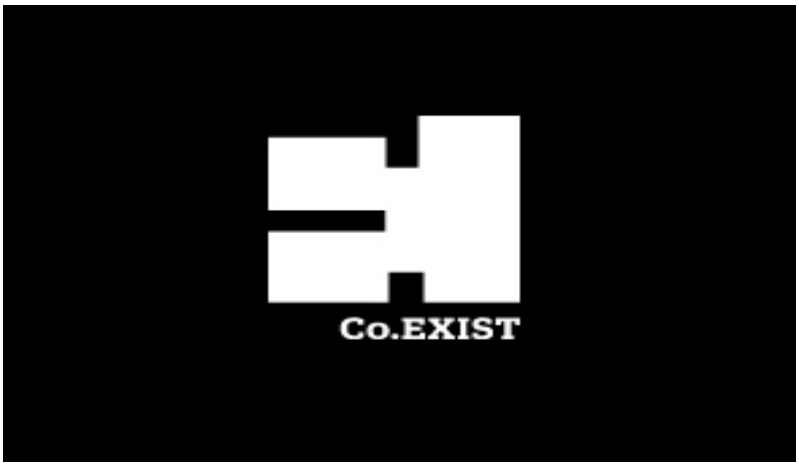

New York's New Solar-Powered Food Carts Are Cool—But Wait Until They Run On Food Waste

Today, a single truck can end up pumping as much smog into the air as 200 cars.

By Adele Peters | May 26, 2015

Waiting in line for a giant pretzel or falafel at a New York City food cart usually involves listening to the roar of a generator, smelling a whiff of diesel or gas, or—for the more neurotic among us—idly wondering if the propane tanks near the hot grill might someday explode.

That will start to change this summer, as the city rolls out 500 sleek new carts that run on solar power, rechargeable batteries, and alternative fuel. Eventually, the new cart, called the MRV100, might even be able to run on fuel made directly from food waste.

"Generators that are used in current food carts are just not built to be used in dense urban environments," says James Meeks, president and CEO at Move Systems, the company making the new cart. Most gas and diesel-powered generators aren't tested for emissions, and a single truck can end up pumping as much smog into the air as 200 cars. Propane tanks come with their own problems. A test of New York City street vendors found that they created 42 times more carbon monoxide than current emissions standards.

The expense of running traditional generators also means that vendors might not always leave food refrigerated as long as it should be—or, if it is on, it might not be cold enough, leading to food safety issues.

The new carts collect solar power from rooftop panels and store it in a lithium battery. Most of the time, solar may be enough to power the electronics inside, providing an essentially cost-free, pollution-free source of electricity. But if the battery dips below a certain voltage, a natural gas-powered generator kicks on.

In theory, that gas generator could eventually run on fuel made from food waste. A report on food carts by the New York nonprofit Energy Vision explains that food waste, which the city is already starting to divert from landfills, can be converted into a renewable, carbon-negative fuel through anaerobic digestion. To run all of the city's year-round food carts would take around 235,000 pounds of food waste—but the city produces around 2 million tons a year, so there's plenty of supply. Carts could potentially collect their own waste for fuel.

The new cart, which is roughly five feet wide and 10 feet long, also improves on the basic features inside, with a modular design that makes it easier to cook. "Unlike the traditional food cart, the MRV100 includes a restaurant-grade kitchen with on-board refrigeration and a sink—helping to create a better culinary experience for consumers," says Meeks.

The first 500 carts will be offered to vendors at no cost in a five-year lease; disabled veterans looking for jobs will get dibs on the first 100 carts. The cart is free thanks to a combination of sponsorships and advertising, fuel sales through a company called Clean Energy, and a modest merchant credit card processing fee (the carts also come with built-in credit card processing, which many street vendors still lack, through a partnership with First Data).

After rolling out the first 500 carts, the partners hope to expand citywide—there are around 8,000 carts throughout the city—and they're also in talks with other cities to expand both nationally and internationally.

"We're working to create a new paradigm in the mobile food cart industry—providing a platform for small business owners to offer varied cuisine in a cleaner, healthier, safer environment," says Meeks.