

A Utah Company Wants to Turn Your Food Scraps into Energy and Fertilizer

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Wasatch Resource Recovery wants a lot more garbage.

Specifically, the food you plan to throw in the trash. They will take your rotten vegetables, dinner remnants, even chicken bones.

Operating since early 2019, Wasatch Resource Recovery (WRR) runs two anaerobic digesters — like giant mechanical stomachs — that break down all

sorts of food waste. About a quarter of all trash that heads to the landfill is food waste, according to the Environmental Protection Agency, so diverting food to the digester could make a big difference.

In the landfill, those food scraps would normally put off a lot of atmospheric greenhouse gasses during decomposition. Instead, the machines capture and clean the gas produced from food waste to sell as natural gas to energy companies.

You can drop off food waste at WRR in North Salt Lake, but now, with a grant from Intermountain Healthcare, the company will test out a curbside pickup program as well. Momentum Recycling and Recyclops, two of WRR's partners, will run the residential pilot programs in Salt Lake City and Heber City. Like other waste pickup operators, they will give participants bins for the food waste and trucks will pass weekly to haul the waste away.

Because of the grant, the fees of some participants may be waived, but otherwise, Momentum Recycling general manager Jason Utgaard said it would likely cost about \$20 per month.

There aren't many restrictions for the food waste, other than keeping out plastics and other containers as best you can, said Elizabeth Barrett, procurement manager for Wasatch Resource Recovery. The digester can break down typical compost items like fruits and vegetables as well as non-compostable foods like meat and dairy. Even bones and eggshells are accepted.

"There isn't anything that we can't take that is a food scrap in your kitchen," Barrett said.

How it works

Each day, more than 300 tons of food waste comes into Wasatch Resource Recovery's facility in North Salt Lake. Put in perspective, that's almost 10 times the weight of the Statue of Liberty.

"We're seeing every month that more food waste is coming in," Barrett said. "Which has been great, especially during a pandemic when so many restaurants and breweries and places like that were closed."

Entering the cavernous building, on one side you may be greeted by a truck dumping food waste, mostly from restaurants and businesses, onto the concrete floor. That heaping mess is then scooped up by machinery into a processor that rips away the bags some restaurants use before sending it below ground to a pipe that feeds to the digester. The other side of the facility looks more like a wholesaler's warehouse than a dumping ground. Pallets of packaged beer, soup, meats and more wait to be hauled into a different machine for disposal. Most of these products' expiration dates passed or they had factory defects.

Rather than send them to a landfill, businesses like Coca-Cola, Harmons Grocery and Uinta Brewing send the products to WRR.

"We're finding more and more companies and manufacturers are trying to be more sustainable and lower their carbon footprint," Barrett said.

Hundreds of cans are loaded into a machine that crushes the cans to let out the liquid inside. Those liquids flow through a drain in the floor into a pipe that leads to the digester, and the cans are taken away to be recycled.

Inside the digesters, the food wastes are mixed together with fats, oils and greases — or FOG — that are dropped off separately from the other waste. Enzymes then break down the food waste, much like a stomach would. While breaking down, the food waste emits methane, which is then captured, converted into natural gas and sold to Dominion. The gas captured by the digesters is called renewable natural gas, or RNG, because it is not a fossil fuel sourced from underground.

Outside the digesters, you will find a spout dropping a substance that looks like clumps of dirt. That's what's left of the food waste, and Wasatch Resource Recovery believes that has a use, too. It is packed with nutrients, so the company is testing whether it can be used as a fertilizer for crops.

Wasatch Resource Recovery expects to know in a year or so whether the solids can be sold commercially, Barrett said.

The pilot will likely run for three months as a way to test how well the pickup system works and who would participate, Barrett said. Based on responses to a survey conducted by Momentum, Barrett said the pilot could expand to include more people.

Within a couple days of launching a survey, which asked residents to say whether they would participate and how much they would be willing to pay for the service, among other questions, about 500 people responded that they would want to participate, Utgaard said. “We knew people would be excited, but we’ve been surprised by the amount of support,” Momentum marketing coordinator Lexi Passmore said.