

Island's First Large-Scale Digester To Feed Energy Needs



Super food: Momma always said veggies would give you energy ... but not like this.

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If you've had a bellyful of landfill waste, hang on – Long Island's first stand-alone large-scale anaerobic digester is finally on its way.

The Long Island Power Authority's Board of Trustees has approved an energy contract with a new food waste-recycling facility in Yaphank, claiming to be capable of reducing Island-wide greenhouse gas emissions by 85,000 metric tons annually – the equivalent of removing 18,000 cars from regional roads, according to Gov. Andrew Cuomo's office.

Operated by Westbury-based American Organic Energy on the grounds of its Yaphank-based Long Island Compost subsidiary, the anaerobic digester – which breaks down organic matter with bacteria, in the absence of oxygen, creating a “bio-gas” that can generate energy in place of fossil fuels – is slated to be operational by late 2020.

Once online, the recycling plant – “the most sophisticated food-waste processing facility in the region,” according to Long Island Association President Kevin Law – will begin digesting some 180,000 pounds of Long Island-generated food waste each year, generating 4 megawatts of clean energy along the way.

And the potential benefits don’t stop there. Working with Suez Water Technologies & Solutions (formerly GE Water) and the Scott’s Miracle-Gro Co., American Organic Energy plans to “collect, separate, pre-process, break down and transform Long Island’s food waste into convertible energy, electricity, fertilizer and nutrient-rich clean water,” according to the governor’s office – an economic and environmental win-win that directly supports Cuomo’s clean-energy agenda, including statewide greenhouse gas reductions of 40 percent (below 1990 levels) by 2030.

Calling New York State a leader in “clean-energy initiatives and innovative solutions that benefit both our neighborhoods and our planet,” the governor said this week that the Yaphank digester would also prove beneficial to regional landfills, which are filling up fast.

“By implementing this groundbreaking technology on Long Island, we can not only produce clean energy and reduce greenhouse gases, but also spare our landfills and keep our communities cleaner and greener for decades to come,” Cuomo added.

This is not Long Island’s first introduction to anaerobic digesters. Re-Nuble Inc., a 2015 startup biotech and virtual tenant of Stony Brook University’s Clean Energy Business Incubator Program, has long pursued anaerobic technologies on its quest to reduce food waste and toxic emissions while promoting better urban nutrition.

And even American Organic Energy’s designs for its 62-acre Yaphank property have surfaced before, though back in 2015, the clean-gen company and the governor’s office were making more modest predictions – regional greenhouse gas reductions of 40,000 tons annually, equal to removing 8,100 cars.

With Cuomo incorporating the Green New Deal into his 2019 executive budget and American Organic Energy’s state-of-the-art, \$90 million facility finally earning LIPA’s approval, the players are now aiming much higher. The new anaerobic digester is expected to be a big hit with regional supermarkets, restaurants, catering halls, hotels and other common food-waste producers, many of whom pay to have their waste hauled – by gas- and diesel-powered trucks – to distant landfills.

The Yaphank eater-upper will also open wide for some 15,000 annual tons of food waste specifically from the Town of Brookhaven, which currently shells out for “more expensive disposal options,” according to the governor’s office.

Brookhaven Supervisor Ed Romaine said the rise of the new anaerobic digester would prove key to the development of a proposed “energy park” at Brookhaven’s nearby Horseblock Road landfill.

“Through this partnership, Brookhaven will continue to move forward with our plans to create an energy park at our landfill, as we cap and close this facility, piping methane to this anaerobic digester to produce an estimated 1.5 megawatts of energy,” Romaine added. “Using food scraps and other organic matter in this facility to create compost and energy is an important part of our overall strategy to reduce our waste stream on Long Island.”

While awaiting LIPA’s nod, the Yaphank project – which is projected to create at least 10 new jobs at the site, while retaining more than 100 existing positions – has already earned a \$400,000 Empire State Development Corp. award and a \$1.35 million grant through the New York State Energy Research and Development Authority’s Cleaner Greener Communities initiative.

Alicia Barton, NYSERDA’s president and CEO, said American Organic Energy’s anaerobic digester project hits all the marks.

“By transforming waste into energy, digester projects like this will reduce harmful emissions and material going into landfills, while providing economic and environmental benefits to Long Island residents,” Barton said in a statement. “NYSERDA is proud to collaborate with LIPA to advance clean-energy solutions that support New York’s nation-leading clean-energy goals.”