

Arlene Karidis | Apr 10, 2018

Maryland's food processing business is booming. But that growth comes with more waste than the government and food industry can manage on their own, and alternatives to deal with it are fairly limited.

In an effort to resolve this dilemma, Maryland Governor Larry Hogan has signed an executive order calling for public-private partnerships to enhance sustainable materials management and beneficial reuse of solid waste, including organics.

This move has pushed the state to turn to what it anticipates will be a new solution: a deal with global company BTS Bioenergy, which will build and operate an aerobic digestion plant in Howard County, Md., and possibly several more Maryland operations. The plant, which will be under construction beginning in May, will be BTS' first venture in North America.

Located at a 400-acre industrial park where food is processed, it will have a capacity of 100,000 tons a year and be able to produce about 3.5 MW equivalents of power from the park's food waste. Some of the power will be sold to the utility, and some will be used by businesses at the park, which may someday also be able to tap into another end product: compressed natural gas to fuel its trucks.

"One of the most common topics in the food industry is managing waste [and surplus] responsibly," says Don Darnall, executive director of the Maryland Food Center Authority, which manages the park. "We've donated to food kitchens, gotten involved in local farmers markets, repurposed what is not marketable but edible, taken food that would have gone into the waste stream and created pet food and separated waste and taken it to composting facilities that often shut down due to violations as capacity grew. In fact, all these avenues combined have been unable to accommodate the massive tonnage the industry generates."

While anaerobic digestion is another alternative, cutting hauling costs and providing relatively cheap alternative energy, the technology has been slow to move at scale in the U.S.



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"There has been an issue with developers who think they can raise money for these projects and then bring in the right technology for the right company to see the project through. But we can be more competitive in pricing because we offer both technology and development expertise. Plus, we bring financing and 20 years of experience," says Shawn Kreloff, CEO of BTS Bioenergy America, which has built almost 200 plants in Europe, mainly Italy, and manages about 120 of them.

Maryland Environmental Service (MES), an independent state agency, is serving as a consultant to BTS, providing guidance on Maryland-specific considerations for doing business from an environmental perspective.

MES is among key stakeholders looking for waste management techniques to meet the state's sustainability goals and promote beneficial reuse.

"One thing mentioned in the governor's executive order is anaerobic digestion, and MES' role is to support that order on handling waste in an environmentally sensitive way. So, we are helping BTS navigate permitting issues, and we are exploring with them the potential to provide operational support," says Roy McGrath, CEO of Maryland Environmental Service. "I think all the stars are aligning as we move forward. We think [working with BTS] fits in with our mandate as the governor has directed on renewable energy."

The Maryland Food Authority had looked at anaerobic digestion before.

"You had to buy a machine, and the volume it could handle was very small. We would have had to buy dozens of machines, and there was no room for them or room to store the byproduct, which we would have had to do. Plus, it was too costly," says Darnall.

"What made BTS different is they didn't meet with me to sell a machine, but came in and said, 'we want your waste, and in exchange, we can offer a lower cost to dispose it.' They knew challenges



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specific to dairy farms and other fresh food products farms and looked to create a plan specific to our needs.".

As the company begins working with Maryland, BTS is looking for municipalities and food companies up and down the East Coast to work with.

"Many states have rules either around sunsetting landfills or incinerators that are being legislated out of business over time. So, a lot of them are looking for other ways to dispose of organic waste," says Kreloff.

With regard to Maryland, where its East Coast plans begin, he says, "There is no shortage of food processors or distributors there, so it's a great area for us to locate and to show what we can do."