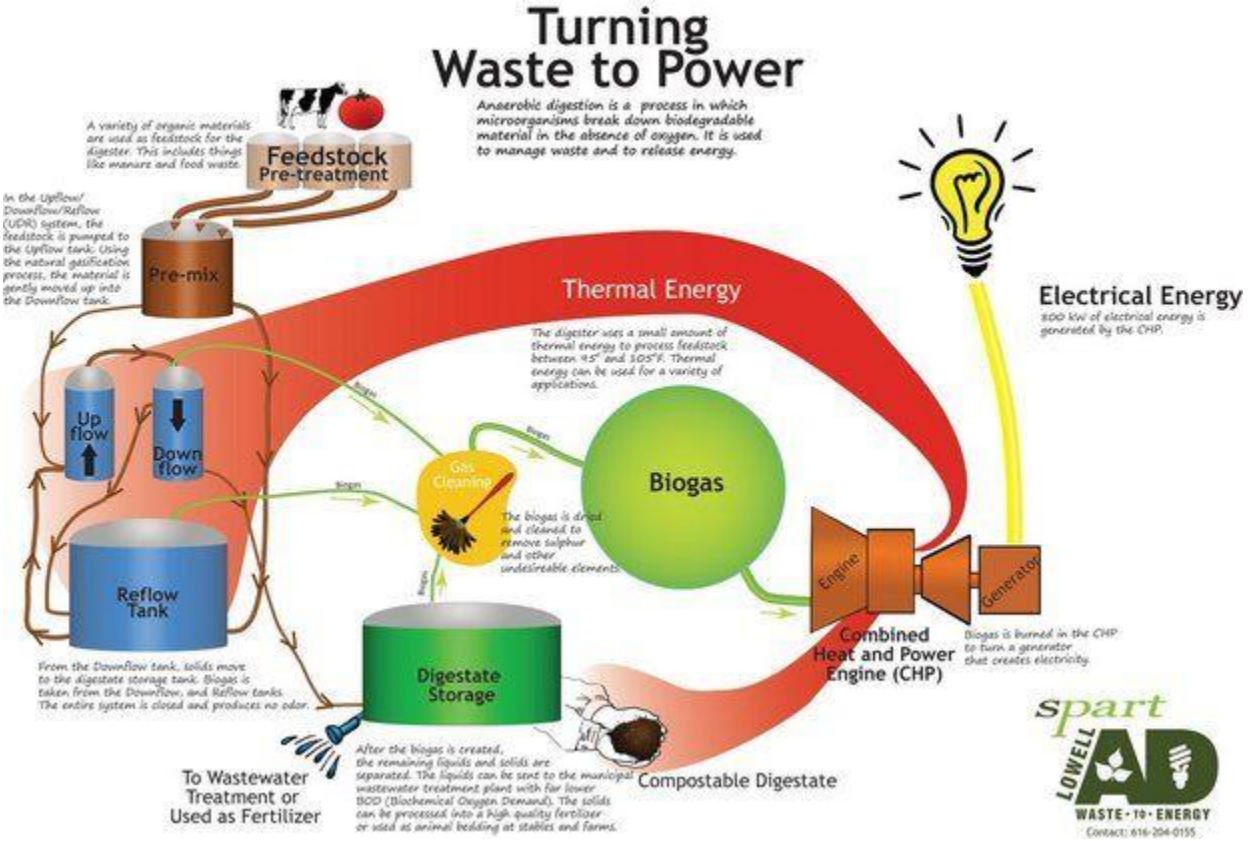
Dairy farm will generate electricity instead of smells with $8 million anaerobic digester



(Courtesy rendering of the Urban Institute)

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COOPERSVILLE, MI – A large dairy farm is going to start producing electricity rather than smells from the manure produced by its 3,000-plus dairy cows, according to Sustainable Partners LLC (Spart), a company that operates a similar power plant in Lowell.

Spart announced it has been selected to build a 1.4 megawatt anaerobic digester at Beaver Creek Farm. Electricity generated by the $8 million-plus digester will be used by the farm and sold to Consumers Energy.

“A biogas plant is a natural fit for base-load distributed generation,” said Spart Managing Partner Greg Northrup in a Dec. 8 press release. Electricity produced by the plant also helps the utility meet its state mandates for renewable energy.

“We can count on the cows for a constant supply of feedstock which allows the plant to produce energy 24/7/365,” Northrup said. In addition to the manure produced by cows, the plant also will use fats, oils and greases from restaurant grease traps

Anaerobic digestion uses naturally occurring bacteria to break down manure and other organic waste in the absence of oxygen resulting in biogas, a fuel similar to natural gas.

As manure decomposes it produces methane, a greenhouse gas with 21 times more global warming effect than carbon dioxide. Methane that would have been released into the atmosphere is captured in the digester and used to fuel a combined heat and power engine that produces electricity and thermal energy.

“Biogas projects also generate valuable renewable energy credits and carbon credits which can be used by third-parties to achieve regulatory compliance,” Northrup said.

Now that they have been selected for the project, Northrup said they will design the project and raise funding for the project, which could range between $8 million and $9 million. They hope to break ground in June, he said.

The Coopersville plant will be the second anaerobic digester for Spart, which was formed in 2011 by Northrup and partner, Pam Landes, to develop, build, own, operate, and finance alternative and renewable energy projects.

Spart is in the final commissioning phase of an anaerobic digester at **Lowell Energy AD,** an 800 kilowatt anaerobic digester located in the city of Lowell. Northrup said they expect to begin producing electricity at the Lowell facility in January.

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“We invested great time and effort into developing a replicable model in Lowell,” Northrup said. The Coopersville facility will use the same German-built digester they installed in Lowell, he said.

“We put a strong team together including Rockford Construction, Williams & Works, Progressive AE, Varnum Law, and BDO. The West Michigan AD project will reap the benefits of our experience in Lowell,” Northrup said in the press release.

“AD as a source of distributed power is gaining momentum,” said Northrup. “Every one of the 100 largest dairies in Michigan could be producing power.”

Bill Henke, owner of West Michigan AD LLC and Beaver Creek Farm, said the digester will generate extra cash and help with manure management.

“There are lots of benefits to the farm by sending the manure through the digester. We retain the nutrients for land application, but lose the odor,” Henke said.

“We reduce our volume of manure since some of it is consumed in the digester and there are other things like the potential to use the solid output of the digester to bed cows and just a general reduction in the hassles of manure management.”

The Coopersville is one of four on-farm digesters selected for the Consumers Energy Experimental Advanced Renewables Program (EARP) earlier this year. Consumers accepted a total of 2.6 Megawatts of production from anaerobic digestion in their recent request for proposals.

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