



GREATER LAWRENCE SANITARY DISTRICT

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FOR IMMEDIATE RELEASE

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ORGANICS-TO-ENERGY PROJECT IS FULLY OPERATIONAL

Greater Lawrence Sanitary District nears goal to produce enough power to meet its own electrical needs and become a Net-Zero or even Net-Positive energy user

North Andover, MA --December 10, 2019 – Greater Lawrence Sanitary District (GLSD) Executive Director Cheri Cousens announced today that GLSD's Organics-to-Energy Project has been successfully completed and is fully operational, adding significant resiliency to the circa 1977 facility, including the ability to produce its own energy using a renewable fuel produced onsite and the potential to offset a nearly \$3 million annual energy bill.

In addition to nearing energy self-sufficiency, The Organics-to-Energy system also provides a needed outlet for diverted organics and food waste as required under the Commonwealth's Solid Waste Master Plan. The Plan calls for the diversion of food waste from landfills and incinerators to reduce greenhouse gas emissions, a goal achieved also by utilizing electricity at the location of production, which is 60 percent more efficient than obtaining it from the grid.

"Now, GLSD can provide day-to-day power needs at its main facility using a renewable fuel source, biogas, produced within its anaerobic digesters during the processing of municipal biosolids and preprocessed organic food waste. Once the facility is totally self-sufficient and no longer drawing from the electrical grid, surplus energy will be exported and net-metered to offset energy costs at our remote pumping station," said Cousens.

"The Organics-to-Energy capability also goes a step further. It includes the ability for black start and islanding, which means if the electrical grid has a blackout, GLSD can disconnect from the grid and restart its engines to provide virtually uninterrupted operation of its treatment facility," Cousens added. "Ensuring stable and low-cost energy to the treatment facility is paramount during times of unpredictable power supply from outside sources."

The Massachusetts Department of Energy Resources (DOER) has estimated that the project will reduce GLSD's greenhouse gas emissions by 20 percent, which is equivalent to taking more than 1,000 cars off the road and fuel savings equivalent to filling 70,000 cars every year.

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The Organics-to-Energy Project, which began in June 2016 and was completed this month, added a fourth anaerobic digester, underground food acceptance tanks with associated pumps, a gas-cleaning process to produce pipeline quality gas for fuel and state-of-the-art technology to reduce emissions from the two, 1.6-megawatt cogeneration engines. Heat is recovered from the engines and exhausts, reducing GLSD's reliance on natural gas-fueled boilers and furnaces for heating. Major electrical upgrades were also included to replace 40-year-old electrical infrastructure, improving overall reliability.

Thanking public officials of Lawrence, Methuen, North Andover, Andover, Dracut and Salem, N.H. for their continued support of this project, Cousens also acknowledged the participation of the Massachusetts Department of Environmental Protection (MassDEP), the Massachusetts Clean Energy Center (MassCEC), DOER, National Grid and the Massachusetts Clean Water Trust – each of which provided partial funding to see the project through.

“This Organics-to-Energy project helps Massachusetts reach its goals for organics diversion, resiliency and clean energy generation, and is a national model for sustainable infrastructure,” said MassDEP Commissioner Martin Suuberg, whose agency provided financial assistance and technical reviews of the design plans for this project. “By reducing its electrical use and maximizing its on-site renewable energy production, the system’s energy footprint will be net-zero – producing enough energy to meet its own power needs. That will allow GLSD to continue to operate its wastewater treatment systems, even when the power goes out, helping to protect public health and water quality in the Merrimack River.”

“As an early partner of this project, we are pleased to celebrate the completion of the anaerobic digester system at the Greater Lawrence Sanitary District,” said Massachusetts Clean Energy Center CEO Stephen Pike. “Now that it is fully operational, this system will not only reduce greenhouse gas emissions and help Massachusetts meet its ambitious climate goals, but will enable GLSD to operate through severe weather events, representing a true win-win for the region and the entire Commonwealth.”

“Projects like GLSD’s Organics-to-Energy, funded in part by DOER, demonstrate that clean energy improvements can also help ensure the resiliency of the Commonwealth’s infrastructure,” said DOER Commissioner Judith Judson. “This project will allow GLSD to continue to operate its wastewater treatment systems, even when the power goes out, increasing energy reliability and decreasing the impact on neighboring facilities, customers, and the environment.”

“The Clean Water Trust was proud to partner with the Greater Lawrence Sanitary District to support and finance such an innovative project, and to do so at such a subsidized cost,” said State Treasurer Deborah B. Goldberg, Chair of the Trust. “We provided approximately \$27 million in funding, of which \$25.4 million is being provided as a subsidized loan and \$1.6 million in grants. These funds help protect the health of our citizens and provide savings for the ratepayers of Massachusetts.”

The Greater Lawrence Sanitary District (GLSD) is a municipal sewer district that operates a 52 million gallon per day wastewater treatment facility serving the cities of Lawrence and Methuen and the towns of Andover, North Andover and Dracut, MA and Salem, NH. For more details on the GLSD and its services, visit our website at www.glsd.org.



Aerial view of Greater Lawrence Sanitary District located in North Andover, MA



One of two 1.6 Megawatt Caterpillar G3520C engines