Jordan Dairy Farms Heifer Facility, Spencer, Massachusetts
Farm Powered™ Anaerobic Digester Project

FARM BENEFITS

- Liquid, organic fertilizer to increase crop yields
- Reduced energy cost
- Odor reduction
- Reduction in chemical fertilizer use
- Enhance nutrient management plan
- Heat reuse

FARM FACTS

- 950-acre dairy farm
- Founded in 1885
- 800 Holstein cows/300 milked daily
- Located in Spencer, Mass.
- Member of Dairy Farmers of America (DFA)

DIGESTER FACTS

- Construction completed spring 2019
- 600,000-gallon capacity
- 160,000-gallon hydrolyzer

Digester Input:

- 10 tons of manure daily
- 100 tons per day organics

Digester Output:

- Produces 8,410 MWh of renewable energy/year from a 1 MW engine
- Displaces 5,500 lbs. of CO_2 emissions daily
- Provides energy via net metering credits to area businesses

Jordan Dairy Farms continues its commitment to sustaining the farm for future generations and protecting the environment by adding a second Vanguard Renewables Farm Powered Anaerobic Digester at the Jordan Dairy Farms Heifer Facility in Spencer, Massachusetts. Jordan Dairy Farms was the first farm in New England to host an anaerobic digester back in 2011. With the addition of the Spencer location, the Jordan's now become the first New England farm family to host two Farm Powered Anaerobic Digesters.

A six-generation dairy operation, Jordan Dairy Farms was founded in 1885. The farm is a member of the Dairy Farmers of America (DFA) Cooperative and is operated by brothers Randy and Brian Jordan.

The completed anaerobic digester at the Spencer location features a 660,000-gallon capacity anaerobic digester tank and will co-digest more than 10 tons of manure and 100 tons of organics daily. It will produce 8,410 MWh of renewable energy per year from a 1 MW engine and displace 5,500 lbs. of CO_2 emissions daily.

Manure from the dairy operation and organic food waste are combined in the anaerobic digester and microorganisms convert sugars, fats, and other compounds into biogas to produce renewable energy. The digestate by-product of the process is an odor-free organic, liquid fertilizer. The farm also receives low-cost energy and hot water and heat for farm operations.

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