

VANGUARD RENEWABLES

JORDAN DAIRY FARMS Spencer, MA



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)



Dairy Farmers of America

DIGESTER FACTS

- Construction completed
Spring 2019
- 660,000-gallon capacity
- 160,000-gallon hydrolyzer

FARM BENEFITS

- Income diversification
- Low carbon fertilizer to
increase crop yields and
protect area soils
- Reduced energy cost
- Odor reduction
- Reduction in chemical
fertilizer use
- Enhanced nutrient
management plan
- Heat reuse

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.

The sustainability of the anaerobic digester coming into our facility has tremendously helped. We certainly enjoy having the ability to capture the electricity off of the methane gas. And then we use the byproducts for fertilizer purposes

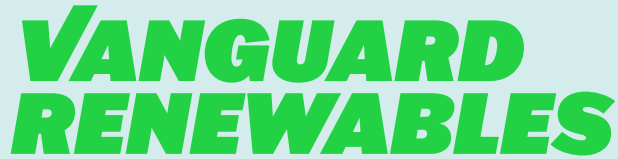
— Randy Jordan

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 4,400 tons of manure and 38,300 tons of organics annually. It will produce 8,000 MWh of renewable energy per year from a 1 MW engine and offsets 1,000 tons of CO₂ emissions annually.

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.

PROJECT PARTNERS



ANNUAL DIGESTER INPUTS

4,400 tons of manure

38,300 tons of organics

ANNUAL DIGESTER OUTPUT

Produces 8,000 MWh of renewable energy/year

Displaces 1,000 tons of CO2 emissions

Receives organic waste from food manufacturers and provides renewable energy via net metering credits to businesses

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