

VANGUARD RENEWABLES

BAR-WAY FARM

Deerfield, MA



FARM FACTS

- 600-acre dairy farm
- Founded in 1919
- 300 cows milked daily
- Produces more than 2,000 gallons of milk daily
- Located in Deerfield, Mass.

DIGESTER FACTS

- Construction in 2016
- 660,000-gallon capacity

FARM BENEFITS

- Annual hosting lease payment
- Low carbon fertilizer to increase crop yields
- Reduced energy cost
- Odor reduction
- Reduction in chemical fertilizer use
- Enhanced nutrient management plan
- Heat and hot water

Bar-Way Farm, Inc. is a multi-generational dairy farm in Deerfield, Massachusetts, founded in 1919 and operated by Steven Melnik and his son, Peter. The farm encompasses 600 acres of cropland. More than 300 cows are milked each day producing an average of 2,000 gallons of milk daily. The farm is a member of Dairy Farmers of America (DFA).

The anaerobic digester significantly reduces farm expenses for energy, cow bedding, and heat, and minimizes smells on the farm which makes us better neighbors.

— Peter Melnik, Bar-Way Farm

The Vanguard Renewables Farm Powered Anaerobic Digester at Bar-Way Farm was constructed in 2016 and features a 660,000-gallon capacity anaerobic digester tank. The facility combines more than 9,000 tons of manure and 36,500 tons of food waste annually and converts it to renewable energy. This offsets more than 2 million pounds of CO₂ emissions annually. The 7,700 MWh of renewable energy produced each year by the Deerfield anaerobic digester system is enough to power 1,600 homes.

Manure from the dairy farm operation and organic food and beverage waste are combined in the anaerobic digester and microorganisms convert sugars, fats, and other compounds into biogas to produce renewable energy and low carbon fertilizer. The farm receives an annual lease payment for hosting the anaerobic digester, hot water, heat, and energy savings.

PROJECT PARTNERS



VANGUARD RENEWABLES



ANNUAL DIGESTER INPUTS

9,125 tons of manure

36,500 tons of food waste

ANNUAL DIGESTER OUTPUTS

Produces 7,700 MWh of renewable energy

Offsets more than 1,000 tons of CO2 emissions

Produces renewable energy equivalent to 1,600 homes

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

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