



FARM POWERED® RENEWABLE NATURAL GAS
SUPPORTING DECARBONIZATION GOALS
&
SUSTAINING FAMILY FARMS



Vanguard Renewables – Anaerobic Digester Developers, Owners, Operators

FARM POWERED SUSTAINABILITY



- Recycling organic waste into natural gas creates renewable energy, but that is where the similarity with wind and solar ends
- Turning organic waste into Renewable Energy is a 24/7, highly technical, and vertically integrated process
- To be successful, you must have an experienced, fully integrated and capitalized company that partners with the farm hosts



40% OF AMERICA'S WASTE IS COMPRISED OF ORGANIC MATERIALS

FARM POWERED SUSTAINABILITY

PROCESS
WASTE



FATS, OILS,
GREASE



WASH
WATER



PACKAGED
WASTE



DISCARDED FOOD
Front of House



DISCARDED FOOD
Back of House



How Vanguard Renewables' Business Works

FARM POWERED SUSTAINABILITY



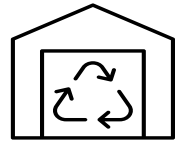
Organics Business

RNG from food waste

Food waste partners
(restaurants, groceries,
food manufacturing, etc.)



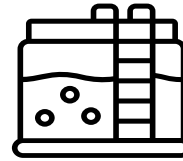
Haulers



Organics
Recycling Facility

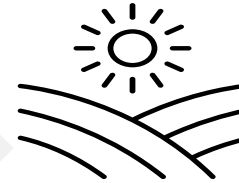


Tankers



Anaerobic
Digester

Digestate



Created by Made from the Noun Project

RNG

Utility Markets

Motivated by intense public pressure and regulations that mandate percentage displacement of fossil gas



Pipeline
Interconnection

Feedstock logistics

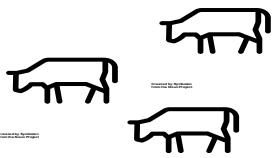
Depackaging
(codigestion only)

Anaerobic Digestion

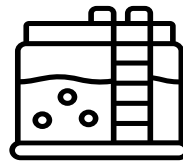
Digestate Disposal

Pipeline Interconnection
& Transportation

On-farm bovine herds

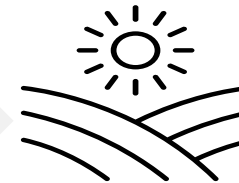


Manure



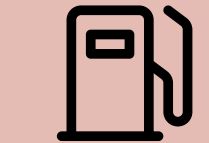
Anaerobic
Digester

Digestate



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RNG



Transportation
buyers

Transportation Markets

Motivated by strict regulations that mandate carbon intensity of fuel and reductions in total GHG output of vehicles



Ag Business

RNG from manure



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FARM POWERED SUSTAINABILITY



- Institutionally funded by mission-driven investors seeking to impact climate change by:
 - Capturing latent methane in animal manure/reducing GHG emissions
 - Removing food waste from landfills
 - Producing renewable natural gas (RNG) or renewable electricity
- Vertically integrated anaerobic digestion company that builds, owns and operates all its projects
- 5 operating co-digestion facilities/9 permitting or under construction in NY/VT/CO/GA
- Largest organics recycler in the Northeast with capacity to process 500 tons per day of food waste and 120 tons per day of manure
- Works on recycling food waste with leading food manufacturers, retailers and institutions like: Unilever, Coca Cola, Gorton's Seafood, Polar Beverages, and Whole Foods Markets
- Pipeline of D3 and D5 projects across the US
- Multi-year strategic alliance with Dairy Farmers of America

Vanguard Renewables – Anaerobic Digester Developers, Owners, Operators

FARM POWERED SUSTAINABILITY

- Anaerobic digesters are highly technical pieces of equipment, requiring chemical, biological and mechanical expertise to optimize
- Food waste recycling is a vertically integrated and multifaceted business that requiring logistical, chemical and process oriented infrastructure and staffing
- Gas marketing is a highly specialized marketplace, requiring a team of industry professionals
- For these and many other reasons, a partnership between farmers and a fully integrated and funded company is necessary for the long-term success of the projects

