

Salisbury RNG Project – Motion to Amend CPG
Project Comparison Matrix (Revised December 12, 2018)

Element		Final Project	As-Approved Project
1. Layout/Location and Equipment			
Leased Area		± 3.5 acres	± 3.5 acres
System Manufacturer		CHFour Biogas LLC	Weltec Biopower
Anaerobic Digester(s) (Map Key: 1)	<i>No. of tanks</i>	2	3
	<i>Shape</i>	Oval	Circular
	<i>Materials</i>	Concrete base and walls, flexible biogas membrane enclosed top	Concrete base, stainless steel walls
	<i>Dimensions</i>	100 ft. long x 60 ft. wide, 20 ft. high 10 ft. underground	103.3 ft. in diameter, 20.7 ft. high all aboveground
	<i>Volume (per tank)</i>	925,430 gallons	431,670 gallons
	<i>Volume (total)</i>	1,850,860 gallons	1,295,000 gallons
Utility Building (Map Key: 2)		New 40-ft. x 8-ft. shipping container.	Converted existing storage building.
Office/Lab (Map Key: 3)		New 40-ft. x 8-ft. shipping container.	Converted existing storage building.
Separator Building (Map Key: 4)		New 50-ft. by 30 ft. building, next to approved new barn location.	Existing 80-ft. by 30-ft. building
Manure Tank (Map Key: 5)		New round concrete tank (26,500-gallon)	Existing tank expanded to 36 ft. x 12 ft. x 12 ft. (38,800 gallons)
Biogas Upgrader (Map Key: 6)		28 ft. x 50 ft. 20 ft. high stack	40 ft. x 8 ft. x 9.6 ft. standard shipping container 19 ft. high stack
VT Gas Metering Station (M&R Station) (Map Key: 7)		No change proposed.	Included.
Flare(s) (Map Key: 8)		No change proposed.	Included.
Nutrient Management Building (Map Key: 9)		Existing building to house nutrient recovery system and solids storage.	Existing building and outside compost pad to house separated solids (bedding).
Nutrient Cake Storage Area (Map Key: 10)		Storage area for 3 covered dumpsters	None.
Combined Heat & Power (“CHP”) Building (Map Key: 11)		600 kW natural gas-fired CHP unit to supply on-site electricity/heat load, house 2 small boilers.	Three-phase power lines would be brought to site; no CHP for on-site power.
Hydrolyzer (Map Key: 12)		Tank that contains a pump and mixer to macerate and homogenize SSO deliveries.	Not included.
Nutrient Storage Tanks (Map Key: 13)		2, 2.5 Mgal tanks and existing farm lagoons.	Existing farm lagoons.

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Truck Turnaround (Map Key: 14)		Expansion of mostly currently disturbed area.	Not included.
Back Up Generator (Map Key: 15)		500 kW diesel-fired back-up generator.	Not included. Three-phase power lines would be brought to site.
Existing Pump House (Map Key: 16)		Will not be used.	To be used for utility/control, office/lab, and pumphouse.
Compost Pad (Map Key: 17)		None.	To be used for outside separated solids storage.
2. System Inputs and Outputs			
Inputs	<i>Manure</i>	78 tons per day separated raw manure.	140 tons per day manure and agricultural waste (washwater, bedding, etc.).
	<i>Contributing herd</i>	900 dairy cows (current host farm herd).	1,200 dairy cows (host/partner farms herds).
	<i>Food Waste</i>	178 tons per day SSO.	Unspecified tonnage of corn silage, brewery waste, and food processing residuals.
	<i>Total feedstock</i>	Up to 256 tons (61,382 gallons) per day.	Unspecified.
	<i>Feedstock proportion</i>	31% manure, 69% food waste.	98% agricultural, 2% food processing residuals.
	<i>Upgrader water use</i>	400 gallons per day.	10 gallons per day.
Outputs	<i>RNG (gross)</i>	172,000 Mcf/year.	130,000 Mcf/year.
	<i>RNG (net)</i>	147,000 Mcf/year.	120,500 Mcf/year.
	<i>Liquid digestate</i>	19.7 Mgal/year to 17.9 Mgal/year (depending on volume reduction of nutrient recovery).	Unspecified.
	<i>Solids</i>	8,395 tons/year of "nutrient cake." No change proposed to bedding material.	Unspecified volume of bedding material from screw press.
	<i>Wastewater</i>	500 gallons per day wastewater from upgrader and minimal washwater from trucks.	12 gallons per day from upgrader.