



Renewable Natural Gas (RNG) – New Developments & Opportunities for Industrial Energy

May 2025

CIBO Meeting

Kingsport, TN



1. Sagepoint Overview
2. Why/How RNG
3. How is it Produced
4. How Can You Use It?

Sagepoint Energy - Why, Mission, Cores Values



OUR MISSION:

Our mission is to build trusted partnerships that help transform community waste into energy and other beneficial products. With a dedicated and experienced team, we focus on safety, efficiency, and environmental stewardship to drive the circular economy forward.

OUR WHY:

We support communities by limiting their waste and emissions. We do this by hiring the most dependable, experienced team in renewable energy, that inspires trust and sets a high industry standard. Join us in shaping a sustainable future where experience meets expectations.

Dependability

- We strive every day to be worthy of trust from others

Excellence

- We pursue high standards and continuous improvement both in our work and our people

Integrity

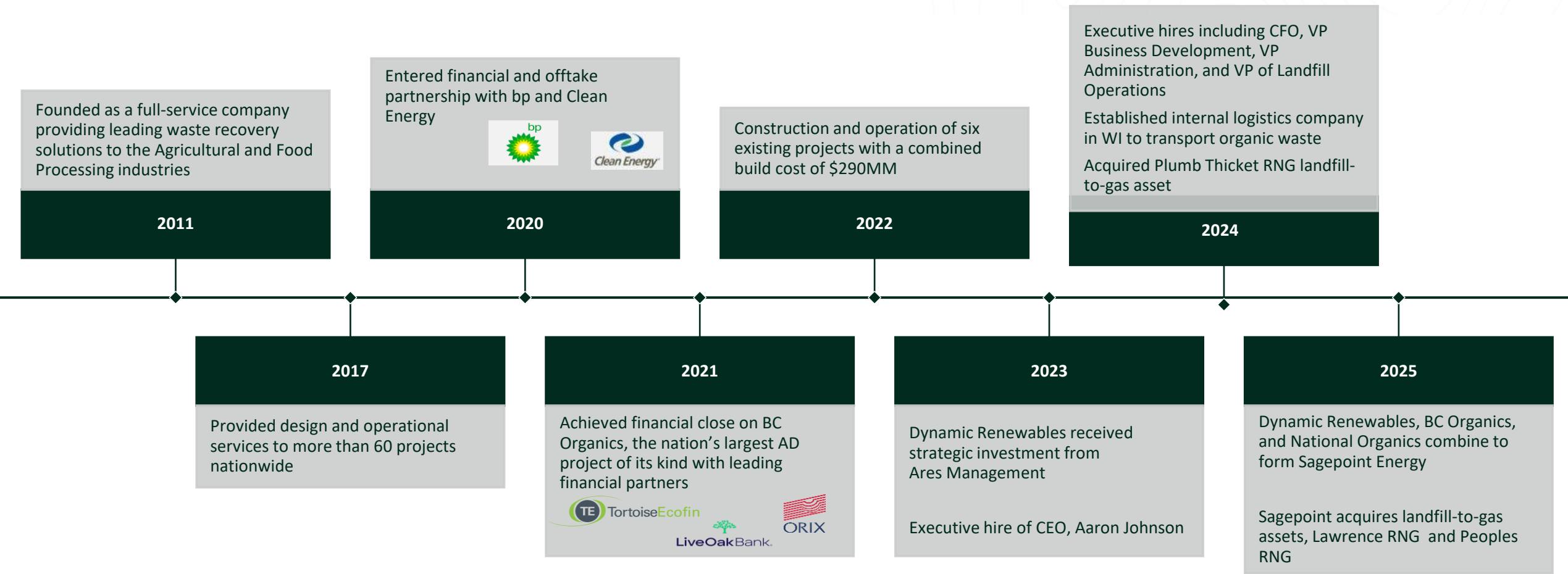
- We encompass honesty, transparency, and ethical behavior in all aspects of our business

OUR CORE VALUES:

Sagepoint History



Sagepoint Energy has accelerated its pipeline by building upon its long history of project design, implementation and operational experience, along with carefully cultivated strategic partnerships with feedstock suppliers, offtakers, and partners across the supply chain





Sagepoint at a Glance



- Proven executive team track record
- ~80-person team
- Strong development and offtake partners
- Significant growth pipeline
- Dependable, experienced operations teams



4 Plants/Projects
In Operation



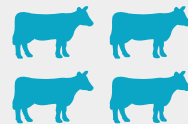
Transportation
Integrated Logistics
Operations



8,400,000 MT
CO₂e Emission Reductions
per Year for 4 Current
Projects



20+ Projects
In Development
Pipeline



Operational Excellence
Dairy & Landfill RNG
Operations



250+ Years
Collective Project
Development &
Operational Experience

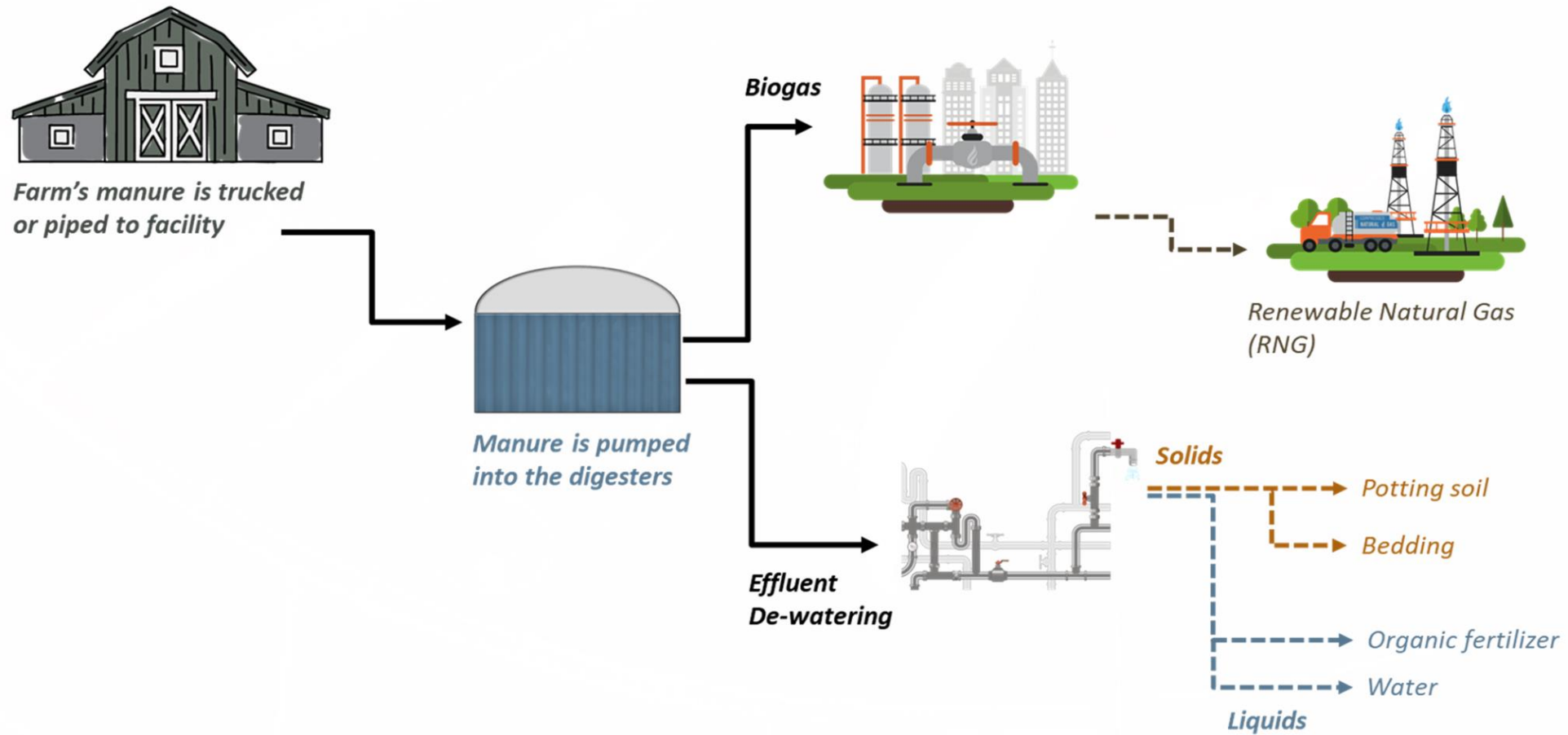


Why/How RNG?



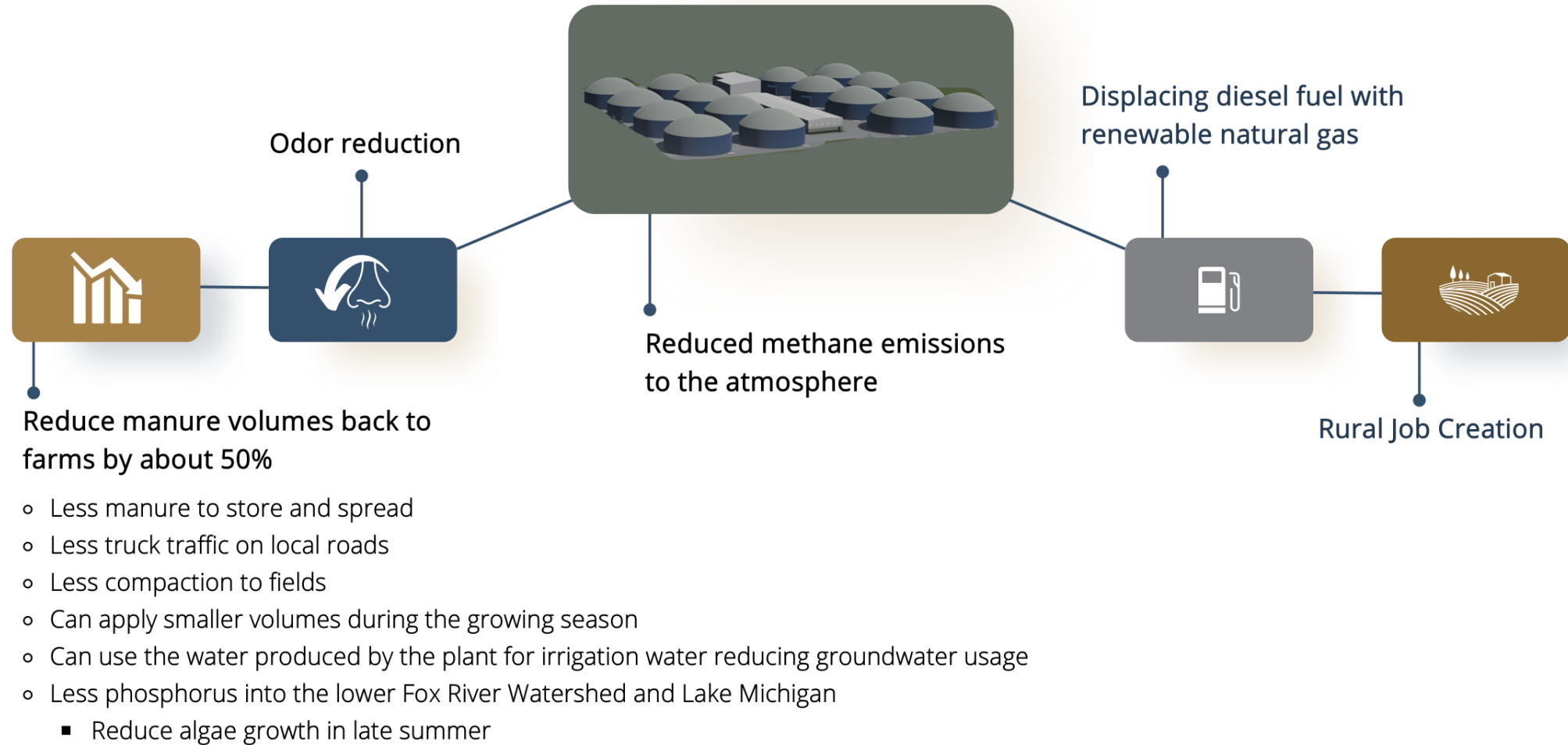


THE PROCESS





Project Benefits





BC Organics – Summary Overview

16 digestion tanks processing manure from over 30,000 cows

BC Organics Site



Project Overview

Project Type

Dairy RNG

COD Year

2022

Location

Greenleaf, WI

Gas Production

657k MMBtu/year

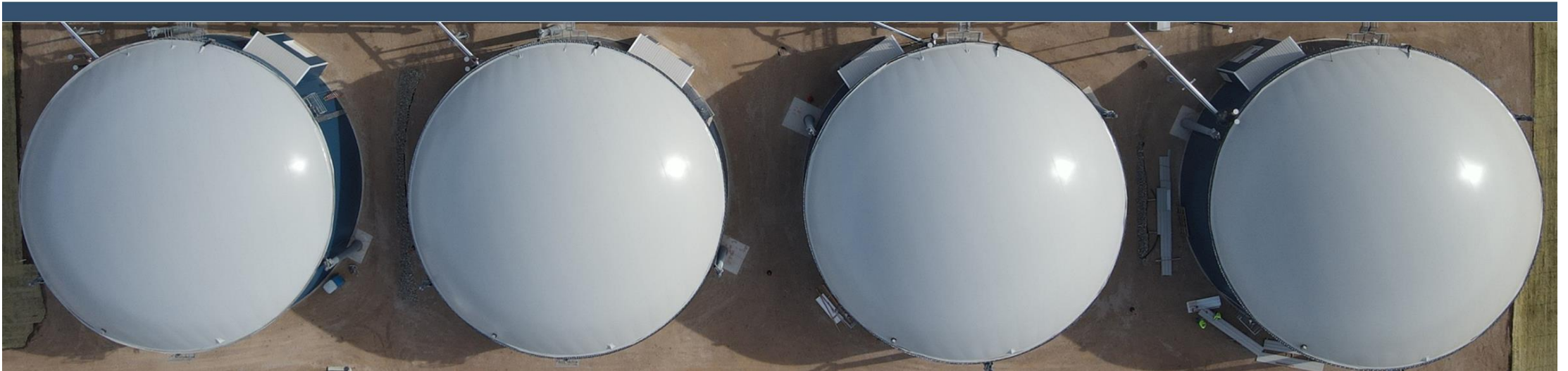
CI Score

-150



Digesters

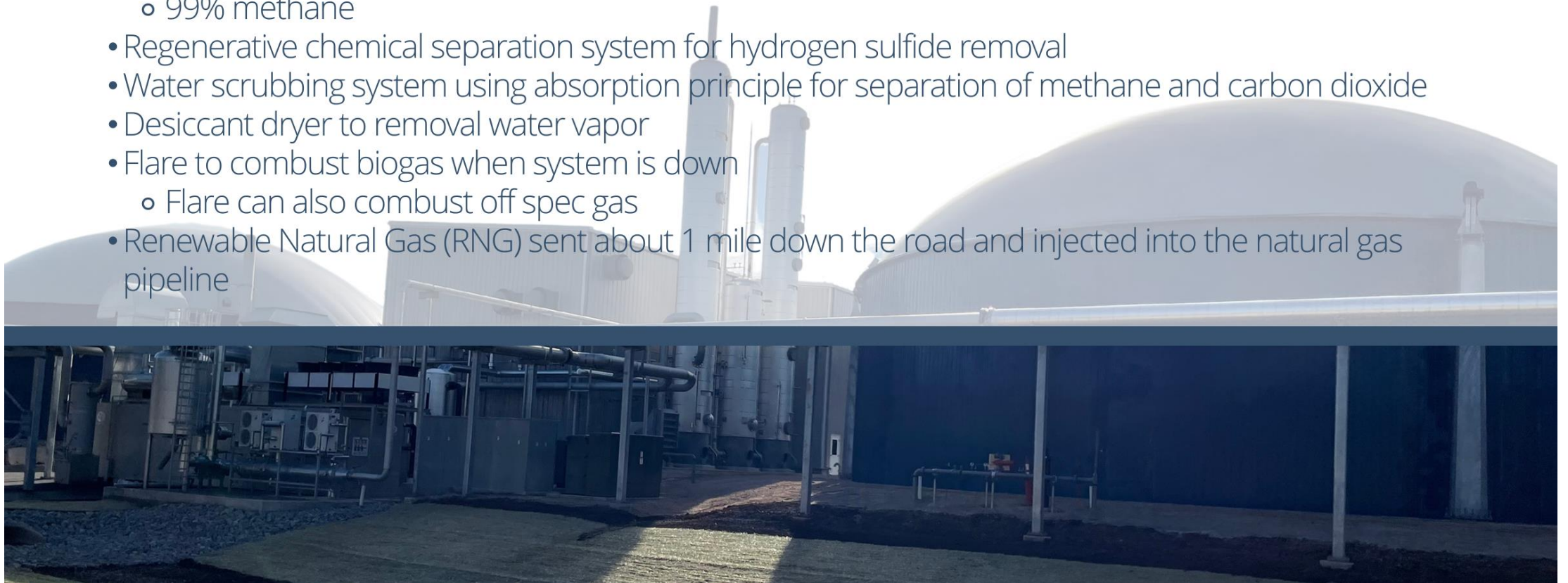
- (16) Complete mix digesters operated in parallel
- 1.3 million gallons each
- Bolted stainless steel tank
- Dual membrane roof
- Tanks are insulated and clad
- 20-25 day hydraulic retention time
- (5) heat tubes to provide heat transfer to maintain digester temperature





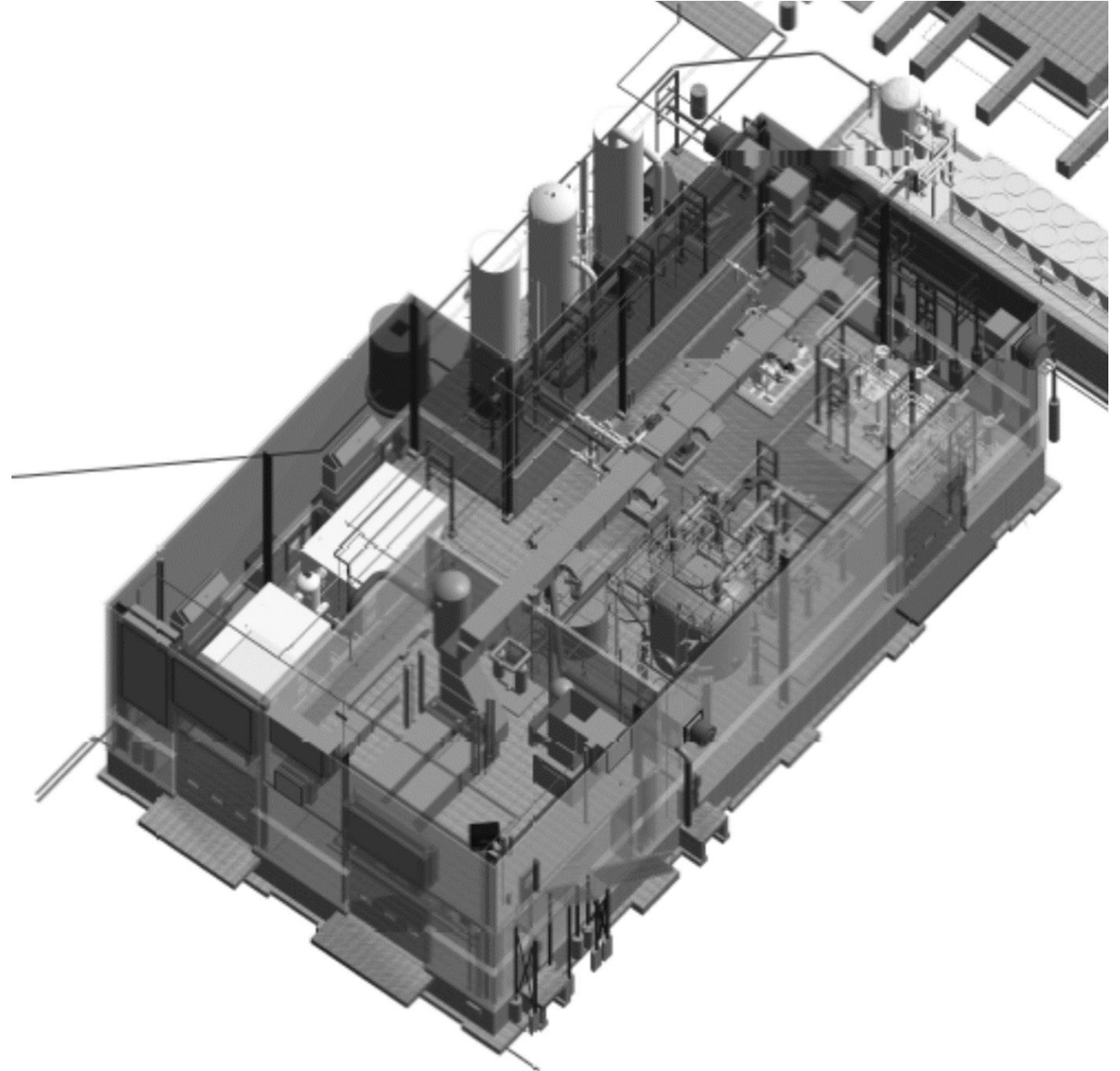
Biogas Upgrading

- Biogas is primarily methane with carbon dioxide, hydrogen sulfide, and water vapor
 - Need to remove carbon dioxide, hydrogen sulfide, and water vapor to be pipeline quality natural gas
 - 99% methane
- Regenerative chemical separation system for hydrogen sulfide removal
- Water scrubbing system using absorption principle for separation of methane and carbon dioxide
- Desiccant dryer to removal water vapor
- Flare to combust biogas when system is down
 - Flare can also combust off spec gas
- Renewable Natural Gas (RNG) sent about 1 mile down the road and injected into the natural gas pipeline



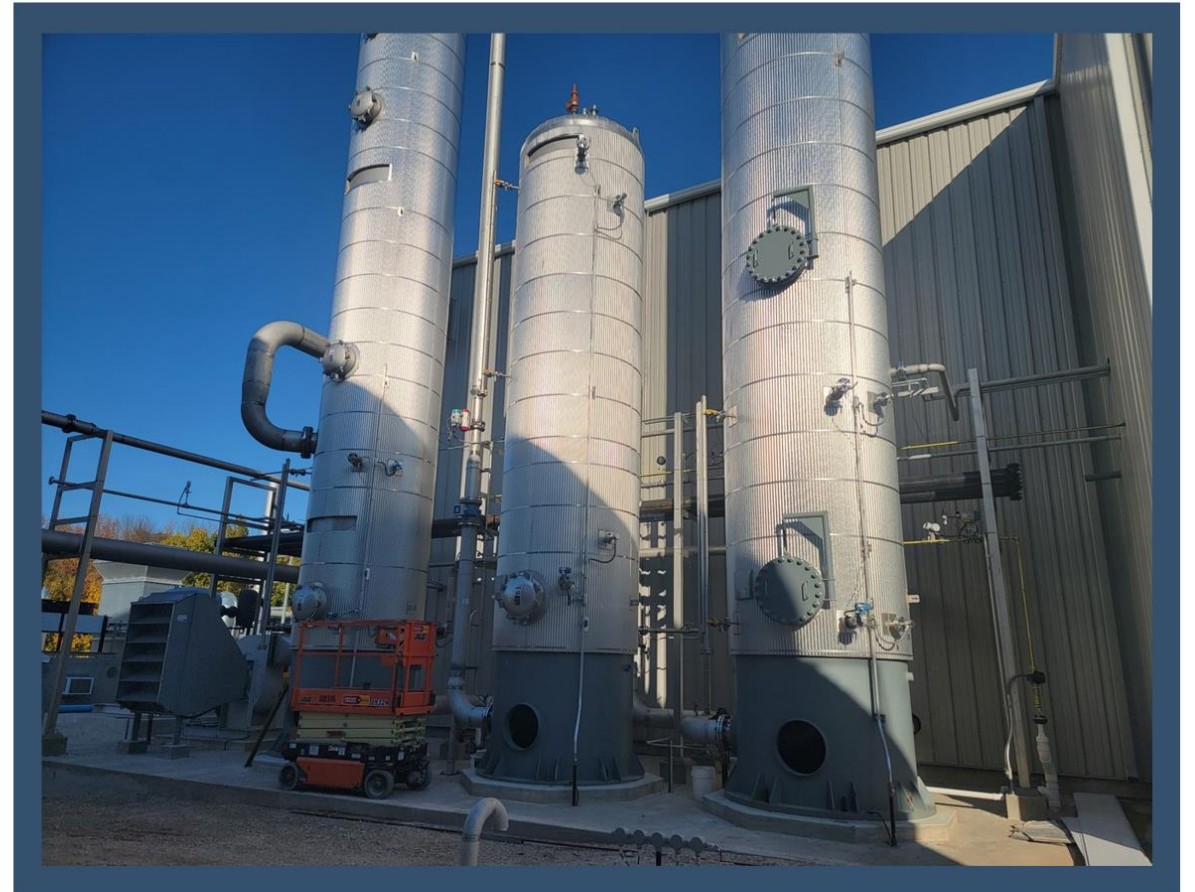
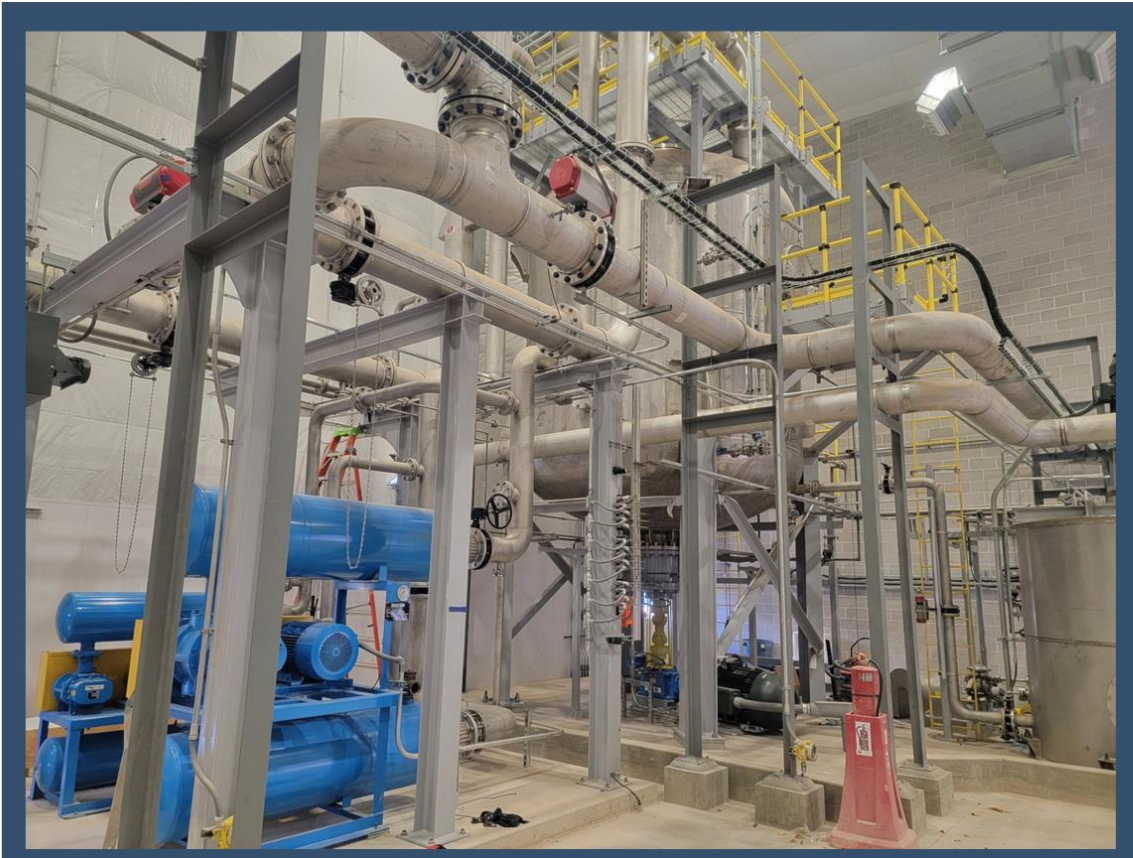


Biogas Upgrading



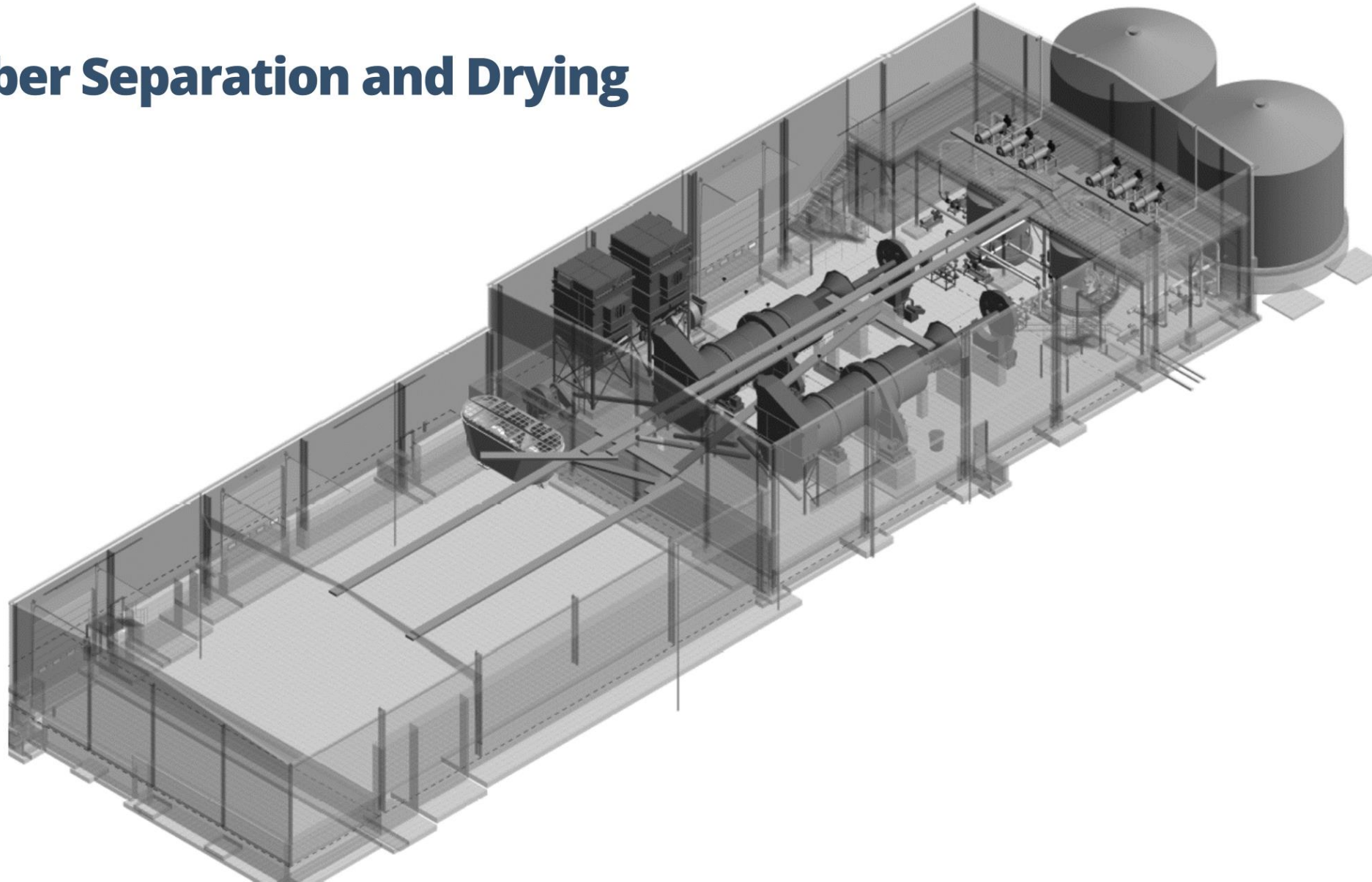


Biogas Upgrading





Fiber Separation and Drying





Fiber Separation and Drying





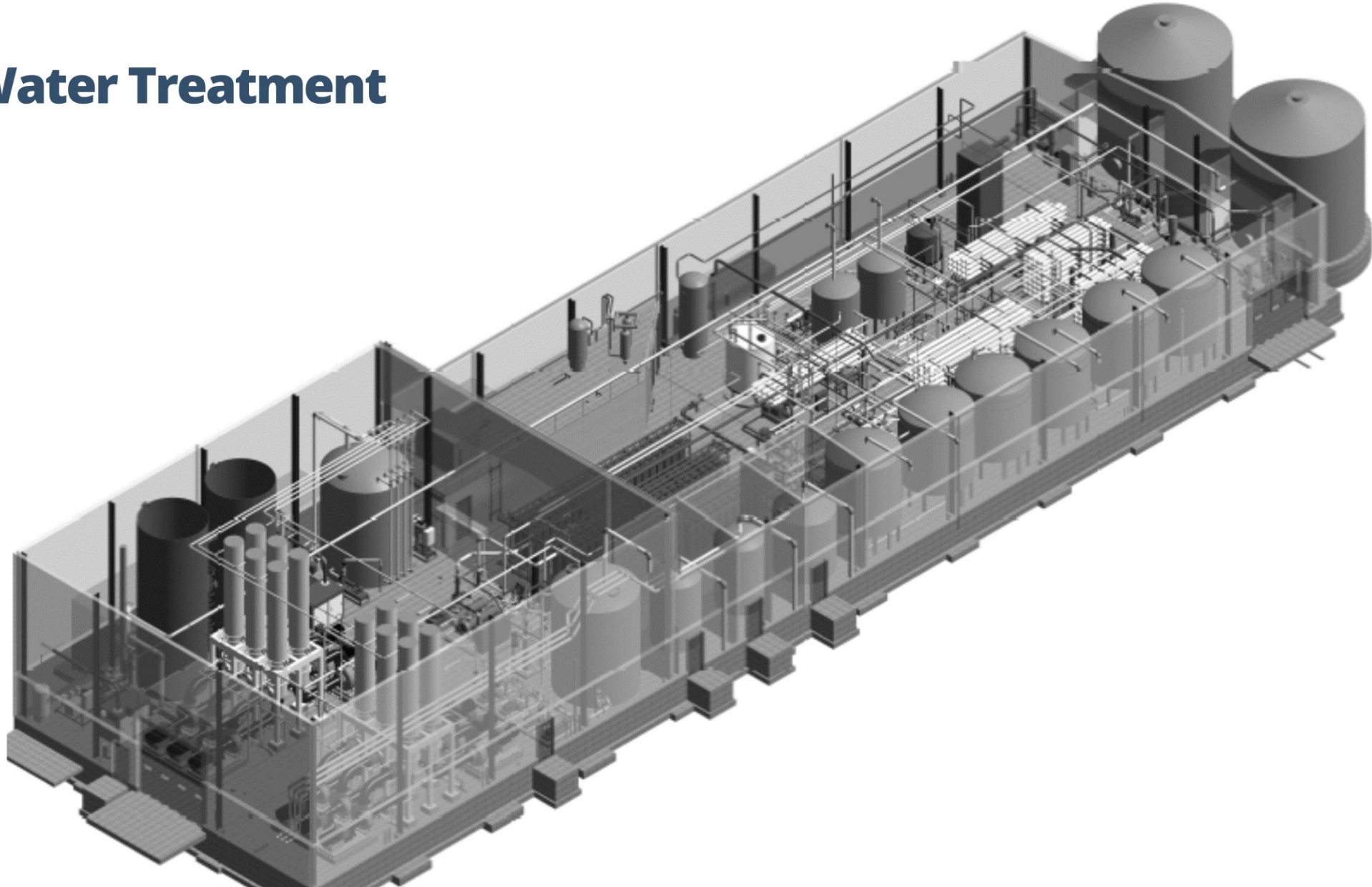
Water Treatment

- Ultra-filtration (UF) removes suspended solids
- Nano-filtration (NF) and Reverse Osmosis (RO) separate dissolved solids from the water
- Bio-filtration, Ion Exchange, and UV disinfection steps for clean water prior to discharge





Water Treatment





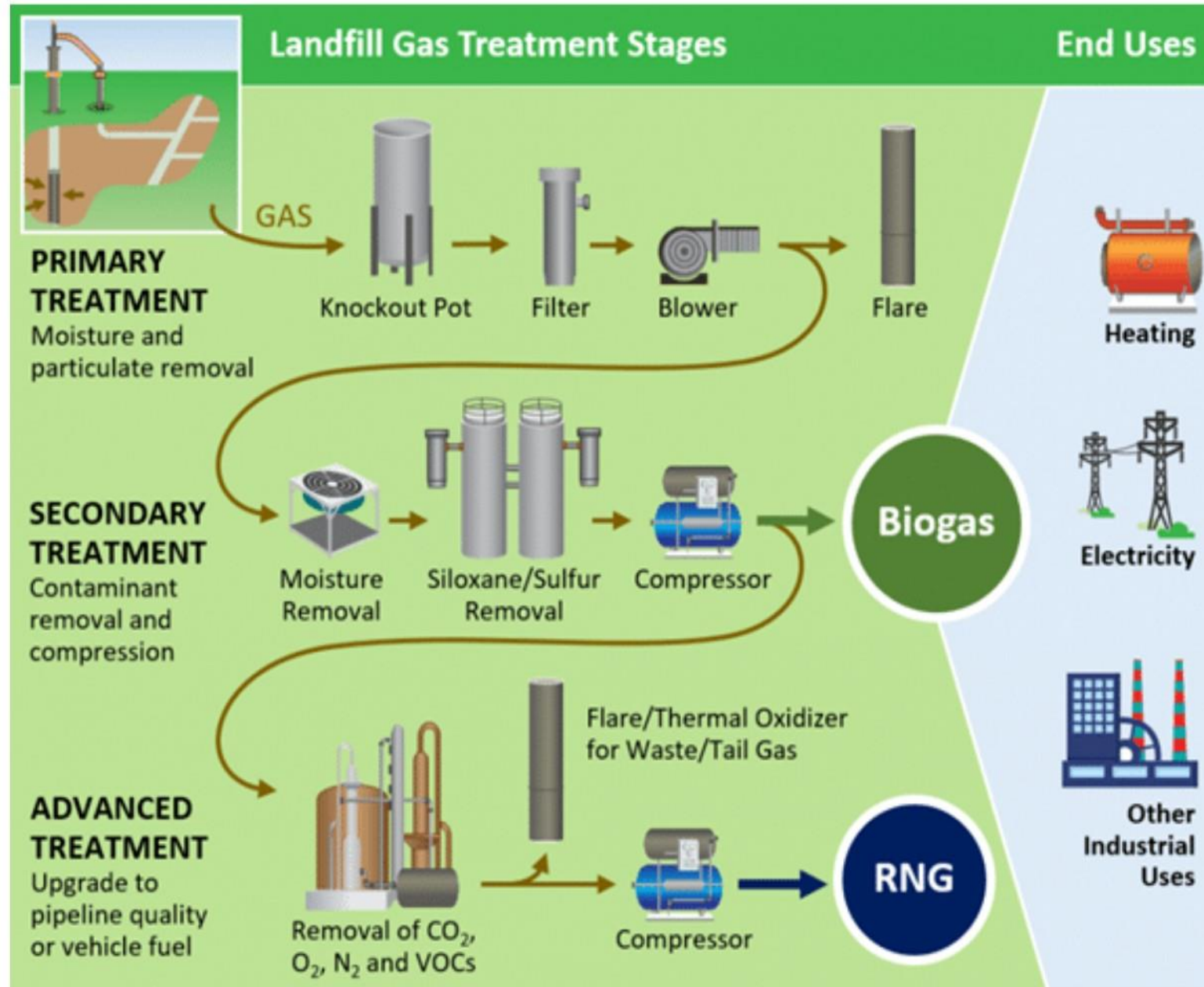
Water Treatment - UF Process





Water Treatment - NF and RO Processes







Plumb Thicket RNG – Summary Overview

Scaled operational landfill RNG project located in Kansas

Lawrence RNG Site



Project Overview

Project Type

Landfill RNG

COD Year

2022

Location

Wichita, Kansas

Gas Production

320k MMBtu/year¹

CI Score

40²

Interconnect

Superior Pipeline



Lawrence RNG – Overview Summary

Scaled operational landfill RNG project located in Kansas

Lawrence RNG Site



Project Overview

Project Type

Landfill RNG

COD Year

2017

Location

Lawrence, Kansas

Gas Production

570k MMBtu/year¹

CI Score

40²

Interconnect

Southern Star



Peoples– Overview Summary

Operational landfill power project which will be converted to RNG

Peoples RNG Site



Project Overview

Project Type

Landfill RNG

COD Year

2026

Location

Birch Run, Michigan

Gas Production

350k MMBtu/year

CI Score

40

Interconnect

Consumers Energy



How Can You Use RNG?



CONFIDENTIAL & PROPRIETARY



RNG Market

- RNG sales are made up of three components
 - Natural Gas Sales
 - RIN (Renewable Identification Number) Credits
 - EPA Program based on fuel blending
 - California Low Carbon Fuel Standard (LCFS) Credits
 - CO2 reduction program in CA encouraging the use of natural gas instead of diesel in transportation fuel
- There is also a voluntary market for companies to meet their carbon reduction or renewable energy goals





How Can We Use RNG?

- Good for the Environment – using existing materials/gas
- Sustainability Metrics – necessary for all corporations today
- Some of the financial programs:
 - IRS 45Z program
 - EPA fuel blending – RIN program
 - IRS 45Q could be combined
 - State programs - CA – Low Carbon Fuel Standard Standard - LCFS
- Balanced Industrial fuel loading/sources



How Can Use RNG?

- Options include:
 - On-site plant development
 - Interstate Pipeline supply
 - Supply from nearby plants
 - Joint Venture
 - Carbon credit access
- Reach out for more information
 - Eric Hallman, Eric.Hallman@Sagepointenergy.com
 - Karl Crave, Karl.Crave@Sagepointenergy.com

Thank You!

Questions?

