Zeroing In

….on Global Decarbonization

Clean Energy Technologies, Inc.

Corporate Presentation

January 2025

NASDAQ: CETY

INTRODUCTION

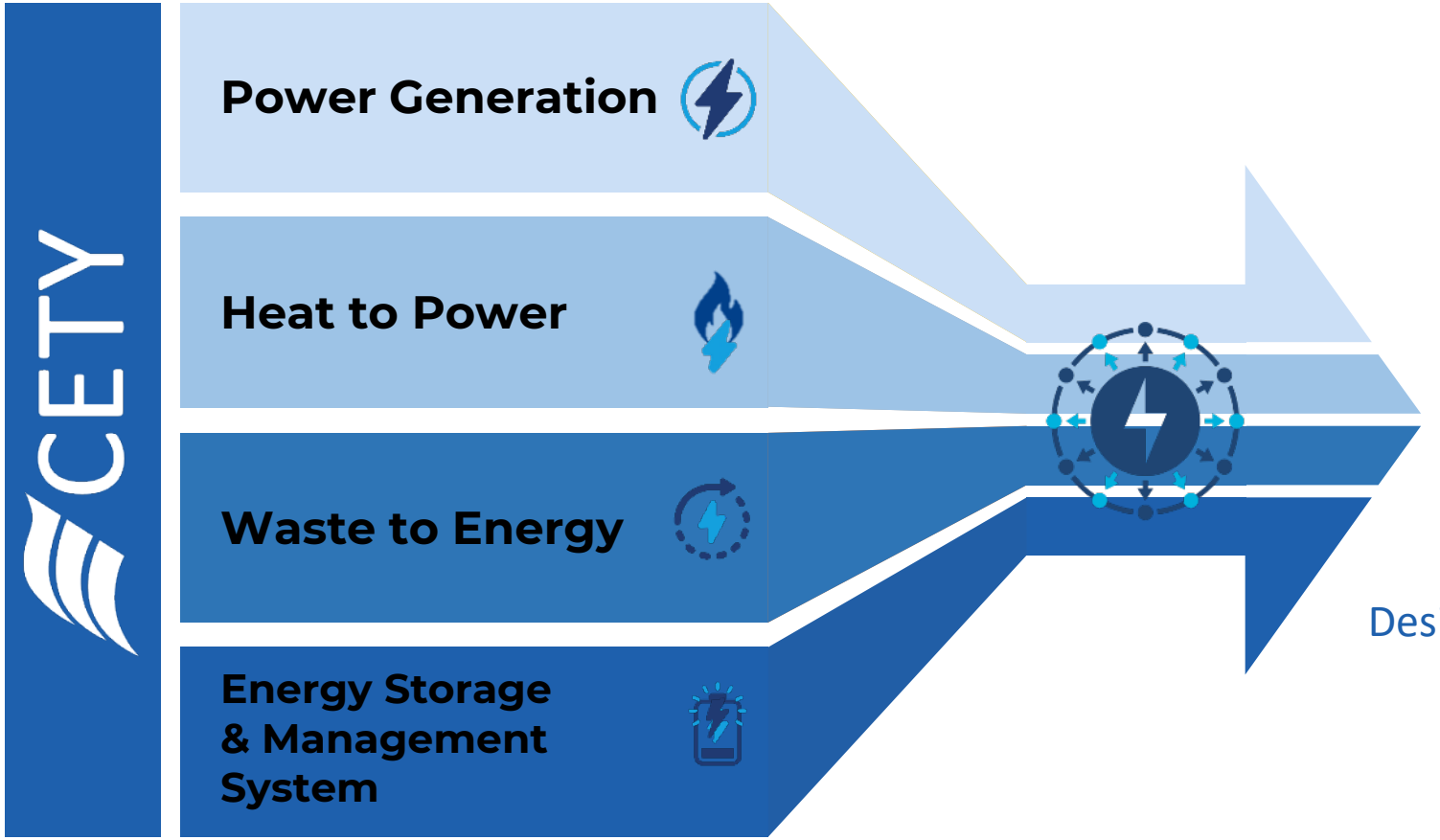
Who We Are

A Clean Energy Technology

Delivering Eco-Friendly Energy from Heat, Waste, and Clean Fuels. Advanced Electricity for the Future.

Our Solutions

A Unique **Energy** Solutions Provider



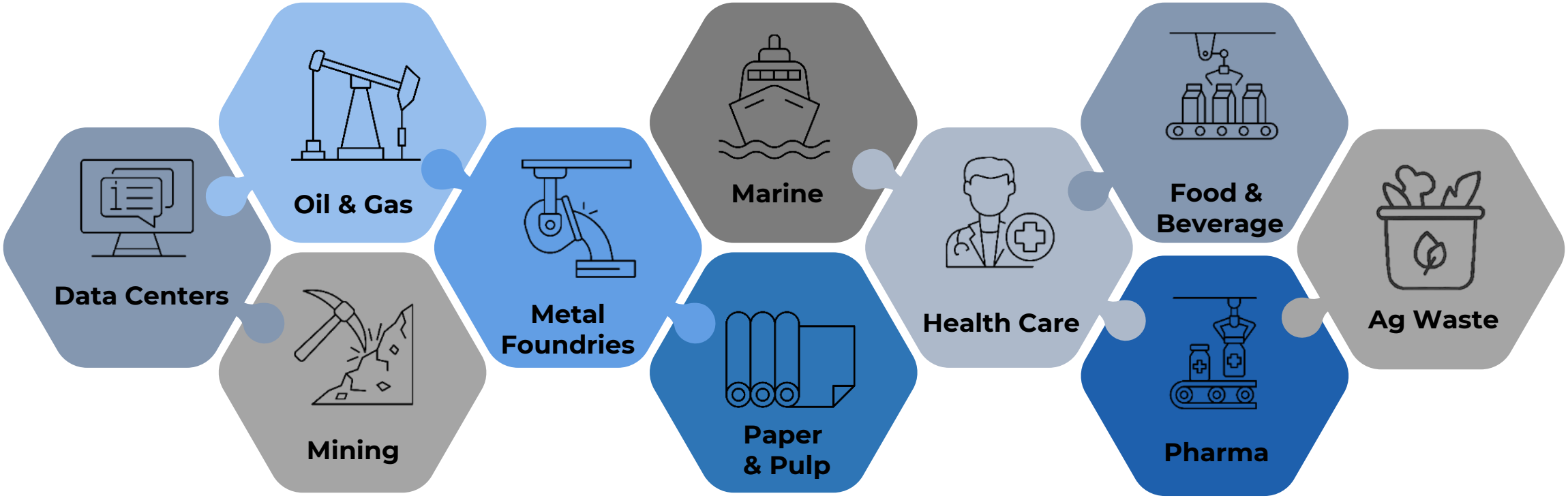
End-to-End Turn-key Solutions

EPC Energy

Design – Procure – Build – Operate

INDUSTRIES

Creating End-to-End Eco-Friendly solutions to support a wide range of industries

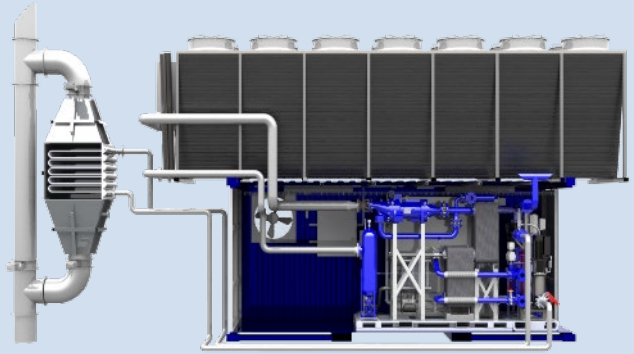


PRODUCTS

Key Products

Heat Recovery

Transform Heat to Power

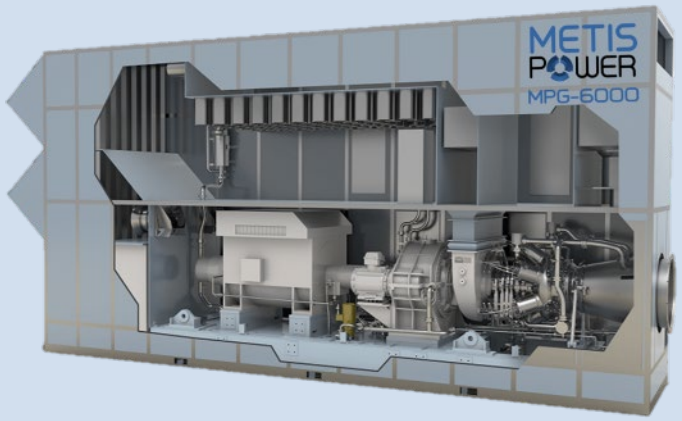


Waste to Energy Conversion

Turning Waste into Renewable Energy

Power Generation

Maximum Efficiency, Minimum Emissions



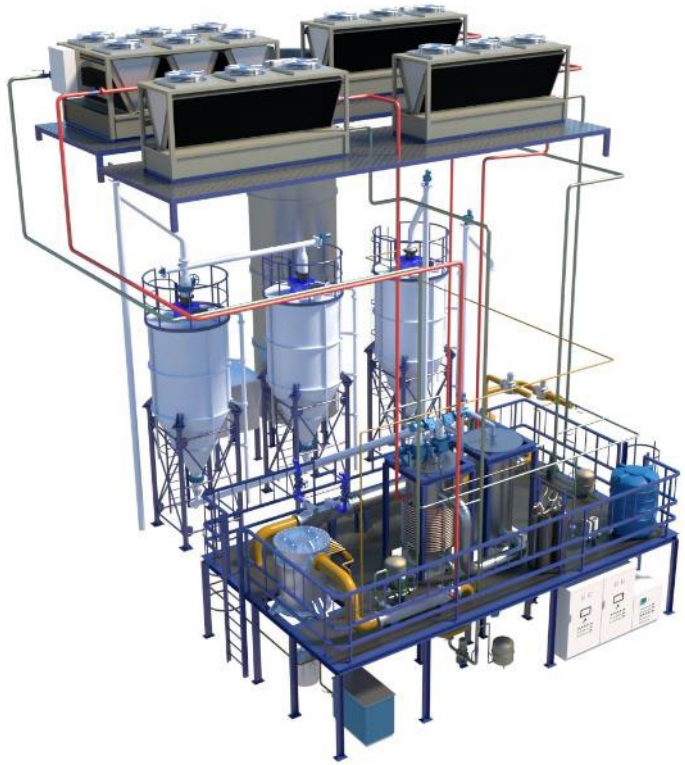
Energy Storage

Store Smarter, Energize Efficiently

Waste to Energy - HTAP

Organic Waste

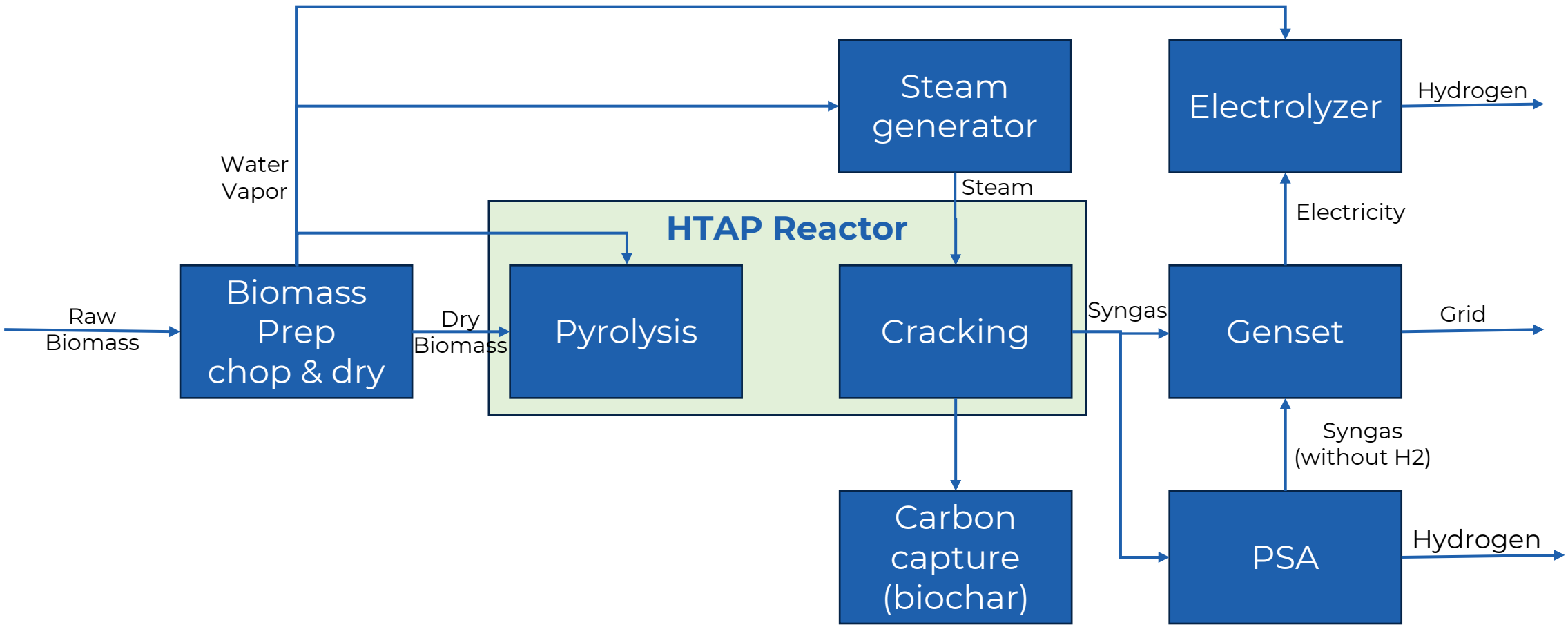
- Forestry & Agriculture
- Digestate & Sludge
- Municipal Solid Waste



Renewable Energy

- Syngas
  - Electric Power
  - RNG
  - Hydrogen
  - Fischer-Tropsch
- Char
  - BioChar
  - Activated Carbon
  - Carbon Credits

HTAP - Model


Steam generator
Electrolyzer
Hydrogen
Water Vapor
Steam
HTAP Reactor
Electricity
Raw Biomass
Biomass Prep chop & dry
Dry Biomass
Pyrolysis
Cracking
Syngas
Genset
Grid
Syngas (without H2)
Carbon capture (biochar)
PSA
Hydrogen

HTAP Advantages

- **High Speed**: small particle size used to access all the volatiles.
- **Higher-Temperature**: process converts more evaporate into a clean syngas.
- **Dual-Vessel Reactor**: biomass decomposition into volatiles and biochar, followed cracking condensables into simple gases.
- **Self Catalyzed**: biochar provides the cracking catalyst.
- **Continuous Feed**: steady-state process for long term stable operation.
- **No Syngas Burned**: induction heating used for startup and insulation for temperature regulation.
- **No Tar or Soot**: even biochar has higher porosity and carbon concentration; better soil amendment or absorption material.
- **Modular Design**: allows decentralized placement to reduce logistics cost & emission and place it near where the waste is generated.
- **System capacity**: 12,000 Tons Bone dry wood chips convert to 24 MMBTU/hr syngas (20 MMBTU/hr RNG) or 2.5 MWe (on wood biomass)
- **60+%**: overall thermal efficiency using reactor heat and syngas cooling for preliminary biomass drying.
- Approved by EPA, follows BACT.

Example Waste Streams

Addition to the Existing Biogas and RNG Market

- Broaden the conversion residue range
- Increase in RNG production volume
- Recover additional energy from digestate and sludge
- Add biochar production from digestate and sludge
- Upgrade compost to BioChar (where compost not needed)
- Carbon capture utilization and storage
- Landfill diversion
- Potential cogeneration and heat recovery
- Integrated activated carbon production

Standard Size Offerings

Description	HTAP10	HTAP5	Units
Feed Stock (organic matter)	1.2	0.6	Tonne/hour (dry mass basis)
Aux electric power consumption	300	175	kWe
Equipment placement	Under a shed	Container	
BioChar Production	180	85	kg/hour
SynGas Production	24	11.5	MMBTU/hour
Installed electrical power (option)	2,500	1,200	kWe
Firing hours till overhaul	50,000	50,000	Hours
Maintenance personnel	2	2	Per shift

Examples

WTE Vermont Renewable Gas, LLC Project (under development)

CETY is developing a residue wood biomass conversion plant located in Lyndonville, Vermont

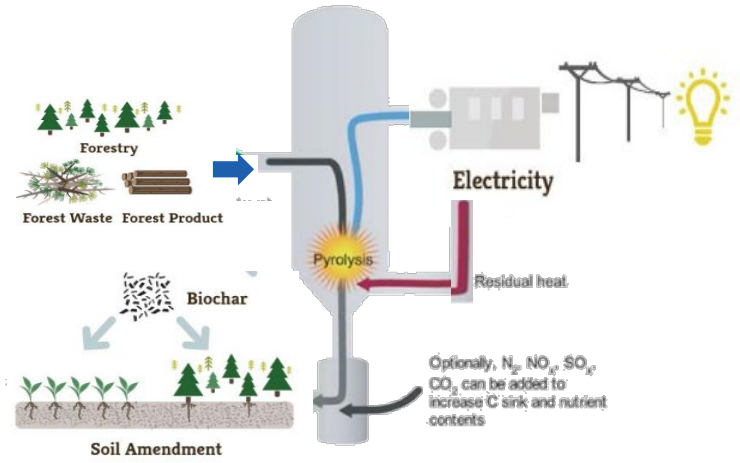
Facility will convert feedstock into Electricity and BioChar

12k BDT p/y of feedstock (**24k tons** of logging residues biomass)

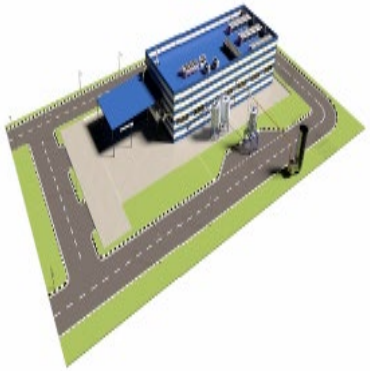
- **~18,000** MWh_e/y
- **1,500** MT/y of BioChar

Vermont Renewable Gas estimates annual revenues of $4.0M

- 20-year PPA executed for Vermont's Farm Methane program valued at $53M
- Vermont Standard Electric Interconnection Application completed
- Interconnection Service Agreement completed
- 7.8 acres in the Saint Johnsbury-Lyndon Industrial Park has been secured under a Purchase and Sale Agreement with the Northeastern Vermont Development Association
- Section 248 Certificate of Public Good (Vermont Public Utilities Commission permit expected in 2025)



Saint Johnsbury-Lyndon Industrial Park



Biomass to Power Project

WTE Bajina Basta, Serbia

Wood Chip biomass Project

Facility will convert feedstock into Electricity and BioChar

75 tons / day of sawdust and woodchips)

36,000 m^3/day syngas

+1,500 tons/y BioChar

Bajina Basta, Serbia raw wood scrap

- Provided local processing of wood waste
- Installed next to wood fuel pellet production.
- Partially funded with “Green Tariff”
- Completed eliminated wood waste residues
- Customer switches from pyrolysis biochar production to wood fuel pellets depending on market prices.
- Market prices follow EU fuel pellet quotas

WTE Krasilov, Khmelnytski, Ukraine (shutdown due to political situation)

Plant developed to consume straw, peat, and coal.

Facility will convert feedstock into Electricity and BioChar

60 tons / day of straw or peat

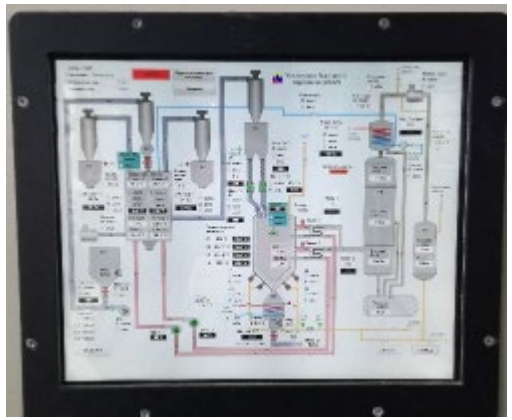
28,800 m^3/day Syngas

+ 2,500 tons/y BioChar

Ukraine Wheat Produciton

- Primary production of Electricity under “Green Tariff”
- Flexible waste input
- Fully Automated Control System developed
- Plant shutdown only due to political situation
- We hope to restart it when the situation is resolved

Major Wheat Production



Automated Control

Reactor

Clean Energy Technologies, Inc.

Thank You!

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