



# Anaerobic Digestion Project

Supreme Industries – Southington, CT

# Supreme Industries

*Hard Work · Embrace Innovation · Lead Change · Honesty · Being Pioneers*



**SUPREME**  
**INDUSTRIES**

- 32 year old, privately held, family run business
- Embrace the principles of beneficial reuse
- Land clearing and civil site work
- Right of Way work for Electrical Distribution Companies
- Work performed throughout the Northeast, Ohio to West Virginia
- Private and commercial site work for residential and municipalities



# Supreme Forest Products

*Operates on two sites in the State - Harwinton & Southington, CT*



## **SUPREME FOREST PRODUCTS**

- SFP reuses, and distributes the myriad of products we create:
  - Compost
  - Mulch
  - Soils
  - Playground Fiber
  - Special lumber products
- Manage and distribute 250,000 yards of material every year



# Quantum Biopower

*Developing and operating the Anaerobic Digestion Facility in Southington , CT*



**QUANTUM**  
B I O P O W E R

## *Goals & Diligence*

- Develop the model of what good organics management and renewable energy production looks like
- Replicate that model where it make sense in the region
- 4 years of diligence; 10 different technologies – Europe & across the U.S.
- Decided on a technology from the Mid-West

## *Project Update*

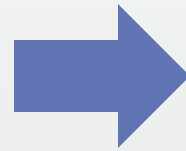
- Operating on 65 acres of land in Southington, CT
- General permit to store wood fiber products
- Leasing half of the DePaolo dr. landfill - Taking in town leaves at no cost
- Submitted a SW/AD application to State DEEP
- Filing for applications for Air Permit and Wastewater
- Once permitting is granted, construction can commence

# Technology

*Developing the operation of a "wet" Anaerobic Digestion system with a 40,000 TPY permitted capacity*

## 3 "legs of a stool" approach

1. Incoming Organics
2. Energy Off Take
3. Co-Products Management



## Decision Tree

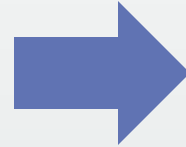
- Feedstock flexible
- Proven & domesticated technology
- Scalability – capacity to run at minimal/maximal conditions
- Closed loop, continuous system design
- Cost
- Efficiency

# Impact of Legislation

*The impact of PA 11-217 & PA 13-285 on our decision making process*

## 3 “legs of a stool” approach

1. Incoming Organics
2. Energy Off Take
3. Co-Products Management



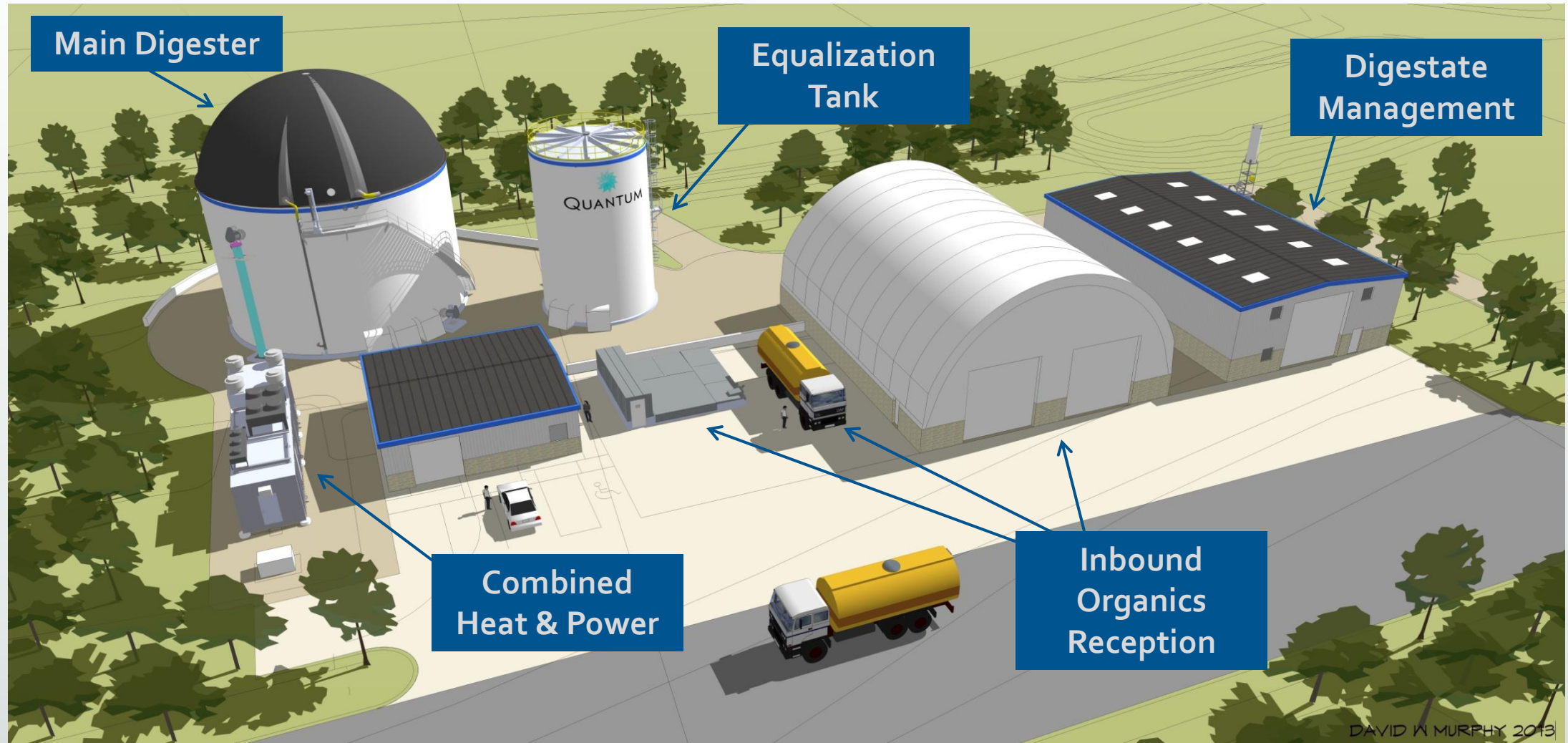
## Impact of Legislation

- True partnership is established
- Impacted all 3 critical success factors
- Solidified our decision on geography
- Keep green material fraction in current process
- Biogas production is maximized
- Resulting energy off take improves

# System Design



# Southington AD Facility



DAVID W MURPHY 2013



**Thank You!**

