



**PROSPECTS FOR WATER AND ENERGY SAVINGS, RENEWABLE ENERGY
and RESOURCE RECOVERY FROM WASTE on TRIBAL LANDS**

ENVIRONMENTAL LEADERSHIP

Adds Value to Your Bottom Line and Reputation

Leveraging Technology and Innovation

Presentation by: Doug Haughn, President of Team Gemini



Integrated Solutions for Renewable Energy, Water & Energy Savings and Waste Conversion to Commodities.



Red Road

Group Purchasing Organization

Increasing Savings and Revenue from Shared and Group Purchasing

Leveraging Technology, Innovation and Savings

Who are we...



Make Commitment



Use Less Energy & Water = Build Savings



STEP ONE

Simple Energy and Water Efficiency



Building Envelope

- Extra Insulation
- Seal Cracks and Gaps
- Windows and Window Film
- Radiant Barrier Paints
- Solar Attic Fans
- Roofing
- ACC Block Construction
- Xeriscape / Landscaping

Lower Energy Usage

- LED Lighting
 - Add Timers and Sensors
- High SEER A/C Units
 - Add Programmable T-Stats
 - Split Systems (Heat Pumps?)
- Solar Lighting
 - Active and Passive
- Water Heating
 - Solar / On-Demand / Timers
- Safety Stove Elements
- Insulate Water Heaters / Tanks
- Energy Star Appliances

Energy Efficiency First



Residential Water Savings

- Low Flow Fixtures
 - < 1.28 GPF Toilets
 - < 0.5 GPM Showers and Faucets
- Rain Sensors on Irrigation
- Collect Rainwater for plants
- Energy Star Appliances
 - Washing Machine
 - Dish Washer

Commercial Water Savings

- Low Flow Fixtures
 - < 1.28 GPF Toilets
 - < 0.125 GPF Urinals
 - < 0.5 GPM Showers and Faucets
- Smart Irrigation Systems
 - Weather Tracking
- Low Water Laundry Systems
- Waste Water Pre-Treatment
- Right Size Water Metering

Water Efficiency has the BEST ROI



STEP TWO

Utility and Centralized Opportunities for Power, Water and MORE



Integrating Renewable Energy with Agricultural Sustainability



Team Gemini

Recovering Commodities out of Solid Waste,
Waste Water and Agriculture Waste

People. Planet. Prosperity.



Anaerobic Digesters

Aquaculture Solutions

Bio Gas / CHP Generators



GeminiSynergyCenter

Recycling & Resource
Recovery

Solar Technologies

Greenhouse Technologies

Wind Power Technologies

ITS MORE THAN JUST RENEWABLE ENERGY

Creating a holistic solution is more cost effective and has greater paybacks

Ag Waste to
Bio-Diesel and Jet Fuel

On-Site Waste Water
Treatment

Ag Waste to
Ethanol & Butanol

Alternate Water Sourcing

Water Treatment

Ground Water Cleaning

Medical Waste Solutions

Electro-Chemical Processes

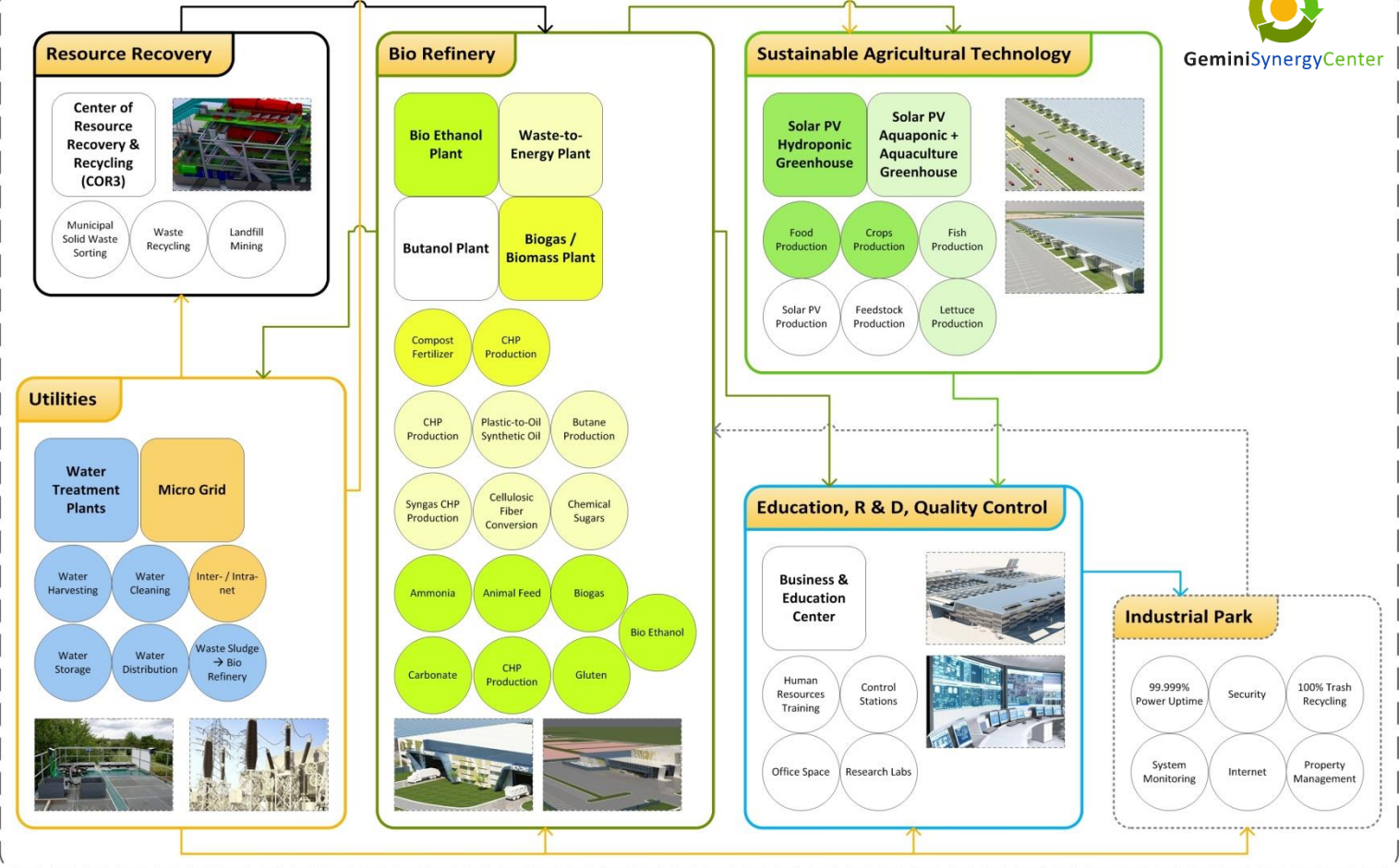
Zero Landfill Solutions



Centralized Information Controls Technology



GeminiSynergyCenter



GSC Process Flow





UDR MonoTube

Overview

Dimension: 12ft diameter by 45 ft high (incl. gas storage)
 Daily Capacity: 8 tons organic feedstock at up to 18% solids
 Retention Time: 10 to 15 days (depending on the feedstock)
 Generated Power: 30 to 110 kW (depending on the feedstock)
 Seismic Tank Foundation: 30 inch reinforced concrete pad (if requested)
 Installation: less than 2 weeks
 Start Up: 4-6 weeks (depending on the feedstock)



- Small Foot Print (< 1,000 sf)
- Flat Slab Foundation
- No Gas Pressure Blower
- No Methane Loss
- Heat Availability
- Building Block System
- Moveable

enCO₂
energy & environmental concepts

UDR MonoTube



Municipal (Centralized)

Agricultural / Manure

Small and Large Scale



MBR with Low O&M cost



State of the art treatment



Separation of resources



Waste Water Treatment



Biomass Power and Fuel Generation



Bio Ethanol Fuel



Industrial Bio Ethanol
/ Butanol / Acids



Animal Feed



Liquid Animal Feed



Gluten



Liquefied CO₂
And HCOOH



Distilling and Electrochemical Technology



Centralized

Large Scale High Capacity



Small Locations

Low O&M costs



Medical Waste Treatment



Aquaculture



Aquaponics



Aquaculture & Aquaponics



“We have Millions of Tons of MSW and 365 Acres of vacant land next to a landfill, what would you do with it?” – SWACO RFP in 2012

A FEEDSTOCK FOR A GROWING INDUSTRY?

“Team Gemini was awarded the RFP in 2013 because of its holistic approach” – Phil Honsey, Project Director, SWACO





Gemini Synergy Center Aerial Photo

- Combines COR3, Advanced Greenhouses (Hydroponic, Aquaponic, Aquaculture), Biogas / Biomass, Water Treatment, Micro Grid, Business & Education Center, and room for Tenants
- 345 acres (140 ha) Development, Providing all Utilities Off Grid with a Negative Carbon Footprint



Site Plan Rendering

- Features 5 Conveyor Lines from COR3 to Waste-to-Energy Plant and the rest of the Gemini Synergy Center



Gemini Innovation Center

- Advanced Solar PV Greenhouse
- Biogas Plant: pilot size with CHP Unit
- Research and Training Center
- Collaborartion with Universities and Researchers



Business & Education Center

- Management + Administration, General Control Center by ABB, 2 Warehouses
- Total Size: 65,000 sq. ft.



Biogas/Biomass Plant

- Over 208,000 tons annual Feedstock
- 6 CHP Units: (4 · 1,500 kWh) + (2 · 1,240 kWh)
- Generates Power, Steam and Cooling 24x7x365



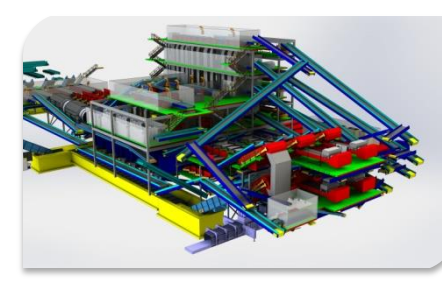
Waste-to-Energy Plant

- WLE Liquefying Process; Organic Feedstock to Biomass Plant; Gasification Process for Syngas Production; Plastic-to-Fuel and Oil Production
- Power Production & Heat Recovery



Center of Resource Recovery & Recycling

- 225,000 Square feet
- Powered by Landfill Gas
- Over 100 Feet Tall
- Combination Landfill Transfer Station and MRF



Center of Resource Recovery & Recycling (COR3) - MRF Equipment

- Features a 135 TPH Materials Recovery Facility (MRF) that will process high-value recyclables for sale, and divert other waste products to the Gemini Synergy Center for further processing (cellulosic fibers, feedstock, etc.)

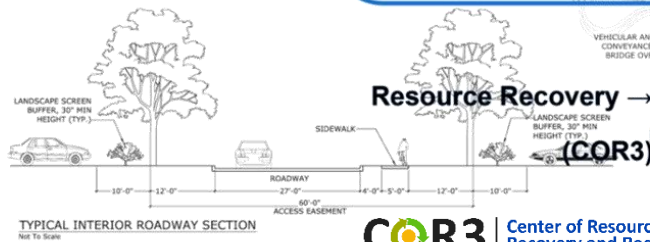
GSC Components



GeminiSynergyCenter

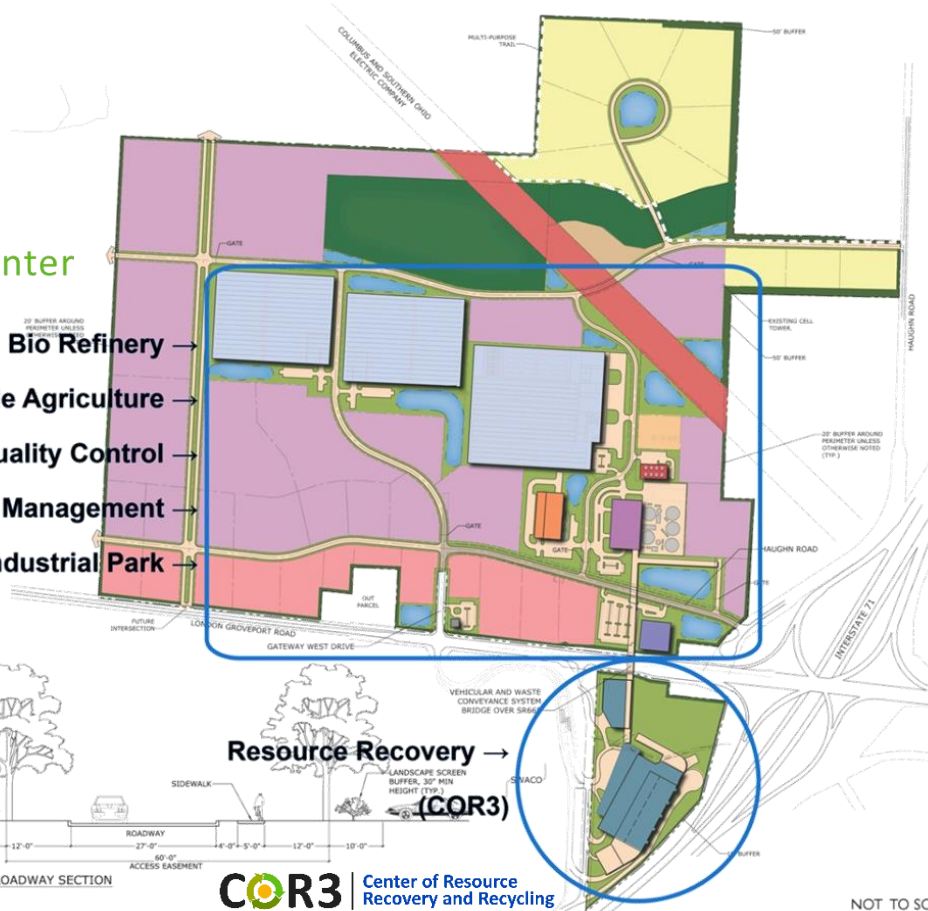


Bio Refinery
Sustainable Agriculture
Research & Quality Control
Utilities Management
Sustainable Industrial Park



TYPICAL INTERIOR ROADWAY SECTION
Not To Scale

COR3 | Center of Resource Recovery and Recycling



LAND USE LEGEND

- WELCOME CE
- BUSINESS AND COMMERCIAL CENTER
- HYDROPONIC AND AQUAPONIC GREENHOUSES
- BIO-MASS AND BIO-GAS PLANT
- MIXED WASTE TO ENERGY PLANT
- ELECTRIC SUBSTATION
- SORTING FACILITY
- CENTRAL ENERGY PLANT
- WATER TREATMENT PLANT
- COMMERCIAL/ RETAIL
- LIGHT AND HEAVY INDUSTRIAL
- PROFESSIONAL OFFICE/ RESEARCH DEVELOPMENT PARCELS
- OVERHEAD POWER LINES
- CONSERVATION AREAS
- EXISTING ROADS
- PROPOSED ROADS/ PARKING/ SERVICE AREAS
- STORMWATER PONDS

NOTE: LAND USE TYPES AND LOCATIONS SHOWN ARE SUBJECT TO CHANGE.

GRAPHIC LEGEND

- PROPERTY LINE
- PARCEL BOUNDARY

NOTE: Roadway locations to be determined with approval of Development Plan.

NOT TO SCALE

GEMINI SYNERGY CENTER
Exhibit A- Preliminary Master Plan 08.06.13

Carlos Barrios
Ohio License #RC 1215612
Expiration Date 12.31.2013

GSC Grove City, Ohio



Available Feedstock Economics;

- Large volume
- Consistent quality
- Low cost
- Long term stability
- \$ Not based on grain markets
- Doesn't distress food supply
- Local and Regional Availability
- Ability to locate new product production next to feedstock



Feedstock Needs to Fuel Industry Growth



Centralized

- Unlimited in Size 50 TPD +
- Accepts all types of waste
 - Municipal Solid Waste
 - Food and Organic Waste
 - Manure & Sewer Sludge
 - Medical Waste
- Generates
 - Electricity
 - Steam Heat
 - Bio Gas
 - Compressed Natural Gas (CNG)
 - Bio Diesel / Jet Fuel / Synthetic Oil
 - Separates Chemicals
 - Concentrated Fertilizers
 - Zero Landfill

De-Centralized

- Can be as small as 5 TPD
- Customized for Needs
- Same Technology / Smaller
- 5-10 Year ROI
- Can create hybrid solutions
- Similar Output Options
- Modular
- Small Foot Print
- Low / No Odor

Works Big or Small



Even though there are numerous incentives, grants and loan guarantees available for these solutions...

THE SYSTEMS PAY FOR THEMSELVES

The Power of Multiple Revenue Streams and a Diverse Holistic Solution





STEP THREE

Procurement Efficiencies



Why use a GPO?

- Combine Buying Power
- Low / No Cost Third Party Purchasing Group
- Better Buying Power Means Better Terms & Conditions
- Qualifies for Triple Bid
- Added Buying Benefits for Employees
- You Still Deal Direct with Vendors
- You can be a Client and a Vendor

What can a GPO buy?

- Construction / Reno Materials
- Furniture, Fixtures & Equip.
- Office Supplies & Computers
- Appliances & Vehicles
- Medical Supplies
- Food and Food Services
- Sundries & Maintenance Supplies
- Janitorial & Cleaning Supplies
- Cellphone Service
- Payroll and HR Services
- Insurance



Group Buying



What will a GPO Cost?

- Joining the GPO is FREE to qualified Groups
- Red Road offers an initial free audit of current expense to estimate savings
- You can also Hire Red Road to replace or add manpower to your purchasing department

What are the restrictions?

- Must be a qualified Group, Company, Tribe or Organization
- No Obligation to buy
- Optional buying commitments can increase savings
- Can not disclose discount pricing you receive
- Purchased Items are not for retail sale
- Only for Operations, Maintenance and Cost of Doing Business



Group Buying



STEP FOUR

All efficiencies can also create jobs



- From Installing Water and Energy Saving Materials
- From Creating a Centralized Utility / Service
- Savings on O&M Costs can free up funding for needed employees in other areas
- New businesses created from the Synergy Model, create skilled technical numerous jobs
- Job creation and training grants are available

Job Creation



DSIRE®

<http://www.dsireusa.org/>

Rebates Available!



<http://www.energystar.gov/rebate-finder>

Financing and Grant Options



Q&A



Team Gemini

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Maximizing Commodities, Not Waste

People. Planet. Prosperity.