

#### **The Company**

Organics Solutions is a Randy's Sanitation, Inc. company located in Delano, MN. Randy's is a successful, innovative leader in the waste management industry serving the Twin Cities and surrounding communities. Organix Solutions provides consulting services for organics collection and recycling programs and is the operating company for Blue Bags Organics and the manufacturer of compostable bags.

Organix Solutions is the developer, owner, and operator of the Delano Anaerobic Digester project which is a critical component of the company's strategy of a layered approach to organics recovery.

## Organics Recovery - A Layered Approach

This three layered appoach relies on:

- The Blue Bags Organics program, a sustainable source separated organics program to recover Source Separated Organics (SSO) and provide local compost facilities with a year round stream of clean SSO.
- Recovery of additional organics in MSW by capturing the organics rich "fines" fraction of what is processed in a traditional Material Recovery Facility.
- The recovery, pre-processing, and digestion of all the remaining organics waste and nonrecycled paper in projects such as the Delano Anaerobic Digester.

#### The Anaerobic Digester Project

An innovative waste processina, materials, and energy recovery project that will reduce landfilling by 70%; recovering the organic and nonrecycled paper fraction of the waste stream for use as a sustainable feedstock in a state of the art anaerobic digestion process. The outputs of this process will be a carbon negative renewable natural gas and a soil amendment. The renewable natural gas will be delivered to an existing Randy's owned CNG fueling station. The green gas delivered from the anorobic digester will provide all of the fuel for Randy's fleet of 50 CNG strucks.

Metrics - Phase 1

<u>MSW processed</u> – 65,000 tons per year initally and permitted for 125,000 TPY.

<u>Landfill diversion</u> - 35,000 – 40,000 tons per year of organic and fiber waste, 4,000 – 6,000 tons of metal and other recyclable material.

<u>Biogas Produced</u> - approximately 110 million cubic feet per year, yielding 70 million cubic feet of methane (green natural gas).

<u>Fuel Potential</u> approximately 525,000 diesel gallon equivalents per year.

<u>Compost</u> – approximately 35,000 tons per year of finished product.

<u>CO2 recovery Potential</u> - approximately 35 million cubic feet (2,000 tons).

<u>Jobs</u> - Construction of the Project will generate 60-80 short-term jobs. Operations will generate 12-15 longterm employment opportunities.

#### **Project location**

The Project will be on a new site in the Delano Eco-Park adjacent to Randy's existing operations.

#### **Technology**

Randy's has chosen to work with Zero Waste Energy as the primary technology provider. ZWE has developed a number of dry anaerobic digestion (AD) projects based upon its patented AD system, the SMARTFERM process. This system has been installed in three projects in California where it converts organic waste into valuable renewable energy and compost. One such project lcoated in San Jose, CA is pictured below.



ZWE also offers innovative mixed solid waste processing equipment designed and built by its parent company Bulk Handling Systems. A new materials recovery and waste processing facility will be designed and built as a part of this project. The MRF will include an innovative pre-processing component, the BurCell TM system provided by Cornerstone Resources, LLC. The BurCell pre-processing technology will convert the MSW based organic material, including non-recycled paper into a pulped cellulosic product ideally suited

for anaerobic digestion in ZWE's SMARTFERM Anaerobic Digester.

# Future Eco-Park and Recycling Opportunities

The Organix Solutions project will attract and support other green Eco-based businesses.

Organic greenhouses producing locally grown produce will have interest in colocating. Co-location can provide renewable energy in the form of heat as power and CO2 to enhance plant growth.

Additionally, the project will have the ability to recover in excess of 10,000 tons of mixed plastics for further processing should a market opportunity present itself, further increasing the Project's landfill diversion benefits.

### **Preliminary Project Cost and Funding Plan**

SOURCE AND USE OF FUNDS	SOURCE	SOURCES	
Project Equity	5,000,000	13%	
Project Debt	27,000,000	68%	
Project Grants	8,000,000	20%	
Development and Design			2,000,000
MRF and BurCell process			9,000,000
SMARTFERM AD and CNG Production			21,800,000
Other project costs			550,000
Property + site development			1,250,000
Financing and working capital			2,050,000
Project Contingency			3,350,000
TOTAL PROJECT COST	\$40,000,000	100%	\$40,000,000

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