



# Organics Recycling and Landfill Diversion

By  
**Depackaging Separation**

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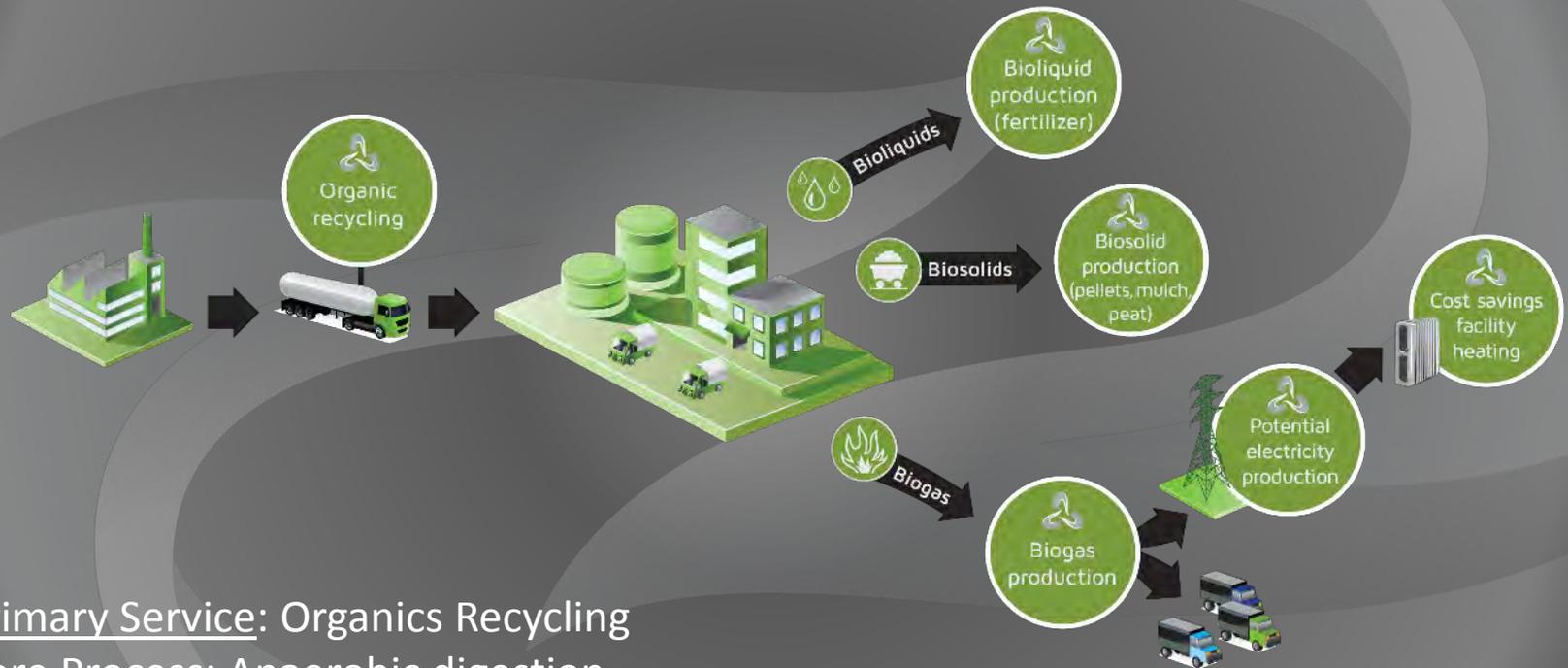
The logo for BIGOX ENERGY features the word "BIGOX" in a large, bold, metallic, 3D-style font with a black shadow, flanked by two curved, flame-like shapes. Below "BIGOX" is the word "ENERGY" in a smaller, black, italicized, sans-serif font.

**BIGOX**  
*ENERGY*

**Kevin Bradley**  
**Director of Business Development**

# OUR PROCESS

## CONVERTING ORGANIC WASTE INTO ENERGY



- Primary Service: Organics Recycling
- Core Process: Anaerobic digestion
- Primary output: Renewable electricity / Renewable Natural Gas

# ORGANIC WASTE RECYCLING

- We take all manner of organic wastes and by-products
  - Organic defined as plant and animal based
  - Typical waste generators we serve include:
    - Food and beverage manufacturing
    - Processing Plants (Beef, Dairy, Pork, Poultry, Rendering)
    - Pharmaceuticals manufacturing
    - Municipal green wastes (Non-Woody Biomass)
    - Agricultural residues



# BIG OX ENERGY – RICEVILLE, LLC



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ENERGY

# DEPACKAGING SYSTEM

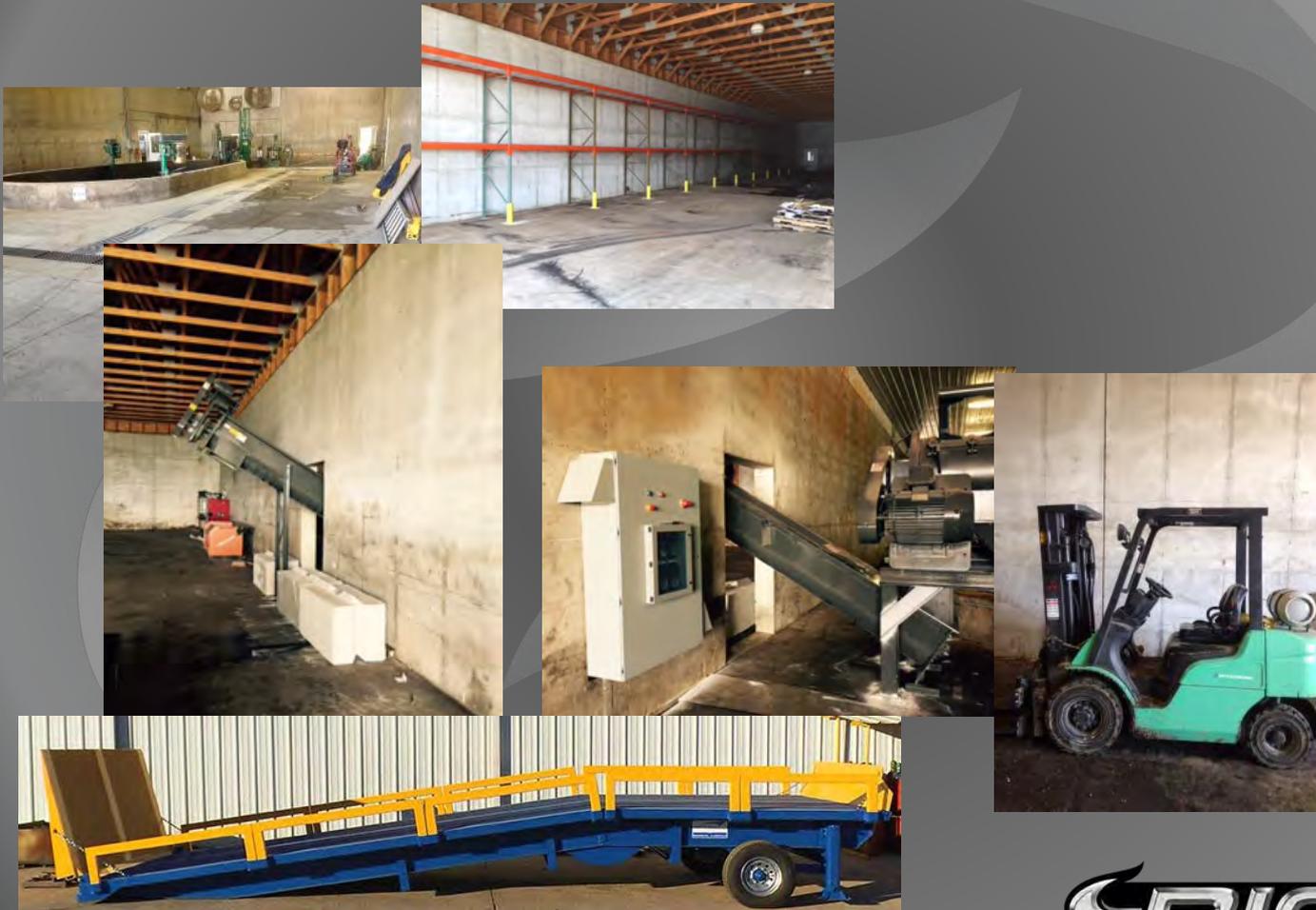


TOTAL INVESTMENT: ~\$360,000



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# DEPACKAGING SYSTEM INSTALLATION



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# DEPACKAGING TARGETTED MATERIALS

- BAKERY WASTE
- MILK AND DAIRY
- CRACKERS & COOKIES
- DRY FOOD POWDERS
- JUICE BOXES AND WATER
- INDIVIDUAL SERVING SIZED ITEMS
- PET FOODS (WET & DRY)
- CANNED FOOD AND BEVERAGES
- SPICES
- BAGGED OR BOXED FRUIT AND VEGGIES
- SPICES
- PASTA
- CANDY
- PROCESSED MEATS
- PHARMACEUTICALS
- CIGARETTES
- SOUPS
- MIXED GROCERY WASTE

\* Goods in glass containers cannot be accepted



# DEPACKAGING SYSTEM MARKETING



**PUTTING  
LESS INTO  
LANDFILLS  
IS ALWAYS  
A GOOD  
THING.**

We make it easy for you.

With Big Ox Energy, your organic waste is repurposed, making you more environmentally responsible than ever. The cutting edge Turbo Separator depackaging/sorting equipment separates and reclaims mixed waste organics for use in our anaerobic digesters to create renewable natural gas.

We offer organic waste packaging separation, organic recovery, secure product destruction and product recycling.

If you believe your organization might have a need for any of the listed services, contact Big Ox Energy today!

**PACKAGED GOODS  
RECYCLING AVAILABLE  
NOW FROM BIG  
OX ENERGY IN  
NORTHEAST IOWA.**

Turbo Separator separates  
organic waste packaging

Recovery of food  
waste organics

In-feed conveyor



Waste packaging conveyor for  
secure product destruction

**WE PUT THIS AND MORE IN THE  
TURBO SEPARATOR:**

- Canned goods
- Produce in packaging
- Boxed food
- Pockets (ketchup, sugar, tea, etc.)
- Bakery, dairy, snack foods
- Edible oils, beverages

**BEFORE**



**AFTER  
PACKAGING**



**AFTER  
ORGANICS**



**BIG OX  
ENERGY**

6601 County Road R, Denmark, WI 54208 | 920-863-3043

Contact Big Ox Energy for more information today!  
[BIGOXENERGY.COM](http://BIGOXENERGY.COM) | 920-863-3043

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# DEPACKAGING SYSTEM PRODUCTS TAKEN TO DATE



# DEPACKAGING SYSTEM PRODUCTS TAKEN TO DATE:

- CHEESE SAUCE
- LIQUID MILK FAT
- COFFEE
- COOKED EGGS
- PROTEIN FEED INGREDIENT
- PAKCAGED MEAT
- PACKAGED VEGGIES
- VEGETABLE OIL

GRAND TOTAL TO DATE:

2100 TONS



# DEPACKAGING SYSTEM

## LESSONS LEARNED, PROBLEMS ENCOUNTERED

- UNDERSTAND THE PRODUCTS YOU INTEND TO TAKE IN
- PLAN ON THERE BEING A “LEARNING CURVE”
- BUDGET FOR FACTORY TRAINING ON EQUIPMENT
- LIQUIDS CAN BE CHALLENGING
- OPPORTUNITIES COME IN SLUGS



**THANK-YOU!**

**THANK-YOU!!!**

TO THE IOWA DNR SOLID WASTE ALTERNATIVES PROGRAM (SWAP)



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