Resource Management & Residual Organics

Environmental & Energy Technology Council of Maine

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E2Tech
Headquartered in Rutland, VT

Provide resource management services to commercial and industrial customers in 39 states

Annual revenue of nearly $500 million

1,800 employees serving 200,000 customers

In 2012 we recovered over 890,000 tons of recyclables and organic materials

Using landfill gas to generate enough electricity for 15,000 homes annually

Recent awards: Climate Leadership Award, Natural Gas Vehicles for America Achievement Award, Vermont Governor's Award for Environmental Excellence
Casella Organics – Since 1983

- Recycling mineral and organic residuals
- For industrial & municipal customers
- Using composting, anaerobic digestion & related technologies
- Recycling nutrients & capturing energy
- Selling earthlife® Products
Overview

- The Opportunity of Residuals
- Resource Management (RM) vs. Waste Management Legacy
- RM Success Stories
- Shades of Gray
The Organic Residuals Opportunity

U. S. Tons/Year (000)

- MSW
- Biosolids
- Foodwaste in MSW

USEPA Data

U. S. Tons/Year (000)

- MSW
- Biosolids
- Industrial Byproducts
- Foodwaste in MSW
Resource Management

• We’re going to the Dump!

• 20th Century Environmental Movement
  - Waste Policy
  - Modern Landfills & W-T-E
  - Traditional Recycling & EPR

• Sustainability Transformation
  - Re-engineering Processes
  - Applying Closed Loop Thinking

Graphic – US EPA
“Organics” Recycling

4 Examples: Nutrients, Carbon & Energy

Reduce, Re-design, Recycle

• Biomass Power Plant – Wood Ash
• Waste Water Treatment Plants - Biosolids
• Limestone Mining – CaCO3
• Food Processing – AGreen Energy
Anaerobic Digestion – AGreen Energy LLC
Our Quest for Purity

Seeking Perfection, but Managing Shades of Gray

- Lessons from contaminated “Organic” compost
- Human pollution is now ubiquitous
- Acknowledge the complexity and realities
- Don’t be discouraged
- Use Resource Management & strive for continuous improvement