Recycling Refinement

Holly Elmore, Ei
Lorraine White, M-Pass

Charlotte Ei Partner Tours
Concord Mills, NC
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moving beyond landfill diversion

- Focus on source-separation at large venues
- Direct sales to mills & recycling destinations
- Creation of recycling profit centers

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Plastic Film Recycling

... in the beginning

- Manufacturers switch from bulk retail packaging to single-garment packaging
- Shopping mall plastic film skyrockets – most going to landfill
- Ei | Hilex Poly | Orwak | Simon Malls partner in 2011
SFCI – Concord Mills:

- Tenant plastic film collected via the mall porter service
- August, 2012 Orwak baler delivered
- To Date 50,000 pounds plastic recycled
- Film rebates offset baler | labor costs; bottom line improvement from reduced waste hauling charges to the landfill

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City-Wide

Plastic Film Recycling

Template Pilot

Atlanta, GA

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the city-wide game plan is to recruit 10 - 12 industry pioneers who generate a moderate amount of plastic film in their operations. Using a small baler, the pioneers collect and bale plastic film on-site for periodic collection. A local hauler collects and delivers the small bales to a warehouse. The small bales are re-baled into standard size larger bales and stored in an empty tractor trailer. Once full, the plastic film is sold by the tractor trailer load as a raw material to a plastic bag manufacturer. Atlanta serves as the pilot city for the plastic film recycling template.

*Please break up into slides re: game plan*
Ei Template Pilot Partners:

- FreshPoint
- Hilex Poly
- M-Pass
- Orwak

GA Tech, GWCC & ATL Airport may join the team

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If it was easy, it would already be done!

Challenges Abound
Challenges

Bottom Line Improvement:

Generator: baler and additional labor investment must be covered by reduced landfill tipping costs and material rebates.

Hauler: route density is key to minimize transportation costs.

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Commodity market volatility

- Fluctuations in commodity market prices create instability and undue risk within a program.
- Goal to sell film as a raw manufacturing material instead of a commodity.

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Small baler infrastructure

- most markets are void of existing haulers capable of efficient small bale collection.

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Limited storage

- Frequent collection is required as most generators have limited storage areas.
- Timing the collection routes to meet varying logistical requirements requires team effort among the template participants.

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Varying plastic film types

- template participants represent a variety of industries, each with a unique mix of plastic film types generated.
- necessary to determine the balance between bale value and energy required to create maximum value among the various film types.

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Maximizing plastic film tonnage -,

- a minimum of 37,000 pounds of plastic film must fill the trailer to justify transporting the tractor trailer to the manufacturer
- As close as possible to the 44,000 pounds capacity is necessary to maximize value chain benefit.
Small bales pose three challenges:

1> looser compaction yields lower pounds per bale

2> inefficient stacking in the trailer results in lower pounds per trailer load

3> additional unloading labor at the manufacturer due to increased number of retrievals for fewer pounds.
Recycling Center Creation

- Possible partnership with UNICOR
- December 01 ATL Penitentiary site visit
- Week of December 09 D.C. meeting with federal UNICOR Recycling Division

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Atlanta Pilot Status

- Orwak trial baler delivered to Fresh Point
- Plastic film bales collected by M-Pass & sold in local markets
- GWCC & Atlanta Airport visited FreshPoint to witness plastic film baling process
- Pilot video shoot scheduled on Friday, November 22

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Template Documentation

- Develop training materials & signage
- Document Lessons Learned along with solutions
- Create a Frequently Asked Question document
- List template development stages along with listing action points

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Expanding the Template

- With fixed costs covered, participants may expand material source-separation generated in their operations.
- Team member & demand will determine municipalities who adapt the template to fit their unique characteristics.