

Material Recovery Facility: Costs and Opportunities

Environmental Quality and Public Works

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Department of Finance

Agenda

- MRF Overview
- National Trends
- Cost Analysis
- Action Points
- Questions



LFUCG MRF Overview

- LFUCG operates a regional recycling center that services Lexington-Fayette County recycling and recycling from 16 regional and private affiliates
- The LFUCG facility is “single-stream”
 - All recyclables are co-mingled
- LFUCG operates the only recycling facility of significant size in the region



National Trends

- Average commodity revenue down 38% from 2007 to 2015
- Average costs are up 48% from 2007 to 2015

Category	2007 (\$/ton)	2015 (\$/ton)
Revenue	\$125	\$77
Disposal	-\$4	-\$8
Processing	-\$59	-\$85
Cost Subtotal	-\$63	-\$93
Net	\$62	-\$16



National Trends

■ Explanation

- Single stream recycling is more expensive to process
- More non-recyclables, unavailable recyclables, and contaminants or hazardous materials in single stream systems (aka Residue)
- Large decreases in commodity revenue
- Companies are using lighter, more efficient packaging in stores
- More types of recyclable material



Cost Analysis

Operations

- MRF received 36,678 inbound tons in FY 2015
 - 22,552 tons from LFUCG (61%)
 - 14,126 tons from affiliates (39%)
- 34,379 out bound tons in FY 2015
 - 24,939 commodity tons
 - 4,020 glass tons
 - 5,420 landfill tons



Cost Analysis

Operations

- Revenues: \$2,178,136
 - \$1,619,646 (74%) from LFUCG commodity sales
 - \$494,410 (23%) from affiliate processing revenue
 - \$64,043 (3%) from affiliate marketing revenue
- Costs: \$2,885,820
 - (\$697,653) for personnel
 - (\$1,533,901) for operating
 - (\$654,266) *for depreciation*
- Loss: \$707,684



Cost Analysis

Recycling

MRF Loss	Cost to Landfill	Actual Cost of Recycling
\$(707,684)	\$(374,858)	\$(332,826)

- The goal is to minimize the actual cost of recycling to the LFUCG



Action Points

- Raising fees to affiliates
- Review commodity mix
- Additional investment



Action Point:

Raising Affiliate Fees

	Current Charge (\$/ton)	Consider Charging (\$/ton)
Processing Fee	\$35	\$50-\$55



Action Point:

Raising Affiliate Fees

- Assuming no change in tonnage, a processing fee increase could generate \$211,890-\$282,520
- At \$50-\$55/ton, LFUCG and current affiliates approach break-even on the cost of recycling
- If affiliate fees too high, you may lose affiliate revenue
 - Affiliate fees vs. affiliate volume



Action Point:

Review Commodity Mix

- Glass could be eliminated to create capacity for other commodities
 - Glass costs \$15/ton to dispose vs. \$19.50/ton to landfill
 - Glass causes more wear and tear on the processing facility and causes safety concerns
- Explore expanding processing of #3 through #7 plastics which have a marketable value
 - Currently #3 through #7 plastics can generate revenue



Action Point:

Time for Additional Capital Investment

- Determine the future financial impact when adding improvements to the facility such as “dust control”, “enhanced heating/cooling/sprinkler systems”, and “electric system upgrades”
 - Currently estimated at approximately \$1 million
 - These improvements will need to be made in the near term



Further Discussion Point:

Private Option

- The LFUCG could bid out MRF services to a private vendor
 - Unknown cost to LFUCG without RFP responses
 - Unknown type or level of service without RFP responses
 - Private option must include a profit margin
 - Potential to free up I-2 zoned land
 - Currently, closest recycling centers are in Cincinnati, Columbus, and Chicago area
 - Once we go down this road, future is always in the private space



Questions?