

Divert Baltimore

Recap Presentation



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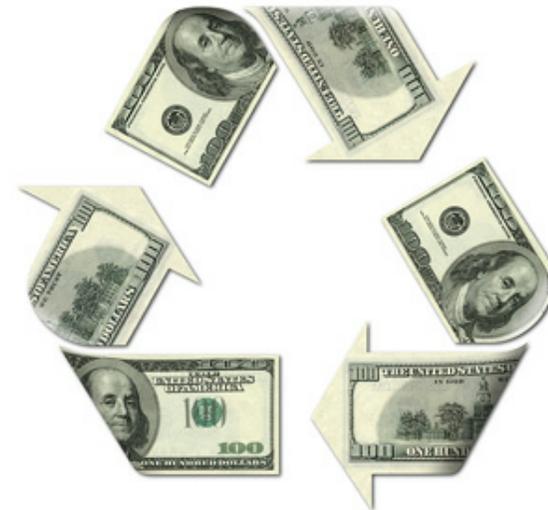


Refresher

- ▶ Energy Justice Network founded in Philadelphia in 1999
- ▶ Causes throughout the Mid-Atlantic and beyond
- ▶ Local focus is to close the largest polluter in the city – Wheelabrator Baltimore
- ▶ Invest in a green economy
 - Cleaner air
 - Less waste
 - More living-wage jobs

Design

- ▶ Branded as **Westport/Mt. Winans/Lakeland Recycles**
- ▶ Three-month pilot – 95 homes
 - Month 1 – Weighing trash and education workshops
 - End of Month 1- Provided free, 44-gallon recycling bins
 - Months 2 & 3 – Weighing trash and recycling bins weekly
- ▶ Hired five Block Captains to collect the data
 - Each paid \$2,500
- ▶ Top five homes by weight recycled won \$400-\$1,200





So Trashy

Homes produced
over 16 tons of
trash during the
program



So Trashy

This means each household throws out about **31 lbs.** of trash every week



Clean and Green

**Homes
recycled nearly
4 tons in
Months 2-3**

Clean and Green

This means each house recycled about **10 lbs.** every week in the program

Current City Average: **~6 lbs.** every week*

▲ **67%**

*Estimated



Wheelabrator
Tipping Fees Avoided
(2018: \$53.62 x ~4 tons)

\$208

Doesn't sound like much, but citywide...



54,285 tons of residential recycling annually

Current City Average: **32,480 tons***

*Estimated



Minus **\$20 per ton**
to process the
recyclables...

And...

Baltimore City saves
over **\$700,000** in
tipping fees in one
year from moving
the residential
recycling rate from
19.7% to 24.8%!



This means...



It would take **about 4 years** to pay back the cost of providing bins & lids **for free to every home!**



Those
attending the
workshops
recycled at a
much higher
rate!

Knowledge That Works!

Homes attending our workshops (7) learned about the history of Wheelabrator, the health impacts from its pollution, and what is/isn't recyclable



Knowledge That Works!



- ▶ These homes averaged ~14 lbs. of recycling weekly
- ▶ ~56% increase over homes receiving just a bin/lid and brochure

Knowledge That Works: Using their numbers citywide...

▶ **76,063 tons of recycling**

▶ **Over \$730,000 in additional tipping fee savings – a total of \$1.43 million!**



Knowledge That Works:

This means...

With our workshop, it would take about **2 years** to pay back the cost of providing bins & lids **for free to every home!**





ASSUMPTIONS

- ▶ Based on 93% of homes receiving a bin/lid, a brochure, and possibility of an economic incentive*
- ▶ 100% participation citywide**
- ▶ Results are conservative due to rates in pilot community mostly likely being lower than city average (an estimated 6 lbs./wk), so payback times could be faster
- ▶ Results also are conservative because cost to process recyclables (\$20) should decrease due increased presence of aluminum and HDPE plastic in recycling stream
- ▶ All households are single-family units

*Other examples of citywide economic incentives include unit-pricing and Recyclebank

**Cities like San Francisco have ordinances mandating participation in recycling and composting by residences (including complexes), businesses, and government buildings

Recommendations

- ▶ We are using the cost of 25-gallon bins and lids in calculations, but recommend the acquisition of recycling bins **larger** than the 65-gallon trash bins as **over 70%** of household waste is **recyclable!**
- ▶ Further, each household having a larger recycling bin is a **visual cue** to residents that most of what they throw away is recyclable!



Divert Baltimore – Community Incentive



Basic Tenets

- ▶ Each community is provided **25-gallon bins & lids for free**
- ▶ Tasked to reach a **set diversion rate by year's end** to cover cost of free bins/lids to a community* (See next slide)
- ▶ If target rate is surpassed, there's a tipping **fee surplus**

Please note...

*A two-year target is possible, depending on the calculation approach. When incorporating the average cost to process recyclables (\$20), the required diverted tonnage increases for Westport/Mt. Winans/Lakeland from 599 tons to 955. We decided to *include* recycling processing costs to be as conservative as possible, but note that the money for bins would be reallocated out of the annual Wheelabrator budget, which is *separate* from the funds budgeted to process recyclables. Therefore, surpluses could be much higher.

Surplus Breakdown

- ▶ 70% - Community Betterment Fund
- ▶ 10% - Block Captain Support*
- ▶ 10% - Solid Waste Enterprise Fund
- ▶ 10% - Education Fund

***Can be supervised by Energy Justice Network and co-funded through foundations**

Example

Westport/Mt. Winans/Lakeland	
Population	7,119
Total Number of Households	2,141
Percentage of Households in Baltimore City	1.0
Estimated Annual Waste Production by CSA (Tons)	2,297
Cost of 25-Gallon Bins and Lids by CSA	\$32,115
Diverted Tons to Break Even w/ Recycling Processing Costs	955
Per Household Annually (Tons)	0.45
Per Household Daily (Pounds)	2.44
Diversion Rate	42%

Let's assume a 50% diversion rate in 2018...

Westport/Mt. Winans/Lakeland	
Total Tons Diverted	1,149
Tipping Fees Avoided (2018 Rate)	\$61,609
Recycling Bins and Lids	-\$32,115
Recycling Processing Fee (\$20/ton)	-\$22,980
Surplus	\$6,514
Breakdown of Reallocation	
Community Betterment Fund	\$4,560
Divert Baltimore Block Captain Support*	\$651
Solid Waste Enterprise Fund	\$651
Baltimore City Education Fund	\$651

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3-Year Outlook with 5-Point Increase and 10% Replacement Costs

Westport	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Total</u>
Business as Usual (Tons)	2,297	2,297	2,297	6,891
Recycling Rate (%)	50	55	60	55
MSW Diverted (Tons)	1,149	1,263	1,378	3,790
Remaining MSW (Tons)	1,148	1,034	919	3,101
Tipping Fee Savings*	\$61,609	\$69,414	\$77,623	\$208,646
Cost of Bins and Lids	\$32,115	\$3,212	\$3,212	\$38,539
Cost to Process Recyclables	\$22,980	\$25,260	\$27,560	\$75,800
Surplus	\$6,514	\$40,942	\$46,851	\$94,307
Community Betterment Fund	\$4,560	\$28,659	\$32,796	\$66,015
Block Captain Support	\$651	\$4,094	\$4,685	\$9,430
Solid Waste Enterprise Fund	\$651	\$4,094	\$4,685	\$9,430
Education Fund	\$651	\$4,094	\$4,685	\$9,430

Any questions?
Want to learn more about incineration?
Feel free to contact to visit our website or contact us!

Energyjustice.net/incineration

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