

City of Houston – Solid Waste Management

Single Stream Recycling contract FAQs

1. What is curbside recycling?

The SWMD provides curbside Single Stream recycling collection service to the City of Houston. The program allows residents to conveniently recycle at their curbside on a bi-weekly basis. This program allows customers to mix recyclable paper, corrugated cardboard, plastic, glass and aluminum cans in one container.

2. What are the benefits of recycling?

- Reduces the amount of waste sent to landfills and incinerators
- Conserves natural resources such as timber, water, and minerals
- Prevents pollution by reducing the need to collect new raw materials
- Saves energy
- Reduces greenhouse gas emissions that contribute to global climate change
- Helps sustain the environment for future generations
- Helps create new well-paying jobs in the recycling and manufacturing industries in the United States¹

3. When was the City of Houston recycling implemented?

The City of Houston rolled out its Single Stream Curbside Recycling Program using a well thought out strategic program that was completed in March 2015.

Below is the timeline of the program rollout:

- 2009 March, pilot 10,000 homes
- 2009 August, 12,000 homes
- 2010 January, \$3M DOE grant adds 50,000 homes
- 2010 December, 30,000 homes
- 2013 July, 33,000 homes
- 2013 December, 70,000 homes
- 2014 June, 62,000
- 2015 remaining 109,000 homes

4. Why is there now a cost with running the curbside recycling program?

With the severe downturn in commodities and oil prices, the recycling operators who operate material recovery facilities (MRFs), have seen their revenues nosedive due to a combination of increased operating costs and prevailing market conditions. China's cooling economy and its

¹ <http://www.epa.gov/recycle/recycling-basics>

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Green Fence program that was launched suddenly in early 2013 ground imports to a halt for a time as Chinese ports began hyper-scrutiny of imported waste plastics and other materials. Companies that have survived this downturn have seen their costs rise as a result of having to hold recycled materials for longer periods, or take deep losses when they ultimately sell the recycled materials on the commodities market. The result of which recycling operators have seen significant pressures to their investments in their recycling operations, ultimately affecting their bottom line.

The City's current recycler operator, Waste Management of Texas, Inc. (WM), North America's largest publicly held recycling company, has taken deep losses due to its heavy investments in the recycling field. WM has documented its renewed position to effectively manage recycling operations in their public statements: *"...\$69 million of charges to impair investments related to waste diversion technology companies, and \$10 million of goodwill impairment charges associated with our recycling operations; and other charges to write down the carrying value of assets to their estimated fair values related to certain of our operations. These items had a negative impact of \$0.68 on our diluted earnings per share."*²

Other participants in the market such as Republic Services Inc. expressed the similar struggles of lower commodities prices having negative effects on its annual operating revenues. *"Recycled commodities decreased revenue by 0.7% primarily due to lower commodity prices, partially offset by an increase in production volumes"*.³

5. **Why does the City have to pay for its curbside recycling program?**

Based on current prevailing market conditions Waste Management notified the City of its intent not to renew the Original Agreement under the same terms and proposed certain new terms which were in line with their public statements to Wall Street and their investors. . Specifically, the new terms would include an increased processing cost to cover their return on assets (ROA) and return on investment (ROI) for Plant, Property and Equipment (PPE) acquired during the expansion of their recycling business through acquisitions and increases in SG&A through organic growth.

Based on the strengths of its negotiating power, the City had enjoyed an unprecedented Zero Floor contract had been in place since 2009, a highly enviable position. This Zero Floor allowed the City the benefit of an avoided disposal cost of \$27 per ton for materials that would normally be landfilled. Additionally, as the market has fluctuated, unlike other municipalities that operate a curbside recycling program, the City has never faced a negative recycling processing cost.

² Waste Management Annual 10-K Report , 17 February 2015

³ Republic Services Annual 10-K Report, 12 February 2016

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6. What does the absence of a Zero Floor and increased processing cost mean to the curbside recycling program?

The basic principle behind the City of Houston's Curbside Recycling Program was that the Single Stream Recyclable Materials collected from this program were delivered to one of the two of WM's MRF for processing. Any materials of value recovered from the processing would then be sold at the current commodity selling pricing (CSP) for that material, less the cost to WM for processing (PF). If there existed a net positive from the difference between the CSP less the PF, then the City would share this revenue with WM as contractually agreed. If, however, there existed a negative balance from the difference from the CSP less the PF, then there would not exist a charge to the City for any negative balances. The City would not bear any cost and its obligation would be zero, hence the term, Zero Floor.

The result of the previous contract was that the City's Single Stream Curbside Recycling program, generated revenues when commodity prices were favorable and in unfavorable markets, yielded no revenues or costs.

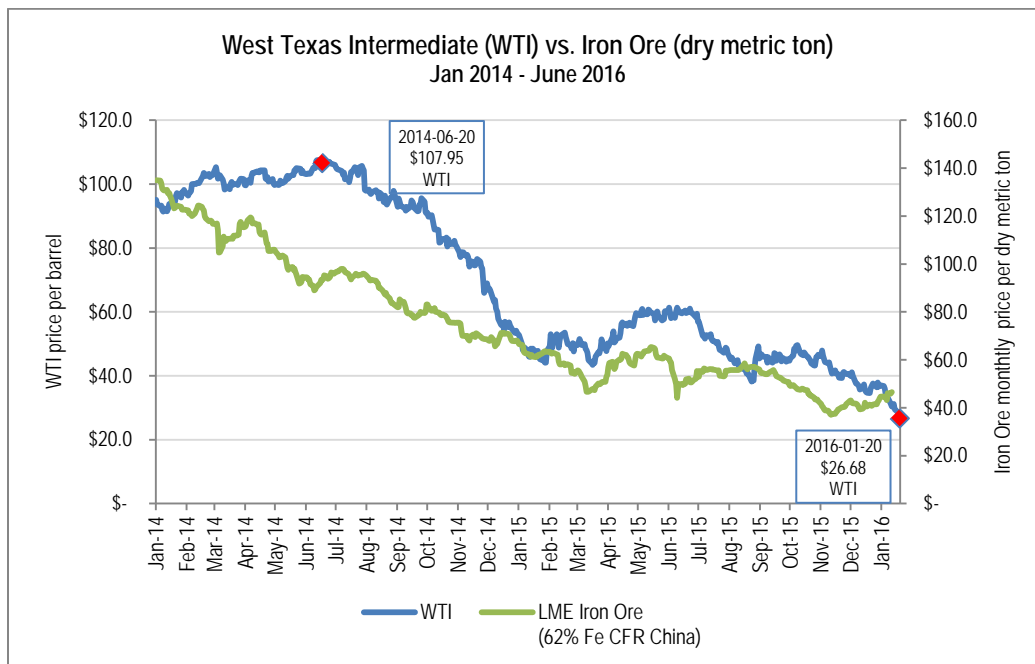
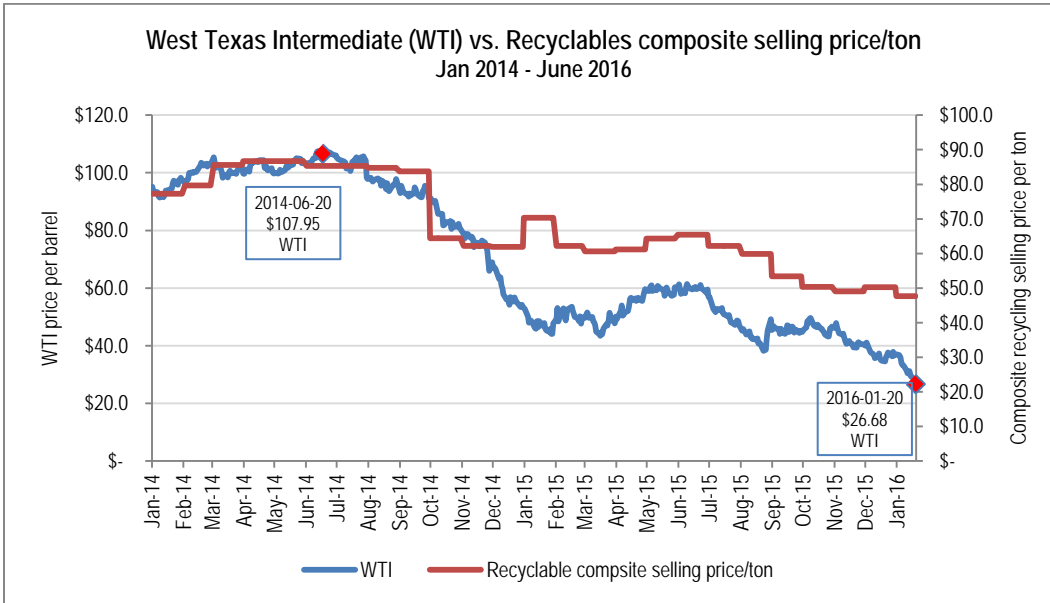
Chart of recycling tons collected and total avoided disposal cost (2009 – 2015)

Year	Recycling tons collected (avoided disposal)	Recycling avoided disposal cost @\$27 per ton
2009	3,991	107,757
2010	16,414	443,178
2011	24,577	663,579
2012	27,390	739,530
2013	29,475	795,830
2014	46,318	1,250,577
2015	62,830	1,696,421
Total	210,995	\$ 5,696,872

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With the rapid changes in the per-barrel of price of oil declining from a high of \$107.95 at January 2014 to a low of \$26.68 as of January 2016, a 75.3% decline, the prices of the commodities trended in lock-step with the price of oil as outline in the graphs below.



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Chart of Recyclables material prices Jan 2014 vs. Jan 2016⁴

Commodity	Material Composition %	June 2014	January 2016	% change in commodity price
Crude oil (WTI)		107.95	26.68	-75.3%
Old Corrugated Cardboard (OCC)	16.8%	100.0	85.0	-15.0%
Mixed paper	28.0%	55.0	50.0	-9.1%
Newspaper	0.0%	60.0	55.0	-8.3%
Aseptic packaging	0.1%	50.0	50.0	0.0%
Metal steel cans	3.4%	75.0	12.0	-84.0%
Metals - aluminium	0.8%	1,300.0	1,000.0	-23.1%
Plastics - natural HDPE	1.6%	700.0	560.0	-20.0%
Plastics - colored HDPE	1.8%	500.0	420.0	-16.0%
Plastics - PET	4.5%	300.0	120.0	-60.0%
Plastics - comingled	1.5%	72.8	62.6	-14.0%
Glass - 3 mix	18.7%	-	-	0.0%
Trash	22.8%	(55.0)	(55.0)	0.0%
Composite commodity selling price	100.0%	68.30	47.66	-30.2%

7. How do the changes in commodity and oil prices affect this new contract?

The following example below outlines the effect of changes in commodities prices on the revenue generated from the recycled commodities under this new contract

June 2014

Commodity selling price (CSP) = \$68.30

Processing Fee = \$65.00

Revenue share = 70%

Formula for calculating COH revenue

(Commodity Selling Price – Processing Fee) x Revenue Share

(\$68.30 - \$65.00) = \$3.30

COH Revenue Share = \$3.30 x 70% = \$2.31 per ton

\$2.31 per ton x 5,400 tons of average recyclable materials collected per month

= \$12,747 per month (\$149.7K per annum)

This is the amount that the City would receive from WM to process and sell the recyclable materials.

⁴ OBM pricing based on high side Southwest Region
Recycling Markets.Net/Secondary pricing based on Houston market, low value, week 1
Recycling Markets.Net/Secondary pricing based on National Average/ Use 1-7

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January 2016

Commodity selling price (CSP) = \$47.66

Processing Fee = \$65.00

Revenue share = 70%

Formula for calculating COH revenue

(Commodity Selling Price – Processing Fee) x Revenue Share

(\$47.66 - \$94.80) = **-\$47.14**

-\$47.14 per ton x 5,400 tons of average recyclable materials collected per month

= **-\$254,556** per month, **-\$3.05M** per annum.

This is the amount that the City would pay to WM to process and sell the recyclable materials.

Summary

- January 2014: recyclable materials brought in \$12,747 per month (\$149.7K per annum)
- January 2016: recyclable materials would cost the City **\$254,556** per month (**-\$3.05M** per annum), under the new contract. Under the Zero Floor contract, the cost to the City would have been \$0

8. Exactly what is Council being asked to approve?

Council is being asked to approve an ORDINANCE approving and authorizing a restated agreement for recycling services between the City of Houston, Texas and **WASTE MANAGEMENT of TEXAS, INC.**, for the Solid Waste Management Department for recycling services; providing a maximum contract amount; containing provisions relating to the subject; and declaring an emergency.

Amounts:

FY2016: \$1,000,000

FY2017 - FY2021 - \$17,314,000

Total contract amount: \$18,314,000

General Fund (1000)

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9. What happens if Council does not approve this contract?

If Council does not approve this contract, the City of Houston will not have a contractor in place to accept the curbside recycling materials collected. The SWMD department will have no choice other than to dispose of the recycling materials collected in a landfill and suspend the program until such time that a contract is in place with a contractor who is able to accept the City's recyclable material. This would undo the efforts by the City to be champion of a sustainable and environmentally friendly City through our Recycling Programs aimed at diverting materials that would otherwise end up in a landfill to be find a beneficial reuse through recycling.

10. Are other Cities and Municipalities affected by this drop in commodity prices?

Below are a few documented examples of the effects of lower commodities pricing on recycling cost:

- A review of city records by the American-Statesman shows that Austin lost \$1.9 million last fiscal year and a total of \$2.7 million in the two previous years as a majority of recyclables have fetched less on the open market than the cost to process them⁵
- Fairfax County, MD, netted an average \$16 per ton of recyclables in 2011 and paid an average \$38 per ton this year, is weighing the real benefit of a single-stream system.⁶
- Recyclable materials have value, but depending on global commodity markets, there may not be enough revenue to cover the costs for the entire recycling supply chain.⁷

⁵ <http://www.mystatesman.com/news/news/as-austin-works-toward-zero-waste-cost-of-recyclin/nppBB/>

⁶ https://www.washingtonpost.com/local/dc-politics/cities-and-counties-come-to-grips-with-the-high-cost-of-recycling-programs/2015/06/23/b53b98fc-18de-11e5-ab92-c75ae6ab94b5_story.html

⁷ <http://www.recyclemorewisconsin.org/2015/06/26/the-cycle-of-recycling/>

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11. How do other Texas cities fund their Solid Waste Management program?

City or Municipality	Monthly Solid Waste Services fee	Comments/Notes										
Austin, TX	\$16.90 - \$41.85 An additional Clean Community Fee of \$7.65 is assessed	The City of Austin's garbage collection is a "Pay-as-you-throw" program based on cart size with fees ranging from \$16.90 - \$41.85. <table style="margin-left: 20px;"> <thead> <tr> <th><u>Cart size</u></th> <th><u>Rate</u></th> </tr> </thead> <tbody> <tr> <td>96-gallons</td> <td>\$41.85</td> </tr> <tr> <td>64-gallons</td> <td>\$23.30</td> </tr> <tr> <td>32-gallons</td> <td>\$18.15</td> </tr> <tr> <td>24-gallons</td> <td>\$16.90</td> </tr> </tbody> </table>	<u>Cart size</u>	<u>Rate</u>	96-gallons	\$41.85	64-gallons	\$23.30	32-gallons	\$18.15	24-gallons	\$16.90
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96-gallons	\$41.85											
64-gallons	\$23.30											
32-gallons	\$18.15											
24-gallons	\$16.90											
City of San Antonio	\$20.43 - \$22.18	The City of San Antonio's garbage collection is a "Pay-as-you-throw" program based on cart size with fees ranging from \$20.43 - \$22.18. <table style="margin-left: 20px;"> <thead> <tr> <th><u>Cart size</u></th> <th><u>Rate</u></th> </tr> </thead> <tbody> <tr> <td>96-gallons</td> <td>\$22.18</td> </tr> <tr> <td>64-gallons</td> <td>\$20.93</td> </tr> <tr> <td>48-gallons</td> <td>\$20.43</td> </tr> </tbody> </table>	<u>Cart size</u>	<u>Rate</u>	96-gallons	\$22.18	64-gallons	\$20.93	48-gallons	\$20.43		
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96-gallons	\$22.18											
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City of Fort Worth	\$12.50 - \$22.75	The City of Fort Worth's garbage collection is a "Pay-as-you-throw" program based on cart size with fees ranging from \$12.50 – \$22.75. <table style="margin-left: 20px;"> <thead> <tr> <th><u>Cart size</u></th> <th><u>Rate</u></th> </tr> </thead> <tbody> <tr> <td>96-gallons</td> <td>\$22.75</td> </tr> <tr> <td>64-gallons</td> <td>\$17.50</td> </tr> <tr> <td>32-gallons</td> <td>\$12.50</td> </tr> </tbody> </table>	<u>Cart size</u>	<u>Rate</u>	96-gallons	\$22.75	64-gallons	\$17.50	32-gallons	\$12.50		
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96-gallons	\$22.75											
64-gallons	\$17.50											
32-gallons	\$12.50											
City of Dallas	\$24.67	The City of Dallas provides a 96-gallon cart for automated garbage collection for a fee of \$24.67. Recycling collection fee is bundled into this garbage fee. The City of Dallas owns its own landfill, which is the largest in the state of Texas.										