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Report on Blended Commodity Values - EPA Regions 1, 2 and 3

Period covered January 1 – March 31, 2020

Prepared with funding support from EPA Region 3

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Background

The Northeast Recycling Council (NERC) supports recycling market development and opportunities for improvements in its 11-state region: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

In 2018, in partnership with the Northeast Waste Management Officials' Association (NEWMOA), we formed a *Regional Recycling Markets Development Committee*. The Committee determined that having information about the value of commodities processed by the region's Materials Recovery Facilities (MRFs)¹ would be extremely helpful for assessing regional market trends and would serve as an educational tool for promoting improved residential recycling and participation. The results have been invaluable to recyclers, MRFs, and also municipalities and state agencies.

This is the fourth report published. The first report covered the period April – June 2019 and focused on NERC's 11-state region. The survey is conducted quarterly.

This report is somewhat different from previous ones. NERC received a grant from EPA Region 3 to expand the survey throughout the Region 3 states (adding Virginia, West Virginia and increasing the number of MRFs in the existing Region 3 state participants, to the original 10 states survey area), and to seek to increase the number of dual stream and source separated MRFs reporting. The goal being to both expand the geographic scope and to be able to incorporate information that reflects any differences in the value of materials coming from single stream as compared to dual stream/source separated MRFs.

This report reflects information received from 18 MRFs in 11 states.² Among respondents are single stream, dual stream, and source separated MRFs.

At no time will any individual company information be shared with anyone outside of NERC staff. No participating facilities will be identified and no state-specific data will be released.

Survey Questions & Results

The previous survey asked for the percentage of a ton represented by each of the following commodities for calendar year 2019. This survey asked for the average value received/paid for each of the commodities listed below during the period January – March 2020, as well as the cost to process a ton of material received at the MRF.

¹ MRFs are a facility that receives, separates and prepares recyclable materials from the public for marketing to processors and end-user manufacturers.

² There are no MRFs in New Hampshire, and we were unable to add Virginia to this survey. We hope to in future surveys.

UBC (aluminum cans)
Steel Cans
PET (plastic #1)
HDPE Natural (plastic #2)
HDPE Colored (plastic #2)
Polypropylene (plastic #5)
Plastics #'s 3-7
Bulky Rigid Plastics
OCC Grade #11 (corrugated cardboard)
Mixed Paper Grade #54
Aseptic and Gable-top Cartons (Grade #52)
All other Paper (excluding grades 11, 52 & 54)
Clear Glass Containers
Green Glass Containers
Brown Glass Containers
3 Mix Glass Containers
Residue

Weighted Percentage of Outbound Tons Marketed per Commodity in Calendar Year 2019

UBC (aluminum cans) ³	0.78
Steel Cans	2.53
PET (plastic #1)	3.35
HDPE Natural (plastic #2)	1.05
HDPE Colored (plastic #2)	1.06
Polypropylene (plastic #5)	0.12
Plastics #'s 3-7	1.28
Bulky Rigid Plastics	0.64
OCC Grade #11 (corrugated cardboard)	25.07
Mixed Paper Grade #54	31.60
Aseptic and Gable-top Cartons (Grade #52)	0.04
All other Paper (excluding grades 11, 52 & 54)	4.09
Glass Containers ⁴	14.60
Residue	13.77

³ Of the participating states, five are so-called bottle bills states, which results in lower percentages for glass, metal, and plastic containers received at the MRFs.

⁴ Responses were received for clear, green, brown and 3-mix. The answers were blended to provide a single glass value, thus avoiding the over-counting.

Average Commodity Value per Ton of Marketed Materials

The 18 MRFs were asked to provide the average value of each commodity for the period January – March 2020. These values were then combined into a weighted average to reflect the blended value per ton for recyclables marketed in the region.

Average commodity value per ton *with* the expense of handling residuals: \$37.93

Average commodity value per ton *without* residuals: \$45.34

These values are up from the previous quarter (October – December 2019).

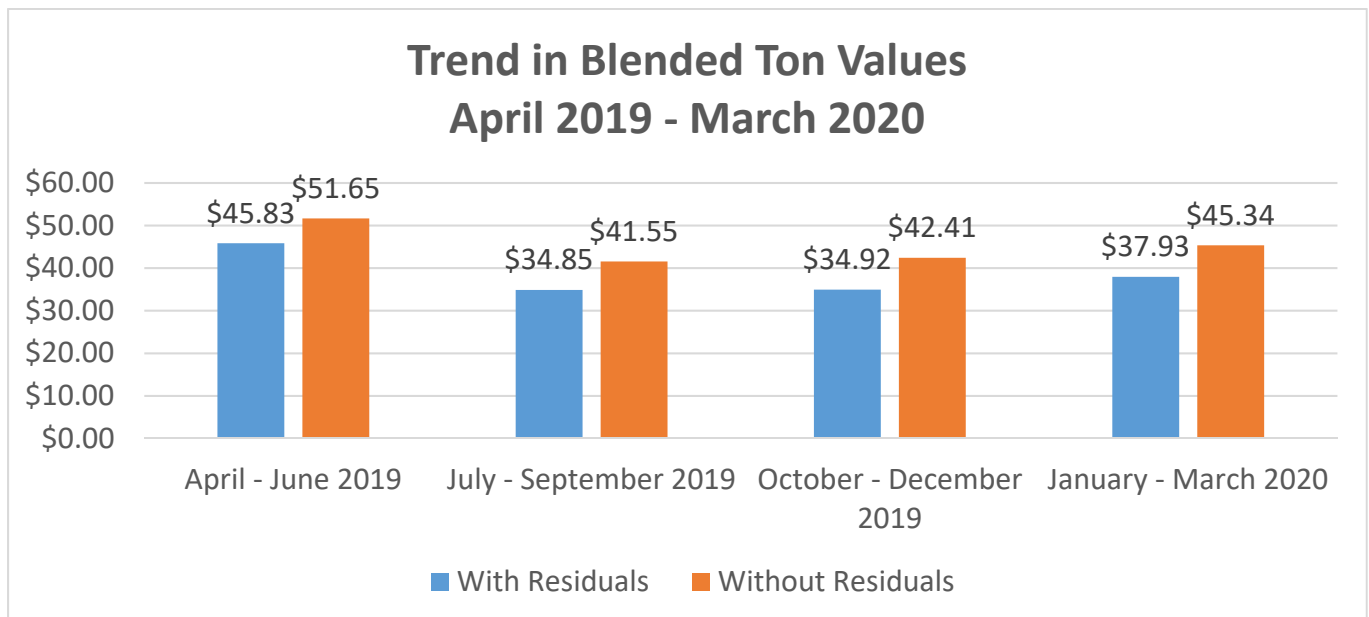
Change in average commodity value per ton *with* residuals from the previous quarter +9%

Change in average commodity value per ton *without* residuals: +7%

Comparing the most current quarter to the first quarter of the survey (April – June 2019) we see the following change

Average commodity value per ton *with* residuals compared to the first quarter remains down, overall, despite the increase in value this quarter. This quarter versus the first quarter of reporting **-17%**.

Average commodity value per ton *without* residuals: The overall change is **-12%**.



Dual Stream, Source Separated & Single Stream

In this quarter, the number of participating states increased by one and an effort was made to increase the number of non-single stream MRFs participating. The goal was to determine what – if any – average value changes were evident based on the collection/sorting system. A few of the MRFs reported that they sourced both single stream and dual stream, and for the purposes of reporting, those are treated as dual stream.

Participating MRFs

Single Stream	Dual Stream/Source Separated
67%	33%

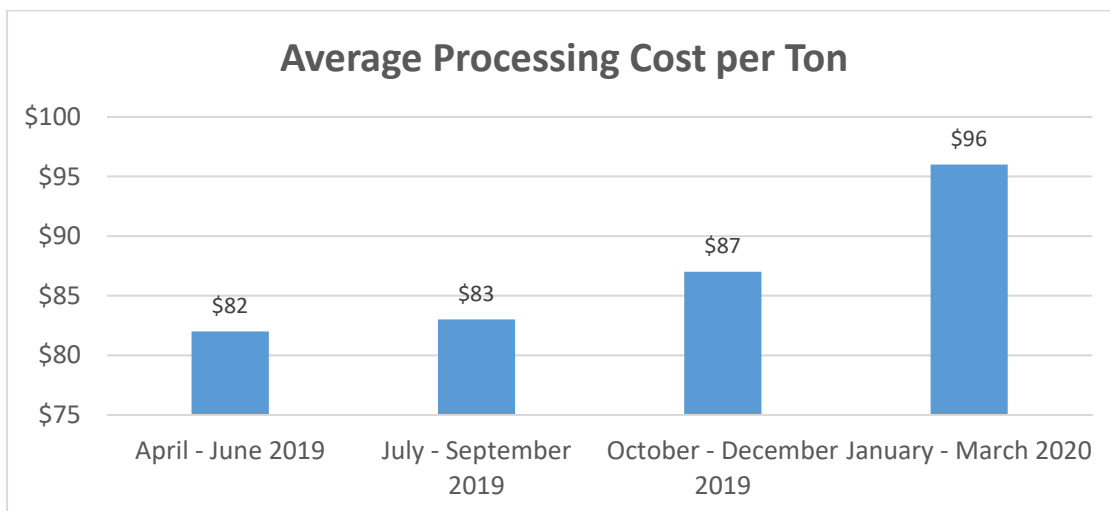
	Dual Stream/ Source Separated	Single Stream	% Dual Single Stream Compared to Single Stream
Without residue	\$52.72	\$42.35	24%
With residue	\$42.39	\$43.89	-14%

What was seen – not surprisingly – that the facilities that operate as dual stream or source separated are enjoying higher revenues (without residuals), but the cost for managing residue was higher, resulting in lower overall revenues per ton. Possible reasons for the greater cost to dual stream/source separated MRFs relate to tipping fees and transportation costs to disposal facilities.

Residual Processing Costs

The MRFs were also asked about processing costs⁵ for the period January – March 2020.

The average processing cost per ton: \$96/ton. The cost to process has consistently increased quarter to quarter. This quarter represents an increase of 10% over the previous period, and an increase of 17% since the survey began.



⁵ The cost to sort and prepare the commodities for sale.

	Single Stream	Dual Stream/ Source Separated	% Difference Single Stream Compared to Dual Stream
Processing Cost	\$112.00	\$60.00	-46%

Conclusion

In mid-March 2020, the COVID-19 pandemic began. We do not believe its impacts on the recycling industry are reflected in this report because only two weeks of the reporting period were under the influence of COVID-19. We do anticipate that the next report will show significant impacts.

This report is the first one of the series to expand the number of states to include West Virginia and to draw distinctions between single stream and dual stream/source separated MRFs. As anticipated, dual stream/source separated, enjoy higher average revenues and lower processing costs, but their cost to dispose of their residuals is significantly higher than for single stream MRFs. This may be a result of where they are located, the distance to disposal facilities, and the tipping costs.

On overall observation is that within a particular commodity there were a few incidents of a wide range of values reported by individual MRFs. In one instance, that disparity was almost \$200. Of course, this influences the blended average value of a ton.

A companion report is available that reflects only the results as they relate to the “original MRFs”, before the addition of additional EPA Region 3 states.

We welcome any questions or suggestions for this report. Please contact Lynn Rubinstein (lynn@nerc.org), NERC Executive Director.