

End-Use Markets for Byproducts from the Recycling & Energy Center – Addendum One



**RAMSEY/WASHINGTON
RECYCLING & ENERGY**
CONNECTING VALUE TO WASTE

Issued Date: 09/03/2020

Addition(s)/Change(s)/Clarification(s):

- Change in Solicitation Response Due Date
- Change in Terms and Conditions
- Other

Questions and Answers:

1. How do interested vendors register for the pre-proposal conference on September 17 at 1:00 pm?

A1. Email sholl@recyclingandenergy.org to request registration. An invitation will be sent to you that includes the link and call-in information for the conference, which will be held virtually via WebEx. Information on how to join WebEx online meetings can be found [here](#).

2. Are you looking to create a refuse derived fuel (RDF) from the waste stream or do you already have the RDF and you are looking for someone to buy it / put it to use?

A2. The latter. The R&E Center currently produces RDF. We are looking for proposals to manage the RDF that the R&E Center produces.

3. Concerning the source-separated organics, is the center's tip fee of \$82 / ton applicable to this?

A3. Source-separated organics will be co-collected with the mixed municipal solid waste (MSW) and these mixed MSW loads will be assessed the current tipping fee when delivered to the R&E Center.

4. If a vendor proposes to process source-separated organics stream into a syngas for electricity generation and a pathogen free soil supplement, is this of interest to the R&E Center?

A4. Yes, R&E is open to multiple proposed solutions for handling source-separated organics.

5. What is the average annual volume of the source-separated organics?

A5. Estimated quantities of source-separated organics, in tons, are located on page 10 of the RFP. Table 2-2 is excerpted below.

**Table 2-2
Durable Compostable Bags Quantities & Volumes
2022 to 2028 (Estimated)**

	Number of Bags per Year	Annual Tons of DCBs
2022 (2% Participation)	382,440	1,530
2023 (5% Participation)	956,100	3,824
2024 (10% Participation)	1,912,200	7,649
2025 (20% Participation)	3,824,400	15,298
2026 (30% Participation)	5,736,600	22,946
2027 (37% Participation)	7,075,140	28,301
2028-2032 (40% Participation)	7,648,800	30,595

6. Are the organic-rich materials recovered from MSW provided as a separate stream from the MSW? What is the annual volume of this?

A6. Organic-rich material will be a separate stream that the R&E Center plans to begin recovering between 2022 and 2023 (upon completion of facility modifications). Estimated volumes are located on page 11 of the RFP. Table 2-3 is excerpted below.

**Table 2-3
Estimated Tons Organic Rich Material Recovered with
Recyclables Recovery System at the R&E Center Beginning in Late 2022**

Material	Waste Composition (%)	Total Tons ^{1, 2}	Low Estimated Percent Recovery (%)	Low Estimated Tons Recovered	High Estimated Percent Recovery (%)	High Estimated Tons Recovered
Organic Rich Materials (food and yard waste) ³	25%	48,452	30%	14,535	50%	24,226

¹ Material in Waste Stream Based on Waste Characterization.

² Assumes 194,000 tons of MSW will be processed with two processing lines at the R&E Center annually.

³ Assumes recovery of ORMs from the Processing Enhancements equipment targeting recyclables only (not DCB organics recovery). Volumes may change significantly at DCB system maturity.

7. Could you please provide your latest waste characterization data?

A7. The most recent waste characterization for mixed MSW at the R&E Center is below.

**Table 3
Total Composition (By Weight)**

90% Conf. Int.				
		Mean	Upper Bound	Lower Bound
PAPER				
1	Newsprint	1.1%	1.5%	0.6%
2	Old Corrugated and Kraft bags	4.5%	7.0%	2.0%
3	Mixed Recycle Paper	7.0%	9.1%	4.9%

4	Compostable Paper	9.2%	11.0%	7.3%
5	Non-recyclable/Non-compostable paper	0.8%	1.4%	0.3%
Subtotal Paper		22.5%	27.5%	17.5%
PLASTIC				
6	PET Bottles/Jars	1.1%	1.4%	0.8%
7	HDPE Bottles/Jars	0.5%	0.7%	0.3%
8	PLA/Compostable Plastics	0.0%	0.0%	0.0%
9	Film/wraps	5.5%	6.9%	4.2%
10	Other Packaging	1.5%	1.9%	1.1%
11	Other Nonpackaging	5.3%	6.8%	3.8%
Subtotal Plastic		14.0%	16.6%	11.4%
METALS				
12	Aluminum Containers	0.7%	0.9%	0.4%
13	Ferrous Containers	0.5%	0.8%	0.3%
14	Other Ferrous	1.3%	2.3%	0.4%
15	Other Non-Ferrous	0.6%	0.9%	0.2%
Subtotal Metals		3.1%	4.1%	2.1%
GLASS				
16	Glass Containers	2.0%	3.0%	1.0%
17	Other (non-container) glass	1.1%	2.8%	0.0%
Subtotal Glass		3.1%	5.2%	0.9%
ORGANICS				
18	Yard Waste	2.0%	3.9%	0.4%
19	Food Waste	18.9%	23.0%	14.8%
20	Wood Waste	5.5%	9.6%	1.4%
21	Other Organic Materials	5.1%	7.0%	3.3%
Subtotal Organics		31.5%	38.0%	25.0%
OTHER				
22	Hazardous Wastes	0.1%	0.2%	0.0%
23	Mercury Containing Lamps	0.0%	0.0%	0.0%
24	Household Appliances	0.7%	1.7%	0.0%
25	Electronics	2.5%	4.4%	0.8%
26	Other bulky wastes	6.9%	12.3%	1.6%
27	Textiles	6.2%	10.0%	2.4%
28	Other Inorganics	6.1%	9.7%	2.5%
29	Fines/supermix	3.3%	4.1%	2.5%
Subtotal Other		25.9%	34.3%	17.4%

Excerpted from Burns McDonnell Solid Waste Composition Analysis - Letter Report to Mr. Brian Schmidt, Xcel Energy, February 13, 2018.

8. What percent of waste is organics and what percent is plastics?

A8. See latest waste characterization provided in the previous question. Additionally, results for the testing of biogenic and non-biogenic composition of RDF can be found in Table 2-8 in the RFP. An updated version of Table 2-8 with additional Spring 2020 test results is included below.

Table 2-8 (Updated)
Quarterly RDF Daily Sample Biogenic and Non-Biogenic Carbon Content Compilation

Sample Day	Biogenic Carbon Content (%)	Non-Biogenic Carbon Content (%)
Quarter 1		
Monday 7/22/2019	63%	37%
Tuesday 7/23/2019	80%	20%
Wednesday 7/24/2019	62%	38%
Thursday 7/25/2019	74%	26%
Friday 7/26/2019	73%	27%
Average	70%	30%
Quarter 2		
Monday 10/21/2019	62%	38%
Tuesday 10/22/2019	29%	71%
Wednesday 10/23/2019	61%	39%
Thursday 10/24/2019	39%	61%
Friday 10/25/2019	70%	30%
Average	52%	48%
Quarter 3		
Monday 3/9/2020	90%	10%
Tuesday 3/10/2020	86%	14%
Wednesday 3/11/2020	72%	28%
Thursday 3/12/2020	74%	26%
Friday 3/13/2020	57%	43%
Average	76%	24%
Quarter 4		
Monday 5/4/2020	62%	38%
Tuesday 5/5/2020	56%	44%
Wednesday 5/6/2020	67%	33%
Friday 5/8/2020	38%	62%
Monday 5/11/2020	48%	52%
Average	54%	46%

9. Is it possible to receive a sample of the RDF to test fraction of material available?

A9. Yes. The R&E Center will provide RDF samples in quantities of 1 gallon to 1 gaylord for testing. The requestor must pay shipping costs from the R&E Center to the requested location. Please contact Sam Holl (sholl@recyclingandenergy.org) to inquire.

10. Could you please provide a site diagram of the R&E Center?

A10. Site diagram provided as an attachment to this document. It is not anticipated that there is enough space to site an additional facility at the R&E Center.

11. Is there rail access to transport waste by-products from the R&E Center?

A11. The closest rail line is within one mile of the R&E Center property. The R&E Center does not currently have direct access or arrangements to access rail. A screenshot of an aerial view is provided below.



All Addenda are to be acknowledged on the Cover Page to be included with your submission. FAILURE TO DO SO MAY RESULT IN REJECTION OF THE SOLICITATION RESPONSE. Unless otherwise specified above, the Solicitation Response due date and time and all other Terms and Conditions remain the same.

