

End Markets for Refuse Derived Fuel (RDF) from the Recycling & Energy Center RFP – Addendum 1



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

Issued Date: 1/19/2023

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

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

Questions and Answers:

1. It is our understanding that not all the RDF is screened over 2 inches. What is the tonnage of RDF that has not been screened and still contains the minus 2-inch ORM fraction?

A1. It is estimated that 150,000 tons of RDF will not be screened to the 2-inch minus ORM fraction. R&E expects to produce about 10,000 tons of process residue/2-inch minus from the RDF lines.

After the primary hammer mill, ferrous materials are removed, and the remaining material is conveyed to a 6-inch disc screen. The “overs” not passing through the disc screen are conveyed to the secondary hammer mill and are then combined with the 6-inch minus materials, after additional screening and density separation has occurred to the 6-inch minus material. Currently, there is not a method to collect these materials separately.

2. Is it possible to treat only this RDF [RDF referred to in Question 1] in our proposed facility?

A2. The RRS line does not create an RDF product. All materials not recovered on the RRS line are transferred to the A and B lines to create RDF.

3. In Table 2.6, a division of biogenic and non-biogenic carbon in the RDF is given. Could you please provide us the methodology with which this determination was made?

A3. The analysis of the biogenic and non-biogenic content of the RDF utilized ASTM Standard D6866-18: Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis.

4. What is the definition of fines in Table 2.7? Is that the minus 2-inch fraction? Is this after ORM removal or is this on the RDF still containing the minus two-inch fraction? Will all of the RDF be screened over 2 inches once your new enhancements are put into operation?

A4. Fines in Table 2.7 of the RFI are those materials remaining that could not be distinguished as any other material category listed in Table 2.7. The RDF was hand-sorted to remove material that could be identified as one of the categories in Table 2.7, then indistinguishable material was sieved using a ½ inch minus sieve and additional hand-sorting was conducted.

The fines in Table 2.7 were the material that had passed through the ½ inch sieve that could not otherwise be identified as one of the other categories. Fines are characterized as less than 6 mm. This RDF is the RDF that is being received currently by Xcel, prior to the addition of ORM screening and still contains the 2-inch minus fraction. All the RDF will be screened over a 6-inch fraction as is stated in Question 1 of this addendum.

5. How can the R&E Center be expected to continue to produce 350,000 tons per year of RDF from the expected 450,000 tons per year of MSW if additional tons will be diverted by additional recycling, compostable bags and additional ORM removal?

A5. The R&E Center manages a total of approximately 450,000 tons of trash, which is managed multiple ways. Ramsey & Washington counties have designation, which allows management of all generated tons. R&E anticipates successfully removing organics and additional recyclables with facility improvements and programs currently being implemented. Therefore, respondents should assume 300,000 tons of RDF as the annual maximum available.

6. If the compostable bag program is successful, and another 20,000 or 50,000 TPY can be collected via this system, will this then be implemented to increase diversion at the expense of the RDF production going to the facility? In other words, the R&E Board does not guarantee the composition of the RDF, but will the R&E board guarantee the tonnage of 350,000 TPY after 2027?

A6. Please see response to Question 5. Respondents should assume 300,000 tons of RDF as the annual maximum available.

7. This solicitation is an RFI. When will the RFP be issued?

A7. As mentioned in the RFI, under Minn. Stat. §473.811 R&E reserves the right to negotiate directly with respondents to this RFI.

8. Page number 8, section heading 2.4, paragraph 5 and Page number 21, section heading 4.11, bullet 9 - What are the expected RDF tons by year for the 1st 10-year agreement. What are the expected RDF tons by year if the optional 2nd 10-year agreement is agreed upon?

A8. Please see responses to Questions 5 and 6.

9. Page number 8, section heading 2.4, paragraph 5 and Page number 21, section heading 4.11, bullet 9 - What is the expected BTU and moisture content of the RDF after the food scraps and organic rich fraction are removed from the RDF?

A9. R&E is unable to estimate or guarantee composition of future RDF. Further testing will be needed once additional diversion measures are fully implemented.

10. No specific reference but related to Page number 21, section heading 4.11, bullet 9 – What is the long-term capital improvement plan for the existing RDF processing equipment such that RDF bidders will have confidence in quantity and quality for 10 -20 years?

A10. The R&E Center has a robust equipment maintenance & repair (EM&R) budget spanning the life of contemplated contracts. Capital improvements & maintenance are budgeted separately from the annual operating budgets. Consistent with Minnesota's solid waste management hierarchy, the counties process waste for the recovery of beneficial products

and production of RDF for energy or another beneficial reuse. The R&E Center is included in both Washington and Ramsey counties' Solid Waste Management Plans and the Ramsey/Washington Joint Designation Plan to continue to be the facility used by both counties for waste processing. The facility continues to have the full capital support of both counties, as outlined in these plans.

11. No specific reference, but related to Page number 21, section heading 4.11, bullet 9 – Are there any additional capital improvement plans or community outreach programs to address/manage lithium-ion battery recycling / waste?

A11. Ramsey and Washington counties, through R&E and the Partnership on Waste to Energy (with Hennepin County) has developed existing outreach programs for battery recycling. See www.recyclingandenergy.org/batteries for details.

12. To propose on this RFI, is it a requirement to have a reference facility? Does it need to be in the United States?

A12. If the proposer does not have a commercial-scale reference facility, please include in your proposal any demonstration scale or other facility or relevant operations that demonstrate your technology's capabilities. No, the reference facility does not need to be in the United States.

13. Is R&E interested in responses from vendors who do NOT own and operate systems?

A13. The proposer would need to have been involved in the planning or development of an existing project to propose for this RFI. Further clarification can be provided on a case-by-case basis.

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.