



Environment and Natural Resources Trust Fund

2025 Request for Proposal

General Information

Proposal ID: 2025-306

Proposal Title: Innovative Solution to Renewable Energy from Food Waste

Project Manager Information

Name: Matt Phillips

Organization: Ramsey/Washington Recycling & Energy Board

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Project Basic Information

Project Summary: A partnership supporting the State climate and renewable energy goals by diverting organic materials from landfills and producing renewable natural gas (RNG) through anaerobic digestion and sequestering carbon into biochar.

ENRTF Funds Requested: \$10,000,000

Proposed Project Completion: April 30, 2029

LCCMR Funding Category: Air Quality, Climate Change, and Renewable Energy (E)

Project Location

What is the best scale for describing where your work will take place?

Region(s): Metro

What is the best scale to describe the area impacted by your work?

Statewide

When will the work impact occur?

During the Project and In the Future

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

The connection between food waste and climate change is increasingly recognized as impactful on our environment. According to the USEPA, food waste results in 170 million metric tons of carbon dioxide equivalent (CO₂e) annually. Production, transportation and handling of food generates significant CO₂e emissions, and when the food ends up in a landfill, it generates methane.

This project offers a powerful opportunity to make investments that will reduce our reliance on fossil fuels and decrease methane and CO₂ emissions. This project leverages innovative food waste recovery processes, an established public-private partnership (PPP) with a 20-year feedstock supply agreement, and private funding, all for the long-term benefit of Minnesota residents. Featured in this project are partnerships with CenterPoint and Xcel Energy which will be purchasing the recycled products (RNG and attributes of the biochar) to help meet their sustainability goals and state renewable energy goals.

The proposed anaerobic digester will cost approximately \$100M to design/construct and require \$35M in state and federal grant funding to be economically viable. This recycling facility project will divert organic materials from landfills and produce valuable recycled products. The \$10M requested will leverage state dollars against federal and private funding, maximizing benefits to Minnesota.

What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.

We are proposing a unique PPP with Dem-Con HZI Bioenergy, LLC (DC/HZI), in collaboration with the Shakopee Mdewakanton Sioux Community (SMSC) as well as CenterPoint and Xcel Energy. This partnership will provide renewable energy, reduce GHG emissions and produce a valuable biochar soil amendment while helping Minnesota meet our climate change, recycling, renewable energy and circular economy goals. This innovative approach produces RNG through anaerobic digestion of food waste/organics and creates a biochar product, which sequesters carbon and is used for remediation projects, filtration and in compost as a soil amendment, helping to achieve state GHG emission reduction initiatives.

The project's anaerobic digester will process 75k tons of organic waste annually, increasing organics processing by more than 60% from the 114k tons of source-separated organics collected state-wide in 2022. The project will also create 170k MMBtu of RNG, generating 10,000 tons of biochar and reduce CO₂e by 30k tons per year, or 900k tons of CO₂e over the life of the project.

An end-markets feasibility study was completed, demonstrating ample demand for RNG and biochar. CenterPoint and Xcel Energy have prioritized this project in their Innovation Plans being developed as part of the Natural Gas Innovation Act.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

This project offers a rare opportunity to shift the paradigm from landfilling toward circularity. The project will reduce GHG emissions and provide renewable energy to help Minnesota meet its 75% recycling by 2030 Goal, 100% Clean Energy by 2040 Goal and the 2050 net zero emissions target.

Reducing food waste in the region will mitigate climate change, which in turn will help protect our natural resources, conserve energy and enhance ecosystem services throughout Minnesota. Importantly, this project demonstrates and verifies a process that can be right-sized and replicated throughout the state for organics recovery and local production of renewable energy.

Activities and Milestones

Activity 1: Reimbursement of Recycling Organics Processing Fee

Activity Budget: \$10,000,000

Activity Description:

The proposed DC/HZI anaerobic digestion and biochar system will process organic materials, producing RNG and biochar, while preventing GHG emissions. MPCA permitting is in progress for operation as a recycling facility making recycled products (RNG and biochar). It is not a waste disposal facility. All permitting activities are on schedule; the project will be “shovel ready” when funding is awarded. R&E will provide organic materials, collected from Ramsey and Washington county residents, as feedstock for the digester, to be located in Scott County.

The \$10,000,000 request leverages state dollars against federal and private funding to maximize benefits to Minnesota. Without grants, the residents of Ramsey and Washington counties would bear 100% of the cost to develop this renewable energy process, placing an unjust burden on residents. Without mitigation from federal and state funding being sought, residents would need to pay \$200 per ton to create renewable energy, which is unaffordable. However, with the LCCMR grant, and other grants, the processing fee would be approximately \$115 per ton in Year 1, which is more economically competitive and allows the project to move forward. This approach leverages LCCMR funds for the maximum benefit of citizens throughout the state.

Activity Milestones:

Description	Approximate Completion Date
Anaerobic digestion facility operational	January 31, 2027
Reimbursement of Recycling Organics Processing Fee	April 30, 2029

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Bill Keegan, P.E.	Dem-Con Companies	President, Dem-Con Companies	Yes

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?

The 20-year organic materials feedstock agreement already completed by R&E and DC/HZI provides long-term project stability and financial certainty to support the ENRTF investment with a pioneering new materials management strategy for Minnesota. Approximately 65% of funds needed to complete the project are secured through private financing backed by the agreement, enabling LCCMR to leverage investment for the state. This project demonstrates and verifies processes replicable throughout the state to reduce reliance on fossil fuels and end food waste to landfills, while improving the quality of human health and our natural resources through GHG reduction and carbon sequestration.

Project Manager and Organization Qualifications

Project Manager Name: Matt Phillips

Job Title: Accounting Management

Provide description of the project manager’s qualifications to manage the proposed project.

Matthew Phillips, Ramsey/Washington Recycling & Energy Board’s Accounting Manager, will be responsible for overseeing the administration and reporting on LCCMR grant funds, should they be awarded for this project. Matthew joined R&E in September 2023 and was previously employed by Ramsey County. At Ramsey County, he gained substantial experience managing grant-related projects. He oversaw ARPA (American Rescue Plan, \$107 million) funding, which included requirements from the US Treasury such as quarterly and annual reporting for all funds spent, broken down by subrecipient, direct pay or contractor. He additionally oversaw \$16 million from the Treasury for Emergency Rental Assistance (ERA Grant 1 & 2) funding to Ramsey County. This required writing and submitting monthly, quarterly and annual reports. In addition to reporting, Matthew’s team oversaw all subrecipient monitoring and desk audits for annual monitoring. Prior to that, Matthew worked on COVID relief grant reporting. He has over nine years’ experience in governmental accounting, including nine audits at Ramsey County and is currently in the process of the second annual financial audit with R&E. He is well-versed in the intricacies of this project and how funds will be used.

Organization: Ramsey/Washington Recycling & Energy Board

Organization Description:

Ramsey and Washington counties have worked together since the 1980s. The two counties collaborate on waste and energy issues through Ramsey/Washington Recycling & Energy (R&E). The R&E Board operates through a joint powers agreement and is made up of commissioners from both counties. Through R&E, the counties strive to protect public health and the environment by reducing waste. Ramsey and Washington counties jointly own and operate the Recycling & Energy Center (R&E Center) in Newport, Minnesota. All municipal solid waste produced by residents and businesses in the two counties is delivered to the R&E Center. At the facility, conveyor belts carry the material through a system that recovers recyclables, including organics, and processes the remaining material into a fuel source used in power plants to generate electricity. Through this system, R&E is maximizing the recovery of resources.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
							Sub Total	-
Contracts and Services								
Ramsey/Washington Recycling & Energy Board	Internal services or fees (uncommon)	Funds will be used for reimbursement of recycling organic processing fee, reducing R&E's estimated \$200 per ton fee down to approximately \$115/ton (combined with other grant awards). This provides recycling of 50,000 tons of organic material annually for nearly 2.5 years (28 months) at \$85/ton.				-		\$10,000,000
							Sub Total	\$10,000,000
Equipment, Tools, and Supplies								
							Sub Total	-
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
							Sub Total	-
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-

Other Expenses								
							Sub Total	-
							Grand Total	\$10,000,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	-
Non-State				
In-Kind	R&E is committing the recycling organic material processing fee of approximately \$115/ton in year 1 for recycling 50,000 tons of organic material annually for nearly two and half years (28 months).	\$115/ton for 50,000 tons for 28 months. Though the grant period is 28 months, this project leverages a public-private partnership 20-year feedstock agreement which will be catalyzed by the LCCMR grant. The project will continue beyond the grant period to reduce GHG emissions, provide renewable energy, and sequester carbon to meet Minnesota's 75% recycling by 2030 Goal, 100% Clean Energy by 2040 Goal, and the 2050 net zero emissions target.	Secured	\$13,512,500
			Non State Sub Total	\$13,512,500
			Funds Total	\$13,512,500

Total Project Cost: \$23,512,500

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: [3139d31c-fbf.pdf](#)

Alternate Text for Visual Component

Innovative Solution to Renewable Energy from Food Waste: Ramsey/Washington Recycling & Energy and Dem-Con/HZI. Project components: food waste recycling, anaerobic digestion, renewable natural gas, and digestate-to-biochar process (soil amendment and carbon sequestration method).

Positive project impacts: clean energy, innovation, long-term impact....

Financial Capacity

Title	File
Recycling & Energy Board Financials & Audit Documentation	fd8024c9-aac.pdf

Board Resolution or Letter

Title	File
Ramsey/Washington Recycling & Energy Board Resolution	6260a841-d88.pdf

Supplemental Attachments

Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other

Title	File
CenterPoint Energy Letter of Support	ebee7561-419.pdf
Comerica Bank Reference Letter	9edca7ab-8f2.pdf
Dem-Con Companies Letter of Support	5622ffde-b3c.pdf
Minnesota Pollution Control Agency Letter	217ba440-b95.pdf
Olmsted County Letter of Support	4a98a104-45b.pdf
Partnership on Waste and Energy (Hennepin, Ramsey, Washington counties) Letter of Support	82d92d79-0b9.pdf
Ramsey County Letter of Support	b9dbc5c1-37d.pdf
Shakopee Mdewakanton Sioux Community Letter of Support	db926739-d7b.pdf
Washington County Letter of Support	9ec0843b-234.pdf
Xcel Energy Letter of Support	0e2f5dab-d90.pdf
Conservation Minnesota Letter of Support	1829b27d-b58.pdf
IUOE Local 49 Support Letter	d4c5d5c9-469.docx

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

N/A

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No

Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration?

No

Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services (as defined in Minnesota Statutes section 299C.61 Subd.7 as "the provision of care, treatment, education, training, instruction, or recreation to children")?

No

Provide the name(s) and organization(s) of additional individuals assisting in the completion of this proposal:

Leigh Behrens, Ramsey/Washington Recycling & Energy Board; Sam Holl, Ramsey/Washington Recycling & Energy Board; Michael Reed, Ramsey County; Bill Keegan, Dem-Con; Eugenia Manwelyan, Gershman, Brickner & Bratton, Inc. (GBB); Nathan Klett, Foth Infrastructure & Environment, Llc.; Kevin Johnson, Husch Blackwell Llp.

