

LFIR # 3275

1. Project Title	ject Title Municipal Waste Reduction and Research Using Cerawave Microwave Plasma					
2. Senate Sponsor	Keith Truenow					
3. Date of Request	3/7/2025					
4. Project/Program D	Description					
technology to gasify power, fuels, and compromoting energy re	partnership with the Florida public y biosolids and solid waste, conve hemical outputs. This process sig esilience, job creation, and econd lutions for municipalities and indu	erting t gnifican omic gr	hem into synthesis ga htly reduces landfill de owth through public-p	is to allow for transf pendency and gree	formation into clean enhouse gas emissions,	
5. State Agency to re	eceive requested funds	epartm	ent of Environmental	Protection		
State Agency cont	acted? No					
6. Amount of the Nor	recurring Request for Fiscal Y	ear 20	25-2026 		1	
Type of Funding			Amo	unt		
Operating				2,000,000		
Fixed Capital Outla			0			
Total State Funds	Requested			2,000,000		
•	for Fiscal Year 2025-2026 (incl	uding	matching funds avai	lable for this proje	ect)	
Type of Funding			Amount	Percentage		
	Requested (from question #6)		2,000,000	25%		
Matching Funds				00/		
Federal State (excluding the	e amount of this request)		0	0% 0%		
Local	e amount of this request)		0	0%		
Other			6,000,000	75%		
	s for Fiscal Year 2025-2026		8,000,000	100%		
8. Has this project p	reviously received state fundin most recent instance:	g?	No		1	
Fiscal Year	Amount		Specific	Vetoed		
(уууу-уу)	Recurring Nonrecur	rring	Appropriation #			
9. Is future-year fund	ling likely to be requested?		Yes		I	
a. If yes, indicate nonrecurring amount per year.			2,000,000			
b. Describe the so	ource of funding that can be us	ed in li	ieu of state funding.			
Private capital						



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Complete questions 10 and 11 for Fixed Capital Outlay Projects

. What is the co	urrent phase of t O Design	he project? Construction	O N/A		
Is the project	"shovel ready"	(i.e permitted)?			
What is the es	stimated start da	ite of construction?			
. What is the e	stimated comple	tion date of constru	ction?		
. What funding	stream will be u	sed for ongoing ope	erations and maint	enance of the project?	
		o receive, directly or rs of the facility and		ed capital outlay fundir	ıg. Include t

12. Details on how the requested state funds will be expended

Spending Category	Description	Amount			
Administrative Costs:					
Executive Director/Project Head Salary and Benefits		0			
Other Salary and Benefits		0			
Expense/Equipment/Travel/Supplies/ Other		0			
Consultants/Contracted Services/Study		0			
Operational Costs					
Salary and Benefits		0			
Expense/Equipment/Travel/Supplies/ Other		0			
Consultants/Contracted Services/Study	Funds will support the deployment of the first waste-to-energy system through a public-private partnership. Expenses include equipment procurement, system installation, supplies, contracted services, and research studies to assess commercial feasibility. This pilot project will establish a scalable model for waste reduction and energy resilience.	2,000,000			
Fixed Capital Construction/Major Renovation:					
Construction/Renovation/Land/ Planning Engineering		0			
Total State Funds Requested (must equal total from question #6)					

13. Program Performance

a. What specific purpose or goal will be achieved by the funds requested?



LFIR #3275

Funds will directly address Florida's critical need for improved management and reduction of municipal solid and biosolids waste through deployment of Cerawave microwave plasma technology, supported by UF's Institute for Food and Agricultural Sciences. The initiative targets significant reductions in environmental contaminants and landfill usage, enhances energy independence, and converts waste streams into valuable fuels, energy, and chemical products. It establishes a proven pathway for sustainable biosolids disposal, generates regional economic benefits, and serves as a scalable model for future statewide waste-to-energy applications.

b. What activities and services will be provided to meet the intended purpose of these funds?

Activities include deploying and operating Cerawave microwave plasma waste-to-energy technology, conducting feasibility studies on converting municipal solid and biosolids waste into usable energy, fuels, and chemical feedstocks, and providing technical training for system operation. Services include installation, demonstration, and evaluation of the technology, research support from UF's Institute for Food and Agricultural Sciences, collaboration with municipal and industry partners to optimize waste management solutions, and assessment of scalability and environmental impacts.

c. What direct services will be provided to citizens by the appropriation project?

Citizens will benefit directly from improved municipal solid and biosolids waste management services, leading to reduced landfill usage and lower environmental contamination risks. The project will also provide enhanced community energy resilience through local production of clean fuels and chemical products. Additionally, it will stimulate local employment opportunities in advanced manufacturing, technology operation, and technical training, fostering long-term economic development and environmental health for Florida residents statewide.

d. Who is the target population served by this project? How many individuals are expected to be served?

The target populations served include municipalities, public utilities, local industries, and research institutions involved in municipal solid waste and biosolids management across Florida. Over 800 individuals, representing local government officials, municipal workers, industry personnel, academic researchers, and technical trainees, are expected to directly benefit from the project's implementation, collaboration, and knowledge-sharing activities.

e. What is the expected benefit or outcome of this project? What is the methodology by which this outcome will be measured?

The project will significantly reduce landfill and biosolids waste, lower greenhouse gas emissions, enhance energy resilience, stimulate local economic growth, and advance waste-to-energy innovation statewide. Success will be measured through metrics including tons of waste gasified, reduction percentages in emissions and pollutants, energy and fuel production outputs, economic indicators (jobs created, operational cost savings), scalability validation, adoption rates by municipalities and industry partners, and documented research advancements by UF IFAS.

f. What are the suggested penalties that the contracting agency may consider in addition to its standard penalties for failing to meet deliverables or performance measures provided for in the contract?

	Return of funds
14. Is	s this project related to mitigation, response, or recovery from a natural disaster? No
a.	If Yes, what phase best describes the project?
	Mitigation (reducing or eliminating potential loss of life or property)
	Response (addressing the immediate and short-term effects of a natural disaster)
	Recovery (assisting communities return to normal operations, including rebuilding damaged infastructure)
b.	Name of the natural disaster (or Executive Order # for events not under a federal declaration):
15. H	las the entity applied for or received federal assistance for this project?
	☐ Yes, Applied



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☐ Yes, Received						
□ No						
☐ No, but intends to	o apply					
a. If yes, provide th	e FEMA project worksl	neet ID#:				
7 71						
b. Provide the total	project cost listed on	the FEMA pro	ject worksheet	::		
16. Has the entity app	lied for or received sta	te assistance	for this projec	t (other tha	n this reque	est)?
☐ Yes, Applied						
☐ Yes, Received						
□ No						
☐ No, but intends to	o apply					
Commerce): 17. Requester Contact	t Information]
a. First Name	Jonathan	Last Name	Weiss			
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18. Recipient Contact	Information					
a. Organization	Florida Department of E	Environmental				
	Protection					
b. Municipality and	-					
c. Organization Ty	pe					
□For Profit Entity						
□Non Profit 501(d	c)(3)					
□Non Profit 501(d	c)(4)					
□Local Entity						
□University or Co	llege					



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☑Other (please specify) State Agency

d. First Name	Secretary Alexis	Last Name	Lambert			
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The information provided will be posted to the Florida Senate website for public viewing if sponsored by a Senator.