



Environment and Natural Resources Trust Fund

2027 Request for Proposal

General Information

Proposal ID: 2027-222

Proposal Title: Clean Economy Educators: In-School Field Trips

Project Manager Information

Name: Dawn Pape

Organization: We All Need Food and Water

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Project Basic Information

Project Summary: Clean Economy Educators transforms existing substitute-teacher days into "in-school field trips," connecting students across Minnesota with diverse clean-economy careers, maximizing underutilized school time into scalable, statewide climate and workforce education.

ENRTF Funds Requested: \$638,000

Proposed Project Completion: August 31, 2030

LCCMR Funding Category: Education and Outdoor Recreation (C)

Project Location

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

Statewide

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.

Minnesota has a significant, underutilized opportunity within its K–12 education system that limits both environmental literacy and workforce development. Students spend an estimated 70 class periods each year in classrooms led by substitute teachers, where instruction is often minimal due to lack of content-specific preparation. As a result, a substantial portion of publicly funded instructional time (~6%) yields limited academic learning outcomes.

At the same time, Minnesota faces increasing demand for a skilled workforce in sectors directly tied to the protection, conservation, and management of natural resources, including energy efficiency, water quality, sustainable agriculture, and climate resilience. Employers across the state report challenges in recruiting workers with awareness of and pathways into these careers. This gap represents a missed opportunity to deliver measurable outcomes related to environmental literacy and natural resource stewardship at scale.

The current system does not consistently provide students with exposure to applied environmental concepts or awareness of related career pathways, particularly in rural and under-resourced communities. Addressing this disconnect is essential to achieving statewide benefit with equitable access across geographic regions and ensuring long-term public value from existing investments in both education and natural resource protection.

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.

Clean Economy Educators (CEE) transforms substitute teacher days into structured, high-impact learning experiences that serve as in-school field trips. We will design and implement a standards-aligned curriculum focused on Minnesota-based clean energy, nature-based resilience, climate solutions, and green career pathways. The program provides substitutes with professional training, ready-to-use lesson plans, and hands-on materials that actively engage middle and high school students in real-world problem solving.

CEE is designed as a cost-effective, scalable approach that leverages existing school infrastructure to deliver measurable environmental and workforce outcomes statewide. Funding will support Minnesota-specific curriculum development, educator training, classroom resource kits, and systems for implementation that ensure consistency and quality across participating schools. Lessons will highlight industries, high-demand workforce pathways, and technical, two-, and four-year degree options aligned with Minnesota's growing clean economy sectors, exposing students to careers connected to environmental stewardship and economic resilience.

By elevating the substitute role into a mission-driven instructional opportunity, CEE boosts job satisfaction, strengthens recruitment and retention, and helps address substitute shortages.

Once established, the model is financially sustainable because it operates within existing district substitute budgets. This approach maximizes already-funded instructional time, advances environmental literacy, and supports workforce development—without adding school days or new long-term costs.

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?

CEE advances the public purpose of protecting, conserving, preserving, and enhancing Minnesota's natural resources by:

1. Delivering standards-aligned, in-school field trips to 956,250 students/year, increasing student understanding of career pathways and climate solutions as measured through pre/post lesson assessments
2. Strengthened pipeline for building a skilled natural resource workforce
3. Driving measurable behavior changes such as reduced energy use, improved waste practices, and increased water stewardship actions measured through pre/post lesson assessments

4. Reducing educator burden through turnkey programming statewide
5. Scalable system for ongoing Impact
6. Maximizing public funds
7. Pipeline for substitute teachers

Activities and Milestones

Activity 1: Activity 1: Build the Clean Economy Educators Statewide Delivery System

Activity Budget: \$168,000

Activity Description:

OBJECTIVES

- Establish partnerships with Minnesota school districts. Recruitment will prioritize geographic diversity to demonstrate a scalable model for Minnesota school districts.
- Research workforce gaps and needs throughout the state
- Create additional curriculum tailored to specific regions.

TASKS AND IMPLEMENTATION

- We will continue statewide outreach to district administrators, sustainability coordinators, workforce development leaders, and school principals to offer the program to all corners of the state. (This program is currently being piloted on a small scale in the Twin Cities Metro Area.)
- Partner districts will establish the infrastructure needed to convert substitute teacher days into meaningful climate and clean economy learning opportunities.

OUTPUTS

- Outputs include diverse district participation
- Lessons and resources created that reflect the jobs, skills, and knowledge needed for the region.

Activity Milestones:

Description	Approximate Completion Date
Program outreach materials finalized	August 31, 2027
Conduct district outreach meetings	January 31, 2028
First cohort of districts formally participating, regional lessons developed	May 31, 2028
Cross-curricular classroom teachers introduced to the app to schedule Clean Economy Educators for their classes	September 30, 2028
Scheduling platform activated for partner district	September 30, 2028

Activity 2: Activity 2: Demonstrate Model in Minnesota Schools

Activity Budget: \$380,000

Activity Description:

OBJECTIVE

- Recruit, train, and have substitute teachers to deliver engaging lessons on Minnesota clean economy careers, agriculture innovations, and climate solutions across the state.
- Develop region-specific lessons tailored to local resources and economies.

TASKS AND IMPLEMENTATION

- Recruit substitutes through school districts and train them on curriculum and engagement strategies.
- Provide training via workshops and online modules. Trained educators, designated as Clean Economy Educators, will be listed in a scheduling app.
- Teachers will request the Clean Economy Educators through the (already developed) app for substitute coverage.
- Educators will deliver interactive lessons on climate solutions, clean energy tech, and agriculture innovations, related Minnesota career pathways.

- Teachers and educators will complete brief feedback surveys after lessons.

OUTPUTS AND IMPACT

- By transforming substitute-taught classes into in-school field trips, one educator can reach approximately 6,000 students per year without adding school days or new district costs.
- Evaluation will include lesson counts, student participation, knowledge surveys, feedback, and platform usage data.
- Long-term impact includes filling workforce gaps.
- The project will create a trained pool of substitutes.
- Students will get engaging climate and economy education during substitute days, with documentation supporting future expansion.

Activity Milestones:

Description	Approximate Completion Date
Training curriculum developed and tailored to regions	January 31, 2028
Certified Clean Economy Educators added to scheduling platform	March 31, 2028
Lessons delivered by the first cohort of train substitute teachers	August 31, 2028

Activity 3: Activity 3: Evaluate and Scale Statewide

Activity Budget: \$90,000

Activity Description:

OBJECTIVE

Implement Clean Economy Educator classroom lessons during substitute teacher days and evaluate student exposure to Minnesota clean economy workforce pathways and climate solutions.

TASKS AND IMPLEMENTATION

Teachers will request trained Clean Economy Educators through the existing scheduling app when substitute coverage is needed. Educators will deliver interactive lessons introducing students to climate solutions, clean energy technologies, agriculture innovations, and related Minnesota career pathways. Teachers and educators will complete brief feedback surveys after each lesson to assess lesson quality and student engagement.

OUTPUTS AND IMPACT

Students will receive engaging climate and clean economy education during substitute teacher days—time that would otherwise be limited instructional opportunity. The project will document lessons delivered, students reached, and teacher satisfaction. Findings will support future statewide expansion.

EVALUATION

Evaluation metrics will include lesson delivery counts, student participation estimates, teacher feedback, educator feedback, and program usage data from the scheduling platform.

Activity Milestones:

Description	Approximate Completion Date
First Semester of Clean Economy Educator classroom lessons delivered	January 31, 2029
On-going substitute teacher trainings for new subs and added curriculum	January 31, 2030
Feedback collected and analyzed to make program improvements	June 30, 2030
Final program evaluation and expansion recommendations	August 31, 2030

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Justo Garcia	Minneapolis Health Department, Green Careers Exploration Program	Green Careers Exploration Manager	No
Margaret Wang-Aghania	Subject to Climate	Executive Director, Co-Founder	Yes
Beth Mercer-Taylor	Institute on the Environment, University of Minnesota	Sustainability Education Co-Director	Yes
Gabrielle Anderson	Spark-Y	Curriculum Manager	Yes

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.

The Clean Economy Educators program will actively disseminate results, materials, and lessons learned to educators, workforce partners, and environmental organizations across Minnesota to maximize public benefit and long-term impact.

Project findings, curriculum materials, and program outcomes will be shared through multiple channels. Annual summary reports will be provided to the Legislative-Citizen Commission on Minnesota Resources and made publicly available through the project website of We All Need Food and Water. Reports will document student reach, educator participation, lesson topics, and evaluation results related to environmental literacy and awareness of clean economy careers.

Curriculum materials and teaching resources developed through this project will be shared with schools, substitute teachers, and partner organizations to enable broader use beyond participating districts. Presentations and workshops will be offered to educators, school administrators, and workforce partners to demonstrate how substitute-taught class periods can be transformed into engaging environmental learning opportunities.

The project will also share results through conference presentations, educator networks, and collaborations with environmental and workforce organizations working to strengthen Minnesota's clean economy. These efforts will help ensure the model can be replicated and expanded statewide.

Evaluation data, lesson plans, and program documentation will be archived digitally to ensure long-term accessibility. Project communications, publications, signage, and outreach materials will acknowledge support from the Environment and Natural Resources Trust Fund in accordance with ENRTF acknowledgment guidelines.

These dissemination efforts will help Minnesotans understand the environmental and workforce benefits made possible through ENRTF support while encouraging behavior and career pathways that protect and strengthen Minnesota's natural resources.

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?

This approach ensures long-term public value beyond the grant period by embedding the model within existing district funding structures. Ongoing substitute training to meet new workforce needs may need to be funded by foundation grants, corporate sponsorships from clean energy employers, and individual donors in the future.

The curriculum, educator training modules, and evaluation tools developed during the project will remain open access. Results and lessons learned will inform iterative program refinement and statewide scaling. Ongoing data collection will strengthen future ENRTF, foundation, and workforce-development proposals.

Project Manager and Organization Qualifications

Project Manager Name: Dawn Pape

Job Title: Executive Director

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

Dawn Pape is exceptionally qualified to serve as Project Manager for the Clean Economy Educators—In-School Field Trips program. As Founder and Executive Director of We All Need Food and Water, where she develops and manages scalable environmental education programs designed for statewide adoption, she has extensive experience managing state- and federally funded environmental education initiatives that require strategic oversight, fiscal responsibility, and detailed reporting.

Dawn brings nearly three decades of experience working in and alongside schools. She is a former classroom teacher who has maintained a current Minnesota teaching license since 1994 and occasionally serves as a substitute teacher in local districts. This continued connection to schools gives her direct insight into classroom realities and a practical understanding of how substitute teacher days function—knowledge that directly informs the design and implementation of the Clean Economy Educators program.

Dawn also designed and launched the now statewide Blue Thumb—Planting for Clean Water program in 2006 while working at the Rice Creek Watershed District. What began as a local initiative has grown into a widely recognized Minnesota program that engages residents, partners, and communities in protecting water quality through sustainable landscaping. This experience demonstrates Dawn's ability to design programs that scale, coordinate partnerships, and maintain long-term impact.

With a master's degree in environmental education and natural resources, Dawn combines subject-matter expertise with strong operational management skills. She has extensive experience developing proposals, managing work plans, monitoring budgets, tracking outcomes, and ensuring compliance with grant agreements and reporting requirements.

Dawn's leadership emphasizes transparency, accountability, and collaboration with educators, partners, and community stakeholders. Her background in program design, statewide partnership building, and education positions her to successfully manage the Clean Economy Educators project and ensure it is implemented effectively and in full alignment with ENRTF and LCCMR expectations.

Organization: We All Need Food and Water

Organization Description:

We All Need Food and Water is a Minnesota-based 501(c)(3) nonprofit advancing equitable environmental education

through art, storytelling, and community action. With compassion as our compass, we protect food, water, and air by inspiring cultural change through inclusive education, art, storytelling, and community building that engages youth, families, and communities.

We design and deliver hands-on programs that engage youth, families, and educators in practical environmental solutions. Our core initiatives include Green Light Puppet Shows (interactive performances that translate complex environmental topics into age-appropriate, action-driven learning), Community FUN (Future Unfolds Now) Events that convene intergenerational audiences around climate solutions, and Clean Economy Educators, which transforms underutilized substitute teacher days into in-school “field trips” focused on Minnesota-based clean energy, water stewardship, and green career pathways.

Rooted in partnerships with schools, community organizations, and local leaders, We All Need Food and Water prioritizes equity, creativity, and measurable impact. By blending science-based information with arts-driven engagement, we cultivate environmental literacy, civic participation, and workforce awareness—helping Minnesotans of all ages become informed stewards

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
							Sub Total	-
Contracts and Services								
Subject to Climate, University of Minnesota, Institute on the Environment, Spark-Y,	Service Contract	Curriculum design and instructional materials development (grades 6–12, cross-subject)				0		\$140,000
Apt 6 Studios (web developer)	Service Contract	Continued app development as program grows				-		\$15,000
University of Minnesota	Service Contract	Independent program evaluation				0		\$25,000
Program Manager	Service Contract	System designer, regional school coordination, teacher outreach/coordination, student engagement & workforce awareness surveys, reporting to partners and funders, statewide expansion toolkit & dissemination				3		\$230,000
Clean Economy Educators	Service Contract	70-100 substitute teachers will receive stipends to be trained as Clean Economy Educators. They will be paid by school districts their regular pay when they are requested to teach a Clean Economy lesson.				-		\$200,000
							Sub Total	\$610,000
Equipment, Tools, and Supplies								
	Tools and Supplies	Hands-on classroom materials	to engage learners					\$10,000
							Sub Total	\$10,000

Capital Equipment								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	mileage to trainings, current IRS rate (~20,690 miles)	Mileage reimbursements to trainers					\$8,000
							Sub Total	\$8,000
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
	Printing	Handouts, flyers	Handouts for students, trainees, flyers to advertise program					\$10,000
							Sub Total	\$10,000
Other Expenses								
							Sub Total	-
							Grand Total	\$638,000

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				
			Non State Sub Total	-
			Funds Total	-

Total Project Cost: \$638,000

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: [91870297-7c9.pdf](#)

Alternate Text for Visual Component

Students spend an estimated 70 class periods each year with substitute teachers. In grades 6-12, substitutes rarely teach because they're often unfamiliar with specialized content. The Clean Economy Educator program ensures long-term public value beyond the grant period by embedding the model within existing district funding structures....

Financial Capacity

Title	File
2025 990 Tax Return	bb65a3c7-922.pdf
Certificate of Good Standing	c60ca0c2-10b.pdf

Board Resolution or Letter

Title	File
Board Resolution	e9ed7e8a-41f.pdf

Supplemental Attachments

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

Title	File
Budget Details and Narrative	4f01023b-dd3.pdf
General Public Opinion Survey	cfb75de6-69d.pdf
Support Letter from Spark-Y	05460c61-bf9.pdf
Support Letter from U of M	c39ee836-3fd.pdf
Support Letter from Minneapolis Green Careers	8d5fb4bc-813.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Do you understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

Yes, I understand the Commissioner's Plan applies.

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")?

Yes

Do you certify that background checks are performed for background check crimes, as defined in Minnesota Statutes, section 299C.61, Subd. 2, on all employees, contractors, and volunteers who have or may have access to a child to whom children's services are provided by your organization?

Yes

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

Dawn Pape

Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements

Yes, I understand