

**Environment and Natural Resources Trust Fund
2014 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 092-C

MN Agricultural Interpretive Center Energy Education Project

Category: C. Environmental Education

Total Project Budget: \$ 160,000

Proposed Project Time Period for the Funding Requested: August 2014 - August 2016

Summary:

To develop an agricultural based energy education curriculum. Farmamerica is Minnesotas only agricultural environment learning center. The materials will be used at Farmamerica and be available online.

Name: James Gibson

Sponsoring Organization: MN Aq Interpretive Center - Farmamerica

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Location

Region: Statewide

County Name: Statewide

City / Township:

<input type="checkbox"/> Funding Priorities	<input type="checkbox"/> Multiple Benefits	<input type="checkbox"/> Outcomes	<input type="checkbox"/> Knowledge Base
<input type="checkbox"/> Extent of Impact	<input type="checkbox"/> Innovation	<input type="checkbox"/> Scientific/Tech Basis	<input type="checkbox"/> Urgency
<input type="checkbox"/> Capacity Readiness	<input type="checkbox"/> Leverage	<input type="checkbox"/> Employment	<input type="checkbox"/> TOTAL <input type="checkbox"/> %



PROJECT TITLE: MN Agricultural Interpretive Center – Farmamerica (MAIC), Energy Education Project

I. PROJECT STATEMENT

1. Farms are heavy electrical loads on municipal and cooperative electric utilities. There will be significant benefits on the rural environment and rural electric utilities with renewable energy technologies. Some rural landowners, ranchers, farmers and agricultural businesses have begun to see and participate in the promises and problems of wind, solar, and biomass. The issue is “not enough” rural citizens fully understand the positive/negatives of the future electrical grid and the energy sources that will be used to power their homes and businesses. The opportunity is for the MN Agricultural Interpretive Center - Farmamerica, the Board, staff and citizen volunteers to implement its plan of an agricultural based energy education program.
2. MAIC - Farmamerica currently operates an Interpretive Center for K-12 school groups and families. This project will also conduct workshops for K-12 teachers, farmers and rural landowners. Agricultural & Its Environment will be the theme of this curriculum to cover the many aspects of a renewable energy industry in Minnesota. The LCCMR funds will be used to develop and implement a set of unbiased curriculum packages for use at the Agricultural Interpretive Center, as well as establish online interactive curriculum packages.
3. A steering committee will be initiated to advise, collaborate, and learn from the MAIC - Farmamerica personnel. The committee will develop and prioritize the list of curriculum packages to be implemented for adult workshops, the Center’s visitors and the web-based materials. Contracts with energy and agriculture industries and education specialists are to be managed by the Executive Director. The steering committee will review the developing materials regularly for online and on-site teaching experiences.

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Project Steering Committee and Grant Administration

Budget: \$30,000

From a list of industry, educational, and website specialists from the region, steering committee members will be recruited. The members will identify and prioritize the curriculum packages and a suggested format. The committee members will review and guide the development of the curriculum regularly.

Outcome	Completion Date
1. A minimum of 6 steering committee members to be recruited	<i>August 2014</i>
2. Two meetings a month to be scheduled for the first 3 months	<i>December 2014</i>
3. Build and prioritize a list of curriculum packages for K-12 and for adult workshops	<i>December 2014</i>
4. Identify potential contractors and develop contract guidelines	<i>December 2014</i>
5. Once a month curriculum review meetings to be scheduled for the next 9 months	<i>September 2015</i>
6. Quarterly meetings to schedule for the 2 nd year to review project results	<i>August 2016</i>

Activity 2: Curriculum Package Development

Budget: \$80,000

Specialists from the energy and agriculture industry, education field, and website developers in the region will be identified and contracted to co-develop the K-12 curriculum packages and interactive website.



Environment and Natural Resources Trust Fund (ENRTF)

2014 Main Proposal

Project Title: MN Agricultural Interpretive Center – Farmamerica (MAIC) Energy Education Project

Outcome	Completion Date
1. Contractor’s chosen	<i>January 2015</i>
2. Research existing curricula that meets the educational objectives of project	<i>March 2015</i>
3. Curriculum and website format finalized	<i>April 2015</i>
4. Development of at least 6 curriculum packages completed	<i>April 2016</i>
5. Development of at least 6 website curriculum packages completed	<i>May 2016</i>

Activity 3: Testing of curriculum packages and website

Budget: \$50,000

This activity is to implement the first use of the curricula and website and evaluate the results.

Outcome	Completion Date
1. Schedule, market, and complete at least to 2 workshops with at least 20 attendees each	<i>January 2016</i>
2. Announce to area K-12 school groups the new curricula packages are available at MAIC – Farmamerica and report the results	<i>January 2016</i>
3. Market the MAIC - Farmamerica website interactive activities and monitor the results	<i>July 2016</i>

III. PROJECT STRATEGY

A. Project Team/Partners

James L. Gibson, Ph.D., Executive Director, MN Agricultural Interpretive Center - Farmamerica, Waseca, MN
 The MN Agricultural Interpretive Center was established in 1978 to preserve Minnesota's rural agricultural heritage. This is a 120-acre campus. Jim will manage the grant and be the project manager.

James Dontje, Chair, Region 9 Renewable Energy Task Force (R9RETF), Mankato. Minnesota
 The R9RETF recognizes the value of this project and can provide assistance in the review of the bids and curriculum, and project management. Possible contractor for portions of the project.

Rich Huelskamp, The Sun’s Warmth, Red Wing, MN & Region 9 Renewable Energy Task Force, Mankato, MN
 The Sun’s Warmth consults, supports & educates Minnesota's energy industry professionals. Possible contractor for portions of the project.

B. Timeline Requirements

This project is expected to be 2 years. The first year will be for the development of the curriculum package and interactive website materials. The second year will be for the finalizing the K-12 visitor center materials, conducting the adult workshops, and observing the use of the website materials. This project is part of a larger effort: An installation of 100 kW solar, wind, and battery bank to establish the Center as net zero carbon facility.

C. Long-Term Strategy and Future Funding Needs.

The installation of the 100 kW renewable energy system and this curriculum development will be the only facility in Minnesota to develop the deep connection for MN’s agriculture industry and rural landowners. MAIC - Farmamerica has been considering the use of renewable energy technologies for at least 5 years. The goal of this project is to be a net zero carbon based facility, and share this information with students and adults. The website will show the system’s production and savings results that will be used in the curriculum materials. MAIC - Farmamerica has submitted a proposal to the Xcel Energy RDF for \$600,000.

2014 Detailed Project Budget

Project Title: MN Agriculture Interpretive Center – Farmamerica Energy Education Project]

IV. TOTAL ENRTF REQUEST BUDGET [2] years

BUDGET ITEM (See "Guidance on Allowable Expenses", p. 13)	AMOUNT
Personnel: Jim Gibson, Executive Director and Crystal Paulson, Office Manager \$25,000 (less than 5% of full time employment) and \$5,000 for expenses of the Project Steering Committee time, meeting expenses and steering committee travel expenses.	\$ 30,000
Contracts: This project is to budget (on average) \$20,000 for each contract that includes a specialist in energy, agriculture, education, and website development as guided by the steering committee.	\$ 80,000
Equipment/Tools/Supplies: 6 renewable energy trunk based curriculum materials and equipment (\$2500 each)	\$ 15,000
Acquisition (Fee Title or Permanent Easements): <i>In this column, indicate proposed number of acres and name of organization or entity who will hold title.</i>	NA
Travel: Contractors will be responsible for their own travel expenses. MAIC - Farmamerica travel expenses will be in-kind contributions.	NA
Additional Budget Items: Expenses of two workshops (of at least 20 attendees but up to 40 attendees of k-12 teachers and interested adults) @ \$2500 each, \$5000 for the marketing budget in the 2nd year and contractor \$25,000 and/or staff to monitor and interact with online curriculum & trunk distribution users for the 2nd year.	\$35,000
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 160,000

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Other Non-State \$ Being Applied to Project During Project Period: MAIC - Farmamerica has developed a Renewable Development Fund application to support the installation of a net zero carbon electrical production system of wind, solar, and battery technologies with the outcome of showing students, and adults what the rural landowner options are to use this potentially developed curriculum.	\$ 600,000	<i>Pending</i>
Other State \$ Being Applied to Project During Project Period:	NA	NA
In-kind Services During Project Period: Once this curriculum is developed MAIC - Farmamerica will incorporate the post 2016 costs to continue in to it's 2017 regular budget planning. This would potentially be a .5 to 1.0 time staff employment opportunity for online interaction with teachers and distribution of the trunk curriculum.	\$20,000	<i>Pending</i>
Remaining \$ from Current ENRTF Appropriation (if applicable):	NA	NA
Funding History: <i>In-kind Board activities to brainstorm/develop this potential project and Region 9 Renewable Energy Task Force donation for grant application(s) development.</i>	\$ 1,500	



Project Manager Qualifications and Organization Description

Project Manager: James L. Gibson, Ph.D.

Qualifications:

Dr. Gibson has been educator or has worked closely with educators in a number of roles over the years. He currently serves as Executive Director, Minnesota Agricultural Interpretive Center-Farmamerica located near Waseca, Minnesota. In this role he is responsible for overall operations including staffing, educational programming, marketing, maintenance, budget, community relations and outreach. The annual budget of the interpretive center is approximately \$275,000. The facilities and equipment are valued at more than \$3 million.

Jim has served as the Education Director for Agriculture, Natural Resources and Renewable Energy as a part of the state staff of the Wisconsin Technical College System. For eight years he worked to increase both the reach and effectiveness of programs statewide through its 16 technical college system. As renewable energy technologies and the need for education of technicians became more evident in Wisconsin he helped establish wind, solar, bio-refinery technician programs in areas of interest throughout the state. He retired in 2008, returned to Minnesota near where he had served as administrator and faculty member of the University of Minnesota-Waseca, and a year later accepted a part time assignment (25%) at Farmamerica. He currently serves as an outside evaluator for renewable energy curriculum and program development serving the pulp and paper industry through a USDA funded program at Itasca Community College, Grand Rapids.

Organization

The Minnesota Agricultural Interpretive Center –Farmamerica was established in 1978 to preserve Minnesota's rural agricultural heritage. Farmamerica started out with a few acres, donated by Roy Lukken in the late 1970's and, with the help of the local community, legislators and contributors, built the center into a 120-acre site which includes an impressive Visitor Center, a pond and prairie restoration, many external historical buildings, plus a large collection of antique tractors and farm equipment. Farmamerica primary focus has always been education. It is important to Farmamerica to teach schoolchildren about our rural history and how farms in Minnesota helped to provide food for the nation and the world. Target audiences are program specific but cross age groups from young children to older adults. The school tours program attracts 2,500 3rd thru 6th graders from 40 schools in the region, including the southern metro area of the Twin Cities. The annual visitor count is in the 20,000 range and will grow, in part, because of the opening of a new four-lane divided highway link (US HWY 14) from Owatonna (20 mi. East) to Mankato (20 mi. West) and ultimately with north-south routes to the Twin Cities (and beyond) and far-southern Minnesota via I-35 to the east and US 169 to the west.

The 120 acre parcel is an educational institution that has great potential for accommodating visitors for events and the casual tourist. It is well equipped with a 10,000 sq. visitor center and lighted parking lot. There are 27 other buildings that represent how the farmers of Minnesota survived in the 1800s, thrived in the 1900s and developed the modern farming techniques of today. Farmamerica also look at new technologies and how agricultural will be changing in the future. MAIC is a 501 c (3) not-for-profit organization governed by a 15-member board and funded as a public-private partnership through state and county funds, grants, memberships, donations, rentals, admissions and program-related crop/livestock sales. Programs, events and operations are staffed by myriad volunteers from throughout the region. They are the real life-blood and have for over 35 years contributed thousands of hours as investments in the future of our state through education.