

**Environment and Natural Resources Trust Fund
2020 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 135-C

Connecting Tribal Communities to Sustainable Energy Pathways

Category: C. Environmental Education

Sub-Category:

Total Project Budget: \$ 2,187,669

Proposed Project Time Period for the Funding Requested: June 30, 2023 (3 yrs)

Summary:

Windustry and partners will build new pathways for Minnesota Tribes to learn how to power their communities with renewable and sustainable energy solutions through trainings and installing demonstration systems.

Name: Lisa Daniels

Sponsoring Organization: Windustry

Job Title: _____

Department: _____

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Minneapolis MN 55403

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Web Address: www.windustry.org

Location:

Region: Statewide

County Name: Statewide

City / Township:

Alternate Text for Visual:

Maps of MN Solar and Wind resources and Map of MN Native Nations along with photos of all 3 activities of this proposal. Logos of the 3 partners of this proposal.

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity	_____ Readiness	_____ Leverage	_____ TOTAL _____%



Environment and Natural Resources Trust Fund (ENRTF)
2020 Main Proposal Template

PROJECT TITLE:

Connecting Tribal Communities to Sustainable Energy Pathways

I. PROJECT STATEMENT:

Windustry and partners will build new pathways for Minnesota Tribes to learn how to power their communities with renewable and sustainable energy solutions through trainings and installing demonstration systems.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1 Title: Workforce Outreach & Trainings

Description: The primary goal of this proposal is to provide hands-on renewable energy installation skills training that will help trainees from tribal communities access renewable energy careers. Currently, tribal communities are among those disproportionately affected by problems such as climate change and environmental degradation and have extremely low percentage of jobs in the sustainable energy field. Windustry will work closely with partners Solar Bear, and IPS along with Tribal Community representatives in Minnesota to develop course offerings for each of the 3 years of this project period. We aim to have geographic coverage of Minnesota Tribal Nations as well as some offerings centrally located at training centers in the Metro area. There will be extensive outreach and marketing of the trainings as well as some open houses in Tribal Communities. Also, there will be different levels of rigor for the trainings so people can get involved at a comfortable pace that is right for them; some workshops will be 4-5 days with a certificate of completion and some courses will be accredited with the NABCEP certification and will prepare the participant to sit for the industry respected NABCEP PV Associates Certification. Wind, solar and energy efficiency trainings are topic areas of our focus. Windustry and partners will engage expert instructors for workshops and will contract with MREA for the NABCEP certification courses. We will conduct 5-6 courses per year with 20-30 students in each.

ENRTF BUDGET: \$175,593 x 3 years = \$526,779

Outcome	Completion Date
1. Windustry hires a workforce training coordinator, FTE;	Aug 2020
2. Survey specific interest at MN Tribal Communities; Plan course schedule; contract instructors; conduct marketing, outreach and open houses with MN Tribal Communities	Nov 2020;Oct 2021;Oct 2022
3. Deliver and Present the courses as planned; conduct pre- and post- topic surveys; gather course evaluations and review: edit and update courses according to participant feedback	June 2021;June 2022;June 2023
4. Track and provide ongoing assistance to course participants in workforce connections and job seeking (5-6 courses per year; 20-30 trainees in each; 100-180 trainees per year; 300-540 total trainees over 3 years)	June 2023

Activity 2 Title: K-12 Renewable Energy Education

Description: Windustry working closely with partner Solar Bear will schedule learning days with 10-12 Tribal Community schools each year where we can introduce the STEM concepts of renewable energy focusing on solar, wind, biomass and sustainable solutions such as conservation, energy efficiency and storage. We will be using well developed and well received curricula from expert sources some of which include KidWind, ReCharge Labs for grades 6-12 and Solar Bear's *Solar Cub* programing and KidWind activities for the younger levels. Students gain an understanding about difference sources of energy and their impacts, how energy affects wildlife, and best practices for siting wind and solar. All our activities will have learning guides and key outcomes, follow-up discussions and activities for supporting the regular classroom teachers, coaches and mentors. We will reach between 200 to 400 students on each respective Renewable Energy Day depending on the proximity of tribal community schools to each other. Our Renewable Energy Days may include an open-house format with different learning stations; challenges where student teams build models that perform tasks; and a visiting renewable energy professional with stories from the field.



**Environment and Natural Resources Trust Fund (ENRTF)
2020 Main Proposal Template**

ENRTF BUDGET: \$145,000 x 3 years = \$435,000

Outcome	Completion Date
1. Windustry hires a K-12 program coordinator, FTE	July 2020
2. Windustry and Solar Bear will survey needs and interests at MN Tribal Community schools; collaboratively prioritize learning objectives, evaluate activities; update learning guides; schedule Renewable Energy Days with different tribal community schools; contract expertise; and order supplies and renewable energy kits for the student activities.	Oct 2020, Oct 2021, Oct 2022
3 Conduct the Renewable Energy Days as scheduled; conduct pre- and post event surveys students; follow-up with classroom teachers for evaluations and feedback; review and revise the program for the next year. (10-12 learning days= 200-400 students each day; 2000-4800 per year; total students over 3 years range 6,000–14,400)	Jul 2021; Jul 2022; Jul 2023

Activity 3 Title: Installation of Tribal Community Renewable Energy and Energy Efficiency Demonstration

Description:

Windustry works closely with partners Solar Bear, and IPS to lead discussions with each respective Tribal Community to select appropriate renewable energy demonstration systems that are feasible for their land, natural resources and size of the community. This project will develop 4 energy efficiency or renewable energy tribal community projects per year to install. A key component of this proposal is for the workshop trainees to get actual experience installing renewable energy and energy efficiency equipment. Some of the installation crews may be larger than usual and will have licensed electricians according to requirements of the state. This means that the projects may have higher than usual installation costs.

ENRTF BUDGET: \$330,000 x 3 years = \$990,000

Outcome	Completion Date
1. Windustry, Solar Bear and IPS lead Tribal Plan project installation: coordinate community involvement in system selection process; determine business model for the demonstration system; hire contractors; hire licensed electricians; line up workshop trainees to be paid crew for the installation of the demonstration projects.	Mar 2021; Mar 2022; Feb 2023
2. Bring the construction of demonstration to completion; deliver clean energy or energy efficiency savings; monitor and maintain the demonstration systems with trainee crews until the target date for the Tribal Community to take ownership of the project.	Nov 2021; Nov 2022; Jun 2023
3. Track performance, share it online with other tribal communities and provide ongoing assistance to all demonstration projects.	June 2023

III. PROJECT PARTNERS AND COLLABORATORS:

- A. Receiving ENRTF funding: Partner: Solar Bear; Collaborators: Midwest Renewable Energy Association (MREA), KidWind, ReCharge Labs, Just-B-Solar
- B. NOT receiving ENRTF funding: Partner: IPS-Solar

IV. LONG-TERM IMPLEMENTATION AND FUNDING:

This is a three-year program with each activity repeated each year in a customized manner for different Tribal Communities in Minnesota. Periodic project status update reports will be submitted every six months each year. A final report will be submitted that will include qualitative data on the impact this experiential education and training program had on participants. The program participants will be tracked over the long term using high school graduation rates and workforce metrics. Maintenance expense for the life of the demonstration projects will be built into the business model for each project. There will be independent philanthropic fundraising for sustaining this program beyond the 3-year launch. All publications, marketing, outreach materials and online info will acknowledge ENRTF per the ENRTF Guidelines.

Attachment A: Project Budget Spreadsheet
Environment and Natural Resources Trust Fund
M.L. 2020 Budget Spreadsheet

Legal Citation:

Project Manager: Lisa Daniels

Project Title: Executive Director

Organization: Windustry

Project Budget: 2,187,669

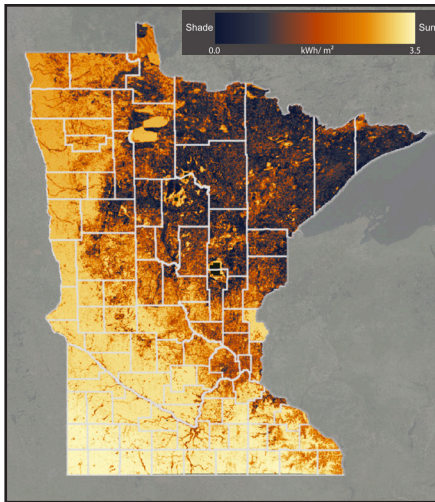
Project Length and Completion Date: 3 Year Project - June 2023

Today's Date: April 15, 2019

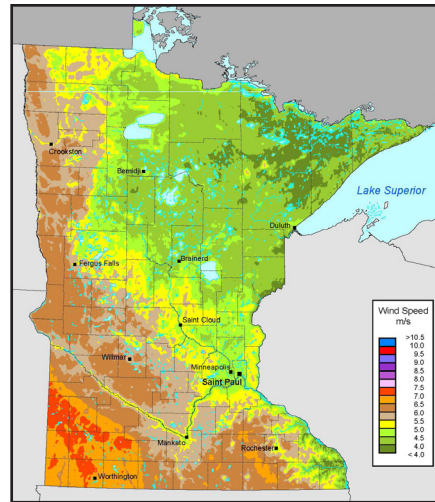


ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET		Budget	Amount Spent	Balance
BUDGET ITEM				
Personnel (Wages and Benefits)		\$ 605,817	\$ -	\$ 605,817
Windustry Project Manager 80% FTE;\$82,048 (78% salary, 22% benefits) x 3 yrs				
Windustry New Hire, Workforce Outreach & Program Specialist, 100% FTE, \$66,560 (78% salary, 22% benefits) x 3 yrs				
Windustry New Hire K-12 Education and Outreach Coordinator, 100% FTE, \$53,331(78% salary, 22% benefits) x 3 yrs				
Professional/Technical/Service Contracts				
Robert Blake - Solar Bear; 50% FTE, Key partner on outreach, working with Tribal Communities and developing demonstration projects		\$ 192,000		\$ 192,000
Collaborating MN entities with expertise teaching K-12 students and teachers about sustainable energy - Kidwind, ReCharge Labs, Just-B-Solar - instructors, materials, books all inclusive		\$ 138,000		\$ 138,000
Collaborating entity MREA with expertise training solar and wind installers for NABCEP certification - instructors, materials, books all inclusive- One 7-day course per year		\$ 76,185		\$ 76,185
MN entities with expertise training adults in sustainable energy concepts, solar and wind installation, energy efficiency - instructors, materials, equipment, books all inclusive- Six 5-day workshops per year		\$ 186,651		\$ 186,651
Legal Counsel on contracts and finance for demonstrations' at Tribal Communities		\$ 90,000		\$ 90,000
Equipment/Tools/Supplies			\$ -	
Lending library of Tools used in training workshops (\$1500x3=4500)		\$ 4,500	\$ -	\$ 4,500
Capital Expenditures Over \$5,000				
Purchase and installation of Small Wind turbines, Solar panels, energy efficiency measures, batteries for storage or other equipment as indicated by each respective collaborative team of Windustry Partners and MN Tribal Community members - Four demonstration projects per year x \$70,000 =\$280,000 x3 years		\$ 840,000	\$ -	\$ 840,000
Fee Title Acquisition		\$ -	\$ -	\$ -
Easement Acquisition		\$ -	\$ -	\$ -
Professional Services for Acquisition				
Printing		\$ 6,900		\$ 6,900
Outreach Materials design (100 x 18 workshops x 3 =5400)				
Signage and display materials for workshops and open houses (500 x 3 =1500)			\$ -	
Travel expenses in Minnesota		\$ 34,116		\$ 34,116
Travel to MN Tribal Communities (28 Tribal communities visits/year x 300 miles x .58=\$4872 x 3= \$14,616)				
Meals and overnight stays for Windustry staff (6 5-day courses =30 x125=3750x3 = 11,250)				
Meals and overnight stays for Windustry staff (22 visits x 1 night x 125=2750 x 3=8250)				
Other				
Meeting supplies for open houses, training sessions, workshops and classes at Tribal Communities - childrens prizes, meeting refreshments, markers certificates (18 workshops X \$200x 3yrs)		\$ 13,500	\$ -	\$ 13,500
COLUMN TOTAL		\$ 2,187,669	\$ -	\$ 2,187,669
SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT				
	Status (secured or pending)	Budget	Spent	Balance
Non-State:		\$ -	\$ -	\$ -
State:		\$ -	\$ -	\$ -
In kind:		\$ 36,000	\$ -	\$ 36,000
Partner IPS-Solar has committed to providing expertise for 2 trainings per year (instructor 10 days/year x3 = \$24000)		secured \$ 24,000		
Technical assistance on demonstration installs (\$4000 x 3 yrs = 12,000)		secured \$12,000		
Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS		Amount legally obligated but not yet spent	Budget	Spent
N/A				
		\$ -	\$ -	\$ -

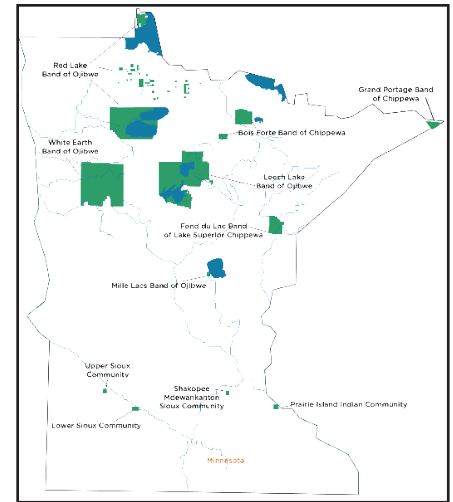
Connecting Tribal Communities to Sustainable Energy Pathways



MN Dept of Commerce - University of MN
MN Solar Irradiance Map



NREL-AWS Truepower
MN Wind Map at 30 Meters



Bush Foundation
MN Native Nations and Reservations



Windustry, 2018

Solar Installation



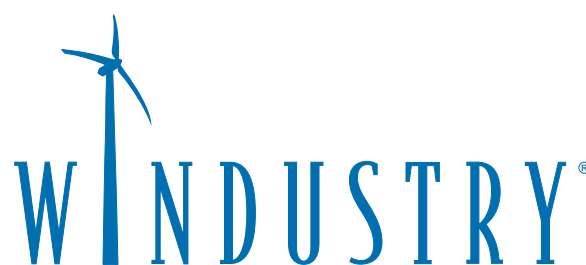
Solar Bear, 2019

Installers Training



Windustry, 2017

Hands-on Learning





LISA M. DANIELS

Lisa Daniels specializes in market development, advocacy and outreach for community and distributed renewable energy. She has been providing wind energy information and technical assistance to farmers, ranchers, tribal communities, elected officials, rural utilities and general interest groups since 1997. She is the Executive Director and founder of Windustry, a nonprofit with a national scope that promotes community-based, distributed renewable energy. With the founding Board of Directors, Lisa established Windustry as an independent 501(c)(3) in January 2003. She has lead Windustry successfully in competitive contracts with US Department of Energy and US Department of Agriculture.

Education

Bachelor of Science, Business Management, Bentley College (now Bentley University)

Professional Activities

Global/National

- Women of Renewable Industries & Sustainable Energy (WRISE) (formerly Women of Wind Energy, WOWE), Recently retired Board Member and a co-founder
- World Wind Energy Conference 2009, 2012 Planning Committee, Session Chair
- Elected to Community Wind Work Group Steering Committee of AWEA, 2010, 2012
- US DOE National Wind Action Plan, 20% Wind Energy by 2030 Report Contributor, 2008
- National Wind Coordinating Collaborative, Steering Committee, 2005-2010;
Economic Development Workgroup, 2001-2005

Regional/State/Local

- RE-AMP, member Clean Energy and Local Solutions Working Groups, 2005-Present
- Minneapolis Citizens Environmental Advisory Commission, 2012-Present
- Enerchange, Providing energy-efficiency for non-profits, Board Member, 2010-Present
- MN Clean Energy & Jobs Campaign Distributed Energy Work Group Chair, 2012-2015
- MEDA – Minority-owned Business Consulting, Advisory Council Member, 2010-2013
- MN Legislative Electric Energy Task Force, C-BED Subcommittee, Oct. 2007-June 2008

Related Experience

- Staff, Minnesotans for an Energy Efficient Economy (now Fresh Energy), 1991-1995
- Volunteer, Econet with Farrallones Institute, 1982-1984

Recognition

- International Wolf Center, Leader of the Pack Award, 2018
- Wind Powering America's 2012 Midwest Regional Wind Leadership Award for Windustry
- Aspen Environment Forum Scholar, 2009
- Recognized in 2009 for foundational support of Women of Wind Energy's fledgling years
- Recognized in 2005 by US Dept. of Energy, WPA's Agriculture Outreach Team
- Idren.