**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**

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| **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 |

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| **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. |  |

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

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| **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**

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| **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:**

1. Receiving ENRTF funding: Partner: Solar Bear; Collaborators: Midwest Renewable Energy Association (MREA), KidWind, ReCharge Labs, Just-B-Solar
2. 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.

**A. Proposal Budget Spreadsheet**

**B. Visual Component or Map**

**C. Parcel List Spreadsheet**

**D. Acquisition, Easements, and Restoration Requirements**

**E. Research Addendum (Not required at proposal submission stage. Required later in process, if proposal is recommended. Staff will provide further information at that time)**

**F. Project Manager Qualifications and Organization Description**

**G. Letter or Resolution**

**H. Financial Capacity**