



CERTs Announces 2008 Funded Projects

As we kick off 2008, we are excited to announce the projects awarded CERTs mini-grants in each of the six Greater Minnesota CERTs regions. Typically in the amount of \$5,000, we hope that these grants help projects garner further funding and bring communities together in identifying and implementing energy efficiency and renewable energy projects... read on for all of the details and thanks to everyone who submitted a proposal! Once again, thanks to all of you who have dedicated your time and effort to the CERTs program. If you are interested in our proposal process or want to prepare for our next round of funding, [click here to check out our Request for Proposals](#).

CENTRAL REGION

■ **Park Rapids Wind Energy:** Park Rapids Wind Energy Committee, on behalf of the Park Rapids Area Schools – ISD #309, seeks funding to share the energy data produced by its newly installed 20 kW Jacobs turbine with students from area schools and the community at large. They plan to share the information using an existing web-based monitoring service (FatSpaniel.com) that will calculate and display energy production data in a detailed and user-friendly format. The Committee seeks CERT support to pay for installation and setup of the data collection and data transmitting equipment and the ongoing monitoring service. (\$5,000)

■ **RREAL Solar Air Heat Crop Drying:** Rural Renewable Energy Alliance (RREAL) seeks funding to conduct a feasibility study of utilizing Solar Air Heat for Crop Drying. RREAL believes that crop drying may be an excellent application for solar air heat and may prove to be an appropriate agricultural use for the RREAL Solar Powered Furnace (SPF), their solar air heating collector. The feasibility study will consist of literature reviews on current crop drying methods and solar crop drying. (\$5,000)

■ **RREAL Website Operation:** Rural Renewable Energy Alliance (RREAL) seeks to develop a new website that will be the web authority and resource on solar air heat. Additionally the reworked RREAL website will be aimed at providing: product & ordering information, Solar Assistance Program information, and access to their ongoing research on solar air

heat among other things. RREAL seeks CERT funds to hire staff from Sunday's Energy to produce the site, train RREAL staff, and develop web content. (\$5,000)

■ **Solar Panel Installations and Training on White Earth Reservation:** The White Earth Land Recovery Project (WELRP) seeks \$5,000 from Central CERT to fund a series of solar panel installations that will include youth trainings in the installation process. WELRP plans to install five to ten solar panels on tribal elders' homes in order to combat fuel poverty and to educate up to 10 reservation youth about solar power and solar panel installations. (\$5,000)

NORTHEAST REGION

■ **Two Harbors High School Photovoltaic Array:** This proposal is for funds to assist the Two Harbors High School, part of the Lake Superior School District, with installation of a 2.8 kW ground mounted, dual axis, photovoltaic (PV) array. The array and accompanying educational kiosk will be located just south of the main path to the athletic complex allowing for direct public access and will target both public education and education of students, faculty and staff at the High School and Minnehaha Middle School. The array will serve as a public demonstration of renewable energy technology, providing students and the community with hands-on exposure to solar generated electricity while offsetting building electricity usage. (\$5,000)

■ **Proctor Earth Fair for the Future:** The Proctor Public School District hosted its first “Proctor Earth Fair for the Future” in spring 2007 and seeks CERT funding to continue and expand upon this first effort. The overall goal of the fair is to encourage teachers and students to research environmental topics related to energy efficiency and renewable energy, to create and display projects that express the knowledge gained through this research, and to achieve an attitudinal change among Proctor staff and students regarding energy efficiency and renewable energy. Funds will support an Earth Fair for the Future project coordinator who will work with teachers and students on designing energy efficiency and renewable energy projects for the fair. In addition, this coordinator will start a community awareness campaign about the school’s efforts in sustainable energy education. (\$5,000)

■ **Wind Monitoring, Wind Resource Mapping and Economic Feasibility in NE MN:** This wind-targeted proposal is requesting partial funding for the second year of an ongoing two-year project. The projects overall goals are to obtain a minimum of one years worth of quality wind speed data from eight sites along the Northshore of Lake Superior, use this site-specific wind speed data to create a wind resource map for the entire region, and use the wind speed data to conduct community-scale wind development economic feasibility studies that can help determine the direct, indirect and induced economic impacts associated with wind development in Southern St. Louis, Lake and Cook Counties. CERT funding would be utilized to support two University of Minnesota Duluth students for their work on primarily the monitoring portion of the project. (\$5,000)

■ **Expanding the 2008 Lake Superior Energy Fair:** The Lake Superior Energy Fair exists to educate the public about energy efficiency, conservation and alternatives to fossil fuel, with hopes that this education will lead to more sustainable energy choices in the community. The Lake Superior Energy Association seeks CERT funding to help organize and expand this event for 2008. (\$5,000)

■ **Youth Outdoor Leadership Pilot Program:** Positive Energy Outdoor (ed)Ventures is slated to begin the pilot year of its Youth Outdoor Leadership Program in 2008. This innovative youth development program will train teens to co-facilitate outdoor adventure and renewable energy education, participate in community service projects to share information about renewable energy and act as role models in their community. The pilot program will specifically help them learn about wind, solar, and other renewable energy applications and offer them hands on experience in installing

an off-grid solar electric project. CERT funds are sought to design and implement renewable energy curriculum, support youth participation in a solar installation at the Positive Energy kennel, and conduct a week-long training retreat for 12 teens who will learn how to deliver the newly designed curriculum. (\$5,000)

■ **Energy Sustainability at Wolf Ridge Environmental Learning Center:** Wolf Ridge is seeking funding for four different projects currently in the works: (1) Design and installation of signage for their wind and solar generating stations, fuel museum and control room in their Science Center; (2) Training of 60 teachers with Climate Change Summit curriculum and planning for a student summit on Climate Change; (3) Installation of compact fluorescents to light chalkboards in three classrooms; (4) Labor for installing a solar water heating demonstration in the Science Center and installing a single box panel to heat the room. (\$5,000)

■ **Geothermal System for the Finland Community Center:** The Finland Community Center seeks funding to help with installation of a geothermal heating system in the new Community Center facility. The project will model sustainable design elements via high levels of community involvement throughout the project, via the facility itself being a high traffic, multi-use space, and through educational signage throughout the building to inform people about the Community Center’s approach to reducing energy usage. Utilizing local businesses to survey, design, and install the geothermal system, the Finland Community Center aims to keep the project as local as possible. (\$3,200)

NORTHWEST REGION

■ **UM Crookston: Farm-Scale Biodiesel:** The Farm Scale Biodiesel project explores opportunities for energy independence for farm scale or multi-farm scale operations. The project was initiated by several canola growers in northwestern Minnesota. It is a collaborative project with a variety of inter-related projects that each involve consideration of the economics and operations of an oil-press at farm scale. (\$5,000)

■ **Bemidji State University: Using a Campus Greenhouse Gas Inventory as a Practical Tool to Stimulate Community Clean Energy Action and Awareness:** The purpose of this project is to provide a baseline inventory of BSU’s greenhouse gas emissions over the past decade. This will provide a framework for a campus-wide action plan to reduce BSU’s carbon footprint. This will also serve as a tool to educate the community on the importance of committing to climate action as well as ways in which an organization can take steps to reduce CO2 emissions. (\$5,000)

■ **Giziibii RC&D: Power from the Prairie - Value of Biomass:** The project seeks to establish a threshold value of biomass for agricultural producers that grow energy crops in northwestern Minnesota. Giziibii RC&D will work with eight producers willing to modify their normal production methods to assess the value of growing a biomass energy crop. This biomass crop will be used in the gasifier to be installed at the Northern Excellence Seed processing plant in Williams, Minnesota. Giziibii RC&D is seeking \$5,000 in funding from CERTS to provide tuition assistance to eight energy crop producers. (\$5,000)

■ **Northland Community and Technical College, East Grand Forks: Wind Resource Testing:** The purpose of the Wind Resource Testing project is to determine if there is enough wind capacity on the Northland Community and Technical College's East Grand Forks, Minnesota, campus to sustain a small wind turbine. The wind testing results will be used to help size a wind turbine to be installed approximately ½ mile east of the campus. The turbine would potentially off-set the college's current use of electricity and provide an on-campus learning experience. (\$5,000)

■ **Crookston Union Building:** This project will look at a number of different energy efficiency measures to retrofit a historic building in Crookston, beyond insulation and efficient lighting. Some potential improvements could be a passive solar roof, a passive solar wall, a green roof, a solar hot water heater, and/or corn boiler. The technical assistance provided by CERTs will be used towards an energy audit and engineering work to best move the project forward. (\$2,000)

■ **Concordia Language Villages: Modeling Sustainability – Energy Conservation and Renewable Energy Production:** Concordia Language Villages propose the implementation of science middle school programs focusing on sustainability by emphasizing energy conservation and renewable energy production. With this proposal Concordia seeks \$5,000 in funding to pilot this middle school science program with 100 middle school students, thereby developing an educational program that can be replicated, repeated, and offered to all middle schools in Northwestern Minnesota. These initial one-day pilot programs are designed to enhance and expand the science classroom experience by immersing students in the basic science concepts of renewable energy. The funding will help develop and implement curriculum. (\$5,000)

■ **Pembina Trail RC&D Association: Veggie Oil as On-Farm Fuel:** The purpose of the Vegetable Oil as an On-Farm Fuel project is to determine how cold pressed canola and

soybean oil samples from northwest Minnesota compare to the German DIN V 51605 standard for rapeseed oil as a fuel. Samples will be packaged and shipped to the Harris Testing Labs located in Houston, Texas. Harris Testing Labs will perform the analysis for a cost of \$1,500 per sample (one canola, one soybean). A findings report will be developed and shared with project partners. If the canola and soybean oil samples match up closely with the rapeseed oil standard, a tractor will be leased for demonstration at local county fairs in northwest Minnesota during the summer of 2008. (\$3,200)

SOUTHEAST REGION

■ **Winona Senior High School's Solar Classroom Project:** This project seeks to provide an interactive educational solar panel system that would be placed at Winona Senior High School. Beyond the solar panel itself, the project would also include a computer monitor, a web page, and display boards in side the school that would explain the mechanics and physics of the solar panel, how much power is being created, and how much carbon and other greenhouse gases are being offset. Thus the project would help the school both offset energy used in one or two high school classrooms and provide an educational tool for students. (\$5,000)

■ **Feasibility Study for Pickwick Mill:** With the funds from Southeast CERT the Pickwick Mill non-profit will hire energy consultants and design professionals to determine the feasibility of a microhydro-power installation at the falls in Trout Creek. Pickwick Mill also seeks to, upon assessment of feasibility, create plans for turbine installation, implementing a power distribution system, developing educational materials and hosting a community forum to highlight the historic and modern hydropower function and benefits of renewable energy. (\$5,000)

■ **Southeast Minnesota Renewable Energy Fair:** A collaborative partnership – among the Jay C. Hormel Nature Center; the Austin, Owatonna, and Rochester Public Utilities; Riverland Community-College Austin; and Austin Coalition for the Environment and Sustainability – seeks CERT support to host the 1st Annual Southeast Minnesota Renewable Energy Fair in September 2008.(\$5,000)

■ **Earthen Path Organic Farm:** Earthen Path Organic Farm seeks to reduce the amount of energy used in refrigeration at the farm by constructing a well-insulated root cellar with an attached ice house. The root cellar would be equipped with monitors, automatic controlled venting to best utilize or protect from outside temperatures, heat exchangers to conserve energy in vented air and to distribute "cold" from melting ice, and extra refrigeration powered by renewables. (\$5,000)

■ **Northfield School of Arts & Technology Solar Energy Project:** Northfield School of Arts and Technology's (ARTech) renewable solar energy project will establish an alternative source of energy for the school by installing a grid tied solar system on the school's premises. ARTech will also use the project to incorporate student-based educational components and jump start student facilitated community awareness partnerships. (\$5,000)

■ **Prairie Sustainable Bioenergy Project:** The Winona Soil & Water Conservation District (Winona SWCD) seeks funding to study the baseline environmental and wildlife conditions of row crop farmland that will be converted to native grass and forb cover for bioenergy production. The study will measure soil conditions and animal populations before and after the conversion to native prairie grasses. Winona SWDC intends to use this study as baseline data for larger alternative energy study projects in Winona County. (\$5,000)

SOUTHWEST REGION

■ **Energy Independence – Redwood County:** The funding request is part of a larger project that involves an energy audit and feasibility study, similar in nature to those of Little Falls and Morrison County. The Redwood County Green Energy Exploration Team would like to contract with a consultant to begin a similar assessment in Redwood County by assisting the team in developing a strategic plan for renewable energy development in Redwood County. The specific funding request will cover the consultant time for a two day consultation with our Green Energy team as well as utility partners, county and communities to discuss renewable energy alternatives and opportunities and present to us how they would assist the green energy efforts. This proposal will include the consultant's time for a community forum/workshop. (\$5,000)

■ **Sleepy Eye Depot Energy Efficient Window Installation:** The Sleepy Eye Preservation Group, a non-profit organization, has been restoring Sleepy Eye's 1902 C&W Railroad Depot since 1984. In 1990 the Sleepy Eye Area Historical Society was given the interior space rent-free to house, organize and to provide a well-maintained and much visited museum. The City of Sleepy Eye City Manager will donate storm windows to be installed at the depot. SW CERT funding will be used toward the labor for the removal of old storm windows, replacement of efficient storm windows, removal of old prime and paint, painting of exterior windows, and the removal and installation of a double door. The building is on the National Register. The project outcomes of energy efficiency and reduced energy consumption will result in lower energy bills. (\$5,000)

■ **Technical Assistance for Energy Efficiency & Renewable Energy Projects:** The proposal was to utilize CERT grant funds to partially offset the cost of energy audits required by applicants of the USDA 9006 Energy Efficiency program. The 9006 Energy Efficiency program is administered through USDA and has grant funds available to assist rural businesses and farmers in updating equipment, with the intent of using the latest technologies to purchase replacement equipment that is considerably more energy efficient than they are currently using. Examples of projects that have been approved by USDA include replacement grain dryers for farmers and refitting a manufacturing plant and warehouse with replacement lighting. The completed energy audit outlines the energy savings that the proposed energy efficiency project will demonstrate, and is integral to the USDA grant application. A well prepared and documented audit will improve applicant scores and applicant success rates and in turn has a broad community benefit and enhances the current energy project / implementation mechanisms. Estimated cost of audits is estimated at \$1000. The proposal is to fund ½ of the audit cost up to \$500 per project. Dispersal of the "mini grant" funds will be on a first come first serve basis and limited to those projects physically located in the 12 SW CERT Counties. (\$5,000)

WEST CENTRAL REGION

■ **Pope Soil & Water Conservation District: Harvest and Testing of Woody Biomass for Energy from Hybrid Poplar Variety Trial Plantings on the Rosholt Research Farm:** There are a total of 6.96 acres of established poplar trees at the Rosholt Research Farm. The trees have reached maturity and production and energy data need to be collected. This project would include harvesting the cottonwoods and hybrid poplar trees to measure production and the potential energy value. This information would finish out the research project and would allow the opportunity to capture much needed information on varietal differences and potential for production, and the energy value of short rotation woody crops for biomass. The harvested chips would be sent to the UMM Biogasifier and evaluated for the energy value, in cooperation with UM researchers at the West Central Research and Outreach Center. Post research would include education to the public and landowners. (\$5,000)

■ **Youth Energy Summit Team: Willmar Community Greenhouse:** As part of the Youth Energy Summit project, the Willmar High School team is planning a long term project that will have an impact on the community in terms of reducing energy use in their communities. This proposal is for funds to build a community greenhouse to grow fresh produce out of season. The greenhouse could potentially be located at the high school with harvests being donated to the

local food shelf. The greenhouse would decrease the demand for far away food and give students experience with community gardening. (\$5,000)

■ **Prairie Woods Environmental Learning Center: Solar Thermal and Solar Electric Installations:** Prairie Woods is on track to operate entirely on renewable energy by 2010 and seeks to take another giant step forward with the installation of solar thermal and solar electric systems in 2008. They are requesting a \$5000 investment from West Central CERTS to assist Prairie Woods with a \$40,000 project to design and install two solar thermal heating units and a grid connected 2-3KW solar array which will be prominently installed at their main education building. (\$5,000)

■ **Greater Milan Initiative: Milan School Project Energy Planning:** GMI has organized to save an unused school building to be used by the community. They request funding for the purpose of energy planning for the Milan School Project (MSP). There are limitless opportunities to build on the school's basic system, better manage the buildings lighting requirements, water heating requirements, and provide needed summer cooling. It is the goal of GMI to eventually go beyond carbon zero and become a carbon sink as part of its total sustainability plan. GMI and its partners wish to use this ongoing sustainability effort to engage the greater public in green energy, efficiency, and sustainability thinking by becoming an educational venue for this purpose. (\$5,000)

■ **Minnesota Valley Alfalfa Producer's Co-op: Commercialization Plan Surrounding Large Biomass Research Project:** MnVAP is pursuing a value-add project to expand from processing alfalfa into animal feed to process other fibrous materials into biomass pellets for energy. This Commercialization Plan is a combination of a feasibility study and a strategic marketing plan. The plan will need to encompass detailed information on the company (its objectives, strengths, weaknesses, opportunities, threats, core competencies, historical sales and accounting information) as well as detail on the feasibility of the undertaking being a success (market – both supply and demand side, customer details, competition, plans re development of R&D for commercialization, and production and marketing plans.) MnVAP will need to identify and hire a consultant who is (ideally) familiar with rural/ agriculture economic development, strategic plans and feasibility studies and the biomass industry. (\$5,000)

Interested in our proposal process or want to prepare for our next round of funding? Click here to check out our Request for Proposals.