

**Environment and Natural Resources Trust Fund  
2010 Request for Proposals (RFP)**

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**LCCMR ID: 070-B2**

**Project Title:**

The Sustainable Energy Utility Demonstration Project

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**LCCMR 2010 Funding Priority:**

B. Renewable Energy Related to Climate Change

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**Total Project Budget: \$** \$316,189

**Proposed Project Time Period for the Funding Requested:** 3 years, 2010 - 2013

**Other Non-State Funds: \$** \$0

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**Summary:**

We request funding to conduct an analysis of on-site renewable options in Milan and West St. Paul and to assist them in accessing funds and financing for implementation.

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**Location:**

**Region:** Statewide

**County Name:** Statewide

**City / Township:**

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_____ Knowledge Base	_____ Broad App.	_____ Innovation
_____ Leverage	_____ Outcomes	
_____ Partnerships	_____ Urgency	_____ TOTAL

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## MAIN PROPOSAL

### PROJECT TITLE: THE SUSTAINABLE ENERGY UTILITY DEMONSTRATION PROJECT (PHASE II)

#### I. PROJECT STATEMENT

This project will use assessment tools and a systematic planning process to help low and moderate income residents and small businesses develop onsite renewable energy sources. We are focusing on low- and moderate-income communities because these residents, as individual households, do not have the capital required to undertake such projects. This project will be implemented in two contrasting communities: 1) the City of Milan – a rural community of 350 which has a median annual income of about \$30,000 and 2) the West Side neighborhood of St. Paul – a densely populated community of 16,000 in a former industrial zone with a large percentage of low-income households and people of color. This project will demonstrate strategies for implementing effective information based energy planning for efficiency and on-site renewable projects in low-income communities – both urban and rural – that can be used as models for application in other communities across the state.

**We request LCCMR funds to conduct a technical analysis of various onsite renewable options in Milan and West St. Paul and assist them in accessing funds and financing plans to support implementation.** This work will be conducted alongside the implementation of the Sustainable Energy Utility (SEU), a model cited nationally and currently being adopted in several jurisdictions around the country. The goal of the SEU is to develop a comprehensive portfolio that targets all fuels (e.g., electricity, heating and transportation) and all customer classes, and provides for central coordination of sustainable energy services (private suppliers and contractors, nonprofits and utilities) for easier access by customers. The SEU also provides coordination of financial incentives and funding for efficiency, conservation and customer-sited renewable for easy access by customers.

#### II. DESCRIPTION OF PROJECT RESULTS

**Result 1: Renewable Energy Assessment Tool: (\$63,237).** The project team will conduct an assessment of the potential for on site renewables in each community using a data model (*PV Planner*) developed by the Center for Energy and Environmental Policy (University of Delaware) and the National Energy Renewable Laboratory. The “*PV Planner*” estimates the value of energy services, customer benefits, system costs, peak shaving, carbon reductions and payback estimates for community-wide on-site renewables. The software simulates the performance of various systems and analyzes its financial feasibility using local financial and policy data. The performance of the system is reported using several metrics including present value, payback period, benefit-cost ratio, cash flows and levelized costs.

#### Deliverables and Completion Dates

1. PV Planner Software adapted to reflect local financial information and updated policies related to on site renewables (e.g. new renewable energy credits or RECs and GHG emission markets). (Completed: 9/2010)
2. Analysis conducted in both communities. (Completed: 9/2011)

## **Result 2: Energy Assessment for Each Community. (\$196,037)**

### **Deliverables and Completion Dates**

1. Conduct an assessment of existing energy consumption in each community using established methodologies. (Completed: 6/2011)
2. Conduct surveys to collect information about energy use in households, businesses, and local industry. (Completed: 6/2011)
3. Carbon footprint analysis for each community – estimation of carbon footprint reduction potential using established methodologies. (Completed: 9/2011)

## **Result #3: Energy Plan Development and Implementation. (\$56,914)**

### **Deliverables**

1. Compile assessment results into a usable Energy Plan identifying activities and strategies short term and long term action. Plan includes: (Completed: 3/2012)
  - Compilation of local and regional energy service resources (non-profit, business, and utility), model RFPs/contracts, for implementation.
  - Compilation of financing and incentives resources (state and federal) for efficiency and site-based renewable investments that would be applicable for lower income communities.
  - Established target energy efficiency and renewable benchmarks.
  - Determination of other social benefits of plan implementation, such as increase in tax base and job growth and training needs.
2. Identify priorities for implementation and oversee process. (Completed: 9/2012)
3. Develop evaluation model for measuring emissions reductions, comparing national benchmarks and Minnesota Next Generation Energy Act targets. (Completed: 6/2013)

## **III. PROJECT STRATEGY**

**A. Project Team/Partners:** Project Director: Dr. Cecilia Martinez (director, Center for Earth, Energy and Democracy, IATP) will oversee the project. Dr. John Byrne, Center for Environment and Energy Policy (University of Delaware) will conduct the modeling and data analysis. Carlos Garcia-Velasco (executive director West Side Citizen's Organization) will be the liaison for this community and Mayor Nancy Strand, City of Milan is the representative from this community and will assign a liaison from the city.

**B. Timeline Requirements:** With the indicated direction of Congress and the Administration on renewable energy and efficiency, future stimulus packages and federal energy bills will likely include funding opportunities for community renewable energy development. It is imperative that lower income communities, who have limited capacity and resources, begin planning, networking and getting systems in place to be able to take advantage of these potential upcoming opportunities, so they do not get left behind.

**C. Long-Term Strategy:** This project will position the state to: (a) Ensure that all residents of the state, especially lower income communities, can benefit from the state's emerging clean energy economy; (b) Ensure low-income communities can take full advantage of new funding opportunities; (c) Attract renewable energy suppliers, businesses, and job growth to lower income communities who otherwise may not be able to afford their services. In doing so, we will help set Minnesota on track to meet its ambitious emission reduction goals.

## Project Budget

Project Title: The Sustainable Energy Utility Demonstration Project, Phase II

### IV. TOTAL PROJECT REQUEST BUDGET (*[Insert # of years for project]* years)

<b>BUDGET ITEM</b> ( <i>See list of Eligible &amp; Non-Eligible Costs, p. 13</i> )	<b>AMOUNT</b>
<b>Personnel:</b> Project Manager - overall management of project implementation and design, staff supervision, data analysis and reporting. (50% FTE @ \$55,000 annual*3 years)	\$ 82,500
Project Coordinator - coordination of all work, supervision of interns, contractor oversight, data analysis, liaison with project sites. (50% FTE @ \$47,500 annual * 3 years)	\$ 71,250
Project Interns - two interns will be hired to collect local information and provide administrative support at two stages of the project. (100 FTE *14 months @\$25,000 per year * 2)	\$ 58,333
Fringe: benefits at 14% * \$212,083 total staff salaries	\$ 29,692
<b>Contracts:</b> Center for Energy and Environmental Policy to tailor its PV Planner software for use in Minnesota and the data analysis.	\$ 50,000
<b>Equipment/Tools/Supplies:</b> Project printing and duplication: \$500 per year	\$ 15,000
<b>Travel:</b> local travel - between Milan and Minneapolis \$6,098(308 miles r/t*.55 per mile* 12 trips per year), per diem of \$2,880 (\$40 per diem for 12 trips per year, by 2 staff); travel to St. Paul \$ 436 (22 miles r/t*\$.55 per mile * 12 trips per year)	\$ 9,414
<b>Additional Budget Items:</b> <i>In this column, list any additional budget items that do not fit above categories. List by item(s) or item type(s) and explain how number was reached.</i>	\$ -
<b>TOTAL PROJECT BUDGET REQUEST TO LCCMR</b>	<b>\$ 316,189</b>

### V. OTHER FUNDS

<b>Sources</b>	<b>Amount</b>
<b>Other State \$ Being Applied to Project During Project Period</b>	\$ -
In-kind services for the project period: overhead @ 17%	\$ 53,752
<b>Funding History:</b> <i>Indicate funding secured prior to July 1, 2010 for activities directly relevant to this specific funding request. State specific source(s) of funds.</i>	\$ -

**Project Title: On-site Renewable Energy for Minnesota**  
**Project Manager Qualifications and Organization Description**

**Dr. Cecilia Martinez, Project Manager**

Dr. Martinez is the director of the Center for Earth, Energy and Democracy at the Institute for Agriculture and Trade Policy. She is also a Senior Policy Fellow at the Center for Energy and Environmental Policy, University of Delaware. Dr. Martinez has extensive experience in energy planning and analysis and in environmental justice. Her work focuses on sustainability and equity, including implementation of policies and projects that promote long-term sustainability and community governance. She has authored numerous research monographs and articles in the field of energy and environmental sustainability and is assisting the Center for Energy and Environmental Policy in the implementation of the Sustainable Energy Utility in a number of city and states.

**Dr. John Byrne, Center for Energy and Environmental Policy, Contractor.** Dr Byrne is the Distinguished Professor in Energy and Climate at the University of Delaware and is the Director of the Center for Energy and Environmental Policy. Dr. Byrne is a Laureate of the 2007 Nobel Peace Prize as a member of the Intergovernmental Panel on Climate Change. Dr. Byrne has directed an extensive array of energy projects including *Sustainable Energy Utility Design: Options for the District of Columbia*, *Carbon Dioxide Emissions Reduction Technologies for Energy Intensive Industries in the United States*, *Break-even Price Estimates for Residential PV Applications in OECD Countries*, *IPCC Climate Change 2001: Decision-making Frameworks*. Dr. Byrne, and CEEP helped to develop the Sustainable Energy Utility and currently serve as consultants to the State of Delaware, Washington, DC, Philadelphia, and other jurisdictions on the implementation of the Sustainable Energy Utility. The SEU is being nationally cited as an important mechanism for implementation green energy and green job initiatives.

**The Institute for Agriculture and Trade Policy**

IATP works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems. Founded in 1986, IATP addresses a full spectrum of food, farm and energy-related issues, from community-based projects to systems-level policy change. IATP works in five program areas – Local Foods, Rural Communities, Food and Health, Environment and Agriculture, and Trade and Global Governance – and is home to the Center for Earth, Energy and Democracy. The goal of the Center is to promote climate change policies that are environmentally sound and socially just.

