

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

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**LCCMR ID: 075-B3**

**Project Title:**

Residential Environmental Learning Centers (RELCs) Sustainable Energy Project

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**LCCMR 2010 Funding Priority:**

B. Renewable Energy Related to Climate Change

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**Total Project Budget: \$** \$2,975,032

**Proposed Project Time Period for the Funding Requested:** 1 year, 2010 - 2011

**Other Non-State Funds: \$** \$60,000

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**Summary:**

Six RELCs (Audubon Center, Deep Portage, Eagle Bluff, Laurentian, Long Lake, Wolf Ridge) will reduce their carbon footprints and disseminate energy education through renewable energy, energy efficiency, and conservation demonstrations.

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**Name:** Joe Deden

**Sponsoring Organization:** The MN Coalition of RELCs

**Address:** % Eagle Bluff, 28097 Goodview Dr  
Lanesboro MN 55949

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**Email:** director@eagle-bluff.org

**Fax:** (507) 467-3583

**Web Address:** www.eagle-bluff.org

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**Location:**

**Region:** Statewide

**County Name:** Aitkin, Cass, Fillmore, Lake, Pine, St. Louis

**City / Township:**

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

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# MAIN PROPOSAL

**PROJECT TITLE:** Residential Environmental Learning Center's (RELC's) Sustainable Energy Project

## I. PROJECT STATEMENT

Six Residential Environmental Learning Centers (RELCs - Audubon Center, Deep Portage, Eagle Bluff, Laurentian, Long Lake and Wolf Ridge) have embarked on a quest to reduce their carbon footprints and seek the best energy options within their geographic regions. The centers, through the Bush and Butler foundations, chose to invest in a professional energy audit of each facility utilizing McKinstry, an engineering and energy consulting firm. The audits evaluated existing buildings, technologies, and energy uses at each center's location. The audits resulted in state-of-the-art recommendations for conservation and energy efficiency measures, renewable energy possibilities, and demonstration opportunities. Due to the uniqueness of each center's location and conditions, the suggested solutions represent a variety of options. McKinstry's study is the basis for our collective energy investment and education development request.

This grant will seek to: 1) Increase conservation measures and energy efficiency at each center; 2) invest in renewable energies using appropriate technologies for each center; and 3) conduct multi-faceted educational outreach at all centers. A web consultant will design and construct a composite website showing all centers' energy related information for educational use and verify the engineering recommendation results. We will work with colleges to prepare undergraduates, professionals and teachers to carry the knowledge we gain to their communities and students, and help guide green career opportunities. The centers will have energy displays for visitors and clients and will host energy fairs and public information sharing. In addition, each school that attends a center will be exposed to the information and knowledge about choices, energy, conservation, and options that are important and applicable to their home, family and schools. In 10 years this collective education program would reach 840,000 people and annually affect 596 K-12 schools and 46 colleges.

Each center will prioritize their energy projects matching their needs with current technologies with help from Kirk Program Management, Inc.(KPM); the McKinstry Study supervisor. KPM will perform periodic on-site observations of the work in progress and contribute updates, provide background information for the website and education materials. KPM will approve all center specific billings and verify work progress.

## II. DESCRIPTION OF PROJECT RESULTS

**Result One: Implementation of carbon and energy reduction systems for education and demonstration purposes. Budget \$2,705,032**

Approximately \$460,000 per center will be used to design and install energy efficient and/or carbon reducing measures recommended by the McKinstry Study. (The KcKinstry data is available by each center upon request. See exact center specific amounts in the Project Budget.)

Deliverable 1: Determine center specific energy priorities with KPM	September, 2010
Deliverable 2: Receive bids for upgrade & renewables projects	December 31, 2010
Deliverable 3: Complete all center specific projects	June 30, 2012

# MAIN PROPOSAL

**PROJECT TITLE:** Residential Environmental Learning Center's (RELC's) Sustainable Energy Project

**Result Two: Provide architectural supervision - measurement and oversight as a basis for education and information sharing.** **Budget \$60,000**

Deliverable 1: Determine center specific energy priorities with each center September, 2010  
Deliverable 2: Assist centers in going out for, receiving, & evaluating bids December 31, 2010  
Deliverable 3: Monitor all work in progress and gather information June 30, 2012

**Result Three: Develop significant public education on energy choices.** **Budget \$120,000**

Deliverable 1: Select consultant. Define concepts, timelines & responsibilities December, 2010  
Deliverable 2: Develop K-12 curriculum, on-site signage, and web interaction June 30, 2011  
Deliverable 3: Expand adults learning opportunities – workshops & seminars June 30, 2012

**Result Four: Establish and maintain a website to share information and knowledge with all interested individuals and groups.** **Budget \$30,000**

Deliverable 1: Select consultant and determine appropriate web technology September, 2010  
Deliverable 2: Upgrade each center's website and begin composite website June 30, 2011  
Deliverable 3: Complete composite website and adjust center websites June 30, 2012

### III. PROJECT STRATEGY

#### A. Project Team/Partners

The Audubon Center, Deep Portage, Eagle Bluff, Laurentian, Long Lake and Wolf Ridge serve most regions of Minnesota when you plot the locations of their participating 596 schools and 46 colleges. The centers' diverse locations provide a mix of challenging energy options. By educating about these different energy options and solutions, the centers are in a position to reach a wide variety of local and statewide audiences. Consulting Architect Ron Kirk has worked with the six centers during the McKinstry Study and will continue to provide professional oversight. We also consider our 596 schools, 46 colleges, and 84,817 people/year as partners as well as the communities in our six rural locations.

#### B. Timeline Requirements

These projects are "shovel ready" and can be completed within the two year time frame. All the preliminary work has been completed and what is needed is outlined in the McKinstry engineering report and by Ron Kirk, consulting architect for each center.

#### C. Long-Term Strategy

This is one half of the Phase One Campus Improvement goal and sets the stage for the Phase Two Educational Program. The RELCs will continue to work together to reach the second goal of matching this investment through state and federal resources and the assistance of foundations. More information about the overall project cost of \$12,669,000 is found on the bottom of the Project Budget. This request is 23.5% of the overall goal.

Each center and their accompanying electric cooperative will determine their potential participation in either the USDA, Rural Economic Development Grant or Loan (REDG or L) programs which could potentially extend beyond the two year time frame of this request.

**Project Budget: Residential Environmental Learning Center (RELC) Sustainable Energy Project**

<b>IV. TOTAL PROJECT BUDGET (Two Years)</b>		
<b>BUDGET ITEMS</b>	<b>Request</b>	<b>%</b>
<b>Contracts:</b>		
Managing Architect for all six centers - provided oversight on McKinstry Study	\$60,000	2%
Design, development and implement educational programs for both students & adults	\$120,000	4%
Coalition web information and six center web upgrades - verifiable information	\$30,000	1%
<b>Campus Improvements</b>		
Audubon, Sandstone, MN - McKinstry Recommendations* - Total \$815,786	\$407,893	14%
Deep Portage, Walker, MN - McKinstry Recommendations* - Total \$838,286	\$419,143	14%
Eagle Bluff, Lanesboro, MN - McKinstry Recommendations* - Total \$972,158	\$486,079	16%
Laurentian, Britt, MN - McKinstry Recommendations* - Total \$1,025,945	\$512,973	17%
Long Lake, Palisade, MN - McKinstry Recommendations* - Total \$951,602	\$475,801	16%
Wolf Ridge, Finland, MN - McKinstry Recommendations* - \$926,286	\$463,143	16%
<b>TOTAL PROJECT BUDGET REQUEST TO LCCMR</b>	<b>\$2,975,032</b>	<b>100%</b>

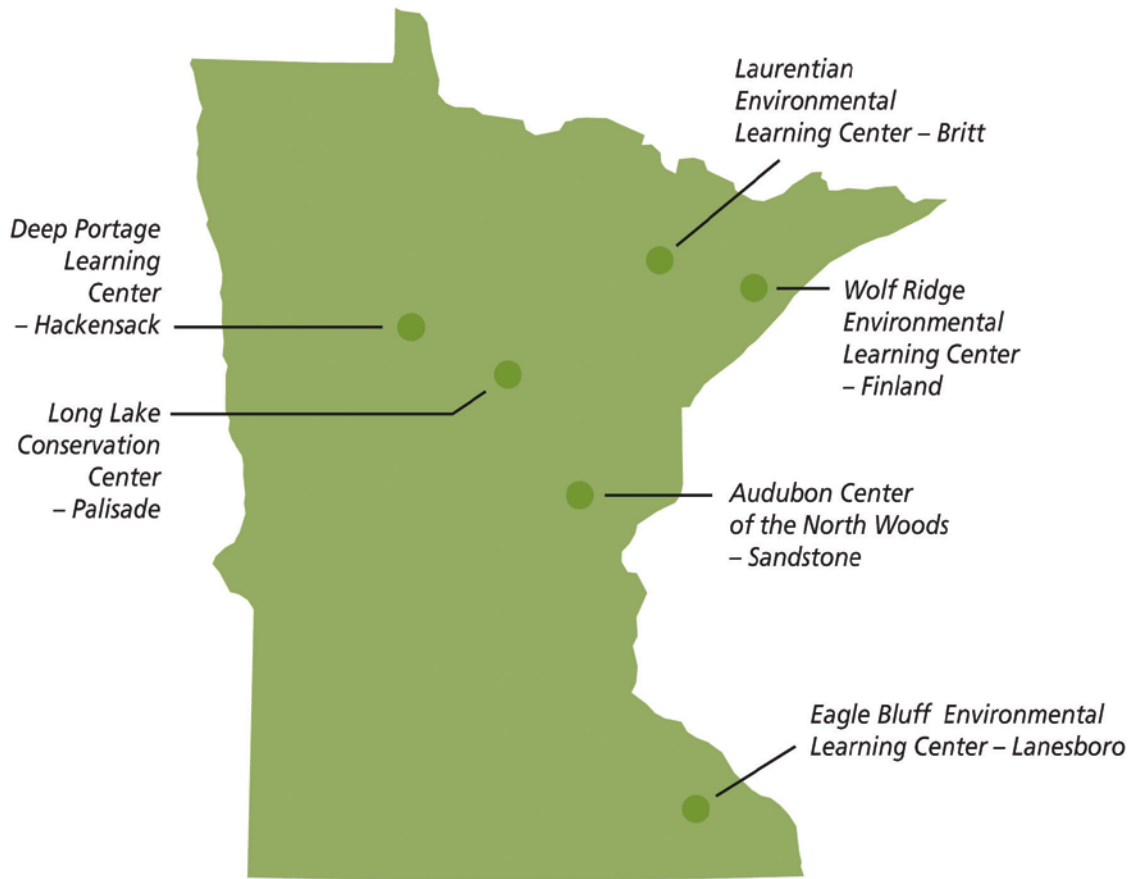
\* McKinstry Recommendations have been completed for each individual center and include: conservation measures such as envelope improvements; efficiency measures, upgrading heating, lighting, and mechanical systems; other upgrades such as alternative heating systems (geothermal and electric transfer storage); renewables including solar water heaters, small wind and solar photovoltaic; and energy monitoring recommendations. See the Center specific information listed at the bottom of this worksheet.

<b>V. OTHER FUNDS</b>		
<b>SOURCE OF FUNDS</b>	<b>AMOUNT</b>	<b>STATUS</b>
<b>Other Non-State \$ Being Applied to Project During Project Period:</b> Federal Stimulus \$ and/or Federal Appropriations (\$3M); Grants from State and National Foundations per Creation In Common development study - specific foundation recommendations i.e. Kresge Fnd, MI (\$5M). USDA, Rural Economic Development Grant & Loan (REDG&L) Programs - potential center specific proposals through each center's respective electric utility.	\$8,000,000 and Up to \$700,000 per Center REDL&G	In Process
<b>Other State \$ Being Applied to Project During Project Period:</b>	\$0	N/A
<b>In-Kind Services During Project Period:</b>	\$30,000	Secured
<b>Remaining \$ from Current Trust Fund Appropriation:</b>	\$0	N/A
<b>Funding History:</b> Butler Family and Bush Foundations (Past Support)	\$206,000	Completed
<b>Funding History:</b> Butler Family Foundation (Continued Support)	\$30,000	Pending

<b>Detail Center Specific McKinstry Recommendations</b>								
Description	Audubon	Deep Portage	Eagle Bluff	Laurentian	Long Lake	Wolf Ridge	Totals	%
Conservation	\$196,000	\$220,000	\$79,060	\$281,800	\$373,500	\$230,000	\$1,380,360	25%
Efficiency	\$99,600	\$195,714	\$75,714	\$153,714	\$75,714	\$150,714	\$751,170	14%
Renewables	\$273,286	\$246,286	\$298,714	\$321,429	\$249,721	\$410,286	\$1,799,722	33%
Upgrades	\$144,900	\$74,286	\$416,670	\$167,002	\$150,667	\$33,286	\$986,811	18%
Monitoring	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$102,000	\$612,000	11%
<b>Totals</b>	<b>\$815,786</b>	<b>\$838,286</b>	<b>\$972,158</b>	<b>\$1,025,945</b>	<b>\$951,602</b>	<b>\$926,286</b>	<b>\$5,530,063</b>	<b>100%</b>

<b>MN Coalition of Residential Environmental Learning Center's "Today's Leaders For A Sustainable Tomorrow"</b>		
Phase One - Campus Improvements	\$5,530,000	- Demonstrate Sustainable Lifestyles
Phase Two - Educational Programs	\$2,966,000	- Bring about behavioral changes
Phase Three - Carbon Neutral Energy Systems	\$4,173,000	- Achieve 80% carbon neutral goal
<b>Grand Total</b>	<b>\$12,669,000</b>	<b>- Verifiable: Coalition &amp; Center websites</b>

Residential Environmental Learning Center's (RELC's) Sustainable Energy Project



**MN Coalition of Residential Environmental Learning Centers Data**

	Audubon	Deep Portage	Eagle Bluff	Laurentian	Long Lake	Wolf Ridge	Totals
LCCMR Region	Northeast	Central	Southeast	Northeast	Northeast	Northeast	
City	Sandstone	Walker	Lanesboro	Britt	Palisade	Finland	
Schools served	80	99	130	39	58	190	596
Colleges served	24	1	4	7	1	9	46
K 12 students	3,858	6,767	13,200	2,619	5,348	12,145	43,983
College students	354				22	188	564
Adults	4,855	3,131	6,300	452	3,500	5,100	23,902
Outreach	5,274	8,002		1,061	1,430	1,200	40,305
*Total users	14,341	17,900	19,500	4,143	10,300	18,633	101,784

\* May include general recreation users

**LCCMR Project Manager Qualifications  
Residential Environmental Learning Center's (RELC's) Sustainable Energy Project**

Joe Deden has been selected the Project Manager by the Minnesota Coalition of Residential Environmental Learning Centers (MCRELCs). Mr. Deden is the Executive Director of Eagle Bluff Environmental Learning Center in Lanesboro, Minnesota. He has been with Eagle Bluff since it's beginning in 1978.

Mr. Deden has a master's degree in Human Resource Management from St Mary's College and a bachelor's degree in Forest Resources Development from the University of Minnesota. His resume is available upon request.

Eagle Bluff has been the fiscal agent for MCRELCs with grants from the Bush and Butler Foundations. Eagle Bluff has an annual operating budget of approximately \$1,750,000 and has a certified audit completed annually.

The coalition consists of the Audubon Center, Deep Portage, Eagle Bluff, Laurentian, Long Lake and Wolf Ridge. As educational and environmental non-profit organizations, the Centers have long been philosophical partners, proactively conserving resources and energy on each campus while teaching students to wisely use the land, water and woods of Minnesota.

Located across Minnesota, the Centers highlight the environmental diversity and beauty of Minnesota. Our individual perspectives, unique locales, teaching styles and management techniques combine to create a collective resource bank for the state of Minnesota: six unique examples of efficiency located throughout the state with applications specific to each region.

**Project Leadership – RELC's Sustainable Energy Project**

This sustainable energy campaign is led by the executive directors of the six RELCs. More information about each center is found on their respective websites or by contacting the person listed below.

**Bryan Wood and Katie Kleese, Co-Directors**

Audubon Center of the North Woods  
54165 Audubon Dr, Sandstone, MN 55072  
Phone: (320) 245-2648 Non-Profit Organization  
Web: [www.audubon-center.org](http://www.audubon-center.org)  
Federal Tax Id No: 23-7044164

**Nick Temali, Director**

Laurentian Environmental Learning Center,  
8950 Peppard Rd, Britt, MN 55710  
Phone: (218) 749-1288 Public entity: Mounds  
View Public Schools  
Web: [www.laurentiancenter.com](http://www.laurentiancenter.com)  
Federal Tax ID No: 41-6008084

**Dale Yerger, Executive Director**

Deep Portage Learning Center  
2197 Nature Ctr Drive NW, Hackensack, MN 56452  
Phone: (218) 682-2325 Public entity: Cass County  
Non-Profit Organization  
Web: [www.deep-portage.org](http://www.deep-portage.org)  
Federal Tax Id No: 51-0164070

**Todd Roggenkamp, Executive Director**

Long Lake Conservation Center  
28952 438th Lane, Palisade, MN 55469  
Phone: (218) 768-4653 Web: [www.llcc.org](http://www.llcc.org)  
Public entity: Aitkin County  
Non-Profit wing: Long Lake Conservation Foundation  
Federal Tax Id No: 41-1409634

**Joe Deden, Executive Director**

Eagle Bluff Environmental Learning Center  
28097 Goodview Drive, Lanesboro, MN 55949  
Phone: (507) 467-2437 Non-Profit Organization  
Web: [www.eagle-bluff.org](http://www.eagle-bluff.org)  
Federal Tax ID No: 41-1431959

**Kim Skyelander, Executive Director**

Wolf Ridge Environmental Learning Center  
6282 Cranberry Rd, Finland, MN 55603-9700  
Phone: (218) 353-7414 Non-Profit Organization  
Web: [www.wolf-ridge.org](http://www.wolf-ridge.org)  
Federal Tax Id No: 41-1251705