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## Solar Assistance Update

During the summer of 2009, RREAL completed eleven Solar Assistance installations throughout Minnesota. All together, those eleven solar air heat systems, which consist of twenty-three individual solar air heat panels, will be producing approximately 82.5 million BTUs per heating season. The heat generated from these systems will help those eleven families and their fifty-one total family members stay warm during the upcoming heating season. Below is a sampling of pictures taken from this summer's installations.



Cass Lake, MN



Hackensack, MN



Walker, MN

One thing that we are reminded of constantly when installing SPF systems is that every building is unique and brings its own set of challenges on installation day. A vivid example of this came on a solar assistance job in northern Minnesota. As the RREAL installation crew began removing siding in preparation for hanging panels, we noticed that the sheathing and structural material behind the siding was damp. The

insulation in the wall cavities was actually dripping with water. Upon further investigation, a small leak in the rooftop had allowed water to get behind the siding where it could no longer escape - essentially soaking the wood and insulation. Needless to say, the damage caused by the water was doing little to uphold the structural integrity or the insulating capacity of the building. Thanks to the generous donations of time and money from some local individuals

and businesses, the building's problems were remedied and the installation was completed. Now the homeowner enjoys a newly shingled rooftop, a south wall with new framing material and insulation, and a couple of RREAL's Solar Powered Furnaces for the upcoming heating season. Thank you to all the crews and volunteers that have helped RREAL throughout the summer!

## RREAL Wins Social Entrepreneurship Cup!

The Social Entrepreneur's Cup is a competition to find Minnesota's most innovative and effective social entrepreneurs. RREAL was one of four finalists to compete as part of the Engaged Philanthropy Conference. The Social Entrepreneur's Cup was created

to seek out, celebrate, and promote Minnesota's most innovative and effective social entrepreneurs and their solutions to society's most pressing social problems. As winner of the competition, RREAL received \$20,000 as a general operating grant and 40

hours of consulting services from Social Venture Partners.



Executive Director, Jason Edens, poses with \$20,000 check after accepting award.

## Solar Rebates & Incentives

Consumers are being encouraged to purchase renewable energy systems like never before through rebates and incentive programs. The Federal Government, the State of Minnesota, and many local utility providers all have varying degrees and types of incentives, combining to a somewhat dizzying array of potential savings that consumers can benefit from. The following table, gleaned from the updated Database of State Incentives for Renewables & Efficiency, summarizes current incentives.

	Personal Tax	Corp. Tax	Sales Tax	Property Tax	Rebates	Grants	Loans	Industry Support	Production Incentives
<b>Federal</b>	3	4				3	5	1	1
<b>Minnesota</b>			2	1	2	2	5		1
<b>MN Utility</b>					23	2	3		1

\*Numbers in table represent how many different incentives are available in that particular area. Source: [www.dsireusa.org](http://www.dsireusa.org) 9/30/09

Funding availability changes frequently as consumers race to claim their piece of the sun, so check the website above or call the MN Department of Commerce for the latest information. Some of the program funding, like the State Rebate Program for Photovoltaics and Hot Water, has already been depleted. However, the State of Minnesota appears hopeful that funding from the Recovery Act will be available soon so that the popular solar rebate program may be infused with more capital. There are a great number of eligibility requirements in each of the potential rebates, so make certain that you understand how the incentives will apply in your situation prior to investing in solar equipment.

	Solar Electric (PV)	Solar Water Heat	Solar Air Heat
<b>Minnesota</b>	Property Tax Exemption; Sales Tax Exemption; Local Gov't. Grant Program; Residential and Small Business Rebate Program	Sales Tax Exemption; Local Gov't. Grant Program; Residential Rebate Program	Sales Tax Exemption; Low-Income Homeowner Grant Program; Residential Rebate Program
<b>MN Utility</b>	Minnesota Power Commercial Customers Grant Program; Great River Energy Commercial, Industrial, Residential Utility Rebate Program		



Save the Date!

**What: Valentine's Food and Wine Tasting Fundraiser**

**Where: Grand View Lodge Nisswa, MN**

**When: Friday, February 12, 2010**

Social: 5:30pm

Food & Wine: 6:30pm

Dessert: 7:30pm

**Price: \$40 per person**

Food by Chef Mike Manders &  
wine pairing with wine expert  
Timothy Edmunds

With speakers, CLC President  
Larry Lundblad & RREAL  
Executive Director Jason Edens

Please RSVP to [admin@rreal.org](mailto:admin@rreal.org) or 218-587-4753 before February 5, 2010  
Tickets will also be available for purchase at the RREAL office in Pine River

If someone you know would be interested in RREAL's work, pass this newsletter along!  
If you would like to receive our newsletter via email, please send your request to [admin@rreal.org](mailto:admin@rreal.org)

## Leech Lake Partnership

For years, RREAL has envisioned program replication as the road to the broad use of solar air heat for the reduction of fuel poverty. This summer, the staff at RREAL finally had the chance to make that happen when they trained the Leech Lake Band of Ojibwe Housing staff to install solar air heat systems on their own. Through a collaborative grant, RREAL and Leech Lake received funding from the Environmental Protection Agency for the installation of eight solar air heat systems on the homes of low-income families residing on the Leech Lake Reservation. Four systems were installed on the homes of low-income families and four systems on homes

owned by the Leech Lake Tribal Housing Authority.

The Housing Authority provides housing to low-income families that are not able to purchase their own home and provides each family the opportunity to purchase their home over a period of many years. The installation of RREAL's Solar Powered Furnace will result in the reduction of heating costs, freeing up more money for these families and allowing them to more quickly purchase their home.

Through the process, RREAL and the Leech Lake Housing staff worked side by side to identify viable housing sites, educate families

about solar technology, and perform installations. Training has been completed and Leech Lake can now officially deploy solar air heat on its own in order to help keep tribal families warm during long Minnesota winters. Val Pacheco, of Leech Lake Tribal Housing, envisions the next deployment of solar air heat systems to include fifty homes on Leech Lake! RREAL applauds that vision.



photo credit: [www.mpr.com](http://www.mpr.com) 10/2009

Cass Lake, MN

Minnesota Public Radio picked up this story in late August. You can learn more at: <http://minnesota.publicradio.org/display/web/2009/08/24/solar-air-heaters/>

## System Profile: Leech Lake Tribal College

RREAL had the honor of working with the Leech Lake Tribal College on many occasions this year. Not long after summer solstice, the faculty and staff of the Tribal College Carpentry and Electrical Trades program partnered with RREAL to install a solar electric stand alone battery based system. In addition to providing supplemental power for a college program that builds homes for neighboring tribal communities, the system also helped instruct students on the fundamentals of solar electric design-build. Not only was the system installation instructive for students, but it was designed to be a



training module for future students as well. The installation of this off-grid, battery-based system is intended to empower the trades program to further integrate renewable energy into the curriculum.

Creating an effective solar electric system in a code-compliant and durable fashion requires much more than ordering a kit from the internet. Solar electric systems require meticulous design and careful consideration of numerous site based variables. Furthermore, the renewable energy revolution will need a talented workforce. Shiloh White as well as several other students are in a better position to be a part of that process and the college will benefit from years of grid independent power. RREAL was a proud participant in the project.

**RREAL Wish**

List:

- High quality tools
- Reliable work vehicle
- New or high-quality laptop computer
- Fall protection sets (2)
- Enclosed trailer
- Portable data logging equipment
- Volunteers

# Help Make RREAL's Work Possible

RREAL is a 501(c)(3), non-profit organization that relies on the generous donations of individuals dedicated to the ideas of environmental and social justice. Please consider making a tax-deductible contribution so we can continue our important work to make renewable energy accessible to people of all income levels!

I would like to submit a gift of:

- \$50
- \$100
- \$250
- \$500
- \$1,000
- Other \$ \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_



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