

## Northeast Clean Energy Resource Team Meeting

April 7<sup>th</sup>, 2006

Harbor City International School, Duluth

### *Meeting attendees included:*

Margie Menzies (Harbor City Int'l. School), Tim Prosen (Cloquet Schools), Ryan Zimny (Cloquet Schools), Warren Peterson (Cloquet Schools), Peter Myhrwold (Cloquet Schools), Steve Robinson (Duluth), Jim Hall (Lutsen), Steve Taff (UMN), Tom Koehler (Minnesota Renewable Energy Society), Steve Kluess (Laurentian RC&D), Mark Thell (Onanegozie RC&D), Don Martens (GRE), Dean Talbott (Minnesota Power), Dave Stark (Cook County), Bill Mittlefehldt (Duluth Cities for Climate Protection), Mike LeBeau (Conservation Technologies), Lauri Isaacson (Finlayson), Amy Hexum (Harbor City Int'l School), Kim Skyelander (Wolf Ridge ELC), Melissa Wenker (UMD CSCD), Nicole Hynum (UMD CSCD and Duluth CCP), Janelle Stauff (UMD CSCD), Sandy Sweeney (Duluth CCP), Jeff Schiltz (Johnson Controls), Okey Ukaga (UM NE Regional Partnership), Jean Sramek (Sustainable Farming Association), Larry Nelson (Onanegozie RC&D), Pete Gravett (Hartley Nature Center), Jamie Juenemann (Silver Creek Institute), Chris Reed (Reed Energy Inc.), Chris Brockman (Sturgeon Lake), BJ Kohlstedt (North Shore Community School), Adrienne Falcon (Finland), Dave Abasz (Finland), Diane Rauschenfuels (Proctor Public Schools), Ray Hatinen (Woodland Hills), Lissa Pawlisch (UM RSDP), Kari Rudd (Minnesota Project), Chris Hazleton (Harbor City Int'l School) and Chris Bacigalupo (Harbor City Int'l School)

### *Updates:*

- *CERT Monthly Updates* are only as good as the info you submit to us. Please send events and updates to Lissa and Joel.
- *Proctor Schools* is set to have their wind turbine on line in August. They are looking for extra money for monitoring equipment and planning ahead for curriculum that will be implemented once the turbine is on line.
- *Duluth Energy Design Conference* highlights and reactions:
  - 16<sup>th</sup> year, 1,100 people in attendance, more than 75 exhibitors
  - Next year it will take place on the February 27<sup>th</sup> and 28<sup>th</sup>.
  - Energy Roundtable: brought together a wide variety of people for a policy dialogue about what we can do locally to make change. There will be additional conversations planned to follow up on the panel.
  - Suggestion: For next year, look to World Watch Institute for speakers on "The Future of Energy" rather than having utility representatives. World Watch's January/February 2006 issue had articles about Peak Oil:  
<http://www.worldwatch.org/pubs/mag/2006/191/>.
- *Woody Biomass Conferences* had huge turnouts and great representation from local projects in each region that are using biomass. For more information see:  
[www.extension.umn.edu/woodlands/biomass/](http://www.extension.umn.edu/woodlands/biomass/).
- *Windustry* held a tremendous *Community Wind Conference* on March 7<sup>th</sup> and 8<sup>th</sup>. For all the details and speakers presentations, see [www.windustry.org](http://www.windustry.org).
- *Next CERT Statewide Conference* slated for February 21, 2007. We need volunteers to help with organizing and we're interested in your ideas for both topics and speakers. Contact Lola Schoenrich @ [lschoenrich@mnproject.org](mailto:lschoenrich@mnproject.org) with your ideas or if you're interested in volunteering.

- *Lake Superior Renewable Energy Fair* is Saturday, September 9<sup>th</sup>. They are soliciting ideas for displays. If you have ideas, you could share them with Dean Talbott.
- May is “*Bike to Work*” Month and May 15<sup>th</sup> begins “Bike to Work” week. For more details see: <http://www.bikeleague.org/programs/bikemonth/index.php>
- Jamie is interested in the *Solar Homes Tour* – is anyone else interested in helping organize it this year?
- *Great River Energy* is building a new headquarters in Maple Grove that will integrate all sorts of Green Building techniques. We’ll track the project’s progress and keep people posted.
- *CREED* is offering a 6-credit graduate level class for Science Teachers through Hamline University, it will be held on the Iron Range.
- *Nopeming Grounds* – On May 9<sup>th</sup> there will be a brainstorming/partnership building session on to discuss how the MN Teen Challenge can use this space, along with other initiatives. The goal is to serve women and teens dealing with drug addiction. Organic farming is one idea that has been discussed.

***Harbor City International School: Chris Hazelton, Amy Hexum and Margie Menzies***

The school has flexibility to respond to the students’ voice. The sky is the limit, but they don’t want to spread themselves too thin. They are seeking some input from the NE CERT to narrow down a direction for their effort. Eventually they’d like to become energy independent (in 20 years or so) and they’re starting with a good foundation. The building that houses HCIS was a produce warehouse built in the 1860’s. The thermal mass is very high. They don’t have to heat the second floor during the winter. There are more windows than brick in some parts of the building and it is angled towards the sun.

Service learning is a core component of each HCIS student’s experience. Each student logs 20 hours of service learning each year and the school’s study abroad trips are service-oriented. Service learning projects have included working with River Watch, International Coastal Cleanup to clean up watersheds and do water quality testing. Each year has a curricular theme – 9<sup>th</sup> grade is Active Citizenship (students receive lobbying training), 10<sup>th</sup> grade is Environmental Studies (students tour a wastewater treatment plant), 11<sup>th</sup> grade is International Studies, and 12<sup>th</sup> grade is Individual Inquiry. Alternative Energy could be a theme for science in all grades (spiral occurrence – shows up year after year).

The have a few plans already in the works:

- Green Team- a student group that is working on:
  - Cycle Ops – a community bike share program,
  - Strategizing for renewable energy at school
  - Went to the Energy Design Conference
  - Conducted an Energy Audit
- What’s Next? (Near Future):
  - Duluth Cycle Ops at the Green Man Festival at Bayfront.
  - Sweetwater Alliance and Bayfront Rain Garden
  - School Forest
  - Solar Energy Camp
- Far Future:
  - Grid-tied Photovoltaics

- Green roof/demonstration projects
- Public education-website
- Robust weather station
- Students will do the work

### ***Strategizing for the Harbor City International School***

- *Some initial thoughts*
  - What is the “biggest bang for their buck”
  - Educational and fun renewable energy initiatives should be paired with energy efficiency and conservation measures
  - School should begin assessing consumption
  - Awareness of energy use and impact was stressed – especially regarding trips. The school has a green bus and students must plan where to stop for restaurant grease on school trips
- *Ideas regarding inputs and outputs (resource and energy consumption)*
  - Transfer knowledge into lifestyle and purchasing choices
  - Look at what Europe is doing in the area of energy efficiency
  - Conduct an energy audit
  - Long term goal of carbon neutrality rather than trying to be grid-independent
  - Students implement energy efficiency and conservation practices at home
  - Composting
  - Carbon trading
  - Set goal of zero fossil fuel use for transportation of students and staff
  - Look at personal impact
- *Hands-on fun stuff*
  - Intro to building science class
  - Offer a peak oil course
  - Greywater reuse
  - Gardening
  - Recycle food waste
  - Community outreach through public access television
  - Refuse derived fuel burner
  - Live energy meter
  - Solar boat competition
  - There is now a small, rooftop-mounted wind turbine created by a Scotland company called Swift. Could install small wind turbine on roof to power something tangible- such as a sign that lights up.
  - Solar hot water on the wall
  - Demo of solar energy using a water fountain that goes on and off when the panel is covered and uncovered
  - Heat pump
- *Partnerships and Collaborations:*
  - Lobby day with the School of Environmental Studies
  - Go to Audubon Center with Bayview 5<sup>th</sup> graders
  - Adopt a portion of forest at the Hartley Nature Center
  - Establish 200 + hour a semester internships at Hartley for HCIS students
  - Partner with Stowe Elementary on recycling

- Get involved in preserving the Nopeming Grounds
- Green bikes in China (sister city)
- RECAP partnership

***Cut global warming by reducing greenhouse gas emissions from power plants--Brilliant! Erm...how are YOU going to do that?*** Steve Taff from the University of Minnesota, Department of Applied Economics presented his model that allows users to play with various mechanisms to cut CO2 emissions by 80% by 2055. The major assumptions: light is good, CO2 is bad, and spending \$ is bad. Using those three assumptions we broke into small groups to see how our own strategies measured up and whether or not they were sufficient to really curb our CO2 emissions. Turns out that using one strategy at a time, be it increasing energy efficiency by paying people to be more efficient or imposing a carbon tax, made it pretty tough to cut emissions. Steve also said we were just too nice. Folks peppered Steve with questions about the model and its assumptions. Steve hopes to see have his model up on the web for people to experiment with on their own. Until then we hope you'll satisfied with just checking out his presentation on the CERT website: <http://www.cleanenergyresourceteams.org/northeast.html> (it should be up later this week).

#### ***Other Northeast CERT News***

***Regional Coordinator*** – As many of you know we've been hoping to hire a NE CERT regional coordinator to help staff regional activities. This person would likely have a school-energy focus, but would serve a variety needs for the team. We are currently in discussions with a number of different organizations and initiatives to discuss pairing our staffing needs. We'll keep you posted. We had submitted a proposal to the Office of Environmental Assistance for staffing, but our proposal was not selected. We will continue to pursue other options.

***Funding*** – Each CERT has a small pot of money to use for regional project technical assistance. In total we have \$5200 available for each region. \$1000 must be spent on energy efficiency projects and \$1000 must be spent on renewable energy projects, but the remaining \$3200 can be divided in whatever way the team sees fit. We plan to fund at least two projects in each region. We anticipate issuing an RFP on May 1<sup>st</sup>. Proposals will be due June 1<sup>st</sup>. Teams will make decisions about funding by the end of August.

***Rebuild America Workshop*** – A Planning Committee is needed to outline goals of the workshop that will occur in September. It will include a small time commitment of 3 meetings and subsequent email correspondence. Those who are interested should contact Kari Rudd at the Minnesota Project ([krudd@mnproject.org](mailto:krudd@mnproject.org)).

***School Resource Packet*** – We passed around a draft Table of Contents for a Northeast CERT School Energy Packet. This packet will be assembled in binders and shared with interested schools from around the region. If you know a school that should get this packet or have suggested materials for it, please let either Joel or Lissa know.

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***Next Meeting Friday, July 14<sup>th</sup> 2:00 pm – 5:00 pm with a POTLUCK to follow.*** Tentatively scheduled to take place @ Hartley Nature Center in Duluth.