

Central Region CERTs Meeting Summary

Central Lakes Agricultural Center, 1830 Airport Road

Staples, MN, 56479

Wednesday, October 18th, 2006

5:30 pm – 7:30 pm

Attendees: Shawn Anderson, Sally Shearer, Dallas Flynn, Michael Hamp, Nolita Christensen, Barb Hines, Sarah Haden, BJ Allen, Rin Porter, Joe Dehen, David Winkelman, Joel Haskard, Lissa Pawlisch, Linda Ulland, Kerry Lindgren, Diomy Zamora, Kent Scheer, Brett Thomas, Kevin Thomas, Sue Peterson, Bob McLean, Norm Krause (22 attendees)

5:30 pm Introductions, pizza & project updates

After introductions, CERT members updated the group about the various projects they are working on. Some of these projects included:

- Shawn mentioned the Park Rapids wind project is moving forward.
- Dallas is building his “green” and energy efficient home that we toured and dined at during the last Central CERT meeting; it will be around 6100 sq ft with insulated concrete foam, ground source heat pump, etc. He plans to heat and air condition the home for about \$400/year.
- Nolita, Barb and Bob updated the group about Happy Dancing Turtle and Hunt Utilities Groups campus. They are currently putting 10 miles of tubing underground for geothermal and are building a new facility that will host the Rural Renewable Energy Alliance (RREAL) as they manufacture solar thermal units as well as Happy Dancing Turtle as they continue their educational activities; they are also test driving a diesel Jetta on biodiesel. For more information, visit:
http://www.hugllc.com/index.php?option=com_content&task=blogsection&id=4&Itemid=15.
- Sarah and BJ gave an update about RREAL. They are wrapping up their 1st phase of the cost-benefit analysis for solar thermal systems on low income housing and continue to do research and development of solar thermal collectors. For more information, visit: <http://www.rreal.org/index.html>.
- David Winkleman of Winkelman’s Environmentally Responsible Construction and Bog Frog fame has WAY too much work to do, and is trying to hire five (!) staffers in the next two weeks. They recently tipped up another 20kWh Jacobs turbine near Brainerd, and at the Eco Domes site are putting the cover on the green house which will have radiant floor heat and will use solar thermal, corn burners and vegetable oil as possible heat sources. For more information, please visit: <http://www.bogfrog.com/ctc.htm>.
- Joel asked team members to please sign up for the Minnesota Energy Challenge at www.mnenergychallenge.org. There is a menu of things you can do to reduce your carbon load and it shows you how much you save (CO2, \$). It also tracks how each CERT region is doing on the website, and we want a strong showing from the Central Region!

- Kerry Lindgren was given an award on behalf of the Central Region CERTs for the work that he and his high school marketing class did when they created materials on alternative fuels for heating the high school. The students did a presentation for the school board about corn burners, and now the high school is interesting in learning from the Ag Centers corn burner project and possibly duplicating it.
- Sue Peterson is moving forward with the grant for a geothermal project to heat the water tank for her livestock so that it doesn't freeze over in the winter. They hope to install 200 feet of piping next month and will track temperatures and energy usage.

5:50 pm PRESENTATION: Central Lakes Agricultural Center Corn Burner

Norm Krause, director of the Central Lakes Agriculture Center, gave the CERT team a presentation about the corn burner. The Woodmaster unit is manufactured in NW Minnesota and sits next to a feed tank that holds 350 bushels. For more information about Woodmaster, visit: <http://www.woodsedge.us/product/woodmasterplus.aspx>.

The burner generates no smell or smoke and the feed tank will need to be filled once in the fall and twice in the winter. The corn drops in via an auger and similar to a fluidized bed system moves through to the ash pan. The ash is 1.2% of the corn's original weight and the pan will be emptied twice a week; the ash is spread out in the fields and is good for the soil. It is currently producing 20,000 BTUs/hr but is rated to go as high as 180,000 BTUs/hr; their 6100 square foot building doesn't need it. The entire unit is 75 feet from the building so there are no issues with insurance or the fire marshal. The corn heat is 90-95% efficient, and they hope to burn distressed corn in the future, which is a waste product that is often landfilled. To learn more about corn energy equivalents, please visit:

<http://energy.cas.psu.edu/EnergySelector/cornequiv.html>. They are not currently monitoring emissions.

Prices for the installation were:

Hopper	\$2400
Boiler	\$7000
Piping	\$1200
Electrician	\$ 900
Plumber	\$2000 (main pump and three zonal pumps)
Total:	\$13,500

With present prices it will have a five year payback. They are very happy with the unit so far.

6:50 pm Eco Squared Fair (Cass County) and the Windy River Fair (Morrison County)

Sue, Nolita, Barb and Bob led a discussion on the fairs attendance and successes in 2006 and where they are headed in 2007.

Eco-Squared: This was the 1st year of the fair. The Cass County Fair has been struggling to get attendance and when the fair board wanted people to come in and help HUG proposed Eco-Squared. They set up in the beef barn and did a different theme each day to avoid competing with Windy River: Energy, sustainable agriculture, sustainable living and eco-justice (congregations), and had vendors and workshops coordinated with each one. They had only scheduled 1 or 2 workshops/day initially, but then moved up to 5 or 6. They felt good about the turnout for the workshops. Saturday was the best day of attendance, but low overall attendance, in part because of heat. Logistics on Saturday worked in favor of the event; Thursday was real slow. David Winkelman said his display had folks sign up for a give away as well as some who wanted site plans for either wind and/or solar on their property. For him it was a worthwhile experience, and some vendors have committed to coming back next year. There was a lot of good signage around the fair, and lots of effort was put into advertising: Newspaper, radio, anything free possible, live interviews...Although Happy Dancing Turtle paid a lot of out of pocket money to promote the fair and didn't come close to breaking even, they are still dedicated to building up the Cass County and Eco-Squared Fair. Next year the fair will be condensed to three days, and they are looking at some attention-grabbing ideas like a tractor pull between biodiesel and ethanol powered tractors. Plus the HUG campus wind turbine should be a beacon to pull people in...Overall the reception for Eco Squared was very positive.

The group talked some about the Minnesota State Fair Eco Experience and how they would like to link to the materials and presenters from that event. For more information, visit: <http://www.pca.state.mn.us/ecoexperience/>. The Eco Experience had over 350,000 people walk through its doors, and truly reached a wider audience than is typically interested in energy issues. Energy could be used as a topic for 4H projects, for example, with 4Hers learning about options for environmental and economic benefit.

Windy River: 6th Annual, 3rd @ Morrison County. The fair planners were not quite as pleased with this year's event as the Eco-Squared folks. The attendance was off by 30-40% (if not more), and SFA membership, the sponsoring group, isn't fired up about energy issues. People came only for Windy River, not for Morrison County events or visa versa; there was very little cross traffic. SFA is looking at changing times or possibly location – maybe more focused on sustainable agriculture and less on energy. Sue asked for input about possible changes. People suggested:

- Tours that connect agricultural practices and energy issues. How to make or save money on the farm via energy efficiency, biomass, biofuels etc.
- Something tailored to towards youth.
- Visit a 4 season green house and other CERT tour possibilities. Farmers want to see actual projects that they can learn from.

The group then brainstormed about ways to collaborate between Central CERT and other regional organizations to reach various audiences. People want to strengthen ties with St. Cloud and also technical colleges. It was mentioned that the Arboretum in

Brainerd is meeting with Region 5 to look into integrating more green building concepts; maybe CERTs could help bring developers, trades, education, etc. all together. Also look into collaboration with the USDA branch in St. Cloud for projects with buildings, clean energy resources for heating and electricity and work with SFA on biofuel and carbon sequestration crop ideas.

7:30 pm Meeting adjourns

The next meeting is tentatively scheduled for Tuesday, March 6th, 5:30-7:30 pm at the Hunt Utilities Group (HUG) campus in Pine River.