In this KEEP issue:
KEEP Goes Electronic..............................pg.1
KEEP Staff Corner..................................pg.2
Winners Announced.................................pg.3
Energy Educator of the Year......................pg.3
In the Spotlight: Doug Dimmer....................pg.4
Earn Graduate Credit at the Energy Fair........pg.5
High School Conference a Hit!....................pg.5
Course Registration Form........................pg.6
Energy Education Grants........................pg.7
Calendar of Events................................pg.7
Eating to Save Energy..............................pg.8

KEEP Goes Electronic

KEEP prides itself on being as environmentally friendly as possible. This fall we piloted the Energy Education Resources Grant Program and ENERGY STAR® Appliance Upgrade Programs in an all online format. All of the promotion and submissions for these pilot programs were completed online! In an effort to continue down this path KEEP will be discontinuing the traditional printing and mailing of this publication as of this newsletter and transitioning to an electronic format. KEEP’s fall newsletter will be sent to all of the individuals for whom we have email addresses.

The good news is that we already have emails for many of you and you are reading this online now! If you received this through the mail we ask that you contact KEEP at energy@uwsp.edu and tell us your name, school name, school city, and email address so we can continue to keep in touch with you in the coming years!

We apologize for any inconvenience this may cause you and hope you will be willing to share your email address with us as we transition into a paperless newsletter. As we move more of our programs to an online format, having your email will ensure that you are notified of upcoming opportunities.

NOTE: Many schools have email filters. Please contact your school’s postmaster about unblocking email from energy@uwsp.edu in order to receive KEEP’s newsletter.
Over the years you have seen KEEP’s Bright Idea Fundraiser advertised in the newsletter, electronic bulletin, and Web site. We thought we would take this opportunity to tell you more about the history of the fundraiser, its benefits, and what school groups have accomplished through it.

The fundraiser was piloted during the 2002/2003 school year and 16 schools participated. For three years the number of schools that sold compact fluorescent light bulbs (CFLs) held steady at 16 and KEEP continued to offer three different wattages of CFLs. In the 2005/2006 school year KEEP increased the number of schools that could participate in the fundraiser and opened it up to non-school groups such as churches and youth groups. In the 2007/2008 school year KEEP added a 3-way CFL and multi-colored light emitting diode (LED) holiday lights to the products list. The LED holiday lights were so popular that KEEP added white LED holiday lights in the following year.

There are many benefits to running a Bright Idea Fundraiser at your school! Besides raising money for their school or organization the groups save their customers money by selling them the ENERGY STAR qualified CFLs and LEDs. The products sold through the fundraiser are more energy efficient than traditional lights so they reduce the amount of carbon dioxide (CO₂) that is released into the atmosphere, so the students are helping to preserve the environment as well.

Over the seven years KEEP has coordinated the fundraiser we have worked with schools and organizations to sell 15,172 LED holiday lights and 113,575 CFLs. This amounts to over a quarter of a million dollars earned by these groups! It also saved their customers over 5.6 million dollars and reduced CO₂ emissions by about 133 million pounds. To put this into perspective it is the equivalent of removing 9,755 cars from the road.

Schools and other organizations have used the money they earned in many different ways. Schools have purchased classroom sets of microscopes, go on trips all over the world, fund playgrounds for elementary schools, provide matching funds for grants, and even install rain gardens. Some of the churches that participated in the fundraiser have used the funds to “green” their church and to fund energy efficiency projects in low income parts of their community. One organization donated all the money they earned to the United Way.

Students who sell over 100 items in the fundraiser are rewarded with a $50 savings bond, certificate of recognition, and are invited to KEEP Energy Awards Ceremony.

To find out more about this fundraiser go to the Student Involvement section of the KEEP Web site.
Energy Educator of the Year Award

In recognition of exemplary educators who take the extra step to improve energy literacy in Wisconsin, KEEP has created an Energy Educator of the Year Awards Program.

KEEP is seeking nominations for qualified formal and non-formal energy educators. Nominating someone or yourself involves completing an entry form and submitting a one-page narrative that details the nominee’s energy education initiatives and outcomes.

The entry form can be found on the KEEP Web site and the narrative can be submitted via the site (or mailed to the KEEP office).

For more details, visit www.uwsp.edu/keep, click on Networking, and then Energy Educator of the Year Awards!

Nominations due February 20, 2009.

Winners Announced!

KEEP and Focus on Energy are proud to announce the winners of the Energy Education Resources Grant Program for Technology Education and ENERGY STAR Appliance Upgrade Program. These funding opportunities were advertised in the fall and the resources and refrigerators have been delivered to the schools to be used in their classrooms!

Energy Education Resource Grant Program for Technology Education: This year, KEEP offered funding to Technology and Engineering Instructors through this program. These thirteen teachers applied and received funding, totaling over $5,500, through KEEP for energy-related resources:

- Don Anderson, Prentice High School, Pentice
- Larry Beer, Riverdale High School, Muscoda
- Scott Hookers, Red Smith Middle School, Green Bay
- Ben Johnston, Boscobel Middle/High School, Boscobel
- Joe Kruser, Parker/Craig High Schools, Janesville
- John Lonergan, Hartford Union High School, Hartford
- William Poethig, Whitnall Middle/High School, Greenfield
- Dave Rasmussen, P.J. Jacobs Jr. High School, Stevens Point
- Travis Schindel, Bonduel Middle/High School, Bonduel
- Sean Schuff, Tesla Engineering Charter High School, Appleton
- Herb Stuart, Oconto High School, Oconto
- Matt Vande Sande, Mt. Horeb Middle School, Mt. Horeb
- Jed Watters, Lincoln High School, Alma Center

Resources purchased with this funding included thermal laser guns, air current testers, watt meters, Building Science books, DVD’s, and services provided by a Wisconsin ENERGY STAR Homes consultant.

ENERGY STAR Appliance Upgrade Program: Family Consumer Education (FCE) teachers were given the opportunity to apply online for $900 to put towards the purchase of an ENERGY STAR qualified refrigerator. The goal of the program was to assist FCE teachers with promoting sound consumer decision-making by increasing student and community awareness of the benefits of ENERGY STAR qualified products.

- Sharon Anderson, Dodgeville High School, Dodgeville
- Veronica Campbell, Clintonville High School, Clintonville
- Janice Fude, Cambria-Friesland School District, Cambria
- Deb Garbe, Neenah High School, Neenah
- Renee Hunkins, Weyauwega-Fremont School District, Weyauwega
- Rae Ann Leonhardt, Pittsville High School, Pittsville
- Ashley Louis, Peshtigo Middle/High School, Peshtigo
- Wendy Pitlik-Plehn, Sheboygan South High School, Sheboygan
- Susan Sevcik, Roncalli High School, Manitowoc
- Delaine Stendahl, Whitehall Memorial High School, Whitehall

Each teacher also received a watt meter and a book on home energy efficiency to help them incorporate concepts related to ENERGY STAR and energy efficiency into their lessons.

For additional funding opportunities, please visit www.uwsp.edu/keep and go to Funding Opportunities.
In the Spotlight

Doug Dimmer, Technology and Engineering Instructor at Homestead High School in Mequon, WI, is this issue’s featured teacher. After graduating from the University of Wisconsin-Platteville in 1989, Doug worked in the private industry for 11 years before teaching high school. Doug has taught at Homestead High School for nine years and incorporates energy into his curriculum in the following classes:

- Graphic Arts: Printing & Photography classes
- TV/Video Production classes
- Engineering Principles – Energy and alternative fuels units
- Construction Design & Computer Design classes – Green building unit
- Engineering Technology Seminar classes – Site assessments, classroom energy audits, and the Bright Idea Fundraiser

Not only does Doug incorporate energy into his teaching, but he also incorporates it into his personal life because of his interest in renewable energy and sustainable living. Doug attended the 2007 Midwest Renewable Energy Association’s annual Energy Fair in Custer, WI as a KEEP course participant. While at the Fair, Doug was able to network with other technology education instructors and attend many workshops where he learned about certification programs offered through NABCEP and the MREA. Doug had a lot of fun at the Fair and plans to go back in the next couple of years.

He also attended the 2008 Renewable Energy Summit in Milwaukee (and plans to attend again in March 2009) where he was again a participant in a KEEP course that offered graduate credit through UW-Stevens Point. At the Summit, Doug was introduced to personnel from the University of Marquette who were looking for an instructor of the 2008 Upward Bound Senior Program with a Green Energy focus. Doug jumped at the chance to be involved in a Green Energy project through the summer especially because it meant working with youth in a hands-on project oriented curriculum. The Upward Bound Program takes high school inner city students and offers them a chance to prepare themselves for the future. Doug prepared them with an energy curriculum that wrapped around the Science, Technology, Engineering, and Mathematics (STEM) curriculum. They designed and prepared a living space using renewable energy. The students planned and designed some unique homes and used several renewable technologies in their presentations.

Recently, Doug participated in the Wisconsin Solar Home and Business Tour hosted by the Midwest Renewable Energy Association. The opportunity to participate in this tour was coordinated by KEEP and funded by We Energies. Technology education instructors in We Energies territory were invited to participate in the Solar Home and Business Tour with all expenses paid if they agreed to submit a photo journal documenting their experiences. Doug submitted a video of his tour experience which can be found at www.mtsd.k12.wi.us/Homestead (navigate to the blue box [academics] and scroll to departments. Under departments, click on the computer science page and go to the OTHER drop down menu to find “Solar Tour”). The tour consisted of five different locations that conserve energy and use renewable energy such as solar PV, solar hot water, and geothermal heat. Doug is planning to co-present at the WTEA annual conference in March regarding his experience at the Solar Home and Business Tour with two other instructors who also participated.

In other news, Doug attended and presented at the 2008 Governor’s High School Conference on the Environment at UW-Stevens Point in November 2008 to share the energy action plans he incorporated at Homestead High School. Students researched the possibility of installing a solar PV unit or solar hot water system to lower the costs of energy in their school. They also surveyed teachers’ usage of power over the course of a week to find out what teachers could do to reduce their energy use in the classroom. His findings revealed that a 10 kW fixed photovoltaic (PV) unit, installed, would cost the district between $85,000-$100,000 initially, with a $35,000 cash-back incentive from We Energies and Focus on Energy. The PV unit would be used across the curriculum as a tool devoted to understanding the power of renewable resources in science, math, technology, and economics classes. The electricity generated would be sold back to We Energies at a designated rate of $0.22/kWh.

Doug enjoys and looks forward to “changing the mindset of family, friends, and coworkers on energy conservation.” The philosophy Doug follows is “to educate our students to understand the concepts of energy technology and to teach them ways to design systems to promote the ideals of energy conservation in their lives.”
This information applies to each of the two courses offered at the Energy Fair. Teachers may register for only one course.

**Location:** Energy Fair, Midwest Renewable Energy Association, Custer, WI

**Credits:** One graduate credit from the University of Wisconsin-Stevens Point

**Cost:** $75 (Includes graduate credit, course materials and weekend entry into the fair). The in-service actually costs $425; however, select Wisconsin utilities are providing $350 scholarships to participants who are practicing K-12 teachers from Wisconsin schools in their territories (participants will pay the balance of $75).

**Apply:** Send payment and course registration form (see page 6) to reserve your spot (non-refundable after June 1, 2009).

**NR 610 - Exploring Renewable Energy**

**Date:** Friday, June 19, Saturday, June 20, and Sunday, June 21, 2009 (there will be required sessions on Friday and Saturday)

**Details:** This sixteen-hour course provides K-12 teachers with a unique opportunity to learn more about renewable energy technologies and applications and receive hands-on activities, project ideas, and information on renewable technologies while networking with other teachers.

**NR 731 - Exploring Energy Technologies at the Energy Fair**

(for Technology Education Teachers only)

**Date:** Friday, June 19, Saturday, June 20, and Sunday, June 21, 2009 (there will be required sessions each day)

**Details:** This sixteen-hour course will focus on introducing Technology Education instructors to the technologies of energy efficiency and renewable energy. Through informative sessions from energy experts and a remarkable tour of local renewable homes, teachers will gain vital background knowledge to integrate energy concepts into classroom activities. Networking opportunities will connect participants to leaders in energy efficient building methods, domestic renewable energy techniques, and alternative transportation and fuels.
UWSP MAIL-IN REGISTRATION FORM
KEEP, WCEE, 403 LRC, UWSP, STEVENS POINT, WI 54481

Last Name                                     First Name                                               Middle                                     Maiden Name

UWSP ID# or Social Security Number (required) Email Address (required)

Date of Birth (mo/day/yr) (required) Home Phone

Home Address                                                   City                                       State            Zip + 4                           County

High School You Graduated From (required)     City/State  Year of Graduation

School You Teach At School Address                               City                                  District                      State         Zip

Grade Level(s)/Position Subject Area(s) School Phone & Extension

Application Status:
☐ High School Student (Youth Options Program) – 20

☐ Undergrad Special (taking undergrad courses but not toward a degree at UW-SP, or a student with a degree taking undergrad courses for teacher certification, additional majors or degrees, self improvement, etc.) – 9

☐ Grad Special (taking graduate courses, but not seeking a master’s degree at UWSP) – 10
NOTE: There is no guarantee that courses taken as a Grad Special can later be used to fulfill master's degree requirements. It is in your best interest to submit an application for Graduate Study if you might pursue a graduate degree in the future.

☐ Grad Regular (applied and accepted to a master’s program at UWSP) – 11
Grad Program of Study:                                      Advisor _______________________________

☐ Intended Graduate Degree _MA _MEPD _MMED _MS _MSE _MST _DOCTOR OF AUDIOLOGY

Sex __ Male (M) __ Female (F)

Citizenship __ Citizen (C) __ Nonresident Alien (N)
☐ Permanent Immigrant (P)
Alien Registration No. ___________________

Veterans Benefits Status __ Not a Veteran (0)
☐ Receiving VA benefits (2) ___ Veteran Not Receiving Benefits (9)

Racial/Ethnic Heritage
☐ African American/Black (B)
☐ American Indian or Alaska Native (N)
☐ Southeast Asian: Cambodian, Hmong, Laotian, Vietnamese (E)
☐ Other Asian/Pacific Islander (O)
☐ Hispanic/Latino (S)
☐ White/Non-Hispanic (W)

Residency: Please Note: It is your responsibility to register correctly, as a resident or nonresident, under the law.
• Have you, your spouse or parent(s) recently moved to Wisconsin to Accept Permanent Employment? __ Yes ___ No
• Do you claim Legal Wisconsin Residence for tuition purposes? _Yes ___ No
• Indicate the dates you have lived at your present address
• List former addresses (street, city, state) within the last two years

☐ Employment history and/or activities (other than school) for the last two years (include city/state)

☐ Parent’s Name (City and State of residence within the last two years)

Have you previously taken courses offered by UW Stevens Point, either on-campus or off-campus? __ Yes; ___ No

Choose only one:
☐ NRES 610 SEC 88: EXPLORING RENEWABLE ENERGY, 1 GRAD CREDIT, SUMMER 2009
☐ NRES 731 SEC 88: EXPLORING ENERGY TECHNOLOGIES, 1 GRAD CREDIT, SUMMER 2009

Signature _______________________________ Date __________________

KEEP On Going Wisconsin K-12 Energy Education Program Newsletter Spring 2009 Page 6
Energy Education Grants

The 2009-2010 Wisconsin Environmental Education Board (WEEB) grant proposals are due **February 14, 2009**! There is approximately $38,000 available for energy projects this grant cycle.

**School Building Energy Action Plan**
$5,000 grant maximum

**School Building Energy Education**
$2,500 grant maximum
$1,000 mini grants available

**Broad Energy Education**
$2,500 grant maximum
$1,000 mini grants available

All energy projects must have an educational component. Energy-related grant funds are restricted to organizations within the Focus on Energy territory.

Email mrickert@uwsp.edu or call 715.346.4320 to determine eligibility. WEEB also offers General Environmental Education and Forest grants. Visit www.uwsp.edu/cnr/weeb for more information about all of the 2009-2010 grant categories.

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**January**
13 & 14: New Wisconsin Promise Conference in Madison
15: WEEB Grant Writing Webinar
21 – 23: State Education Convention in Milwaukee
30 – Feb. 1: WAEE Winter Workshop in Tomahawk

**February**
12 & 13: Wisconsin Council of Religious & Independent Schools Conference
14: WEEB grant applications due
20: Energy Educator of the Year nominations due to the KEEP office

**March**
5 & 6: Wisconsin Technology Education Association
5 - 7: WI Society for Science Teachers Conference (WSST) in Milwaukee
6: Central Wisconsin Education Association Convention in Schofield
13: Northeastern Wisconsin Education Association Conference in Green Bay
16 & 17: WI Council for the Social Studies Conference (WCSS) in Middleton

**April**
20 & 21: WI Charter School Conference in Waukesha
22: KEEP Energy Awards Ceremony in Stevens Point

**May**
13: Solar Olympics in Stevens Point

**June**
19 – 21: Midwest Renewable Energy Association’s Energy Fair in Custer, WI
Eating to Save Energy

We often hear ways to save energy: using ENERGY STAR qualified appliances, insulating, turning off lights when not in use, and more. But did you know you can save energy through your food choices? Here are a few activities you and your students can do to explore the relation between energy and food:

• Play the KEEP activity “Photosynthesis Promenade” to demonstrate how plants use the sun’s energy to make food (located in the downloadable Elementary Supplement on the KEEP Web site).
• Examine trophic levels in a food pyramid and how energy is lost between each level.
• Research the energy resources used in typical food production, including powering farm equipment and petrochemicals in fertilizers.
• Calculate the miles traveled in a typical meal—measuring the distance between the source of the food and its final destination.
• Debate the use of corn and other food-based resources for fuel production; visit KEEP’s Biofutures online for background and teaching ideas.
• Plan a meal for each of the seasons that uses locally grown food and explain why these meals save energy.