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MRES News, Events and Classes

Womens Class: Which Solar Technology is Right for you?

Sunday, June 6, 2010, 10:00 AM to 3:00 PM

[City Academy/Wilder Recreation Center](#)

[958 Jessie St. Saint Paul, MN](#)

\$55.00 for members

\$80.00 for non-members

This class will explore solar power and the energy it can provide, including electricity, domestic hot water, water heating, air heating, passive design, lighting, and cooking. Discussion will include how each of these technologies work, where they work, why they work, approximate costs and some current information on state and federal solar incentives that are available. Class will include ample opportunity for questions and discussion, as well as some hands-on demonstration. A light breakfast will be provided. Please bring your own lunch and we will supplement it with some food cooked in a Solar Oven (weather permitting)!

The instructor will be Rebecca Lundberg, an MRES Board Member and president and CEO of Powerfully Green, a company that designs and installs residential and small commercial solar energy systems. This is the third class that is part of MRES's effort to bring more women into renewable energy. Women will have priority registration women, but all are welcome to sign up and will be allowed into the class as space permits. Please email Laura Cina at laurac@mnrenewables.org to be put on the waiting list or call 612-963-4757.

[To register and for more information, click here.](#)

Solar Energy: Everything You Ever Wanted to Know About Photovoltaics

Friday, June 25, 2010, 9:00am - 3:45pm

[Century College](#)

[3300 Century Avenue N.](#)

[White Bear Lake, Minnesota 55110](#)

\$90.00 for members

\$100.00 for non-members



In joint cooperation, Century College and the Minnesota Renewable Energy Society have developed a new one-day introductory course for homeowners and people interested in learning the basics of how to design a solar photovoltaic (PV) system for residential applications. The essentials of creating electricity from sunlight are covered. You will learn to evaluate the solar site resource, when solar PV is the right solution, the economics and incentives for solar PV, and system design principles. System components, system sizing, PV panels, inverters, grid connected vs. non-grid connected systems and electrical connections, will be all explored. You will receive .72 CEUs for attending.

Ralph Jacobson, a 25 year veteran of solar system installations, is the course instructor. He is a materials engineer and is NABCEP certified in both solar PV and solar thermal installation. Ralph is currently involved in developing a strategy for growing the solar industry in Minnesota and developing training programs for the building trades. He is also on the Board of Directors of the Minnesota Renewable Energy Society and the owner of Innovative Power Systems.

[To register and for more information, click here.](#)

Solar Energy: Everything You Always Wanted to Know About Solar Water Heating

Friday, July 16, 2010, 9:00am - 3:45pm

Century College

3300 Century Avenue N.

White Bear Lake, Minnesota 55110

\$90.00 for members

\$100.00 for non-members



Century College and the MRES have developed this introductory course for those interested in learning the basics of how to design a residential solar hot water heating system for. The essentials of creating domestic hot water from solar radiation are covered. You will learn to evaluate solar site resource, when solar hot water is the right solution, the economics and incentives for solar hot water, and system design principles. System components and sizing, solar thermal panels, storage tanks, heat exchangers, and plumbing connections will be all explored. You will receive .72 CEUs for attending.

Ralph Jacobson, a 25 year veteran of solar system installations, is the course instructor. He is a materials engineer and is NABCEP certified in both solar PV and solar thermal installation. Ralph is currently involved in developing a strategy for growing the solar industry in Minnesota and developing training programs for the building trades. He is also on the Board of Directors of the Minnesota Renewable Energy Society and the owner of Innovative Power Systems.

[To register and for more information, click here.](#)

Careers in Renewable Energy

Friday, July 30, 2010, 8:00am - 12:00pm

Century College

3300 Century Avenue N.

White Bear Lake, Minnesota 55110

\$65.00 for members

\$75.00 for non-members



Century College and the Minnesota Renewable Energy Society have co-developed a new half-day course for people interested in exploring renewable energy careers. One of the most common questions people ask about renewable energy is: "How can I be involved in this rapidly expanding field?" Find out the answer to this question and a multitude of others in this 4-hour session. Careers involving solar and wind site assessment, design of systems, installation of systems, and many other aspects of solar PV, solar thermal, and wind power applications will be discussed.

Ralph Jacobson, a 25-year veteran of renewable energy system installations and owner of IPS (Innovative Power Systems), one of this area's largest solar installers, is the course instructor. He is a materials engineer, NABCEP certified in both solar PV and solar thermal installation. Ralph is currently involved in developing strategies for growing the solar industry in Minnesota and developing training programs for the building trades. He is also on the Board of Directors of the Minnesota Renewable Energy Society.

[To register and for more information, click here.](#)

MRES Solar Boat Regatta - A thunderstorm couldn't even slow us down!

For the 18th year in a row, teams from various schools and organizations across Minnesota competed in a series of solar-powered boat races on May 22, 2010. While the morning started off cloudy and descended into thunder, lightning, and reports of hail from around the Twin Cities metro area; teams muscled through it and were rewarded with a sunny and competitive afternoon of racing.



1st Place Student Class: Roosevelt HS
Boat name: Roosevelt Flyer



2nd Place Student Class: City Academy
Boat name: Cash



1st Place Adult Class
Boat name: Solar Scrambler



2nd Place Adult Class: Century College
Boat name: Woody's Revenge



1st Place Experimental Class: Orono HS
Boat name: Helga Ultralite



2nd Place Experimental Class: Royalton HS
Boat name: Tropheus 1

Best Webpage Award - City Academy

Most Creative Design Award - Tropheus 1 from Royalton HS

Images coming soon at <http://mnrenewables.org/solar-boat-regatta>

Congratulations to all of the winners!

Blattner Energy Corporate Headquarters Living Case Study Tour

Tuesday, June 15, 2010

2:15 PM to 7:45 PM (includes travel time)

Blattner Holding Company, Inc.

392 County Road 50, Avon, MN 56310

Cost: see registration form at:

www.usgbcmn.org/wp-content/uploads/2010/05/USGBC-Program-Registration-Blattner_June-15.doc

This Living Case Study will provide attendees a chance to tour the Blattner Energy Corporate Headquarters located in Avon, Minnesota. In addition to achieving LEED-NC Platinum Certification, the building was also awarded the Green Building of America award from the nationally publicized Real Estate Construction and Review. The Blattner Headquarters is one of the premier buildings in the United States with a Geothermal HVAC- ice storage system. A presentation will be provided by Blattner, along with a tour that includes a review of the energy monitoring system, Blattner's on-site wind turbine, the building's Geothermal HVAC -ice storage system, and several other green building initiatives. The event ends with hor d'oeuvres and time for networking.

Find out more at <http://www.usgbcmn.org/event-detail/?id=218>

The Business of SMART GRID: Benefits for MN's Companies and Workforce

Wednesday, June 9, 2010, 9:00am - 4:00pm

Northstar Ballroom, University of Minnesota

2017 Buford Avenue, Saint Paul MN

Cost: \$35 includes refreshments, lunch, and materials

Big changes are coming to our nation's electricity grid, which is dated and under stress from growing energy demand. A more efficient, smarter and resilient electricity grid will result for consumers and commercial energy customers. What does this mean for Minnesota's businesses and workforce?

The Minnesota Trade Office is pleased to partner with the University of Minnesota's Initiative for Renewable Energy and Environment to offer "The Business of Smart Grid—Benefits for Minnesota's Companies and Workforce," a daylong event featuring national experts.

Find out more at http://environment.umn.edu/news_events/events/SmartGridMN060910.pdf

Upcoming Composting Workshop from The Green Institute and Eureka Recycling "Backyard Composting: the Next Step to Zero-Waste at Home"

Thursday, June 17, 2010, 6:30pm

Maplewood ReUse Center

1727 E Hwy 36, Maplewood MN

Cost: \$20 Compost bins can be pre-ordered for pick up at the workshop for \$45

Come learn about the environmental benefits of composting and reducing waste at your home at the Maplewood ReUse Center! Composting food scraps, grass and leaves in your backyard is one of the easiest things you can do to reduce your carbon footprint and save energy. Get tips for maintaining a healthy compost pile! The ReUse Center will be open for business as usual until 7 PM so come early and check out our salvaged and reclaimed building materials.

Pre-registration required, contact Agatha Vaaler at avaaler@greeninstitute.org or call (612) 278-7142

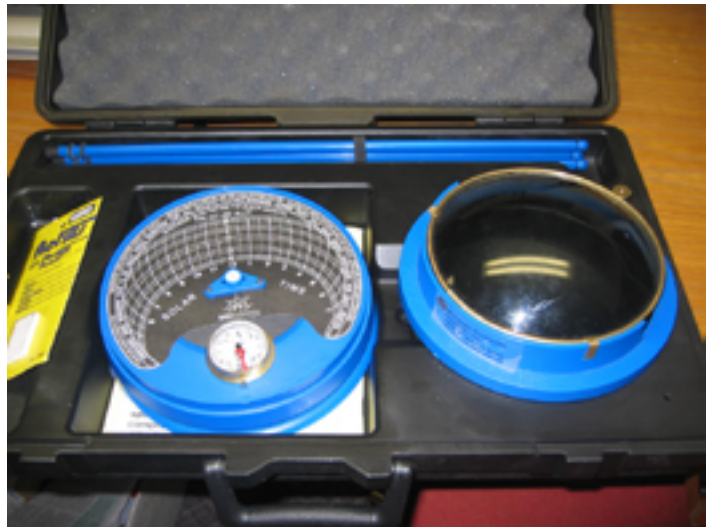
www.mnRenewables.org

Rent Solar Cart



Rent portable solar power @ \$50

Rent Solar PathFinder



Solar PathFinder - \$25 rental to MRES members

Rent Solar Trailer

[IPS Solar](#) and MRES have joined efforts to build the most versatile power supply in the state. The Solar Power Trailer is both an educational tool and a fully functioning power source that can provide quiet, clean, renewable solar power to any site. Use it for remote power at family reunions, picnics, church, or school events. [Minnesota MPCA](#) donated the PV panels to upgrade the Solar Trailer to 1.664 Kw, and [Mario Monesterio of Westwood Renewables](#) donated the labor to install the recent upgrade with the new PV panels.

Examples of What the Trailer Can Power:

- A concert for 5,000 people
- A small carnival
- Up to 25 trade show booths
- Temporary telecom sites
- About 5 concession stands
- About 200 laptop computers

Trailer Specifications:

- PV array rating 1664 watts (newly upgraded)
- 2 Trace SW4024 inverters (4 Kw at 48 volts)
- Battery bank rating 440 amp-hours = 21.12 Kwh
- 40 amp max at 110 vAC capacity
- Usable total battery capacity: 16.9 Kwh
- 10-volt 30-amp circuit breaker for larger concert equipment
- Approximate trailer weight: 3,000 pounds



MRES Solar Trailer

To [rent the solar trailer](#), solar cart, or solar pathfinder - contact David Boyce at (651) 324-1642 or DavidB@mnRenewables.org

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