



## **NEWSLETTER - POTOMAC REGION SOLAR ENERGY ASSOCIATION**

**October 22, 2005**

P.O. Box 3315, Annapolis, MD 21403  
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### **General Membership Meeting Announcement**

**Time: Saturday, November 19, 2005, from 10:00 AM until Noon**

**Location: Lathrop E. Smith Environmental Education Center  
5110 Meadowside Lane, Rockville, MD 20855  
[www.mcps.k12.md.us/curriculum/outdoored/sc/smith.htm](http://www.mcps.k12.md.us/curriculum/outdoored/sc/smith.htm)**

The Lathrop E. Smith Environmental Education Center is operated by the Montgomery County Public Schools to provide students in kindergarten through grade 12 with hands-on outdoor experience. The campus has a turn of the century (19th-20th) farm, a fire tower, confidence course, *and* solar panels installed by our current PRSEA Chairman, Jason Fisher! The center is surrounded by 450 acres of Rock Creek Regional Park, including the Meadowside Nature Center and Lake Frank, all available for visiting. We will have a tour of the Smith Center, and especially the solar installation, immediately following the meeting.

#### **Directions to the Smith Center:**

Meadowside Lane is accessible from Muncaster Mill Road (MD Rt. 115), about halfway between Norbeck Road (MD Rt. 28) and Needwood Road.

From the intersection of Georgia Avenue (Rt. 97) and Norbeck Road (Rt. 28), go west on Norbeck Road and turn right onto Muncaster Mill Road at the first traffic light. Go 1.5 miles to Meadowside Lane at top of hill. Turn left into the park, then right at the L. E. Smith Center sign.

From I-270 south, take I-370 east toward the Metro and take the Shady Grove Road East exit. Pass Midcounty Highway and turn right onto Muncaster Mill Road. After the Avery Road traffic light, turn right onto Meadowside Lane into the park and turn right at the L. E. Smith Center sign.

#### **Meeting Agenda**

Speaker	Montgomery Co., Green School Program
Report on the ASES International Meeting	Jason Fisher
Report on the Junior Solar Sprint Races and Tour of Solar Homes	Charlie Garlow
Green Building Institute and Solar Energy Institute workshops	Jeff Gilbert
Planning for 2006 activities	General membership
Nominations for new Board members	Jason Fisher

## **Board of Directors**

In the June 2005 election, the following new people were elected to the Board of Directors:

Jim Crowley - Secretary	Sergio Obadia - Vice Chair
Mike Tolker	Robert Winfield

Members whose terms expire at the end of the year are:

Jason Fisher - Chair	Isaac Opalinsky - Treasurer
Lee Bristol	Erik Michelsen

Nominations for candidates for the Board of Directors may be mailed to the address at the top of this newsletter before the General Meeting, or candidates may be nominated at the meeting. Following the General Meeting, ballots for the Board of Directors election will be mailed to members who have paid their dues for 2005. Newly elected members will take office January 1 and will serve for two years.

## **Volunteer Committees**

Most of the activities of PRSEA will necessarily be carried out by teams of volunteers, such as the Tour of Solar Homes Committee. Volunteers are currently needed for the Publicity Committee, to work on the web site and newsletter; and the Membership Committee, to monitor the phone calls and emails to PRSEA and to assist the Treasurer with membership records. We also need ideas for new projects that committees can work on. During the General Meeting, we will break out into activity teams to discuss the topic. Come with your ideas!

## **Enviro Center Open House**

The Enviro Center, a new environmentally-friendly office building, is opening at 7761 Waterloo Road (Route 175), Jessup, Maryland (near the Maryland Wholesale Food Warehouse), and is holding an open house on November 11. The Green Building Institute, a nonprofit organization, is one of the occupants. <http://www.enviro-center.com>.

## **MEA Solar Grants**

The Maryland Energy Administration (MEA) is still taking applications for the Solar Energy Grant Program. Grants are available to residential, business, and local government entities. Under this program, the state can cover a portion of the costs for installing the following:

- Solar water heating: 20% of system costs up to a maximum grant amount of \$2,000
- Residential photovoltaic: 20% of system costs up to a maximum grant amount of \$3,000
- Non-residential photovoltaic: 20% of system costs up to a maximum of \$5,000.

MEA will stop taking applications when the funds are exhausted!!!!

Details at: <http://energy.maryland.gov/programs/renewable/solargrant/> or (800)72-energy.

## SOLAR MUSE

by Jim Crowley

### *A sense of urgency*

With gas prices currently hovering over three dollars a gallon and with some dire energy forecasts for the winter ahead there was a sense of urgency among many of this year's Solar Tour participants. Some of my own visitors were taking notes and many were very serious about finding someone, somehow, to help them with a solar energy installation. Hurricanes Katrina and Rita provided the mother of all wake-up calls regarding energy and indeed no one yet knows the full dimensions of the coming problems. Mathew Simmons, author of *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy*, predicts natural gas shortages this winter. Even our ex-oilman Commander in Chief is calling for energy conservation. (Scary thought). I know that I will have plenty of firewood, stacked and dry.

For those of us with solar electric and other backup power systems it is easy to feel a smug sense of security. But as Katrina showed, individual security can be elusive during a widespread infrastructure collapse. In a real energy crisis how much security would solar folks have if only 0.1 percent of

houses have solar electric power? (This is the current statutory limit permitted by the Virginia net metering law; Maryland is not much better). Clearly, there is much work to be done, both technical and political. This year we again have Federal, and in Maryland, State credits for solar electric and hot water systems. There is, unfortunately, a very limited base of experienced solar installers in our area. The good news is that those of us who make the effort to incorporate solar power in our homes can still be considered solar pioneers! In all seriousness, we have a once-in-a-generation opportunity to take important personal steps that will benefit the environment and our nation.

PRSEA can be a catalyst for solar energy independence, but we need your help. As explained elsewhere in this newsletter, we are seeking volunteers to help in such areas as web page design, developing web and newsletter content, and planning other association activities. Think about what you believe PRSEA can become and attend our next meeting to discuss your ideas. We look forward to seeing you there!

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### **Solar Q and A:**

"Solar panels need to go on the roof, right?"

Actually, the only truly limiting factor for locating solar PV panels is the need for maximum sun exposure. "On the roof" is often convenient because that space is not otherwise being used. However, there are several reasons why the roof may not be the best place for your panels. For example, in my own case the roof sometimes has accumulations of drifting snow that would be very difficult to clear off. Also, I have several moderately large trees that will eventually shade the roof during the summer—good for helping to keep cool, but not good for generating solar electricity. By placing my array in a side yard, both of these potential problems were avoided.

Another consideration is whether your friendly homeowners association will allow panels to be placed on the roof, or anywhere else. For those having a south-facing roof surface that is not visible from the street, it may be possible to get approval for a solar PV or hot water installation. There are even roofing materials that incorporate solar PV cells. However, these tend to be expensive and are most practical when installed on new houses at the time of construction.

Many of you have probably seen pole-mounted PV systems, some of which include mechanisms that cause the panels to follow the sun's motion through the day. This gets the most "juice" out of your expensive panels, although the tracking systems are themselves quite a bit more costly than fixed arrays. Personally, I like pole-mounted tracking systems as they remind me of sunflowers.

If you have questions about solar topics send them to [info@PRSEA.org](mailto:info@PRSEA.org).

### **Energy Saving Tips (That you may not have thought of):**

You already know that adding insulation and compact fluorescent lights will save some energy. Now what?

Many off-grid solar folks are already familiar with so-called "phantom loads" that must be managed to control total energy usage. Grid-connected homeowners can also save some money and energy by tracking down these energy leeches. Home media centers (TV, cable or satellite receiver, plus DVD and CD players) are major "phantom" culprits that can serve as an example of the problem and what to do about it.

I used an electronic device to measure the energy consumption of my (very basic) media center, with all the equipment turned off. Guess what? It wasn't really off, but actually consumed about 35 watts of power just waiting for somebody to use the remote control. This amounts to over 800 watt-hours per day, which is nearly as much as a refrigerator! The solution is to put all the media equipment on a power strip that can be switched off. Some items, such as satellite receivers may take a few minutes to restart after being completely off and recording equipment may lose the time and date information. If this becomes a source of marital strife these items can simply be plugged directly back into a wall outlet.

Phantom loads have been estimated to consume about 5% of total US electricity production. Imagine the number of power plants and new transmission lines that this amount of energy represents.

Do you have an energy tip that others may not have thought of? Send to [info@prsea.org](mailto:info@prsea.org)!

To join, mail this form with your annual dues to:

**Potomac Region Solar Energy Association (PRSEA)**  
**attn: PRSEA Membership**  
**P.O. Box 3315**  
**Annapolis, MD 21403**

**I would like to join the  
Potomac Region Solar Energy Association.**

Enclosed is my check for one year annual dues:  
*(please check appropriate member category below)*  
\_\_\_\_ Student (\$10.00); \_\_\_\_ Educator (\$15.00);  
\_\_\_\_ Individual (\$25.00);

Please send correspondence to my \_\_\_\_ Home \_\_\_\_ Business address *(please check one)*.

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

Occupation: \_\_\_\_\_

Business Name (if applicable) \_\_\_\_\_

Work Address: Street: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip/Postal Code: \_\_\_\_\_

Home Address:

Street: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip/Postal Code: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_ E-mail: \_\_\_\_\_

Primary areas of interest (include additional sheet if necessary):

\_\_\_\_\_  
\_\_\_\_\_

Member of American Solar Energy Society (ASES) \_\_\_\_ Yes \_\_\_\_ No.

I am also a member of the following groups: \_\_\_\_\_

\_\_\_\_\_