



Solar Photovoltaic Array Fact Sheet

In early May, a SCEE Board member who has been working in the forefront of the solar energy field for many years, approached The Center with an offer to locate a large photovoltaic array at The Center. The staff and the Board took this proposal under advisement. Consequently, the Board discussed it at length at its May meeting and passed the following resolution by a vote of 8 – 2 with the Board member presenting the proposal abstaining:

Whereas the installation of a large photovoltaic array in the PECO Right-of-Way on land owned by The Center would advance the purposes of The Center:

- *by fostering appreciation, understanding, and responsible use of the ecosystem through the dissemination of information about, and active implementation of, non-polluting alternative energy sources,*
- *by creating the opportunity for The Center to take a leadership role in conducting scientific research into habitat management under such an array,*
- *and by producing revenue for The Center,*

The Board of Trustees endorses the concept and authorizes the Executive Committee to continue to work with Mesa Energy LLC to evaluate the feasibility of such an installation. Any final agreement will be subject to the review and approval of the Board.

There have been many questions raised by concerned membership, community activists, staff, and Board members. These questions are in the process of being answered. Below is a running list of questions and answers that The Center will update periodically while it considers the feasibility of hosting the array and negotiates with the parties involved.

1. What areas are being considered for the array?

The array would be located exclusively in the PECO Right-of-Way on land owned by The Center between the high tension line towers below the former River House site and the electrical towers west of Port Royal Avenue, comprising about 2 ½ acres. The River House site would be approximately 1.5 acres. The Port Royal site would be approximately 1 acre. The array installed off of Port Royal would not be visible from Port Royal Avenue because of a high embankment. Both areas have good access from existing roads and would not require cutting new roads. There will be no impact to the wooded areas outside the PECO Right-of-Way.

2. Why the PECO Right-of-Way?

Since 1999, the Center has focused efforts and resources on creating a preserve that supports the highest level of plant and animal diversity native to southeastern Pennsylvania.

Academic study is integrated with recreation and enjoyment to establish a basis for meaningful programs, to instill a sense of discovery in those who visit our grounds and to restore and maintain the ecological integrity of the property.

PECO maintains its Right-of-Ways throughout Pennsylvania by mowing and suppressing woody vegetation with herbicide on a periodic basis. As such, *this is the only area on The Center's grounds where The Center's ability to manage habitat enhancement is compromised*. Locating the array on the Right-of-Way will allow The Center to conduct research trials and create a universal model for habitat enhancement under solar photovoltaic arrays.

3. Is it technically feasible to place an array under the high tension lines?

Initial reactions from PECO regarding technical feasibility are positive.

4. Who would hold the Lease with the owner of the array?

PECO would hold the Lease.

5. Who would own the array?

The array will be owned by private investors under the terms of the Lease. No Schuylkill Center Board members are investors in the project.

6. How would the Center influence the terms of the Lease?

The Center has a longstanding working relationship with PECO who will incorporate The Center's concerns into the Lease.

7. How would The Center gain financially from the arrangement?

The Center will negotiate with PECO to provide long term grant support, in an amount commensurate with PECO's Lease income. Income from the lease would depend on the size of the array, which hasn't been completely determined yet, but would cover no more than 2 – 3 acres.

8. What would The Center do with the PECO grant money?

The Center would conduct integral basic research into habitat development under such an array. (Most projects of this nature on other sites have been treated as engineering problems and have not been approached in an environmentally sustainable manner.) The research would include plant material research and wildlife monitoring. From this research, The Center will create a model for habitat restoration and management under solar arrays that could potentially be applied internationally. The Center is exploring opportunities for joint research with regional academic institutions. An educational component would disseminate the knowledge gleaned from the research, as well as educational activities relating generally to non-polluting alternative energy sources.

9. How visible would the array be to neighbors?

The array would only be visible from across the Schuylkill River.

10. How would storm water be managed?

All runoff from the panels would be absorbed in bio-swales under the array.

11. Would there be a fence around the array?

At this time it is anticipated that there would be a fence around the array. The fence would be designed with wildlife corridors.

12. Will there be an Environmental Impact Study?

As an EIS takes several years to complete, The Schuylkill Center will be conducting a baseline study for existing conditions establishing protocols for ecological habitat enhancement. The Center will work with a team of local academics and professionals—including an ornithologist, biologist, botanist and biologist—all from regional universities and institutions. The Center will proceed using the best combined knowledge and wisdom of this academic group.

13. What sort of habitat could be developed under the array?

The Center has already been experimenting with native grasses, sedges, and ferns under the existing array off its parking lot to help determine this. A preliminary ecological assessment of the area before the array is installed will also help guide this project.

14. What additional structure would be needed to support the array?

An apparatus called an inverter would be installed to convert the Direct Current created by the panels into Alternating Current used by the existing electrical power grid. The inverter would cover an area approximately 15 feet by 20 feet.

15. Would PECO expand the array onto other land they own under the power lines in the surrounding community?

The Center would negotiate with PECO to restrict expansion of the array and to fund research into best management practices for Right-of-Ways as open space on the PECO land east of Port Royal Avenue and west of The Center.

As of now, the project is on hold. Mesa Energy has found an alternative site for the proposed solar array installation. However, The Center will continue to explore the feasibility and opportunities of hosting a two to three acre solar array in the future. The Center believes that the changing energy needs of Pennsylvania and the nation will require alternative energy sources such as solar and wind energy. This in turn may require additional acreage for the production of that energy. The Center is committed to finding ecological restoration solutions for habitat enhancement and stabilization when those solutions are needed.

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