

INTRODUCTION TO SOLAR ENERGY FOR ARCHITECTS AND ENGINEERS

This solar energy seminar is designed to educate engineers and architects to the economic, technological and public relations advantages of solar thermal systems. The course provides a high level overview of solar thermal systems to empower the attendee with knowledge so they can consider and conceptualize solar energy in a project.

- Presented by **Solar Source Institute**, Florida's first stand-alone solar renewable training school, licensed by the **Florida Department of Education**; which holds a **Florida State Certification Commercial and Residential Solar Contract License**; and
- **Green Energy Engineering**, approved by the **Florida Board of Professional Engineers** to provide continuing education to Architects and Engineers. This 8-hour class offers **8 Professional Development Hours (PDHs)** and lunch will be provided.



**Green Energy
Engineering, Inc.**
www.GEEintl.com

Date:
April 9, 2010

Time:
8:00 a.m. to 5:00 p.m

Location:
Solar Source Institute
10840 Endeavour Way
Largo FL 33777

800-329-1301

CLASS OUTLINE

1. Introduction of how solar thermal collectors can be included in the original design or in a remodel to reduce electricity use and / or natural gas use for water heating and reheat in air conditioning and winter heating.
2. Quick overview of economics, carbon footprint and life cycle cost. Why is this good for the building owner, architect, and engineer?
3. What is a solar thermal collector? What does it look like? How does it work? How to mount and orient the panel to the sun. Overview of piping, pumps, controls, and storage tank.
4. Sizing a panel for a heat load. Handling winter and summer heat gain.
5. What is the peak, average, and minimum solar energy available in the Tampa Bay area? Are some areas of the world better suited for solar panels? Are some areas a poor selection?
6. Structural engineering, weight, wind, supports. Things to consider when designing a structure and a roof system.
7. Electrical engineering for circulating pumps and controls.
8. Architectural appearance.
9. Mechanical engineering. Pipe sizing. Pump selection. Sizing a hot water storage tank for domestic hot water. Sizing a hot water storage tank for air conditioning reheat. Energy model runs with and without solar thermal collectors.
10. Economics review summarizes how the solar installation is a win-win for the Architect, Engineer, and building owner.

How to register for this \$199 class:

Pay by check:

Make checks payable to: **Green Energy Engineering**
and mail to:
GEE, 606 14th Avenue N.E., St. Petersburg, FL 33701

Or pay by credit card:

Go to the www.GEEintl.com web site or
go to the solarsourceinstitute.org web site
and click on the shopping cart.

We accept American Express, Visa, and Mastercard.



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