

Agenda

Presented by Jeff Shaw

Understanding Solar Electric Technologies

- Solar photovoltaic cell, module and array operation
- Types of materials and cells, and their energy output
- Operation of grid tied, off-grid and micro inverters
- New technologies

Solar Electric System Sizing, Design and Installation

- Solar modules
- Inverters and micro-inverters
- Mounting and racking systems
- Monitoring systems
- Case study: residential solar electric

Solar Electric Site Analysis

- Elements of a comprehensive site assessment
- Impact of array orientation, tilt and shading
- Comparison of tools to estimate system output

System Design and Code Compliance

- Building code treatment of solar energy systems
- Electrical code compliance
- Utility requirements for interconnection

Economics of Solar Electric Energy Systems

- State and Federal residential solar incentives
- Solar electric in LEED and other sustainable certification systems
- Solar renewable energy credits (RECs)
- Ownership and financing options
- Case study: the economics of a solar photovoltaic system

Can't Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!

Audio recordings of this seminar are available for purchase starting at \$269. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Solar Electric Energy Systems for Residential Buildings

Baton Rouge, LA - Friday, January 17, 2020



HalfMoon Education Inc.
PO Box 278
Altoona, WI 54720-0278

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Learning Objectives

You'll be able to:

Describe solar electric technology and options for grid-tied, off-grid, and micro inverter systems.

Discuss how solar electric systems are sized, designed and installed to achieve optimal results for homeowners.

Explain how solar sites are assessed, and how the analysis is used to determine solar array orientation and tilt.

Identify tools for estimating solar system output.

Take advantage of solar energy incentives and renewable energy credits, and explore system ownership and financing options.



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Gain an understanding of solar electric technologies for grid-tied and off-grid systems

Examine the elements in a comprehensive solar electric site analysis

Learn about solar electric system sizing, design and installation

Determine building code compliance and examine utility interconnection requirements

Consider solar incentives and renewable energy credits

Review a case study illustrating the economics of solar energy systems

Continuing Education Credits

Professional Engineers

6.5 PDHs

Architects

6.5 HSW CEHs
6.5 AIA LU|HSW

Contractors

Non-Credit Continuing Ed.



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Faculty

Jeff Shaw *Project Engineer - Worley-Parsons*

Mr. Shaw is the NABCEP (North American Board of Certified Energy Practitioners) engineer for Texas-based Circle L Solar and project engineer for Worley-Parsons in Baton Rouge. He is the former president of Gulf South Solar, a regional solar integrator, where he was recognized by the American Solar Energy Society for his contributions to solar in the state of Louisiana. A Louisiana State University engineering graduate, Mr. Shaw had 20 years of experience as a control systems engineer prior to his founding of Gulf South Solar in 2003. He is the author of Louisiana's net metering legislation, and he was instrumental in aiding the adoption of the current solar state tax credit and solar rights legislation. In addition to founding the Baton Rouge Community College solar installation class, Mr. Shaw has lived in a solar powered home since 1999 and enjoys teaching solar classes to engineers, architects, homeowners and installers.

Seminar Information

Courtyard Baton Rouge Downtown

260 Third Street
Baton Rouge, LA 70801
(225) 831-4646

Registration
8:00 - 8:30 am
Morning Session
8:30 am - 12:15 pm
Lunch (on your own)
12:15 - 1:15 pm
Afternoon Session
1:15 - 4:30 pm

Tuition

\$289 for individual registration
\$269 for three or more registrations.

Included with your registration: Complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the self-study package. You may also send another person to take your place.

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects in all states. Educators and courses are not subject to preapproval in Louisiana.

The American Institute of Architects Continuing Education System has approved this event for 6.5 LU|HSW (Sponsor No. J885). The Louisiana State Board of Architectural Examiners accepts programs approved by the AIA/CES. Only full attendance can be reported to the AIA/CES. Visit www.halfmoonseminars.org for complete AIA/CES information this course listing

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and architects.

This course offers a non-credit continuing education opportunity for construction contractors, but it is not approved in any state with a contractor continuing education requirement.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series

Retaining Walls and Slope Stabilization

- **Retaining Wall Basics**
Tues., Dec. 10, 2019, 11:00 AM - 12:00 PM CST
- **Geosynthetics and Retaining Walls**
Tues., Dec. 10, 2019, 12:30 - 3:00 PM CST
- **Slope Stability and Geosynthetics**
Wed., Dec. 11, 2019, 11:00 AM - 12:30 PM CST
- **Slope and Retaining Wall Failures, Fixes and Prevention**
Wed., Dec. 11, 2019, 1:00 - 3:00 PM CST

International Green Construction Code

- **Introduction to the International Green Construction Code (IgCC)**
Wed., Dec. 11, 2019, 11:00 AM - 12:30 PM CST
- **IgCC Chapters 4-5: Site Development and Material Use**
Wed., Dec. 11, 2019, 1:00 - 2:30 PM CST
- **IgCC Chapters 6-9: Energy, Water, Environmental Quality and Building Commissioning**
Thurs., Dec. 12, 2019, 11:00 AM - 12:30 PM CST
- **IgCC Chapters 10-11: Existing Buildings**
Thurs., Dec. 12, 2019, 1:00 - 2:30 PM CST

Current Issues in Sustainable Site Design

- **Focus on Sustainability: Light Pollution Reduction**
Tues., Dec. 17, 2019, 11:00 AM - 12:00 PM CST
- **Key Concepts in Ecology for Site Design**
Tues., Dec. 17, 2019, 12:15 - 1:15 PM CST
- **Applying Ecological Concepts to Landscape Architecture and Site Design**
Tues., Dec. 17, 2019, 1:30 - 3:30 PM CST
- **Population Biology, Habitats and Successional Planning**
Wed., Dec. 18, 2019, 11:00 AM - 12:00 PM CST
- **Designing Stormwater Facilities for Function and Performance with Maintenance in Mind**
Wed., Dec. 18, 2019, 12:30 - 2:30 PM CST

Seismic Design of Buildings

- **Part I**
Wed., Dec. 18, 2019, 11:00 AM - 3:30 PM CST
- **Part II**
Thurs., Dec. 19, 2019, 11:00 AM - 3:30 PM CST

For more information and other online learning opportunities visit: www.halfmoonseminars.org/webinars/

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Registration

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How to Register		Registrant Information	
Online: www.halfmoonseminars.org		Name: _____	
Phone: 715-835-5900		Company/Firm: _____	
Fax: 715-835-6066	Code:	Address: _____	
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		City: _____ State: _____ Zip: _____	
Complete the entire form. Attach duplicates if necessary.		Occupation: _____	
		Email: _____	
		Phone: _____	
		Additional Registrants:	
		Name: _____	
		Occupation: _____	
		Email: _____	
		Phone: _____	
		Name: _____	
		Occupation: _____	
		Email: _____	
		Phone: _____	
		Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.	
		() I need special accommodations. Please contact me.	

Tuition

- () **I will be attending the live seminar.** Single Registrant - **\$289.00**. Three or more registrants from the same company registering at the same time - **\$269.00** each.
- () **I am not attending.** Please send me the self-study package:
 - Downloadable MP3 Audio/PDF Manual for **\$269.00**.
 - CD/Manual Package for **\$289.00**. USB/Manual Package **\$289.00**. (S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

Credit Card: Mastercard, Visa, American Express, or Discover

Credit Card Number: _____

Expiration Date: _____ CVV2 Code: _____

Cardholder Name: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Signature: _____

Email: _____