

Agenda

Presented by Heather Holdridge, EIT, Associate AIA, LEED Fellow

Agenda Day One

Energy Calculations

- How to calculate building PV potential
- Energy benchmarking
- Free calculation tools and resources – PV Watts, CBECS, etc

Current Solar PV Economics

- Cost of components
- Lifecycle costs
- Solar system incentives
- Solar renewable energy certificates (REC's/SREC's)
- Calculating payback

Reviewing New Materials and Components

- Developments in panels and films
- Developments in inverters and optimizers
- Racking and mounting systems
- Software
- Balance of system components

Developments in Solar Energy Storage

- Battery storage technologies
- Trends in modern battery storage
- Battery use cases for distributed generation
- Future of battery storage at utility scale

Agenda Day Two

Developments in Solar Energy Storage Continued

- Battery storage technologies
- Trends in modern battery storage
- Battery use cases for distributed generation
- Future of battery storage at utility scale

Developments in Codes and Regulations

- International Building Code, International Residential Code
- National Electrical Code
- International Energy Conservation Code and Stretch Code
- State and local regulations

Future of Solar Photovoltaic Energy Systems

- Requiring solar systems on new projects and other policy improvements
- Continuing improvement in materials and panels
- Continuing improvement in storage
- Developments in manufacturing, distribution and pricing

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Solar Photovoltaic Energy Systems 2022: New Developments for Residential and Small Commercial Systems

Online - Monday, June 27 and Tuesday, June 28, 2022

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PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

Use free tools and resources to calculate the photovoltaic energy potential of buildings and sites.

Calculate payback on solar PV energy systems.

Explore developments in solar panels, inverters, and racking and mounting systems.

Discuss battery storage for distributed generation and at utility scale.

Identify recent changes in the National Electrical Code and the International Building Code.

Examine potential new developments in solar energy policy, technology and manufacturing.



HalfMoon Education Live Webinars

Solar Photovoltaic Energy Systems 2022: New Developments for Residential and Small Commercial Systems

*Live, Interactive Webinar
Monday, June 27 and Tuesday, June 28, 2022*



Calculate PV energy potential for sites and buildings

Discuss battery storage technologies

Identify lifecycle costs for PV systems

Review developments in energy and building codes

Explore new developments in panels, films, inverters and software

Continuing Education Credits

Professional Engineers

6.0 PDHs

International Code Council

.6 CEUs (Energy)

Architects

6.0 HSW CE Hours

6.0 AIA LU | HSW

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Faculty

Heather Holdridge, EIT, Associate AIA, LEED Fellow

Associate Partner, Sustainability Director

Heather Gayle Holdridge, LEED Fellow, EIT, Associate AIA is the Sustainability Director at Lake|Flato Architects. Leveraging her background in mechanical engineering, Heather directs all Lake|Flato teams in establishing sustainability goals. She devises strategies and systems to realize those goals under programs such as LEED, the 2030 Challenge, and the Living Building Challenge. Heather works closely with teams to evaluate passive systems and performs energy modeling throughout the design process. She received a bachelor of science degree in Mechanical Engineering from The University of Texas at Austin and a Master of Business Administration degree from The University of Texas at San Antonio.

Webinar Information

Day One: Monday, June 27, 2022

11:30 am - 2:40 pm CDT (including a 10-min. break)

Day Two: Tuesday, June 28, 2022

11:30 am - 2:40 pm CDT (including a 10-min. break)

(please log into the webinar 15 - 30 minutes before start time)

Tuition

\$319 for individual registration

\$289 for two or more registrants from the same company at the same time.

Included with your registration: PDF seminar manual.

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

Webinars are presented via GoToWebinar. Instructions and login information will be provided in an email sent close to the date of the webinar. For more information, please visit our FAQ section of our website, or visit www.gotowebinar.com.

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

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Additional Learning

Passive House:

Planning, Design and Construction

- Tues, May 24, 2022 | 8:30 am - 4:30 pm CDT

Soil Mechanics, Bearing Capacity and Slope Stabilization

- Wed, May 25, 2022 | 8:30 am - 4:30 pm CDT

Universal Residential Design

- Wed, May 25, 2022 | 8:30 am - 4:30 pm CDT

2021 International Residential Code: Residential Building Planning

- Wed, June 1, 2022 | 11:00 am - 3:30 pm CDT

National Electrical Code 2020: Grounding and Bonding

- Tues, June 7, 2022 | 8:30 am - 5:00 pm CDT

Deep Foundations and Excavations

- Wed, June 8, 2022 | 8:30 am - 4:30 pm CDT

Passive House

for the Great Lakes Region

- Thurs, June 9, 2022 | 7:00 - 2:50 pm CDT

Complying with the Residential Provisions of the IECC 2021

- Thurs, June 9, 2022 | 8:30 am - 4:30 pm CDT

Applying Passive Solar Design To Conventional Homes

- Mon, July 11, 2022 | 2:30 - 4:30 pm CDT

Complying with Fire Protection and Building Codes

- Mon, June 13, 2022 | 8:30 am - 4:30 pm CDT

Seismic Ground Motions for Seismic Design

- Thurs, June 16, 2022 | 8:30 am - 4:30 pm CDT

Engineering Projects from Start to Finish

- Tues, June 21, 2022 | 8:30 am - 4:30 pm CDT

Residential Structural Design

- Friday, June 24, 2022 | 8:30 am - 4:30 pm CDT

For more information

and other online learning opportunities visit:

www.halfmoonseminars.org

Continuing Education Credit Information

This webinar is open to the public and offers 6.0 PDHs to professional engineers and 6.0 HSW continuing education hours to licensed architects in all states.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700) and North Carolina (S-0130). HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2)). Other states do not preapprove continuing education providers or courses.

The American Institute of Architects Continuing Education System has approved this course for 6.0 LU | HSWs (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The International Code Council has approved this event for .6 CEUs in the specialty area of Energy (Preferred Provider No. 1232).

Attendance will be monitored, and attendance certificates will be available after the webinar for those who attend the entire course and score a minimum 80% on the quiz that follows the course (multiple attempts allowed).

Added Value:

Enhance your learning - a recording of this webinar will be available for attendees to stream online for two weeks after the program date.
(Must attend live webinar to earn live webinar credits)

Registration

Solar Photovoltaic Energy Systems 2022

Online - Monday, June 27 and Tuesday, June 28, 2022

How to Register		Registrant Information
Online: www.halfmoonseminars.org		Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip: _____ Occupation: _____ Email: _____ Phone: _____
Phone: 715-835-5900	Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____	
Fax: 715-835-6066	Code:	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.
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		() I need special accommodations. Please contact me.
Complete the entire form. Attach duplicates if necessary.		
Tuition () I will be attending the live webinar. Single Registrant - \$319.00 . Two or more registrants from the same company registering at the same time - \$289.00 each. () I am not attending. Please send me the webinar recording: ☐ Streamable MP4 Video/PDF Manual for \$329.00 . ☐ USB Video/PDF Manual for \$329.00 .		
Checks: Make payable to HalfMoon Education Inc. Credit Card: <i>Mastercard, Visa, American Express, or Discover</i> Credit Card Number: _____ Expiration Date: _____ CVV2 Code: _____ Cardholder Name: _____ Billing Address: _____ City: _____ State: _____ Zip: _____ Signature: _____ Email: _____		