Credit Information

Designing and Constructing a Net-Zero Energy Home

This webinar offers 8.5 PDHs to professional engineers and 8.5 HSW continuing education hours to architects licensed 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 8.5 LU|HSW (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The International Code Council has approved this event for .85 CEUs in the specialty area of Energy (Preferred Provider No. 1232).

Completion certificates will be awarded to participants who complete this event, respond to all prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Drones in Construction

This webinar offers 6.5 PDHs to professional engineers and 6.5 non-HSW continuing education hours to architects licensed in all states that allow non-HSW coursework.

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 architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §69.6(i)(2)). Non-HSW courses do not qualify for New York engineering credit. Other states do not preapprove continuing education providers or courses.

The American Institute of Architects Continuing Education System has approved this course for 6.5 LU|Elective (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

Completion certificates will be awarded to participants who complete this event, respond to all prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Can't Attend? Order the Webinar as a Self-Study Package!
Recordings of each webinar are available for purchase. See course listing online 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. Self-study packages do not qualify for AIA credit.

Live, Interactive Webinars
- Designing and Constructing a Net-Zero Energy Home
- Drones in Construction

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Live, Interactive Webinars

Designing and Constructing a Net-Zero Energy Home

- Monday, September 27, 2021 | 8:30 am - 12:45 pm CDT
- Tuesday, September 28, 2021 | 8:30 am - 1:15 pm CDT

Drones in Construction

- Tuesday, September 28, 2021 | 9:30 am - 5:00 pm CDT

To register, view detailed presenter biographies, and see other learning opportunities, please visit:

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AIA: 8.5 LU|HSW International Code Council: .85 CEUs (Energy)

Drones in Construction

Tuesday, September 28, 2021 | 9:30 am - 5:00 pm CDT

Credits: Professional Engineers: 6.5 PDHs
Architects: 6.5 CE Hours (non-HSW) AIA: 6.5 LU|Elective

To register, visit us online at

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Designing and Constructing a Net-Zero Energy Home

Monday, September 27, 2021 | 8:30 am - 12:45 pm CDT (incl. a 15-min break)
Tuesday, September 28, 2021 | 8:30 am - 1:15 pm CDT (incl. a 15-min break)
Tuition: $289 per registrant, $239 per registrant for three or more
Credits: Professional Engineers: 8.5 PDHs Architects: 8.5 HSW CE Hours
AIA: 8.5 LU|HSW International Code Council: .85 CEUs (Energy)

Agenda Day One

Residential Energy Efficiency Requirements
- Reviewing residential provisions of the International Energy Conservation Code (IECC)
- To seek (or not to seek) sustainable certifications
- Helpful resources
- Software for energy modeling and energy-efficient design

Introduction to Project: Net Zero Energy Home
- Integrated approaches
- Customer considerations
- Sizing, orientation and preliminary plans
- Energy modeling and HVAC design

Workshop: Designing an Energy-Efficient Envelope
- R-values and U-factor alternatives
- Foundation, roof and exterior walls
- Thermal and vapor barriers
- Net-Zero Energy Home Design Workshop Day Two

Agenda Day Two

Workshop: Choosing Windows and Doors
- R-values and U-factor alternatives
- Prescriptive fenestration
- Envelope testing for net zero success

Workshop: Designing Heating and Cooling Systems
- HVAC systems for zero energy homes
- Ductwork and distribution
- Service hot water systems
- Thermal systems
- Mechanical ventilation systems
- Self-powered HVAC

Workshop: Electrical Systems and Distributed Energy Resources
- Electrical and lighting systems
- Electric vehicle infrastructure
- Solar photovoltaic energy systems
- On-site power generation and energy storage

Project Wrap-Up

21 USDCN0EH1 9 27 WEBR JB - 21 USDCN0EH2 9 28 WEBR JB

Drones in Construction

Tuesday, September 28, 2021 | 9:30 am - 5:00 pm CDT (incl. a 30-min break)
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AIA: 6.5 LU|Elective

Agenda

Overview of Unmanned Aircraft Systems (UAS) in Construction
- Uses for UAS in construction
  - Mapping
  - Monitor progress
  - Site reconnaissance
  - Improve safety
- Types of UAS
- Economics of using UAS
- In-house vs. outsource UAS

UAS Regulation, Risk and Liability
- Federal and state regulation of drones
- FAA remote pilot certification
- Potential liability risks
- Commercial drone insurance

Construction Site Mapping with UAS
- Benefits
- Software
- Process
- Data analysis and use

Using UAS to Monitor Progress, and Maintain Safety and Quality
- Monitoring construction progress
- Maintaining safety
- Quality control

Post-Construction: Using UAS to Conduct Periodic Structural Inspections
- High-risk inspections
- UAS inspection capabilities
- Case studies

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Faculty

Designing and Constructing a Net-Zero Energy Home

Jason LaFleur, Sr. *Program Manager, GTI Energy*
Mr. LaFleur joined GTI in 2017 as a program manager for the Emerging Technologies team, and manages emerging technology programs, working with clients such as the Department of Energy's Building America program and the Department of Defense to improve energy efficiency and create resilient energy systems and infrastructure. Prior to joining GTI, he founded Eco Achievers, a nationally-active zero energy consulting firm. He has extensive experience working with emerging technologies in the building sector, helping project teams through design, construction and delivery of several zero energy buildings and dozens of high-performance single- and multi-family buildings. He has certified hundreds of homes to LEED, ENERGY STAR, and Passive House standards. Mr. LaFleur is a voting member of ASHRAE 227 Passive Building Standard.

Drones in Construction

Chuck Adams *1UP Aerial Drone Services, headquartered in Golden, CO*
Mr. Adams is CEO of 1UP Aerial Drone Service, which sells drones and sensors, and provides expert consultation and aerial services to a range of industries, including engineering, commercial real estate, land development, construction, insurance, forensic science and surveying. Mr. Adams is an FAA Part 107 certified pilot and a tenured information technology and cloud industry veteran who has spent 25 years in the high-tech industry.

Additional Learning

Shallow Foundation Design, Construction, and Repair
- Tues, Aug 10, 2021|8:30 am - 5:00 pm CDT

Small Wind Energy Systems
- Wed, Aug 11, 2021|8:30 am - 4:30 pm CDT

Participating in the WELL Building Certification Process
- Wed, Aug 18, 2021|12:00 - 4:00 pm CDT
- Thurs, Aug 19, 2021|12:00 - 4:00 pm CDT

Soil Mechanics, Bearing Capacity and Slope Stabilization
- Fri, Aug 20, 2021|8:30 am - 4:30 pm CDT

Designing for Accessible Pedestrian Facilities
- Fri, Aug 20, 2021|9:00 am - 4:30 pm CDT

How To Handle Ethical Issues Associated with Defects and Failures
- Tues, Aug 24, 2021|9:00 - 11:00 am CDT

Designing for Accessibility under ADA Standards and IBC
- Tues, Aug 24, 2021|8:30 am - 12:15 pm CDT
- Wed, Aug 25, 2021|8:30 am - 12:15 pm CDT

Highways, Byways and Private Roads
- Wed, Aug 25, 2021|11:00 am - 3:30 pm CDT

Pavement Design
- Wed, Aug 25, 2021|8:30 am - 4:30 pm CDT

Construction Cost Estimating
- Thurs, Aug 26, 2021|8:30 am - 3:50 pm CDT

International Building Code 2021
- Thurs, Aug 26, 2021|10:00 am - 2:30 pm CDT
- Fri, Aug 27, 2021|10:00 am - 1:30 pm CDT

Residential and Small Commercial Solar Photovoltaic Energy Systems
- Fri, Aug 27, 2021|8:30 am - 4:30 pm CDT

Stormwater Basins and Underground Systems
- Fri, Aug 27, 2021|9:00 am - 4:30 pm CDT

IBC Special Inspections under Chapter 17 of the International Building Code
- Tues, Aug 31, 2021|8:30 am - 5:00 pm CDT

Handling Ethical Issues in Construction
- Tues, Aug 31, 2021|3:00 - 5:00 pm CDT

Complying with NFPA 101 (2021): Life Safety Code
- Thurs, Sept 2, 2021|9:30 am - 5:30 pm CDT

Engineered Lumber Design and Construction
- Fri, Sept 10, 2021|8:30 am - 4:20 pm CDT

For more information
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