

HalfMoon Education Live Continuing Education Webinars

Air-Source Heat Pumps, Split Systems, and Energy Recovery Ventilators

Online - Wednesday, October 12, 2022 | 8:00 am - 4:00 pm CDT

Credits:

Professional Engineers: 6.5 PDHs

Architects: 6.5 HSW CE Hours AIA: 6.5 LU|HSW

International Code Council: .65 CEUs (Energy)

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Overview of Systems to be Covered

- Air-source heat pumps, mini-splits and ducted units for space heating
- Energy recovery ventilators for provision of fresh air

Heat Pumps Overview

- Underlying heating concepts
- How they work: heat pump process cycle, terminology, measures of performance
- COP (coefficient of performance)
- Performance in cold climates
- Cold-climate air-source heat pumps
- A retrofit example

Heat and Energy Recovery Ventilators

- Benefits
- Operation
- Different types of recovery ventilators
- Energy recovery ventilator (ERV) versus heat recovery ventilator (HRV)?
- Ductwork design considerations
- Commercial examples

Air-Source Heat Pumps for Space Heating

- Proposed improvements to rating metrics for air-source heat pumps
- Coefficient of performance (COP) at various temperatures
- Equipment types and performance
- New construction and retrofit case studies

Integrating Ducted Air Source Heat Pumps with Energy Recovery Ventilators

- The big question: duct together or separately?
- An innovative and energy-efficient way to replace rooftop units with heat pumps and energy recovery ventilators

Round-Up and Review

Presented by

Bart Bales, PE MSME is the Principal and Professional Consulting Engineer at Bales Energy Associates in Massachusetts. Bales Energy Associates provides energy analysis, design, and implementation of high-performance, energy-efficient and renewable energy systems for buildings and facilities with an emphasis on a “whole-systems,” building science-based approach. Mr. Bales is a registered professional mechanical engineer in Massachusetts, Connecticut, New York, Rhode Island, and Vermont.

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.*

Additional Learning

International Existing Building Code 2021

- Friday, September 9, 2022 | 8:30 am - 5:00 pm CDT

National Electrical Code 2020

- Tuesday, September 13, 2022 | 8:30 am - 5:00 pm CDT

For more information and other online learning opportunities visit:

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Recordings of this webinar are available for purchase. 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.

Credit Information

This webinar is open to the public and is designed to qualify for 6.5 PDHs for professional engineers and 6.5 HSW continuing education hours for 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 6.5 LU/HSWs (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The International Code Council has approved this event for .65 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).

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