

Agenda

Presented by Michael Bergey

Understanding the Technology of and Applications for Small Wind Systems

- Defining small wind systems
- Reviewing technology and equipment
 - Horizontal and vertical axis turbines
 - Reviewing components and operation
 - Evaluating manufacturers and equipment

Understanding the Economics of Wind Energy

- Calculating the cost of the system
- Calculating the energy output
- Researching utility treatment of wind energy
- Obtaining incentives and rebates
- Calculating lifecycle cost
- Calculating return on investment

Reviewing Restrictions on Small Wind Energy Systems

- Understanding state policy on small wind energy systems
- Investigating land use and zoning restrictions
- Understanding the permitting process

Assessing Sites for Small Wind Energy Systems

- Researching sites using federal and state maps and statistics
- Obtaining wind energy assessments
 - Finding a wind consultant
 - Making sure you receive a comprehensive assessment
- Evaluating the suitability of the site from an installation perspective

Installing Small Wind Energy Systems

- Sizing small wind systems
- Choosing a turbine
- Choosing a tower
- Overview of installation process
- Connecting to the utility grid
- Non-grid-tied systems
- Using batteries to store electricity
- Repair, maintenance and longevity of systems
- Integration with other renewable energy systems

Case Studies of Small Wind Installations

- Examining residential, commercial and rural installations

Small Wind Energy Systems

Oklahoma City, OK - Tuesday, August 20, 2019

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Learning Objectives

You'll be able to:

Understand state policy in regards to small wind energy systems.

Identify the various components of small wind systems.

Discuss how to connect to the utility grid.

Obtain wind energy assessments.

Evaluate the suitability of a site from an installation perspective.

Get tips on repairing and maintaining small wind systems.



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Small Wind Energy Systems

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Understand the technology and applications for small wind systems

Examine the economics of wind energy

Learn how to assess sites for small wind energy systems

Choose the correct tower and turbine for your system

Explore the restrictions on small wind energy systems

Discuss case studies

Continuing Education Credits

Professional Engineers
6.5 PDHs

Architects*
6.5 HSW CEUs
6.5 AIA LU|HSW

Contractors
Non-Credit Continuing Ed.



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Faculty

Michael Bergey *President & CEO Bergey Windpower Co.*

A co-founder of Bergey Windpower Co. and its president since 1987, Mr. Bergey is a mechanical engineer (Univ. of Oklahoma) and an internationally-recognized expert in the fields of small wind systems, distributed generation, and green telecom. He has twice served as president of the American Wind Energy Association (AWEA) and served on the AWEA Board of Directors from 1981 to 2007. Mr. Bergey chaired the AWEA Small Wind Turbine Committee for more than 20 years and authored AWEA's 2002 *U.S. Small Wind Turbine Industry Roadmap: A 20-year Industry Plan for Small Wind Technology*. In 1994 he was recognized as the "Wind Industry Man of the Year" by AWEA. He is the recipient of the 2012 Small Wind Conference "Wind Advocate Award". In 1981 Mr. Bergey was recognized by AWEA for development of the "AWEA Performance Rating Standard", which was the basis for the IEC 61400-12 performance testing standard used for all wind turbines worldwide. He chaired the AWEA Small Wind Standards Committee and led the development of the 2008 AWEA certification standard (also adopted in the U.K., Japan, and Canada). Mr. Bergey is the first president of the Distributed Wind Energy Association (DWEA), which represents the U.S. small and community wind industry. He also co-chairs the DWEA Federal Policy Committee. In 2003 Mr. Bergey served on Oklahoma Governor Henry's EDGE Committee, which prepared a strategic plan for economic development in Oklahoma. He then served two terms on the Governor's Council for Workforce and Economic Development. Mr. Bergey was Workforce Oklahoma's "Cleveland County Businessman of the Year" in 2005. He served on the Norman Chamber of Commerce Board from 2003 – 2010 and was the Chamber president in 2008. He has served on the boards of numerous civic and charitable organizations in Norman and Central Oklahoma.

Seminar Information

Ambassador Hotel Oklahoma City
1200 North Walker Avenue
Oklahoma City, OK 73103
(405) 600-6200

Tuition
\$289 for individual registration
\$269 for three or more registrations.
Included with your registration: Complimentary continental breakfast and printed seminar manual.

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

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 CEUs/continuing education hours to architects* in all states. Educators and courses are not subject to pre-approval in Oklahoma.

This seminar is approved by the American Institute of Architects for 6.5 LU|HSW (Sponsor No. J885). Only full attendance can be reported to the AIA/CES. Visit www.halfmoonseminars.org for complete AIA information under this course listing.

This course also offers a non-credit continuing education opportunity to construction contractors.

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.

*Oklahoma rules require course providers to verify the identity of architects and prohibit course participants from earning partial credit.

Additional Learning

Webinar Series

National Electrical Code:
Onsite Power Generation and Distribution

- **National Electrical Code: Onsite Power Generation and Distribution, Part I**
Wed., July 10, 2019, 11:00 AM - 2:15 PM CDT
- **National Electrical Code: Onsite Power Generation and Distribution, Part II**
Thur., July 11, 2019, 11:00 AM - 2:15 PM CDT

OSHA Construction Safety

- **Overview of Construction Safety Hazards, Statistics and OSHA Requirements**
Thurs., July 11, 2019, 11:00 AM - 12:30 PM CDT
- **Construction Site Fall Prevention, Ladders, Stairways and Excavation**
Thurs., July 11, 2019, 1:00 - 3:00 PM CDT
- **Construction Site Scaffolds, Cranes and Loading Capacities**
Fri., July 12, 2019, 11:00 AM - 12:30 PM CDT
- **Chemical Hazards, Electrical Safety and Personal Protective Equipment**
Fri., July 12, 2019, 1:00 - 3:00 PM CDT

Basics of Fluid Mechanics

- **Fluid Mechanics Overview and Theory**
Tues., July 16, 2019, 11:00 AM - 1:00 PM CDT
- **Fluid Statics and Fluid Dynamics**
Tues., July 16, 2019, 1:30 - 3:30 PM CDT
- **Fluid Dynamics Theory and Applications, Part I**
Wed., July 17, 2019, 11:00 AM - 1:00 PM CDT
- **Fluid Dynamics Theory and Applications, Part II**
Wed., July 17, 1:30 - 3:30 PM CDT

NFPA 70E

- **NFPA 70E, Part I**
Wed., July 24, 2019, 11:00 AM - 3:30 PM CDT
- **NFPA 70E, Part II**
Thur., July 25, 2019, 11:00 AM - 3:30 PM CDT

For more information visit:
www.halfmoonseminars.org/webinars/

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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.

Registration

Small Wind Energy Systems
Oklahoma City, OK - Tuesday, August 20, 2019

How to Register		Registrant Information
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Complete the entire form. Attach duplicates if necessary.		
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Tuition	
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