

Agenda

Presented by Clay Sterling

Small Wind Energy Systems Day One: System Components

Thursday, October 22, 2020 | 11:00 am - 1:00 pm CDT

Terms and Wind History

Terms and definitions
A short history of wind
Things you will see on the street
Direct drive/gear box
Low speed/high speed
Variable speed/constant speed
Up wind/down wind
Horizontal/vertical/rooftop

Collectors and Alternators

Drag devices Lift devices
Radial alternators Axial alternators
Speed control

Towers

Tower types Freestanding
Guyed lattice Tilt up tower
FAA Requirements

Small Wind Energy Systems Day Two: Siting and Sizing

Friday, October 23, 2020 | 11:00 am - 1:00 pm CDT

Size Categories/System Sizing

Cabin size
Home size
Small commercial/farm size
System sizing

The Wind Resource

Wind quantity
Wind quality
Siting

System Types

Utility intertied
Multimodal (utility intertied with batteries)
Stand alone
Hybrid
The good and bad

Small Wind Energy Systems

Online - Thursday, October 22, 2020
and Friday, October 23, 2020

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Learning Objectives

You'll be able to:

Evaluate horizontal, vertical, rooftop, and tower-mounted small wind energy systems.

Identify and evaluate system components, including drag devices, lift devices, radial alternators and axial alternators.

Explore different types of towers, including freestanding, guyed lattice and tilt-up towers.

Size small wind systems considering purpose and location.

Investigate wind resources on site.

Consider utility-tied systems, multimodal systems and stand-alone wind energy systems.



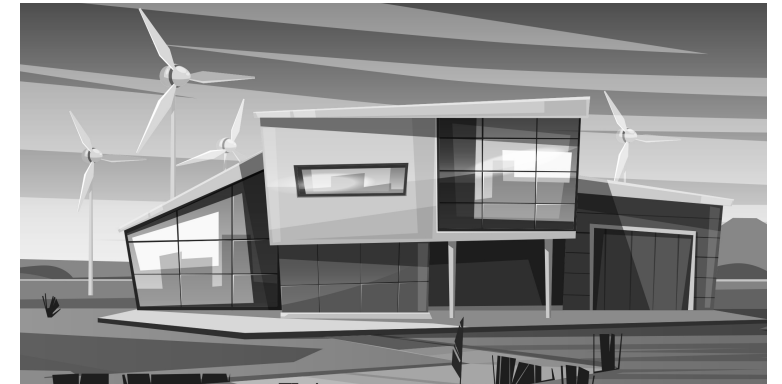
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HalfMoon Education Online Learning

Small Wind Energy Systems

Live, Interactive Webinar Series

Thursday, October 22 and Friday, October 23, 2020



Evaluate quality and quantity of wind resources

Learn about wind site assessment and load analysis

Recognize what to look for in a wind energy assessment to decide if the site is a suitable candidate for a small wind system

Explore system components, including collectors and alternators

Size wind energy systems

Discuss tower types and FAA requirements

Continuing Education Credits

Professional Engineers

4.0 PDHs

Architects

4.0 HSW CE Hours

4.0 AIA LU|HSW

International Code Council

.4 CEUs (Energy)



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Faculty

Clay Sterling is an Associate Professor of Renewable Energy Technology at Kankakee Community College and is an IREC Certified PV and Small Wind Instructor. In the recent past, he instructed both solar photovoltaic (PV) and wind courses at the Midwest Renewable Energy Association for over fifteen years. He has a construction background gained from working in his family’s plumbing shop, and he has worked nine years as a commercial electrician on large construction projects. In 2009, Wisconsin’s K-12 Energy Education Program named him the Non-Formal Energy Educator of the Year. He also received the “Clean Energy Trainer of the Year” award in 2013 from the Interstate Renewable Energy Council (IREC).`

Webinar Information

Day One: System Components
Thursday, October 22, 2020 | 11:00 am - 1:00 pm CDT

Day Two: Siting and Sizing
Friday, October 23, 2020 | 11:00 am - 1:00 pm CDT
(please log into the webinar 15 - 30 minutes before start time)

Tuition
\$199 for individual registration
\$149 for three or more registrants from the same company at the same time.
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How to Register

- Visit us online at www.halfmoonseminars.org
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Live and interactive webinars that teach new skills

How to Inform Your Design Process Using Passive House
- Tues., October 13, 2020 | 11:00 am - 1:00 pm CDT

Commercial Energy Conservation Code Essentials for Architects
- Fri., October 16, 2020 | 11:00 am - 2:15 pm CDT

Carbon Credits: Creation, Trading, and Role in Climate Action
- Mon., October 19, 2020 | 1:30 - 3:30 pm CDT

How to Design Detention Basins
- Mon., October 19, 2020 | 11:00 am - 1:00 pm CDT

How to Estimate Construction Costs for Commercial Buildings
- Fri., October 23, 2020 | 10:30 am -12:30 pm CDT

How to Navigate the New Federal Navigable Waters Protection Rule
- Fri., October 23, 2020 | 12:00 - 2:00 pm CDT

How to Test for Indoor Air Quality: Reflections from a Residential Department of Energy Research Study
- Mon., October 26, 2020 | 11:00 am - 12:00 pm CDT

How to Design for Wind Loads
- Wed., October 28, 2020 | 6:00 - 8:00 pm CDT

How to Increase Energy Conservation and Provide Electric Car Charging Capabilities
- Fri., October 30, 2020 | 11:00 am - 12:00 pm CDT

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Registration

Small Wind Energy Systems

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How to Register

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