Agenda

Presented by Andrew Larkin

Understanding the Environmental and Economic Benefits of Cogeneration
- Separate heat and power vs. cogeneration
- History of cogeneration in Europe and the United States
- Environmental benefits of cogeneration
- Economics of CHP
- Science of cogeneration and its fit with renewable energy

Laws, Regulations and Building Codes Impacting Cogeneration
- Federal, state and local environmental regulations
- Utility regulations
- Permitting process
- Building code considerations
- Impact on LEED certification

Considering Cogeneration Technologies
- Gas turbines
- Microturbines
- Fuel cells
- Steam turbines
- Reciprocating engines
- Biomass and other applications

Resolving Impediments to Cogeneration
- Utility treatment of cogeneration
- Interconnection challenges
- Limitations of available technologies
- Capital costs and financing
- Blind focus on renewables

Making the Move to Cogeneration: Analysis, Modeling and Case Studies
- Understanding existing pre-cogeneration conditions
- Performing load analysis
- Selecting a prime mover
- Modeling life cycle costs
- Grants and incentives
- Analyzing public and private case studies

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Cogeneration System Principles and Practices
Live, Interactive Webinar - Mon., December 14, 2020

HalfMoon Education Inc.
PO Box 278
Altoona, WI 54720-0278

Learning Objectives

You'll be able to:

Examine the fundamental principles and benefits of combined heat and power.

Identify the laws, regulations and building codes impacting cogeneration.

Understand the technologies behind cogeneration, including microturbines and reciprocating engines.

Evaluate operation and maintenance expenses associated with combined heat and power systems.

Analyze public and private cogeneration case studies.

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Cogeneration System Principles and Practices

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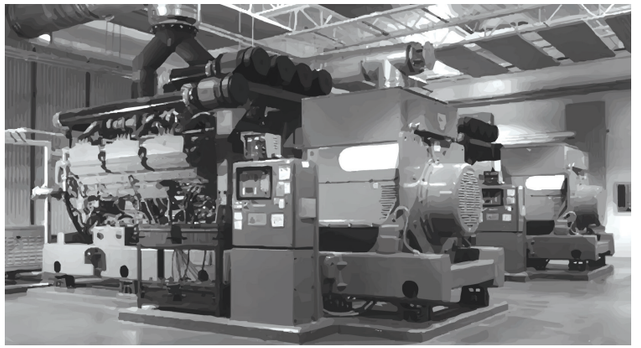

Understand the economic and environmental benefits of cogeneration

Review building code considerations and the permitting process

Discuss the impact of LEED and other sustainable certifications

Learn about gas turbines, fuel cells and other cogeneration technologies

Explore capital costs and financial incentives associated with cogeneration

Analyze public and private case studies

Continuing Education Credits

Professional Engineers
6.5 PDHs

Architects
6.5 HSW CE Hours

AIA
6.5 LU|HSW

International Code Council
.65 CEUs (Energy)

AIA Continuing Education Provider

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Faculty

Andrew Larkin *VP, Development Engineering at DCO Energy, LLC*

Mr. Larkin is vice president of Development Engineering at DCO Energy based in New Jersey. He is responsible for technical solutions to energy project opportunities, including simple cycle and combined cycle cogeneration plants, central heating and cooling facilities, renewable energy projects, and others. He also has managed the engineering of several energy projects from development through start up, commissioning and performance testing. Mr. Larkin earned his B.A. degree in English from Franklin and Marshall College, and his B.S.M.E. degree and M.S. degree in Engineering Management from Drexel University. He has been involved in the energy business for over 30 years.

DCO Energy, LLC, is an independent energy company specializing in the development, engineering, procurement, construction, start up, commissioning, operation, maintenance and management, as well as ownership, of central energy centers (CEC); renewable energy projects; combined heat, chilling and power (CHCP) production facilities; and other types of powerplants. DCO was formed in 2000 with a core team of energy experts. Collectively, DCO team members have been independently developing projects or have developed and operated over 400 MW of electric, 400 MMBtu/hr of heat recovery, 1,500 MMBtu/hr of boiler capacity and 130,000 tons of chilled water capacity of energy-producing facilities totaling over $1 billion dollars of assets. DCO provides financing, engineering and design, construction management, startup and commissioning resources, and long-term operating and maintenance services for its own CEC, CHCP and renewable energy projects as well as for third-party clients.

Additional Learning

Structural Forensic Engineering
- Fri., December 4, 2020 | 7:30 am - 3:30 pm CST

AIA Contract Document Workshop
- Mon., December 7, 2020 | 9:00 am - 5:00 pm CST

IBC International Building Code 2021
- Mon., December 7, 2020 | 8:30 am - 4:20 pm CST

Construction Cost Estimating
- Wed., December 9, 2020 | 8:30 am - 3:50 pm CST

Technical Writing Workshop for Engineers
- Wed., December 9, 2020 | 8:30 am - 5:00 pm CST

Net-Zero Energy Home Design Workshop
- Mon., December 14, 2020 | 11:00 am – 2:15 pm CST
- Tues., December 15, 2020 | 11:00 am – 2:15 pm CST
- Thurs., December 17, 2020 | 11:00 am – 2:15 pm CST

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www.halfmoonseminars.org

Webinar Information

Log into Webinar
8:00 - 8:30 am EST

Break
11:45 am - 12:45 pm EST

Morning Session
8:30 - 11:45 am EST

Afternoon Session
12:45 - 4:30 pm EST

Tuition

$299 for individual registration
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Included with your registration: *PDF seminar manual.*

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Continuing Education Credit Information

This webinar offers 6.5 PDHs to professional engineers and 6.5 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), North Carolina (S-0130), and North Dakota. 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|HSW (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).

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

Registration

Cogeneration System Principles and Practices

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How to Register

Online:
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Complete the entire form. Attach duplicates if necessary.

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Tuition

( ) **I will be attending the live webinar.** Single Registrant - **$299.00**. Three or more registrants from the same company registering at the same time - **$199.00** each.

( ) **I am not attending.** Please send me the webinar recording:
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