

# ENERGY EFFICIENCY MANAGEMENT CERTIFICATE PROGRAM

MAY 6 – 10, 2019  
SPRING EDUCATION INSTITUTE  
OMAHA, NEBRASKA

Taught by the:



Vermont  
Energy Investment  
Corporation



AMERICAN  
**PUBLIC  
POWER**<sup>™</sup>  
ASSOCIATION  
ACADEMY

## Program Requirements

To earn this certificate, participants must complete the following requirements within one year:

### Complete the five required courses

- Electric Utility Industry Overview: Strategic Challenges and Trends\*
- Energy Efficiency: Concepts and Strategies
- Designing Efficiency Programs to Serve Your Customers
- Energy Efficiency Program Implementation, Reporting and Evaluation
- Emerging Trends and Opportunities in Energy Efficiency and Distributed Energy Resources

### Pass an online exam

### Submit an energy efficiency program business plan

## 2019 Schedule

The Energy Efficiency Management Certificate Program will be held once a year.

### May 6–10, 2019

As part of the Spring Education Institute

### Hotel Information

Omaha Marriott Downtown at the Capitol District  
222 North 10<sup>th</sup> Street  
Omaha, Nebraska 68102

### APPA Room Rate

\$169 Single/Double (*plus tax*)

### Room Rate Cut-off Date

April 15, 2019

### Reservations

(402) 807-8000

## Registration

To register, visit [www.PublicPower.org/Academy](http://www.PublicPower.org/Academy) and click on **Institutes & Certificates**.

## In-House Training

Bring these courses to your location — a convenient and cost-effective option for groups. Contact the Association's Education Department for details ([EducationInfo@PublicPower.org](mailto:EducationInfo@PublicPower.org)).

\*Participants who can demonstrate knowledge of the utility industry, through work experience or coursework, may opt-out of this course. Contact [EducationInfo@PublicPower.org](mailto:EducationInfo@PublicPower.org) for more information.



## PROGRAM DESCRIPTION

**W**ho manages energy efficiency programs at your utility? Are they up to speed with the latest trends, technologies, policies, and requirements? Successful programs do not happen by accident—they require an understanding of the industry, marketplace, customers and many other elements. When done well, energy efficiency can play an important role in achieving utility goals and improving customer service.

APPA's Energy Efficiency Management Certificate Program covers all aspects of energy efficiency portfolio and program planning, implementation, and evaluation, preparing you to help residential, commercial, and industrial customers save energy, while enjoying high reliability and quality service.

To earn an Energy Efficiency Management Certificate, participants must complete the five required courses and then, within a year of completing the coursework, pass an online exam and submit an energy efficiency program plan. Courses can be taken individually or together as part of the certificate program.

### Who Should Attend

Staff from small, medium, and large public power utilities that:

- Want to start an energy efficiency program
- Are interested in various aspects of energy efficiency
- Already manage energy efficiency programs but want to scale them up
- Want to earn a professional credential

# COURSEWORK

Courses can be taken individually or as part of the certificate program.

## Electric Utility Industry Overview: Strategic Challenges & Trends\*

**Monday, May 6**

8:30 a.m.–4:30 p.m.

*Recommended CEUs .7/PDHs 6.5/CPEs 7.8*

*Field of Study: Specialized Knowledge*

### Course Overview

This course provides a largely non-technical overview of the public power system in its broader operating and business management context. Learn about the electric utility system infrastructure from power grid to meter, its operation, performance, and development. Strategic issues and industry trends that are impacting utilities and challenging the traditional public power business model will also be discussed. Each attendee will receive a copy of APPA's Electric Utility Basics handbook.

### Course Topics

- Electric utility industry regulation and market restructuring
- Developments in generation and regional transmission
- Developments in local transmission and distribution infrastructure
- Strategic issues and trends for electric utilities
- The public power business model
- How changes in the industry are affecting local public power systems

### Course Level

**Basic Level.** No prerequisites; no advanced preparation.

### Instructor

R. John Miner, P.E.

\*Participants who can demonstrate knowledge of the utility industry, through work experience or coursework, may opt-out of this course. Contact [EducationInfo@PublicPower.org](mailto:EducationInfo@PublicPower.org) for more information.

# Energy Efficiency: Concepts and Strategies

**Tuesday, May 7**

8:30 a.m.–4:30 p.m.

*Recommended CEUs .7/PDHs 6.5/CPEs 7.8*

*Field of Study: Specialized Knowledge*

## Course Overview

This course provides an introduction to energy efficiency, load management, and energy conservation concepts, from lighting and weatherization to heating and cooling options. Learn about federal, state and municipal utility energy efficiency policies and programs. Hear about measures that help residential, commercial, and industrial customers save energy and position your utility to provide a high level of customer service and reliability. Review strategic planning tools and best practices to align your energy efficiency program goals and strategies with your utility's goals.

## Course Topics

- Defining energy efficiency, load management, conservation and associated concepts
- Common and emerging efficiency measures — lighting, heating, ventilation, air conditioning, smart thermostats, and controls
- Federal, state, and local landscape and policies driving energy efficiency
- Ways to assess energy efficiency potential
- Strategic planning approaches to use energy efficiency programs to support utility goals, such as reducing peak load, improving customer service, and promoting economic development

## Course Level

**Basic Level.** No prerequisites; no advanced preparation.

## Instructor

Elizabeth Palchak, Ph.D.



# Designing Efficiency Programs to Serve Your Customers

**Wednesday, May 8**

8:30 a.m.-4.30 p.m.

*Recommended CEUs .7/PDHs 6.5/CPEs 7.8*

*Field of Study: Specialized Knowledge*

## Course Overview

Learn how to design an energy program that achieves your utility's strategic goals while serving your customer base. Integrate Design Thinking exercises and other program planning tools to generate ideas and insights to inform program design. Effectively engage your customers with behavioral and marketing strategies.

## Course Topics

- Market assessment — identifying customer barriers and motivations and using market research techniques to inform program design
- Program design — selecting a program approach to match utility and customer goals and resources to overcome customer barriers
- Cost-effective programs for different customer classes — prescriptive and custom rebates, upstream programs, financing, etc.
- Design Thinking exercises to generate ideas and insights to inform program design
- Behavioral science insights and marketing techniques to effectively engage customers

## Course Level

**Basic Level.** No prerequisites; no advanced preparation.

## Instructor

Elizabeth Palchak, Ph.D.

# Energy Efficiency Program Implementation, Reporting and Evaluation

**Thursday, May 9**

8:30 a.m.-4.30 p.m.

*Recommended CEUs .7/PDHs 6.5/CPEs 7.8*

*Field of Study: Specialized Knowledge*

## Course Overview

Create an implementation plan for successful program execution. Gain tools and techniques to track and evaluate energy savings and cost-effectiveness. Create a right-size data tracking plan that fits your utility's needs, based on goals, reporting requirements, budget, and staff availability.

## Course Topics

- Program implementation — developing a plan that includes all aspects of program delivery, including goal-setting, incentives, marketing, and outreach
- Tools, resources, and templates to support program planning, reporting, and budgeting
- Techniques to measure energy and demand savings, participation and cost-effectiveness
- Evaluation, measurement and verification (EM&V) approaches to evaluate program results, including process evaluation, impact evaluation, and savings verification
- Right-sizing your data tracking and reporting system based on utility goals and resources

## Course Level

**Basic Level.** No prerequisites; no advanced preparation.

## Instructor

Carol Weston

# Emerging Trends and Opportunities in Energy Efficiency and Distributed Energy Resources

**Friday, May 10**

8:30 a.m.-4.30 p.m.

*Recommended CEUs .7/PDHs 6.5/CPEs 7.8*

*Field of Study: Specialized Knowledge*

## Course Overview

Learn about industry trends in energy efficiency, including the rapid transformation of the lighting market and the rise of connected devices. Learn the benefits of distributed energy resources (DER) and key opportunities for municipal utilities to improve customer service, increase reliability and reduce costs through a range of DER activities.

## Course Topics

- Impact of rapid market transformation on energy efficiency programs and savings opportunities
- Capturing behavioral and operational savings through connected devices
- Latest trends in real-time EM&V and measuring savings at the meter
- Demand reduction and load management opportunities through energy efficiency, demand response, battery storage, and electric vehicles
- Integrating DERs into utility and power system planning

## Course Level

**Basic Level.** No prerequisites; no advanced preparation.

## Instructor

Dan Fredman, Ph.D.

## Questions?

Please contact APPA's Education Department at 202/467-2919 or [Education@PublicPower.org](mailto:Education@PublicPower.org)



# INSTRUCTORS

## **Dan Fredman, Ph.D., Consultant, VEIC**

Dan specializes in using sustainability planning, behavioral economics, and data science to design, implement, test, and evaluate innovative utility efficiency programs with an emphasis on behavior change and new technology. Dan recently completed his PhD at the University of Vermont's Rubenstein School of Environment & Natural Resources, and, as an NSF Smart Grid IGERT fellow, wrote his dissertation about the potential for utilities to obtain behavior-based energy savings from renters using real-time feedback and socially-competitive performance incentives. Previously, Dan was an affiliate at the Lawrence Berkeley National Lab.

## **John Miner, P.E., President, Collaborative Learning, Inc.**

John is an executive manager, educator and consultant with more than 45 years of experience in the electric utility industry. He has been an APPA instructor for more than 30 years and an instructor for the University of Wisconsin for 20 years. He previously held executive leadership positions at the Austin, Texas, Electric Utility Department, Rochester Public Utilities in Minnesota, and served as an assistant professor at the University of Houston.

## **Elizabeth Palchak, Ph.D., Consultant, VEIC**

Elizabeth has engaged in strategic planning efforts across various organizations to support the alignment of mission and planning efforts. At VEIC, Elizabeth develops behavior-based strategies for specific customer targets like low-income populations, renters, and millennial-age energy consumers. She has extensive teaching experience with various audiences, including sustainability professionals from across the country and at the university level.

## **Carol Weston, Director, Programs and Implementation, VEIC**

Carol is the Director of Programs and Implementation for VEIC's Efficiency Vermont Division. Her focus is on portfolio strategic alignment, budget and performance management. She oversees a team charged with program level design, planning, implementation, budgeting, customer satisfaction, and progress against goals.

# CERTIFICATE COMPLETION REQUIREMENTS

After completing the required coursework, participants must:

## 1. Pass an online exam

- Consists of 100 multiple choice questions, based on the required coursework.
- You must score at least 75% to pass the exam. You'll have two opportunities to pass the test.

## 2. Submit an energy efficiency program plan

- The plan will be a model for any energy efficiency program your utility undertakes. It will include all of the topics, actions, and issues that a project manager must address while managing an energy efficiency project.
- You'll receive plan guidelines that outline what is expected in each section.

## Timing

Participants must complete the program requirements within one year of attending their last course in the certificate program.

## Questions?

Contact [EducationInfo@PublicPower.org](mailto:EducationInfo@PublicPower.org) or 202/467-2919.

## Enrollment Fees\*

### APPA Members

Registration received on or before April 15	\$2,800
Registration received after April 15	\$3,050

### Nonmembers

Registration received on or before April 15	\$5,600
Registration received after April 15	\$5,850

The enrollment fee includes the five courses, cost of study material, exam grading and post-course project review/grading.

\*For more information and pricing for the Electric Utility Industry Overview course opt-out option, contact [EducationInfo@PublicPower.org](mailto:EducationInfo@PublicPower.org).

# ACCREDITATION



## Continuing Education Units

The American Public Power Association is accredited by the International Association for Continuing Education and Training (IACET) and is authorized to issue the IACET CEU. For information regarding certification status, attendance requirements and obtaining attendees transcripts, visit [www.PublicPower.org](http://www.PublicPower.org) or contact [EducationInfo@PublicPower.org](mailto:EducationInfo@PublicPower.org) or 202/467-2919.

## Professional Development Hours

APPA educational practices are consistent with the criteria for awarding Professional Development Hours (PDHs) as established by the National Council of Examiners for Engineering and Surveying (NCEES). Course eligibility and number of PDHs may vary by state.



## Continuing Professional Education Credits

The American Public Power Association is registered with the National Association of State Boards of Accountancy (NASBA) as a sponsor of continuing professional education on the National Registry of CPE Sponsors. State boards of accountancy have final authority on the acceptance of individual courses for CPE credit. Complaints regarding registered sponsors may be submitted to the National Registry of CPE Sponsors through its website: [www.learningmarket.org](http://www.learningmarket.org).

There are no prerequisites for the courses offered; no advance preparation is required for any courses. All courses are group-live offerings. Credit hours and areas of study for the courses are listed in this brochure. For more information regarding administrative policies, such as clarification of requirements, complaints, and refunds, please contact [EducationInfo@PublicPower.org](mailto:EducationInfo@PublicPower.org).

## REGISTRATION INFORMATION

To register, visit [www.PublicPower.org/Academy](http://www.PublicPower.org/Academy) and click on **Institutes & Certificates**.



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