

**Electric Utility Fundamentals + Insights (online)**  
*December 8 - 9, 2021*

**Course Overview**

This class provides utility and service employees with a deep understanding of how the electric utility industry works. Participants will gain a better awareness of their roles within the organizations. Participants will also gain a broader understanding of the electric industry's critical issues and the interaction between utilities and the stakeholders. This course traverses the business of electricity, from the scientific beginnings to today's generation choices, the modern electric grid, customer engagement, and how utilities make money. The program also covers an overview of federal, state/provincial, and municipal regulations and their impacts on the business model.

**Who Should Attend?**

This class is designed for personnel who wants to broaden their understanding of the operation and business aspects of the electric industry. Participants will benefit from the program regardless of their level of experience or field of work.

**Provider:** Western Energy Institute (WEI)

**Date:** Wednesday, December 8, Thursday, December 9, 2021

**Time:** 8:30 a.m. - 2:30 p.m. (Day One) 8:00 a.m. - 12:00 p.m. (Day Two)

**Length:** 2 days

**Platform:** online

**Capacity:** minimum of 20 attendees; maximum of 30 attendees

**Estimated Enrollment Fee**

**SCPPA MEMBER RATE: \$200 - \$300 per attendee**

*(NOTE: the actual cost will be based on the final number of attendees and billed directly to the respective utilities. SCPPA Members do not need to make any payments online.)*

**Agenda**

Wednesday, December 8, 2021

8:30 AM - 9:00 AM

GoToWebinar Open for Participants

The GoToWebinar will open at 8:30 AM in the morning. Please join early as we will start the class promptly at 9:00 AM.

9:00 AM - 9:30 AM

Participant Introduction & Roundtable

Students share their own backgrounds within and outside the energy industry and what they hope to learn throughout the day. Please be prepared to share at least three questions you hope to answer during the course.

9:30 AM - 9:45 AM

Break

Several planned breaks are scheduled throughout the day for participants to check emails, answer calls, and check in with daily work requirements.

9:45 AM - 10:45 AM

Module One: Fundamentals of Electricity

Key influencers in the history of electricity.  
Utility definitions and electricity terms  
basics of how electricity is generated  
Electricity generation and "the Utility loop"  
Keys to power quality

10:45 AM - 11:00 AM

Break

Several planned breaks are scheduled throughout the day for participants to check emails, answer calls, and check in with daily work requirements.

11:00 AM - 12:00 PM

Module Two: Western North American Electricity Markets

Service territories  
Federal regulators and departments  
NERC regions and the WECC  
Energy balancing

12:00 PM - 1:00 PM

Break for Lunch

1:00 PM - 2:30 PM

Module Three: How Utilities Makes Money

Types of utilities  
Common organizational structures  
Balancing interests of stakeholders  
Regulation and rate making fundamentals

Thursday, December 9, 2021

8:00 AM - 8:15 AM

Day One Review

8:15 AM - 9:15 AM

Module Four: Generation Choices

Number ONE rule of the electric grid

Fossil fuel options

Traditional low-carbon generation

Today's renewables

Energy storage

9:15 AM - 9:30 AM

Break

9:30 AM - 10:30 AM

Module Five: Customers + Emerging Opportunities

Types and expectations of electricity customers

Customers care regulations

Electric vehicles

Solar Energy Resources

The Trusted Energy Advisor

10:30 AM - 10:45 AM

Break

10:45 AM - 12:00 PM

Module Six: Distributed Energy Resources + Module Seven: Integrated Resources Planning

Energy storage

Energy efficiency

Electric vehicles

Distributed generation

Demand response

12:00 PM

Q&A and Wrap-Up

We circle back to the original expectations of students to ensure that expectations were met.