APPA eCADEMY
AMERICAN PUBLIC POWER ASSOCIATION

Agenda

Electric Utilities 101: Two-Part Virtual Series

Recommended CEUs .6 / PDHs 5.5 / CPEs 6.2

Day 1: Tuesday, October 20, 2026

12:00 pm **Welcome & Introductions**

12:05 pm **Session 1 – Electricity Basics Review**
- What is electricity? (Volts, amps, ohms - simple terms)
- AC vs. DC Fundamentals
- How the grid works (overview)
- Power system reliability

12:35 pm **Session 2 – Power Generation 101**
- Types of generation (fossil, nuclear, hydro, wind, solar, storage)
- How power plants work (basic mechanisms)

1:30 pm **Break**

1:40 pm **Session 2 – Power Generation 101 (cont'd)**
- Baseload generation and peak generation
- Power purchase agreements and independent power producers
- Introduction to net metering and distributed generation

2:05 pm **Session 3A – Transmission & Distribution (T&D)**
- The journey from plant to plug
- Role of substations, transformers, and meters

2:50 pm **Wrap-up and Q&A**

3:00 pm **Day 1 Adjourns**

Day 2: Thursday, October 22, 2026

12:00 pm **Recap of Day 1 and Review of Day 2 agenda**

12:05 pm **Session 3B – Transmission & Distribution (T&D)**

- Role of substations, transformers, and meters
- Grid reliability, outages, and restoration

1:30 pm **Break**

1:40 pm **Session 3B – Transmission & Distribution (T&D) (cont'd)**

- Grid reliability, outages, and restoration (cont'd)
- Smart grid and modernization

1:05 pm **Session 4 – Clean Energy Basics**

- Energy transition from fossil fuel to renewable
- Renewable integration and challenges
- Electrification of transportation and buildings
- Storage and emerging technologies

2:00 pm **Session 5 – Customer Experience**

- Customer service, billing, and engagement
- Energy efficiency and demand response
- Aging infrastructure and capital investment needs
- EVs and charging infrastructure

2:30 pm **Session 6 – Challenges & Opportunities**

- Grid resilience (cybersecurity, physical grid threats)
- Supply chain and workforce challenges
- Future workforce and skills

2:50 pm **Wrap-up, Q&A, Evaluation**

3:00 pm **Course Adjourns**

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Learning Outcomes

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Upon completion of the course, participants will be able to:

1. **Explain** the structure and operation of the electric utility industry, including the generation, transmission, and distribution of electricity

2. **Demonstrate** understanding of key technical concepts, regulatory frameworks, utility business models, and the emerging trends shaping the future of the grid

3. **Engage** confidently in industry discussions, support utility-related projects, and make informed decisions in their professional roles.

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About the Instructor



Bryan Glenn
Engineering Manager

Bryan is a seasoned electric utility professional with 30 years of experience spanning utility, government, commercial, and industrial environments. He has spent 20 years working in electric utility distribution and transmission, building deep expertise in construction, troubleshooting, compliance, and system management.

Bryan has dedicated 18 years to electrical education through the IBEW and Chaffey College, where he developed curriculum and taught courses to industry professionals. In addition to his technical strengths, he brings significant leadership experience in managing engineering teams, guiding strategic initiatives, and supporting organizational change.

Bryan holds a Bachelor of Science in Business Management and an Associate of Science in Electrical Technology, combining strong technical knowledge with a solid foundation in operational and organizational leadership.