UTILITY TECHNOLOGY EDUCATION

# Southeastern Distribution Apparatus School and Conference

## August 17th - 20th, 2026

The Hotel at Auburn University
and Dixon Conference Center
Auburn, Alabama

Utility Technology Association is a 501c(6) non-profit organization dedicated to the delivery of high quality, practical and comprehensive training designed to meet the needs and challenges of today's electric utility industry.

# Southeastern Distribution Apparatus School & Conference

## Monday

| | Module 100 | Module 200 | Module 300 | Module 400 | Module 500 |
|---|---|---|---|---|---|
| 10:00 - 4:00 | Registration | | | | |
| 1:00 - 1:30 | General Session - Auditorium | | | | |
| 1:30 - 2:30 | Future of Nuclear Generation - New Horizons<br>Scott Hunnewell - *Tennessee Valley Authority* | | | | |
| 2:30 - 3:00 | Networking Refreshment Break | | | | |
| 3:00- 4:30 | Electrical Fundamentals | Protective Grounding | Conductor Burndowns and the Applications of Compact Reclosers<br>Exploring Recloser Settings to Avoid Conductor Burndown | | |
| 4:30 - 6:00 | Exhibit Hall Opens / Hospitality | | | | |

## Tuesday

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|---|---|---|---|---|---|
| 8:30 - 10:00 | Power Theory | Capacitor Installations & Operation | Power System SCADA and Smart Grids | Battery Technologies and Energy Storage | Utility Preventive Maintenance & Testing Program |
| 10:00 - 10:30 | Networking Refreshment Break in Exhibit Hall | | | | |
| 10:30 - 12:00 | Distribution & Substation Equipment Overview | Application of Voltage Regulators | Power System SCADA and Smart Grids - Continued | Power Quality Analysis - Residential<br>Power Quality Analysis - Industrial | Regulator Maintenance & Testing |
| 12:00 - 1:00 | Lunch | | | | |
| 1:00 - 2:30 | Distribution & Substation Equipment Overview Continued | Distribution Feeder Protection | Advanced Distribution Management System (ADMS): Analytics, DERMS & SCADA<br>Building a Connected OMS: Lessons Learned Integrating | Transformer Temperatures: Why Temperature is Important<br>Rethinking Padmount Substations | Maintenance & Testing of Substation Circuit Breakers<br>Substation Transformer Testing |
| 2:30 - 3:00 | Networking Refreshment Break in Exhibit Hall | | | | |
| 3:00 - 4:00 | Substation Breakers | Apparatus Equipment Maintenance & Testing | Securing Modern OT/SCADA Systems | Grid Resiliency – Storm Preparations & Response | Testing Reclosers and Sectionalizers |
| 4:00 - 5:30 | Exhibit Hall / Hospitality | | | | |

*Knowledge is Power*

# Southeastern Distribution Apparatus School & Conference

## Wednesday

| | Module 100 | Module 200 | Module 300 | Module 400 | Module 600 |
|---|---|---|---|---|---|
| 8:30 - 10:00 | Voltage Regulators | Applications of 600A Underground Connectors | FLISR - Grid Resiliency & Improved Reliability<br>Fault Detection and Fault Prediction | Embedding Flexibility into Smart Grid Architecture<br>Interconnections - Certified Equipment vs System Requirements | Single Phase Compact Recloser - Hubbell |
| 10:00 - 10:30 | Networking Refreshment Break in Exhibit Hall | | | | |
| 10:30 - 12:00 | Lightning Impact in Distribution Systems | Underground Switchgear | Fiber Optics Theory & Demonstration | Credential Management to Secure Critical Infrastructure<br>Pultruded Composite Poles | Single Phase Compact Recloser - S&C Electric |
| 12:00 - 1:00 | Lunch | | | | |
| 1:00 - 2:00 | Fundamentals of Reclosers | System Protection: Theory & Applications Series | Fiber Optics Hands-On Lab | Wildfire Mitigation Policy & Planning Panel | Single Phase Compact Recloser - Siemens |
| 2:00 - 2:15 | Networking Refreshment Break | | | | |
| 2:15 - 3:15 | Distribution Transformer Connections | System Protection: Theory & Applications Series - Continued | Leveraging RTDS Lab Testing to Validate Grid Edge Use Cases | Early Fault Detection Case Studies - Predictive Data Collection | Single Phase Compact Recloser - ABB |
| 3:15 - 3:30 | Networking Refreshment Break | | | | |
| 3:30 - 4:30 | Infrared Inspections | System Protection: Theory & Applications Series- Continued | Winter Storm Fern Restorations | | Single Phase Compact Recloser - Southern States |
| 5:00 - 6:00 | Annual Dinner - Grand Ballroom | | | | |
| 6:00 - 9:00 | Casino Royale - Grand Ballroom | | | | |

## Thursday

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|---|---|
| 8:30 - 9:45 | Distribution Transformer Efficiency Standards: Impacts for DOE 2016, 2027, and 2029 Directives |
| 9:45 - 10:00 | Networking Refreshment Break |
| 10:00 - 11:15 | Managing the Large Load Surge in a New Federal Policy Era |
| 11:15 | Closing Session |

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## Opening Session

**Future of Nuclear Generation - New Horizons**

**Scott Hunnewell,** *Tennessee Valley Authority*

The Tennessee Valley Authority (TVA) is the largest public power company in the United States and the operator of a large nuclear fleet. TVA's seven-state region is growing with new residents and new industries, and the demand for energy is growing with it. While TVA works to provide megawatts to serve the region today, it is also looking toward advanced technologies to provide affordable, reliable, resilient and sustainable energy for the 2030's and beyond. Scott will discuss TVA's history, the current nuclear fleet and what the future plans for nuclear generation are. Hear about the latest progress on both Gen III+ and Gen IV nuclear reactors, what the benefits and limitations of each technology are and what the future may hold. Learn about the TVA Clinch River Nuclear Site and the progress on the potential deployment of a GE Vernova Hitachi Nuclear Energy BWRX-300 Small Modular Reactor, a light water Gen III+ 300 MWe technology with a Construction Permit Application under review by the Nuclear Regulatory Authority.

## Module 100: Fundamentals of Distribution System Apparatus

**Electrical Fundamentals**
**Instructor: Mike Chirico,** ***Covington Electric Cooperative***
Session on AC and DC circuit theory including ohms law and associated math, circuit components, and current and voltage laws. Included are discussion of the relationship between current, voltage, resistance, impedance, power and energy.

**Power Theory**
**Instructor: Mike Chirico,** ***Covington Electric Cooperative***
An expansion of the basic electricity review class – with an elaboration on volts, amps, power factor, etc. Definition and applications of KW, KVA, the power triangle, and calculating power factor.

**Distribution & Substation Equipment Overview**
**Instructor: Keith Hardt,** ***Pungo Engineering***
This session will cover generation, transmission, distribution and utilization of an electric grid. Topics include the equipment on the distribution system with discussion on design and function.

**Substation Breakers**
**Instructor: Andrew Monroe,** ***QISG***
Session will include common functions, types, how breakers work and why the equipment is used. Learn about protection schemes, protective relays and how to bypass breakers. Learn about the different interruption mediums such as oil, SF6 or vacuum. Discusses testing, inspection & sampling practices. Students will learn about the components of dissolved gas analysis testing.

**Voltage Regulators**
**Instructor: Chris Pilgrim,** ***Howard Industries***
Session will center on how a regulator works and the internal components. Covers how they are used in distribution systems along with basic operation & functions. Covers safety issues such as by-passing & deenergizing regulators. Basic inspection procedures.

**Lightning Impact in Distribution Systems**
**Instructor: Joe Hall,** ***CREASTA***
Covers how arresters work and their use in the distribution system. It introduces the student to how lightning and other causes create overvoltage on the system. We also introduce the student to the concepts of BIL (Basic Insulation Level) ratings of equipment / hardware. We discuss the importance of properly grounding the system to make arresters operate properly.

**Fundamentals of Reclosers**
**Instructor: Roger Munay,** ***Eaton***
Reclosers are used throughout the power distribution system, from the substation to residential utility poles. They range from small reclosers for use on single-phase power lines, to larger three-phase reclosers used in substations. Learn about the function of these devices.

**Distribution Transformer Connections**
**Instructor: Scott Sligh,** ***GRESCO Utility Supply***
Discussion in this class will include components and internal workings of a transformer. Covers how a transformer works and how it is used on the distribution system. Learn the meaning of transformer polarity and how to easily hook up transformer banks using the Arrow System.

**Infrared Inspections**
**Instructor: Adam Elmore,** ***PowerSouth Energy Cooperative***
Infrared inspection is a proactive approach to identifying issues in electrical systems before they cause a serious or costly outage. This session will cover the tools used and various findings from inspections.

## Module 200: Principles & Applications of Distribution System Apparatus

**Protective Grounding**
**Instructor: Keith Hardt,** ***Pungo Engineering Services***
Session gives a comprehensive understanding of the theory and practice of safe electrical grounding principles as it relates to the individual. There will be discussion on the OSHA requirements, understanding ground potential rise, touch and step potential, and vehicle safety along with applications, principles and procedures related to grounding.

**Capacitor Installation & Operations**
**Instructor: Kevin Corcoran,** ***Hubbell Utility Automation Trinetics***
Discussion on why capacitors are used in the distribution system and how they work. Defines terms such as working power, non-working power and power factor.

**Application of Voltage Regulators**
**Instructor: Roger Munay,** ***Eaton***
Explanation of why voltage regulators are needed and how they work. Topics include the placement of regulators, settings, and effects on the distribution system. Class will cover safety considerations of voltage regulators.

**Fundamentals of Distribution Feeder Protection**
**Instructor: Greg Hataway,** ***Gridco***
Session provides a basic understanding of the principles of relaying and protection of the electric distribution feeder. Topics included in this class are why relays are used, how relays protect the feeder, applications of various types of relays, and relay coordination.

**Apparatus Equipment Maintenance & Testing**
**Instructor: Curtis Boyer,** ***Sunbelt Solomon Services***
Keeping transformers and other electrical equipment running smoothly is essential to the success of every utility. This session will cover maintenance and repair procedures along with associated testing requirements.

**Applications of 600A Underground Connectors: Junctions, Switchgear, and Transformer**
**Instructor: David Swafford,** ***Southcon***
Learn about the design, installation, and application of 600A dead front separable connectors for UG distribution systems.

**Underground Switchgear**
**Instructor: Robert Reepe,** ***Georgia Power***
Pad mounted switchgear provides simplicity and complexity to distribution systems in today's environment. This switchgear discussion covers the design and application of load serving devices in the distribution system. Simple switching systems, simple protection with fuses to complex communication enabled switching and vacuum interruption will be covered as well as design considerations and applications for each category of device. The future of implementing advanced technologies will be included. We will limit the coverage to Medium Voltage Utility Grade outdoor switchgear.

**System Protection: Theory & Applications Series**
**Instructors: Bill Baker,** ***Georgia Power;*** **Brad Schafer,** ***GRESCO Utility Supply***
This series of classes will be built on system protection theory and applications. Covered in this series will be station protection, feeder protection and some distribution automation schemes.

The first session presents fundamentals in protection theory, protection practices and presents

fundamentals in the Time Current Coordination relationships of devices. Also, the coordination between devices with isolation and restoration techniques.
The second session builds on the foundation on theory and demonstrates the integration of the theory and the devices performing the system protection. Covered in this session will be single and three phase reclosers. Also, will cover how reclosers operate, how they are applied on the distribution system, and how they interact with other devices such as station relays and fuses.
The third session demonstrates the coordination between devices with isolation and restoration techniques. Also, will cover the key differences between electronic reclosers and hydraulic reclosers, and the pros and cons of both options.

## Module 300: SCADA & Operational Technology

**Power System SCADA and Smart Grids**
**Instructor: John McDonald, *JDM Associates***
Session begins with a brief history of electrical power utility SCADA as well as its use in other industries. All the basic system building blocks are then presented starting with intelligent electronic devices (IEDs), data concentrators, communication links, and master stations. The class includes considerations when building a SCADA system such as budgeting, cost justification, user expectations, staffing, test and commissioning, training, and maintainability. Diving deeper into the system, the fundamentals of SCADA communication will be discussed including protocols, channel types, and cloud services. System design aspects will be described including alarm management, HMI design, integration with our smart grid applications, and time synchronization. Finally, the class will touch on important security considerations. Throughout the talk, the presenter will interject industry best practices and examples from project implementations. Questions and sharing of past experiences are highly encouraged by all attendees.

**Advanced Distribution Management System (ADMS): Analytics, DERMS & SCADA**
**Instructor: Parag Parikh, *Hitachi Energy***
ADMS is an integrated solution for distribution management, enabling utilities to meet their day-to-day challenges. It provides the needed functionality to optimize the safe and efficient operation of sub-transmission, medium and low voltage distribution networks.
ADMS provides real-time monitoring and control, network analysis, network optimization and outage management capabilities in an integrated software platform. By efficiently managing their distribution assets, utilities can better cope with the continual changing world of distribution – improving reliability and reducing the impact of outages.

**Building a Connected OMS: Lessons Learned Integrating SCADA, AMI, GIS, and Enterprise Systems**
**Instructor: Beau Boyett, *Mitchell EMC***
This session explores how one electric cooperative integrated SCADA, AMI, GIS, and enterprise systems around its Outage Management System. Attendees will learn practical integration approaches, common challenges, and lessons learned that improved outage awareness and restoration.

**From Perimeter Defense to Zero Trust: Securing Modern OT/SCADA Systems**
**Instructor: Demos Andreou, *Patterson & Dewar Engineers***
Recent cyber incidents have demonstrated that traditional network-based perimeter security, which relies on firewalls and VPNs, and a "business as usual" approach, are ineffective in protecting modern architectures. SCADA environments are now prime targets for sophisticated cyber-attacks. As more organizations require remote access for employees and third-party entities, a new model is necessary. Zero Trust shifts the focus from a network-centric approach to an application and data-centric approach. Historically, SCADA systems functioned as closed systems with a degree of inherent trust. Zero Trust enforces adaptive controls and continuously validates trust.

**FLISR – When Communications Fail – A Dynamic Approach to Grid Resiliency and Improved Reliability**
**Instructor: Mat Garver, *Wunderlich-Malec***
This session introduces the fundamentals of Fault Location, Isolation, and Service Restoration (FLISR) and explores practical strategies utilities can use to harden FLISR schemes to improve reliability and grid resiliency. Compares centralized and decentralized FLISR architectures, examining the advantages and limitations of each approach. Attention is given to operational decision-making—whether at the grid edge through intelligent devices or through a centralized control environment. Will also examine implementation pathways for utilities with varying communications infrastructure, including approaches that operate with limited or no communications. Finally, the session discusses how utilities can economically deploy a hybrid FLISR strategy that leverages both centralized and decentralized capabilities to maximize system resiliency and fully utilize modern distribution automation technologies.

**Next Generation Technology for Fault Detection and Fault Prediction**
**Instructor: Mike Burns, *Safegrid***
Maintaining grid reliability is an increasingly complex challenge as system demands grow and environmental conditions become more extreme. To address these challenges, utilities are adopting next-generation fault monitoring technologies that enable earlier detection, prediction, and faster resolution of grid events before they result in customer outages. This session explores how advanced fault monitoring systems are transforming transmission and distribution operations through the use of transient detection, GPS time synchronization, and data-driven analytics.
Three practical use cases will be discussed. Fault prediction, where multiple data sources are used to identify early indicators of failure such as partial discharge, leakage current, and series arcing. Case studies demonstrate how predictive fault location identifies deteriorating assets including insulators, lightning arresters, breakers, and switches. Second, fault detection, focusing on the identification of intermittent, high-impedance, and low-current faults that are often missed by traditional current-based protection systems. Finally, fault location use cases highlight how precise fault location reduces outage response time, minimizes line patrols, and accelerates restoration, examples including transformer failures, broken cross arms, downed conductors, and wildlife-related incidents.

**Fiber Optics Theory & Demonstration**
**Instructor: Sean Larson, *Telecom Fiber, LLC***
Learn how electric utilities take advantage of the broadband capabilities of fiber optic communications to benefit electrical operation. Topics in this session will include the history of fiber optics, waveguides,types of fiber, cables, safety, splicing, designing fiber systems, testing and troubleshooting fiber. Learn how to splice and terminate fiber optic connections. This class will provide instruction on the proper techniques and tools used while allowing the students hands on experience in splicing and terminating fiber optics.

**Leveraging RTDS Lab Testing to Validate Grid Edge Use Cases**
**Instructor: Rob Wolf, *Danovo Energy Solutions***
Grid Intelligence is transforming the way modern power systems operate by combining real-time data, advanced analytics, and AI-driven insights to create smarter, more resilient, and more efficient electrical grids. However, as more intelligence is moving to the Grid Edge and compliance obligations continue to increase, how can utilities adapt and validate that a particular solution will address the desired use cases? This is where testing and validation comes in. Utilizing a real-time digital simulation (RTDS) lab, utilities can now test manufacturer claims and ensure equipment is correctly configured prior to deployment. Session will show how utilities can:

1) Validate analytics and Grid Edge applications,
2) Use real utility historical data to generate new grid insights,
3) Develop and validate new use cases, and
4) Ensure utilities Grid Edge journey generates real business value.

# Module 400: Smart Grid, Engineering & Emerging Technology

**Conductor Burndowns and the Application of Compact Reclosers**
**Instructor: Jason Anderson, *EPRI***
EPRI has been performing research to evaluate ways to reduce risks of conductor burndowns past compact reclosers. Compact reclosers are single-phase reclosers that are being deployed in place of fuses or hydraulic reclosers. A burndown is when the heating from a fault causes a conductor to burn apart and fall to the ground. Some small conductors are prone to burndowns from fault arcs, and if a compact recloser recloses after a burndown, it can leave an energized downed conductor. Utilities have reported an increase of energized downed conductors after these devices were introduced. The research has performed a series of fault-current tests performed on mockups of a distribution line. These tests helped evaluate burndowns and use of different recloser settings. A tree limb of varying sizes was used to initiate a fault. Burndowns can happen in several scenarios. Faults with tree limbs were chosen because this type of fault is extremely common, and the contact and burning of the tree limb can add heating to the conductor.
The purpose of this session is to provide an overview of this research that is ongoing and provide considerations for the application of these compact reclosers especially on small conductors that many of the project participants are actively implementing.

**Exploring Recloser Settings to Avoid Conductor Burndown**
**Instructor: Joe Hall, *CREASTA, LLC***
This discussion will explore the protection features of various Compact Reclosers. Emphasis will be on the characteristics that abate conductor burndown and improve reliability for customer sections protected by modern electronic reclosers. Speed, fuse saving, coordination and settings will be covered to expose some of the capabilities of modern compact reclosers. Advanced features are explored demonstrating the ability to avoid conductor burndown and improve reliability and maintain crew safety.

**Battery Technologies and Energy Storage**
**Instructor: Doug Houseman, *1898 & Co.***
There are many options for energy storage, in fact there are more than 600 choices, including 47 different chemistries Lithium-ion. The session will provide a quick review of what is available, how ready it is for deployment and major characteristics to pay attention to when choosing a storage system/method. The session will look at key use cases and how to evaluate storage against those use cases. Questions will be welcome on specific storage and projects.

**Power Quality Analysis - Residential**
**Instructor: Eddie Otralek, *Alabama Power***
This session will explore common power quality problems in the residential space -- traditional problems and new problems related to emerging technologies. How do we identify and resolve?

**Power Quality Analysis - Industrial**
**Instructors: Zack Duncan, Brent May, Brodie Rogers, *TVA***
Power quality analysis is provided to the industrial customers of the local power companies as part of the TVA Comprehensive Services Group. TVA will share many of the most common issues found while troubleshooting along with the tools and equipment used to investigate the issues.

**Transformer Temperatures: Why Temperature is Important**
**Instructor: Homer Portillo, *Advanced Power Technologies***
This session offers an introduction to transformer ratings, limiting characteristic, and temperatures the industry find important for transformer operations. Also, cooling system types and the available technologies to control, monitor and communicate those values will be covered.

**Because We've Always Done It That Way- Rethinking Padmount Substations**
**Instructors: John Cameron, *Cobb EMC;* Erik Drellack, *EATON***
"That's the way we've always done it!" Too often much-needed innovation is met with resistance simply because the new has never been done. In this session, explore how Cobb EMC saw an opportunity to improve safety and reliability by using Eaton's three phase padmount regulator in a substation environment. Also discussion on the initial project conception, implementation, benefits, and lessons learned.

**Grid Resiliency – Storm Preparations & Response**
**Instructor: Mark Leach, *Habersham EMC***
Electric utilities face growing challenges from severe weather, aging infrastructure, and rising reliability expectations. This session explores how Habersham Electric Membership Corporation implemented automated fault management solutions to transition from reactive outage management to proactive resilience by enabling real-time fault detection, isolation, and rapid restoration. The case study highlights planning considerations, integration strategies, and performance outcomes that delivered measurable improvements in reliability and customer impact. HEMC experienced major outages and system damages from Winter Storm Fern. Session will be reviewing how the utility responded.

**Resiliency by Design: Embedding Flexibility into Smart Grid Architecture**
**Instructor: Levi McNeely, *NRTC***
This session redefines how utilities prepare for and respond to outage events, shifting the focus from recovery to readiness. Students will explore how to design grid architecture with built-in flexibility from the outset. Key strategies include modular deployment, mobile generation staging, and adaptive load management, enabling utilities to respond dynamically to disruptions while keeping costs in check.

**Interconnections - Certified Equipment vs System Requirements**
**Instructor: Rankin Rouse, *Alabama Power***
This session will focus on the Alabama Power Company Distributed Energy Resources Technical Interconnection Requirements. A review of the equipment requirements to meet the standards required.

**Using Engineering Access Roles & Credential Management to Secure Critical Infrastructure**
**Instructor: Michael Albritton, *SEL***
Securing critical infrastructure is not a new concept. As technology evolves and infrastructure ages, maintaining effective security practices has become increasingly complex. This complexity is especially evident in the electrical industry, where one of the most pressing challenges is securing aging infrastructure against modern cybersecurity threats. Many critical infrastructure systems were designed and deployed long before today's cybersecurity threats emerged. As a result, these systems often lack the connectivity, processing power, or compatibility needed to support modern security protocols. This session will review options to secure critical infrastructure.

**Building Grid Resiliency with Pultruded Composite Poles**
**Instructor: Dustin Troutman, *Creative Pultrusions***
This session will take a deep dive into composite pole technology that is being utilized to increase grid resiliency. Resiliency enhancement in fire, hurricane and micro burst prone areas are being accomplished with high strength moderate modulus fiber reinforced polymer poles. Discussion on the engineering behind the performance and how utilities are building a more resilient grid with FRP poles.

**Wildfire Mitigation Policy & Planning Panel**
**Instructors: Michael Sullins, *Cullman EC;* Rusty Endicott, *Federated RE Insurance Exchange;* Ethan Barrett, *Alabama Forestry Commission***
Wildfires are a growing challenge, affecting more electric companies and the customers and communities they serve each year. This panel will share leading practices and establish a common understanding of the range of risk-informed wildfire mitigation activities that electric companies can undertake.

**Early Fault Detection Case Studies - Predictive Data Collection**
**Instructor: Jeff Phillips, *IND Technology***
Early fault detection (EFD) proactively identifies potential issues or faults within the power grid to fix problems before they cause outages or failures. This session will use case study examples that include wildfire prevention, storm preparation and storm recovery in parallel with an overview of how a predictive data collection technology can help prevent failures and improve reliability.

**Winter Storm Fern Restorations**
**Instructor: Sean McGrath, *ACE Power***
Winter Storm Fern (January 2026) was a record-breaking winter storm of the 2025–2026 season, producing widespread ice and heavy snow across much of the central and eastern United States. At peak, more than 2 million people were without power across 10 states, with restoration efforts extending over two weeks in the hardest-hit areas due to extensive ice accumulation and infrastructure damage. The storms' most impactful hazard to electric grid reliability was widespread freezing rain and significant ice accumulation. The most severe impacts concentrated in areas where ice accumulation exceeded 1.0", particularly across northern Mississippi. Learn how Alcorn County Electric Power Association dealt with the challenges of this storm on their electric and telecom systems.

## Module 500: Equipment Maintenance & Testing

**Utility Preventive Maintenance & Testing Program**
**Instructor: Trey Brown, *Aubrey Silvey Enterprises***
Apparatus equipment maintenance and testing are crucial for ensuring safe and reliable performance of an electric distribution system. Regular maintenance and testing can prevent equipment failures, improve efficiency, and reduce liability in emergency situations. Proper maintenance extends the working lifespan of the equipment. These sessions focus on what to do, when to do it and how to interpret the results along with safety considerations.

**Regulator Maintenance & Testing**
**Instructor: Curtis Boyer, *Sunbelt Solomon Services***
This session will cover how to properly test a Voltage Regulator. Discussion on the types of tests that can and cannot be performed on a regulator. Review of the maintenance performed on the parts with comparisons of worn vs new parts using a working cut away of a voltage regulator.

**Maintenance & Testing of Substation Breakers**
**Instructor: Logan Merrill, *OMICRON Electronics***
This session will explore the critical aspects of maintaining circuit breakers in substations to ensure optimal performance and reliability.
Topics included are utilizing specific test for circuit breakers such as Minimum PU, Timing Test, Contact Resistance and Travel Analysis.

**Substation Transformer Testing**
**Instructor: Clive Buttrey, *Middle Tennessee Electric***
This session will discuss the various types of tests done on substation power transformers. Initial commissioning and baseline tests, periodic maintenance tests, and post-event tests used to troubleshoot problems will be covered. These tests will be discussed along with when it is appropriate to conduct each of these tests. Core ground resistance, Insulation Power Factor, Excitation Current, Leakage Reactance, Sweep Frequency Response Analysis, Winding Resistance, Transformer Turns Ratio, Dissolved Gas Analysis

**Testing Reclosers and Sectionalizers**
**Instructor: Benito Ramirez, *Megger***
Self-Powered reclosers like the S&C Tripsaver, ABB Eagle, Hubbell Versatech II, etc... have many settings and once programed these devices should be tested to ensure proper settings were installed and the recloser is operating. The class will go through different testing techniques on how to test these devices as well as perform a demo of this type of testing. The class will also cover testing of single phase sectionalizers.

## Module 600: Single Phase Compact Recloser - Product Session

Single Phase Compact Reclosers will be the focus of these product sessions. Learn from the product manufacturers.

**Hubbell Power Systems**
**Instructor: Juliene Britt, *Hubbell Utility Automation***
This session will provide a detailed introduction to Hubbell's new single phase LineDefender recloser and a review of the legacy Versa-Tech recloser. Additional information will be provided on lateral SCADA solutions for both LineDefender and Versa-Tech reclosers.

**S&C Electric Company**
**Instructor: Ryan McAndrews, *S&C Electric Company***
This session will discuss in detail the features, differences, and best applications of S&C Electric's three single-phase reclosers: The VacuFuse® II Self-Resetting Interrupter, TripSaver® II Cutout-Mounted Recloser, and their newest TripSaver® FXR Recloser.

**Siemens Industry**
**Instructor: Brock Hill, *Siemens Industry***
This session will discuss the applications of two products. First will be the CMR (Compact Modular Recloser) - 630A, 12.5kA single and multi-phase solutions with embedded control and protection. Also covered will be the Fusesaver - 200A, 6.3kV circuit breaker (sub-cycle) with embedded control and protection for overhead distribution networks.

**ABB**
**Instructor: Andrew Peterson, *ABB***
Learn about the ABB Eagle single phase, self-powered vacuum recloser with features including manual open/close, arc-free and battery free design, simple oil-filled recloser retrofit solutions, wireless communication, and remote/SCADA functionality with the addition of the Long-Range Communications cabinet.

**Southern States LLC**
**Instructor: Omar Lodge, *Southern States LLC***
This session will provide an overview of Southern States' 15 kV and 27 kV Gold Eagle® Cutout-Mounted Reclosers, highlighting the key features and benefits of the single-phase recloser technology. Will learn about the compact cutout-mounted design, protection capabilities, reduced maintenance requirements, and ease of integration onto existing distribution systems. Will also cover available data and communications features, along with the simplicity of setup and programming through the Gold Eagle software platform.

## Closing Session

**Distribution Transformer Efficiency Standards: Impacts for DOE 2016, 2027, and 2029 Directives**
**Instructor: Bryan Seal, *Wasion Americas***
This session discusses impacts of the DOE efficiency legislation for 2016, 2027, and 2029. Drivers for DOE 2029 are presented; efficiencies are contrasted between DOE 2016 and DOE 2029. Also covered are expectations in equipment design, increased equipment cost, and total cost of ownership calculations.

**Managing the Large Load Surge in a New Federal Policy Era**
**Instructor: Jason Handley, *Danovo Energy Solutions***
Utilities are experiencing unprecedented growth in electricity demand driven by AI-enabled data centers, transportation electrification, advanced manufacturing, and broader reindustrialization trends. At the same time, the first year under the new federal administration has introduced significant shifts in U.S. energy policy, including renewed support for fossil fuel development, reevaluation of decarbonization objectives, and accelerated permitting for large-scale industrial and energy infrastructure projects. Together, these forces are reshaping the energy landscape and creating a dual challenge for utilities: expanding grid capacity while continuing to meet expectations for reliability, affordability, resilience, and sustainability.

This session will discuss how utilities and regulators are collaborating to address resource adequacy concerns, lengthy interconnection queues, supply chain constraints, and evolving reliability standards. The discussion will also explore the role of advanced technologies in enabling more agile planning, improving operational visibility, and strengthening risk mitigation efforts. Attendees will gain valuable insights into how collaborative innovation and policy alignment are enhancing the grid's ability to support the demands of a rapidly evolving energy landscape.