

# Career Pathway Spotlight: Discover a Career as a Transmission & Distribution Technician

Discover your career path in the energy industry. Learn where your interests will take you. Explore the meaningful work in which you can immerse yourself. Set your sites on what you can learn and the increasing responsibilities that can be yours. See how you will be challenged and what will you accomplish.



**START HERE**

**HIGH SCHOOL  
DIPLOMA OR GED**

**BENEFICIAL  
CREDENTIALS**

- National Career Readiness Certificate
- Energy Industry Fundamentals Certificate
- Utility Technician Accelerated Degree or Traditional Associate's Degree

**SUBSTATION MECHANIC,  
RELAY MECHANIC, METER  
TECHNICIAN, ENGINEERING  
TECHNICIAN**

## LEARN MORE/EARN MORE

Educational Opportunities for Advancement

**AVERAGE EARNING POTENTIAL:  
\$36,100-\$139,900 PER YEAR\***

**1-4  
YEARS\***

**SUBSTATION MECHANIC,  
RELAY MECHANIC,  
METER TECHNICIAN,  
ENGINEERING TECHNICIAN  
EQUIPMENT OPERATOR**

- Apprenticeship
- Experience in the position

**3-6  
YEARS\***

**EXPERIENCED SUBSTATION  
MECHANIC, RELAY,  
METER, ENGINEERING  
TECHNICIAN**

- Associate's Degree
- On-the-job training

**8+  
YEARS\***

**UTILITY SUPERVISOR**

- Bachelor's Degree or
- On-the-job training



\*Compensation averages should be used as a guide. There are numerous factors that impact actual compensation. These estimates do not include over-time, which can be a sizeable addition to base pay. Years of service and training recommendations should also be used as a guide. Company requirements vary.

Note: Some energy companies may require pre-employment testing. Please check the job requirements. These may include an EEI Pre-Employment Test or a Physical Abilities Test.

# Become a Transmission & Distribution Technician



## APPRENTICESHIP TRAINING:

### What will you do?

- Apply Alternating Current/Direct Current concepts to daily work
- Monitor and check substation conditions, recognize and investigate abnormal conditions
- Test, maintain and repair substation relay and control systems
- Use Computer Aided Design and Drafting(CADD) software as an integrated tool in design process
- Perform relay calibration tests, including generator/transmission relaying
- Install, test, calibrate and maintain all types of meters (polyphase, transformer, advanced)
- Diagnose problems and perform maintenance on electronic equipment/components

### What knowledge/skills/abilities will you need?

- Ability to work within a team
- Able to lift 75 lbs
- Listening and following directions
- Math skills including algebra, trig and geometry
- Come to work on time and prepared
- Physical ability to climb stairs and ladders
- Operate stiff valves manually, lift weights, control pneumatic or hydraulic wrenches
- Read and interpret information displayed in simple graphic, chart or print form (e.g., blueprints, sketches, diagrams or drawings).
- Apply knowledge learned in training to work environment

## EXPERIENCED TECHNICIAN:

### What will you do?

- Read diagrams of electric circuits
- Serve as an expert on how a substation works and its equipment
- Perform routine operations at the substation
- Open and close switches to isolate defective relays, then perform adjustments or repairs
- Inspect and test equipment to identify problems using special wiring diagrams and testing devices
- Disconnect and replace equipment that manages voltage on high-voltage power lines
- Set and remove meters
- Inspect wiring to meters
- Repair meters
- Participate in surveying to lay out installation of new customer services
- Inspect project sites to ensure crews are following design specification

### What knowledge/skills/abilities will you need?

- Use information to diagnose and solve problems
- Be able to manage multiple tasks at once
- Demonstrate understanding of basic mechanical principles (e.g., gear trains, centrifugal force, heat flow)
- Comprehend entire systems and how they function
- Foresee system implications of malfunctions or of own actions
- Anticipate required future conditions in numerous interacting systems
- Evaluate alternative procedures and select the most effective approach to a job in terms of safety, time, material or other requirements
- Solve problems involving limited options (e.g., selecting the correct instrument or gauge for a job)
- Adapt work procedures or priorities in response to changing or unforeseen requirements or conditions

## UTILITY SUPERVISOR:

### What will you do?

- Determine schedules and work activities of team members
- Review team member performance and provide feedback
- Prepare and manage budgets
- Report to management
- Deal with potentially stressful situations

### What knowledge/skills/abilities will you need?

- People management
- Communications skills
- Financial management
- Computer skills for report preparation
- Assign priority or sequence to the steps for completing a job
- Coordinate several, competing activities for efficient use of time and material

## ENERGY INDUSTRY CAREERS OFFER:

- Excellent salaries
- Opportunities for advancement
- Job growth & stability
- Professional development and training
- Great benefits



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