Energy Career Profile

Putting STEM to Work

Generation Technician

Median average salary: $58,335

Generation technicians can include a variety of different jobs, including instrument and control technicians, substation mechanics, relay technicians, meter technicians, natural gas service specialists, and more. Technicians perform hands-on work such as installing and repairing equipment, monitoring equipment performance, and troubleshooting problems. If you are good at fixing things, this could be the job for you!

What does it take to be a generation technician?

Generation technicians need to develop specific skills in order to do their job well, and many of these are STEM skills. For example, generation technicians must be able to:

- Inspect things like motors and belts, fluid levels, and filters
- Take apart machines, then repair and replace parts using hand or power tools such as hammers, saws, drills, and wrenches
- Do preventative maintenance on machines, equipment, and buildings, including inspections, installation of new wiring, and piping and plumbing
- Obtain a Commercial Driver's License (CDL)

Being a generation technician means that you have the opportunity to grow in your career. You may start as an apprentice and work your way up to an experienced technician or supervisor. At each level, it is important to develop more skills. Some of these advanced skills are:

- Select the most effective approach to a job in terms of safety, time, materials, or other requirements
- Solve problems involving limited options, such as selecting the correct instrument
- Adapt work procedures or priorities in response to changing conditions
- People management and communications skills
- Financial management
- Computer skills for report preparation
- Leadership skills

Generation Technician

What does a generation technician do?

A generation technician's responsibilities change as their career grows. Below are examples of tasks for different stages of a generation technician career.

Apprenticeship

- Receive training in components such as
  - Fundamentals of electricity (alternating current / direct current)
  - Substation mechanical operations
  - Computer-Aided Design and Drafting (CADD)
  - Electric distribution fundamentals
  - Fundamentals of electronic test equipment
  - Transmission relaying
  - Transformer meter
  - Wiring inspection

Experienced Technician *Education Required: Associate's Degree*

- Serve as an expert on how a substation and its equipment work
- Perform routine operations at the substation
- Inspect and test equipment to identify problems using special wiring diagrams and testing devices
- Replace equipment that manages voltage on high-voltage power lines
- Participate in surveying to lay out installation of new customer services
- Inspect project sites to ensure crews are following design specifications

Utility Supervisor *Education Required: Bachelor's Degree*

- 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