

# GET INTO ENERGY CAREER PATHWAYS

## Power Plant Technician: Putting STEM\* to Work

(Includes generation of all types except for nuclear)

START  
HERE

HIGH SCHOOL  
DIPLOMA OR GED

EARN CREDENTIALS:  
• National Career Readiness Certificate  
• Energy Employability Skills Certificate  
• Energy Industry Fundamentals Certificate

### LEARN MORE / EARN MORE

Pass Pre-Employment Tests and Become a  
**HELPER**

#### EDUCATIONAL OPPORTUNITIES FOR ADVANCEMENT

- Apprenticeship (for College Credit)\*\*
- Experience in Position

1-4 YEARS\*\*

**TECHNICAL OPERATOR  
(MAINTENANCE, ELECTRICAL)  
(\$27,000)**

- Associate's Degree\*\*
- Long-Term On-the-Job Training

3-6 YEARS\*\*

**EXPERIENCED ELECTRICAL/  
MAINTENANCE TECHNICIAN  
(\$62,000)**

- Long-Term On-the-Job Training
- Experience in Position

6-8 YEARS\*\*

**SENIOR ELECTRICIAN/  
MAINTENANCE TECHNICIAN  
(\$75,000)**

- Bachelor's Degree
- Long-Term On-the-Job Training

8+ YEARS\*\*

**GENERATION SUPERVISOR  
(\$85,000)**

\* Science, Technology, Engineering, and Math

\*\* Dependent on company requirements



## POWER PLANT TECHNICIAN: What will you do? (Includes generation of all types except for nuclear)

## What competencies will you need? (built on energy foundational competencies—incremental as career advances)

Note: Most utilities use a pre-employment test—to pass you will need math, communications, problem solving, and mechanical reasoning skills.

### STARTING OFF AS AN ENTRY-LEVEL TECHNICIAN:

- Provide assistance to plant operators by reading gauges and checking equipment
- Make work area safe

- Teamwork
- Able to lift 75 lbs
- Listening and following directions
- Be comfortable with heights
- Be able to work in noisy conditions
- Math skills including algebra, trig and geometry
- Come to work on time and prepared

### TRAINING COMPONENTS:

- Alternating Current / Direct Current
- Valves
- Pumps
- Engines/turbines
- Plant processes and systems (water, electric, etc.)
- Programmable logic controls

- Physical ability to climb stairs and ladders, operate stiff valves manually, lift weights, control pneumatic or hydraulic wrenches
- Apply knowledge obtained during training in the work environment
- Work with various types of test equipment including multi-meters
- Work with various types of tools
- Perform soldering

### SENIOR TECHNICIAN:

- Inspect equipment including motors and belts, fluid levels and filters
- Take apart machines, then repair and replace parts using hand or power tools
- Use large equipment such as hoists and cranes
- Use repair manuals to determine problems and then fix them
- Do preventive maintenance checkups on machines, mechanical equipment and on buildings

- Use information to diagnose and solve problems
- Be able to manage multiple tasks at one time
- Ability to understand basic mechanical principles (e.g., gear trains, centrifugal force, heat flow)
- Ability to comprehend entire systems and how they function
- Ability to foresee system implications of malfunctions or of own actions
- Ability to anticipate required future conditions in numerous interacting systems

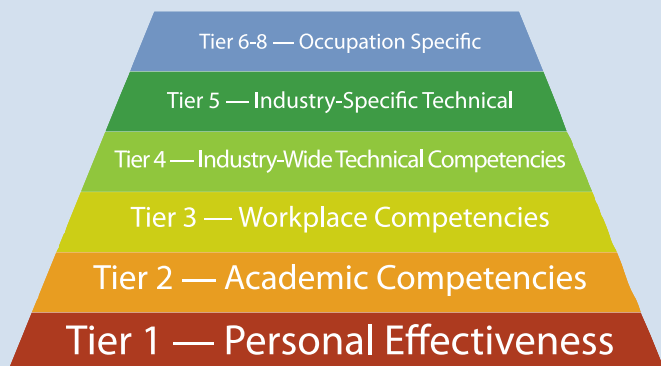
### GENERATION SUPERVISOR:

- Determine schedules and work activities of team members
- Review team member performance and provide feedback
- Inspect records and log book entries to determine plant efficiency
- Prepare and manage budgets
- Report to management
- Deal with potentially stressful situations

- 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
- Adapt work procedures or priorities in response to changing or unforeseen requirements or conditions



## ENERGY INDUSTRY COMPETENCY MODEL



### Energy industry careers offer:

- Excellent salaries
- Job growth & stability
- Great benefits
- Opportunities for advancement
- Community service

### Where can I find training?

Go to the Get Into Energy web site at [www.getintoenergy.com/careers.php](http://www.getintoenergy.com/careers.php) and check "Training Programs and Work-Based Training."

### Where can I find a job?

Go to the Get Into Energy web site at [www.getintoenergy.com/careers.php](http://www.getintoenergy.com/careers.php) and check "Featured Employers."