

WISE Pathways

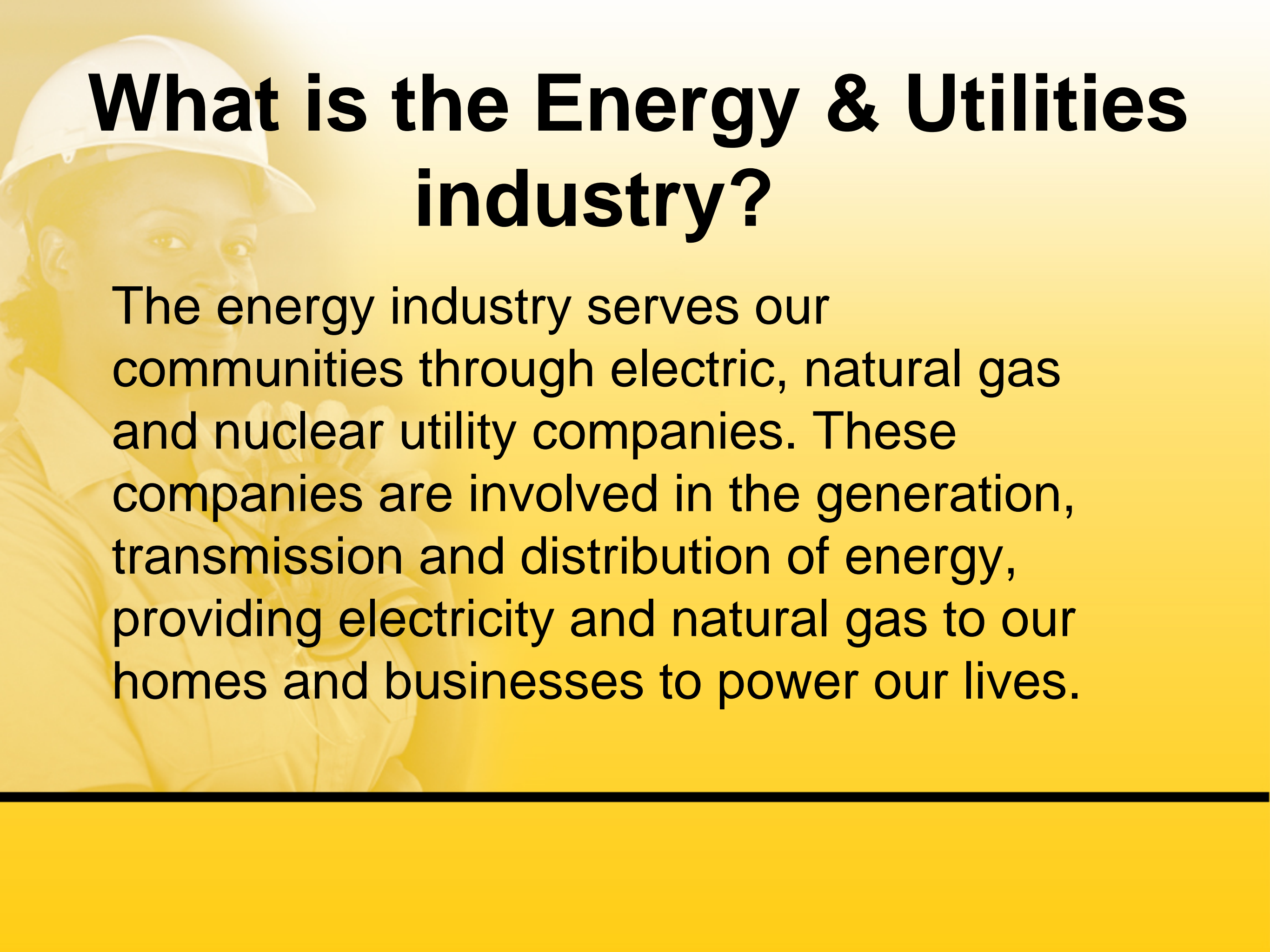
Women in Sustainable Employment

Building awareness of careers in construction, energy, and manufacturing for women.



A scientist in a white lab coat and safety glasses is working in a laboratory. She is holding a test tube in her right hand and a pipette in her left hand. The background is a blurred laboratory setting with various pieces of equipment.

Energy & Utilities Industry



What is the Energy & Utilities industry?

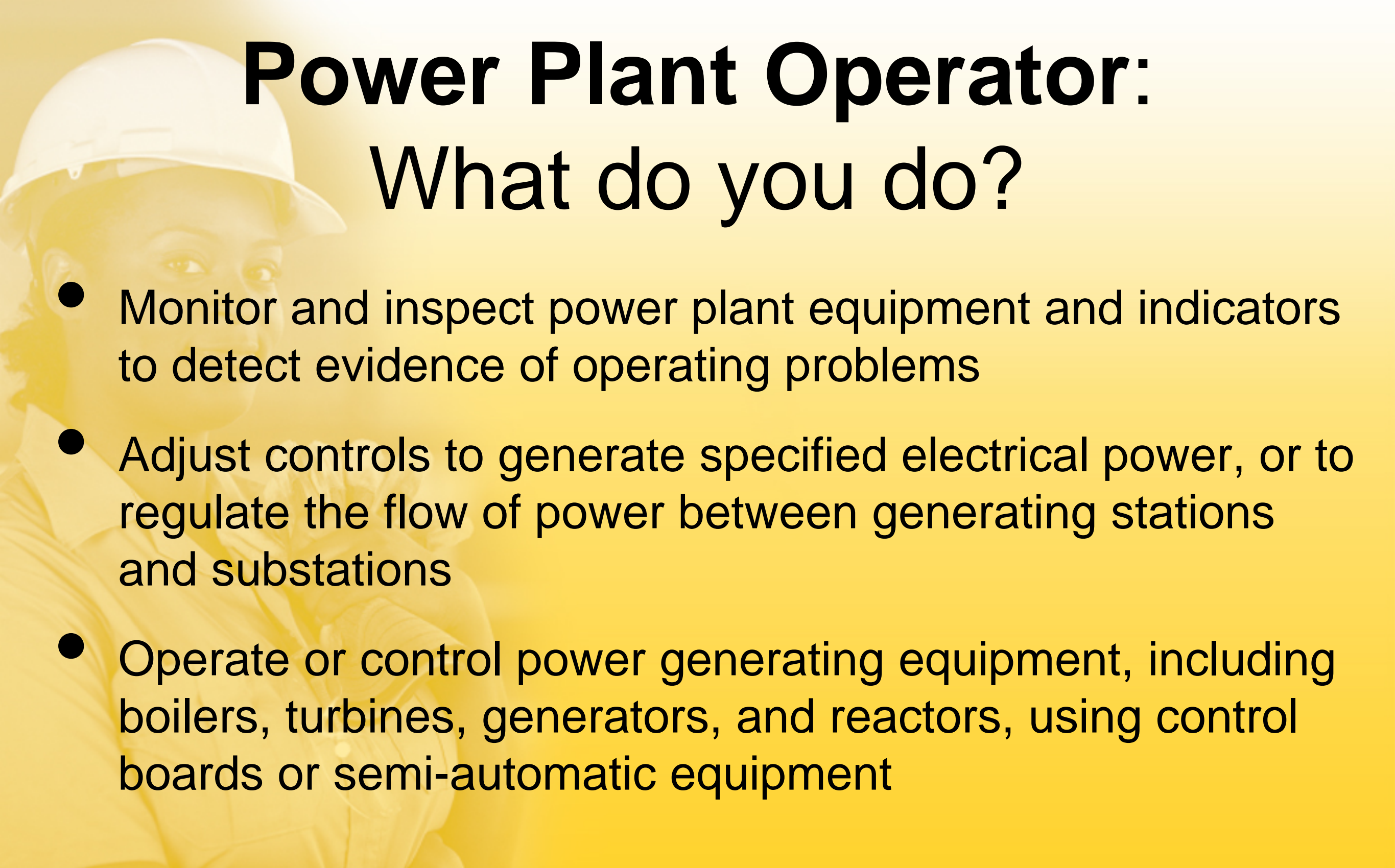
The energy industry serves our communities through electric, natural gas and nuclear utility companies. These companies are involved in the generation, transmission and distribution of energy, providing electricity and natural gas to our homes and businesses to power our lives.

Facts About the Energy & Utilities Industry

- There are expected to be over are numerous career opportunities available in the energy field, with over 65,000 openings predicted over the next few years in key job categories.
- Energy companies support the “grow your own” philosophy. Not only do they prefer hiring within their own communities, but they support advancement of their employees. Energy companies offer tuition reimbursement should a position require an advanced credential or degree.
- The energy industry is going through significant transformation with changing technologies, making it an exciting industry to be a part of today and into the future.

Energy & Utilities Top Five Careers

- Power Plant Operator (median salary: \$37.10 hour)
- Line worker (median salary: \$33.36 hour)
- Pipelayer (median salary: \$18.46 hour)/Pipefitter (median salary: \$25.58 hour)
- Engineering Technician (median salary: \$30.60 hour)
- Nuclear Technician (median salary: \$38.64 hour)



Power Plant Operator:

What do you do?

- Monitor and inspect power plant equipment and indicators to detect evidence of operating problems
- Adjust controls to generate specified electrical power, or to regulate the flow of power between generating stations and substations
- Operate or control power generating equipment, including boilers, turbines, generators, and reactors, using control boards or semi-automatic equipment

Power Plant Operator:

What do you do?

- Regulate equipment operations and conditions such as water levels, based on data from recording and indicating instruments or from computers
- Take readings from charts, meters and gauges at established intervals, and take corrective steps as necessary

Lineworker: What do you do?

- Install necessary equipment on poles
- Climb poles or use truck-mounted buckets to reach equipment
- Identify defective devices such as fuses, switches, and wires
- Safety and use of safety equipment is critical; poles and towers have very high voltages of electricity

Lineworker: What do you do?

- Inspect and test power lines and other equipment using special reading and testing devices
- Lay underground cables

Pipelayer/Pipefitter: What do you do?

- Following the directions of others or written instructions to lay out pipe routes
- Cut pipes to required size and position them for welding or sealing
- Connect pipe pieces and joints using welding equipment, cement or glue

Pipelayer/Pipefitter: What do you do?

- Cover pipes with earth or other materials
- Find and repair or replace pipes using special magnetic or radio indicators
- Be safe and use safety equipment



Engineering Technician: What do

you do?

- Inspect project work for quality control and assurance
- Identify solutions to on-site technical design problems involving systems equipment
- Collaborate with electrical engineers or other personnel to identify, define, or solve developmental problems

Engineering Technician: What you do?

- Set up or operate test equipment to evaluate performance of developmental parts, assemblies, or systems under simulated operating conditions
- Provide technical assistance in resolving electrical engineering problems
- Prepare project cost or work-time estimates

Nuclear Technician: What do you do?

- Conduct surveillance testing to determine safety of nuclear equipment
- Monitor nuclear reactor equipment performance to identify operational inefficiencies, hazards, or needs for maintenance or repair
- Test plant equipment to ensure it is operating properly



Nuclear Technician: What do you do?

- Follow policies and procedures for radiation workers to ensure personnel safety
- Monitor instruments, gauges, or recording devices
- Perform testing, maintenance, repair, or upgrading of systems
- Prepare reports to communicate information

Energy & Utilities Industry

Education/Credential Requirements

- Required: High school diploma or GED
- Desirable: National Career Readiness Certificate (NCRC)
- Power Plant Operator: post-secondary certificate desirable
- Lineworker: post-secondary bootcamp or short-term certificate desirable; apprenticeship
- Pipelayer/Pipefitter: on the job training; apprenticeship
- Engineering Technician: post-secondary certificate or associate degree
- Nuclear Technician: post-secondary certificate or associate degree desirable

Video

All Women's Rodeo Team: Girl Power

[https://www.youtube.com/watch?v=pGyryUhUpW](https://www.youtube.com/watch?v=pGyryUhUpW4)

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Resources

- Get Into Energy Web Site:
<http://getintoenergy.com/women/>
- Get Into Energy Training Locator:
<http://getintoenergy.com/locator/>
- Get Into Energy Jobs Site:
<https://getintoenergy.jobs/>
- Next Steps for Entering the Energy Industry:
<http://getintoenergy.com/getting-started/>

What is the NCRC?

The ACT WorkKeys National Career Readiness Certificate (ACT WorkKeys NCRC®) is an assessment-based credential issued at four levels; Platinum, Gold, Silver, and Bronze. The NCRC measures and certifies the essential work skills needed for success in jobs across industries and occupations. With an NCRC, you can:

- Build confidence that your skills meet the needs of employers
- Show prospective employers concrete proof of the skills you have
- Apply real-world use to coursework from the classroom
- Determine skill improvement and training needs
- Improve the opportunities for career changes and advancement
- Earn college credit at many institutions and reach academic goals more quickly



NCRC: Qualifying for the Credential

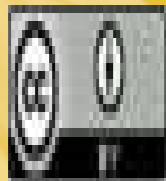
- A multi-level credential
- Requires scores of Level 3 or higher on three assessments:

Applied Math, Workplace Documents, Graphic Literacy

- Bronze: Level 3 or higher on each assessment
- Silver: Level 4 or higher
- Gold: Level 5 or higher
- Platinum: Level 6 or higher

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