

Power Plant Operators, Distributors, and Dispatchers

SOC: 51-8010 • Career Profile Report

■ Key Facts

\$103,600

Median Salary

4,700

Employment

-10.0%

Growth Rate

■ Requirements & Salary Range

Education: High school diploma

■ Automation Risk Assessment

Medium Risk - 38.0% probability of being automated in the next 10-20 years.

This job has some routine elements but still requires human judgment and interaction.

■ Work-Life Balance

4.9/10 - Fair work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	8.4/10	Investigative	5.0/10
Artistic	3.8/10	Social	4.6/10
Enterprising	4.0/10	Conventional	8.0/10

■ Top Skills Required

Communication skills, Detail oriented, Dexterity, Mechanical skills, Problem-solving skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Power Plant Operators, Distributors, and Dispatchers control and maintain **the machinery and systems that generate, transmit, and distribute electricity**. They monitor power plants, regulate electricity flow, and ensure a reliable energy supply. Their work is critical in utilities, energy production, and infrastructure maintenance.

This career is well suited for individuals who enjoy technical work, problem-solving, and monitoring complex systems.

What Do Power Plant Operators, Distributors, and Dispatchers Do?

These professionals operate, control, and oversee power generation and distribution systems.

Common responsibilities include:

- Monitoring gauges, meters, and control panels to regulate electricity flow
- Starting, stopping, and adjusting generators and turbines
- Distributing electricity to substations and end users
- Responding to outages, equipment malfunctions, and emergencies
- Performing routine inspections and maintenance
- Recording operational data and reporting anomalies
- Ensuring compliance with safety and environmental regulations

Key Areas of Power Operation and Distribution

Workers may specialize in specific functions or systems:

- Power Generation: Operating boilers, turbines, and generators
- Transmission and Distribution: Managing electricity flow through substations and networks
- System Monitoring and Control: Using control room technology to maintain grid stability
- Emergency Response: Addressing outages, system failures, or natural disasters
- Maintenance and Safety Compliance: Conducting inspections and following regulations

Skills and Abilities Needed

These workers combine technical knowledge with attention to detail and problem-solving skills.

Core Professional Skills

Personal Qualities That Matter

Education and Career Pathway

This role typically requires technical training and practical experience:

- High School Diploma or GED (minimum): Basic math, physics, and technical knowledge
- Vocational or Technical Training: Programs in electrical systems, power generation, or industrial technology
- On-the-Job Training: Learning equipment operation, safety procedures, and distribution systems
- Licensing or Certification (varies by state): Required for certain operators
- Continuous Learning: Staying updated on energy technology, safety, and regulations

Where Do They Work?

They are employed in facilities that generate and distribute electricity:

- Power Generation Plants
- Electrical Utilities
- Transmission and Distribution Networks

- Industrial and Manufacturing Facilities
- Emergency and Grid Management Centers

Work environments include control rooms, plant floors, substations, and outdoor transmission sites.

Is This Career Difficult?

This career requires technical expertise, vigilance, and problem-solving. Operators must manage complex systems, respond to emergencies, and maintain continuous power supply safely and efficiently.

Who Should Consider This Career?

This career may be a strong fit if you:

- Enjoy technical and mechanical work
- Can analyze data and make quick, accurate decisions
- Are detail-oriented and safety-conscious
- Have problem-solving skills and the ability to work under pressure
- Want a career that ensures reliable energy supply for communities

How to Prepare Early

- Take courses in physics, mathematics, and electrical technology
- Gain experience with mechanical or electrical systems through vocational programs
- Develop problem-solving, attention to detail, and safety awareness skills
- Explore internships or entry-level positions in power plants or utilities
- Stay informed on emerging energy technology, regulations, and industry best practices

Power plant operators, distributors, and dispatchers maintain and control electricity generation and distribution, ensuring safe, reliable, and efficient energy delivery.