

Career Pathway Spotlight: Discover a Career in the Battery Industry Upstream

Discover your career in clean energy!

The **Upstream** sector of the battery industry is the source of materials to be made into batteries. This includes everything from mineral exploration and mine development to the actual extraction activity, or mining, of raw materials such as lithium, copper, and nickel. Useful skills and credentials include:

For Technical Careers:

Mine Health and Safety Administration Part 48 Training (for underground mines), electrical or welding certifications or experience, commercial driver license, technical or mechanical acumen, and ability to carry or lift heavy loads.

For Engineering Specialties:

Mine Health and Safety Administration Part 48 Training (for underground mines), advanced degree in engineering discipline, degree-appropriate licensure, and specialty training for minerals of interest.

For All:

experience in the mining or metallurgy industry, background or general knowledge of mining industry, experience working at industrial sites, experience working in noisy environments, and ability to wear Personal Protective Equipment (PPE) for duration of scheduled shift.

SAMPLE ROLES

Technical Careers

- Heavy equipment operators
- Surveyors
- Operations personnel
- Equipment mechanics
- Lab/sampling assistants

Engineering Specialties

- Mining and process engineers
- Mine safety trainers
- Hydrologists and chemists
- Geologists and mineralogists
- Occupational safety hygienists

OCCUPATIONAL SKILLS

- Critical thinking and problem solving
- Reading comprehension and writing ability
- Social awareness and willingness to follow direction
- Communication and team-oriented attitude
- Attention to safety, industrial risks, and process hazards

BENEFITS

These energy industry careers offer:

- Varied opportunities
- Upward and continued career growth
- Work-life balance—your work stays at work
- Opportunities for skill development
- Unionization and leading benefits
- Good pay and interesting work

Required Occupational Skills In the Upstream Sector of the Battery Industry



ACROSS THE ENTIRE BATTERY INDUSTRY

The Upstream battery industry needs employees at all levels, including roles like **HR, electricians, IT support, welders, salespeople, truck drivers, administrative support, foodservice, and custodial support.** Contribute to U.S. national security by bringing your expertise to the battery industry. Pivot to a rewarding and well-paid career in energy!

TECHNICAL CAREERS

What knowledge, skills and abilities will you need to succeed?

- Show up to work on time and be prepared
- Read gauges and check equipment
- Follow best practices and comply with regulations to ensure the safety of your work area and your fellow workers
- Read instrumentation schematics to diagnose basic problems
- Retain and apply information learned from on-the-job trainings
- Operate heavy machinery such as excavators, diggers, and trucks
- Collect samples of ore for assaying
- Minimize waste, spillage, and contamination during mining process
- Ensure safe loading of ore and material into rail cars and trucks
- Comply with national and site-specific environmental guidelines
- Report workplace safety concerns to appropriate personnel
- Ensure safe continuation of mining process per site-specific operations guide
- Always wear appropriate PPE including respirators, personal gas detectors, and hearing protection

ENGINEERING SPECIALTIES

What knowledge, skills and abilities will you need to succeed?

- Review and provide feedback on current site practices
- Provide guidance to management on mine life, optimal extraction, and output
- Follow best practices and comply with regulations to ensure the safety of your work area and your fellow workers
- Ensure mine operations are in compliance with national and site-specific environmental guidelines
- Act as a subject matter expert for your specific domain, enabling management to make key decisions regarding mine profitability and continued operation
- Report workplace safety concerns to appropriate personnel
- Stay current on refresher trainings and continuing education requirements for your professional certifications
- Review assay results to ensure excavated material is within commercially usable parameters
- Ensure safe continuation of mining process per site-specific operations guide
- Use process knowledge to advise and implement improvements in efficiency, output quality, or use of resources
- Understand how the outputs of your business function are used by other sectors of the battery industry



For training and career
information, visit
[GetIntoEnergy.org](https://www.getintoenergy.org)

Scan to view
our Job Board