get into energy
WITH THE CENTER FOR ENERGY WORKFORCE DEVELOPMENT

Career Pathway Spotlight

Discover a Career in Environmental Research & Protection

Discover your career in energy!

Environmental research and protection professionals study, monitor, and protect the natural world around energy projects.

Field Research and Site Studies

Before energy projects break ground, biologists, ecologists, and environmental scientists head out into the field. They survey wildlife habitats, sample soil and water, and document plant species so developers can understand how a project will affect the ecosystem.

Permitting, Compliance, and Reporting

Energy projects face many federal and state environmental rules, such as the National Environmental Policy Act (NEPA), the Endangered Species Act, and the Clean Air and Water Acts. Compliance specialists prepare permits, file reports, and ensure proper operations.

Sustainability and Climate Analysis

As energy companies report on emissions and climate goals, sustainability and Life-Cycle Assessment (LCA) specialists model environmental footprints, calculate carbon emissions, and quantify the lifetime impact of fuels, materials, and equipment used across the supply chain.

CAREER PATH

Start with:

» A high school diploma or GED

Get Educated:

» A four-year bachelor's degree in a relevant science field
– Biology, ecology, chemistry, environmental policy, or geosciences
» A master's degree for specialized research or technical roles
» A military pathway with environmental science experience
– Army Environmental Science Officer or Navy oceanography roles

Specialize With:

Knowledge in:

» Wildlife and habitat protection
» Air, water, and soil quality
» Environmental permitting and compliance
» Life-cycle assessment (LCA)
» Carbon and greenhouse gas accounting

OCCUPATIONAL SKILLS

» Strong scientific curiosity and careful observation skills
» Sharp attention to detail in field and data work
» Clear written and verbal communication skills
» Strong analytical and statistical reasoning abilities
» Physical stamina for fieldwork in remote conditions
» Comfort with scientific instruments, GIS, and data tools
» Adaptability across remote sites and lab settings

BENEFITS

These energy industry careers offer:

» Strong, growing demand as climate work expands
» Competitive pay and comprehensive benefits packages
» Growth into senior scientist, manager, and director roles
» Specialize in wildlife, compliance, LCA, or sustainability
» Meaningful work protecting ecosystems and communities

What Might You Do In Environmental Research & Protection?

ENTRY LEVEL
1-4 years

What you will do:

- Conducting field surveys, wildlife observations, and habitat assessments under supervision
- Collecting soil, water, and air samples for laboratory analysis and reporting
- Entering field data into project databases and producing initial summary reports
- Supporting permit applications and regulatory filings under senior staff supervision
- Helping prepare sustainability reports and life-cycle assessment spreadsheets for review
- Following site safety, sample handling, and chain-of-custody protocols on every site visit

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

- Listen and follow directions from senior scientists and supervisors
- A bachelor's degree in a relevant environmental science discipline
- Strong field, lab, and data entry skills from coursework
- Comfort working outdoors, hiking, and visiting remote sites

MID- CAREER
5-8 years

What you will do:

- Independently leading environmental field studies, wildlife surveys, and impact assessments
- Preparing NEPA documents, biological opinions, and Clean Air and Water Act permits
- Conducting life-cycle assessments and full greenhouse gas inventories for energy clients
- Using AI-assisted tools and GIS to analyze ecological and emissions data
- Coordinating with engineers, regulators, and community stakeholders on projects
- Mentoring entry-level scientists and reviewing their field data and analysis reports

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

- Working knowledge of NEPA, ESA, Clean Air, and Clean Water Acts
- Fluency in GIS, statistical software, and LCA modeling tools
- Clear communication with clients, regulators, and project teams
- Composure during hearings and when managing unexpected field findings
- Familiarity with energy projects and environmental footprints

EXPERIENCED
8+ years

What you will do:

- Leading environmental programs across major energy projects, fleets, or regions
- Setting compliance standards, monitoring plans, and sustainability reporting frameworks companywide
- Driving climate strategy, carbon reduction goals, and ESG disclosure programs
- Adopting new technology like AI ecological modeling, remote sensing, and analytics platforms
- Coordinating with regulators, tribes, NGOs, and senior corporate executives on projects
- Mentoring mid-career scientists and shaping training, licensure, and career development pathways

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

- Deep expertise across environmental science, compliance, and sustainability work
- Leadership and people-management skills for multi-discipline teams
- Strategic communication with executives, regulators, and tribal governments
- Strong financial judgment for permit, project, and ESG decisions
- Mastery of change management as regulations evolve

GET PAID!

For salary information on Environmental Research & Protection roles, please refer back to the Get Into Energy Explorer.

Get Into Energy Explorer

ENERGY INDUSTRY CAREERS OFFER:

- Excellent salaries
- Opportunities for advancement
- Job growth & stability
- Professional development and training
- Great benefits

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