How can I learn more?

Minnesota Energy Careers www.MnEnergyCareers.org

ISEEK www.iseek.org

MnCareers www.iseek.org/mncareers/

High Energy WebBook http://tinyurl.com/28bp7jx

Minnesota's Renewable Energy Marketplace www.mnrem.org

Get Into Energy www.getintoenergy.com

Apprenticeship www.iseek.org/education/apprenticeships.html

Career counselors, at your school or local Minnesota WorkForce Center 1-877-348-0502 or www.positivelyminnesota.com

iseek

Minnesota
STATE COLLEGES
& UNIVERSITIES

Energy Careers in Minnesota

Without energy, you couldn't use the computer or watch TV. You couldn't drive a car or ride the bus. But where does energy come from? How is it delivered?

Energy is generated from a variety of traditional and renewable energy sources. It is then distributed and consumed by businesses and people. This requires a variety of workers. Consider a career that benefits millions of people every day—a career in energy.

Would I like a career in energy?

There are a wide variety of jobs within energy. Most of these jobs include a core set of skills and abilities:

- Working on a team
- Troubleshooting and solving problems
- Making safety a priority
- Comfortable using computers
- Physical strength and stamina

If you are interested in a green career–one that promotes environmental conservation or reduces human environmental impact–then energy has a lot of options.

What types of energy careers are there?

Engineering. Engineers promote sustainable and clean energy usage. In this field, you gain the professional advantages of working in a high-tech industry and make a difference in people's energy usage.

Installation and Repair. Essential to the energy industry, installation and repair workers primarily install, inspect, test, and repair electrical or mechanical equipment in businesses and homes.

Production. Production workers in energy are mostly employed in power plants, often combining the duties of operators and technicians.

Construction. Saving energy is just as important as generating it, so careers in energy-efficient construction and building operations, like plumbers and pipelayers, are found in the energy sector.

What industries are these careers found in?

Energy has to be generated, distributed, and then consumed. The industries needed for this system to work are:

- **Traditional Electric Utilities** to generate electricity from non-renewable sources like coal, petroleum, natural gas, and nuclear power.
- **Renewable Energy Generation** to generate electricity from wind, water, solar, geothermal, and biomass, which is used to produce biofuels like ethanol and biodiesel.
- **Electric and Gas Distribution** to distribute energy through a system of facilities and equipment that connect energy sources to end users, which includes lines, poles, switches, and transformers.
- **Energy Efficient Building Operations** to ensure electricity is not wasted by residential and commercial consumers.

Do I need a college degree to get a job in energy?

There are opportunities in energy at all education levels, including people with only a high school education. Apprenticeship programs are a common way to enter a number of energy careers. Many energy workers decide to go back to school to earn their associate degree once they get some experience so they can train for higher-level positions. Most energy companies will pay for employees' higher education.

What energy jobs are in demand?

- Chemical Plant and System Operators
- Electrical Engineers
- Electrical Power-Line Installers and Repairers
- Industrial Engineering Technicians
- Industrial Machinery Mechanics
- Mechanical Engineers
- Power Distributors and Dispatchers
- Power Plant Operators
- Stationary Engineers and Boiler Operators
- Welders, Cutters, Solderers, and Brazers

Because different parts of Minnesota host different energy-related activities, career opportunities vary from region to region.