

### About Careers in Electric

The electrical grid is composed of three different areas: Power Generation, Power Distribution, and Power Consumption. There are multiple job opportunities in each of these areas. There are also careers available in miscellaneous fields and research driven jobs that utilize employees with an electrical knowledge base.

Your experience in 4H Electric is a great way to start your career path in the Electrical Industry. What are some careers that are available? Below are some general careers along with short descriptions of each for you to consider.

Remember: The electrical industry is always changing and developing new career opportunities with new technology.

### Power Generation Careers

#### Lineman

Responsible for the construction/maintenance of high voltage transmission lines. Demonstrates safe work habits and proper care for tools and equipment.

Required Education: On the job training and a 4 year apprenticeship.

#### Electrical/ Civil/ Construction Engineer

Electrical Engineer: Utilize standard electrical engineering principles to prepare schematics and program industrial machinery. Control system design, programming, testing and commissioning.

Required Education: Electrical Engineering degree

Civil Engineer: Ensure all Civil/Municipal project are completed on schedule and budget. This will involve client meetings, internal engineering meetings, project leadership, meeting local/state personnel, offering expertise on design needs and some travel to sites to track progress.

Required Education: Civil Engineering degree

#### Power Plant Operator

Required Education: Bachelor's Degree and Minimum 5 years work experience.

### Power Distribution Careers

#### Customer Services Energy Advisor

Primary responsibility of member related projects.

Required Education: Training in electric, heating, ventilation, cooling as well as energy efficiency/conservation practices.

#### Electrical Component Salesperson

Initiate, establish, and build strong customer relationships selling electrical equipment

Required Education: Bachelor's degree, 3-5 years of work experience.

#### Lineman

Responsible for the construction/maintenance of distribution lines.

Required Education: On the job training and a 4 year apprenticeship.

#### Engineer

Provide technical engineering and planning to insure safe, efficient and reliable energy.

Required Education: Bachelor's Degree in Electrical Engineering

#### Meter Technicians

Maintaining of electric meters and specialized metering equipment.

Required Education: High school diploma. Successful completion of a 4 year Meter Technician Apprenticeship.

### Power Consumption Careers

#### Residential Electrician

Required Education: 2 years with residential wiring experience, must have a valid driver's license.

#### Commercial Electrician

Required Education: High school diploma, Trade school training, Apprentice electrician, or Journeyman electrician.

#### Lighting Specialists

Create and execute a sales plan to increase lighting sales.

Required Education: 4 year college degree and work experience in a related field.

### Other Careers in Electric

#### Solar/Wind Installer – Maintenance

Commercial Solar Installer: Responsibilities, Layout, assembly and wiring of the solar modules/array and mounting hardware.

Required Education: 1 year of roof work, general construction, or carpentry strongly preferred

Wind Technician: onsite operations, maintenance, repairs of equipment on a wind powered generation equipment.

Required Education: 1 year college or technical school certificate

#### Electrical Asset Managements

Hourly Trader: Responsible for the management of generation and native load requirements of any participating member or client.

Required Education: Bachelors in Business or related field or an Associate's degree with applicable power trading experience