



Power System Electrician

About this job

Power system electricians are precise, organized, and mechanically and safety minded. They are skilled at planning, communicating, troubleshooting and problem solving. The trade offers opportunities in a variety of industries including utility, industrial, and renewable energy sectors.



- **Four-year program**
- **Requires out of the territory technical training**
- **Mining**
- **Construction**



POWER SYSTEM ELECTRICIAN FALLS UNDER NATIONAL OCCUPATION CLASSIFICATION (NOC) CODE #7243/72202

\$85,200

Estimated Average Journeyperson Salary

APPRENTICESHIP, TRADES, AND OCCUPATIONAL CERTIFICATION

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What can I expect to do for work if I become a Power System Electrician?

Power system electricians are employed in the utility, industrial, oil and gas, and renewable energy sectors. Their duties include the installation, maintenance and repair of electrical power generation, transmission, and distribution systems and equipment.

Power generation includes generators, wind turbines, solar arrays, biomass and associated equipment. Substation equipment includes high voltage equipment such as circuit breakers, transformers, switches and switchgear. Protection and control include a variety of equipment such as protective relaying and various remote control and monitoring systems (SCADA systems). Metering includes work with many recording devices, and the calibration and installation of metering equipment (meters).

What kind of working conditions can I expect?

- working near energized equipment,
- maintenance, operations and construction,
- hands-on and computer-based work,
- working indoors, outdoors and in all weather conditions,
- working at heights, and confined spaces
- working away from home for extended periods of time, and
- shift work, emergency response, and on-call duties.

What are some skills that are valued in this profession?

- the ability to understand complex concepts and apply this to their work with precision and creativity,

- the ability to work safely and follow safe work practices and procedures,
- the ability to work independently and as a team member,
- the willingness to adapt to changing work locations, conditions, and technologies
- good verbal and written communication skills,
- the ability to plan and organize,
- mathematical, high-level computer and networking skills,
- strong mechanical aptitude,
- the ability to distinguish colours, and
- troubleshooting and problem-solving skills.

What is the minimum requirement to become an apprentice in this trade?

Apprentices must obtain a minimum of 70% on the Trades Entrance Exam – TEE Category #2 or the equivalent education as outlined below. This must be done before signing the Apprenticeship contract and attending training.

How long will it take to complete a Power System Electrician apprenticeship?

An apprenticeship takes about four years to complete and includes four on the job periods and four technical training periods. You need to complete 1800 hours per period, for a total of 7200 hours.

How long is technical training?

Apprentices will attend 900 technical training hours. Apprentices usually go to school for this program in Alberta.

Eligibility Requirements
Entrance Exam – Pass Exam 5 with a score of 70% or higher or
Completion of the following high school courses <ul style="list-style-type: none"> • English 20-2 (pass) or Literacy 30 (pass) • Math 10C (pass) • Science 10 (pass) or
All five Canadian General Educational Development (GED) tests
SCHOOLS NORTH APPRENTICESHIP PROGRAM (SNAP) - SNAP apprentices are not required to satisfy the entrance requirements prior to signing an apprenticeship contract. However, the SNAP apprentice must satisfy the entrance requirements or write the TEE before attending technical training.

Period	Technical Training ¹	Prerequisites for technical training	Hours ²
1st	7 Weeks 210 hours	Entrance Exam and 900 hours	1800
2nd	7 Weeks 210 hours	Completed 1 st Period	3600
3rd	8 Weeks 240 hours	Completed 2 nd Period	5400
4th	8 Weeks 240 hours	Completed 3 rd Period	7200

¹Length of In-School Training

²Minimum Time Required to Complete (Includes Technical Training)

For more information:

www.gov.nt.ca/Apprenticeship