

Electricians (Except Industrial and Power System)

Description

Electricians in this unit group lay out, assemble, install, test, troubleshoot and repair electrical wiring, fixtures, control devices and related equipment in buildings and other structures. They are employed by electrical contractors and maintenance departments of buildings and other establishments, or they may be self-employed.

Duties:

- Read and interpret drawings, circuit diagrams and electrical code specifications to determine wiring layouts for new or existing installations
- Pull wire through conduits and through holes in walls and floors
- Install brackets and hangers to support electrical equipment
- Install, replace and repair lighting fixtures and electrical control and distribution equipment, such as switches, relays and circuit breaker panels
- Splice, join and connect wire to fixtures and components to form circuits
- Test continuity of circuits using test equipment to ensure compatibility and safety of system, following installation, replacement or repair
- Troubleshoot and isolate faults in electrical and electronic systems and remove and replace faulty components
- Connect electrical power to audio and visual communication equipment, signaling devices and heating and cooling systems
- Conduct preventive maintenance programs and keep maintenance records.

Other titles:

- Apprentice Electrician
- Construction Electrician Apprentice
- Electrician
- Domestic and Rural Electrician
- Construction Electrician

(Government of Canada National Occupation Classification)

Skills

Quality Control
Analysis

Troubleshooting

Mechanical

Building and
Construction

Repairing

Critical
Thinking

Education/Training Requirements

Ontario Secondary School Diploma (OSSD)

- Completion of secondary school is usually required

Post-secondary diploma/degree

- Completion of a four-to-five-year apprenticeship program is usually required

Certification

- Trade certification for construction electricians is compulsory in Newfoundland and Labrador, Nova Scotia, Prince Edward Island, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan and Alberta and available, but voluntary, in British Columbia, the Yukon, the Northwest Territories and Nunavut
- Trade certification for electricians (domestic and rural) is compulsory in Newfoundland and Labrador
- Trade certification for electrical control (machine) builders is available, but voluntary, in Ontario
- Red Seal endorsement is also available to qualified construction electricians upon successful completion of the interprovincial Red Seal examination

Potential Earnings in Durham Region

The average and median wages and salaries for individuals employed in this unit group are as follows. Place of Residence (POR) is defined as individuals who reside within the Durham Region. Place of Work (POW) is defined as individuals who are employed within the Durham Region.

Median Wages and Salaries (POR)	Average Wages and Salaries (POR)	Median Wages and Salaries (POW)	Average Wages and Salaries (POW)
\$54,654	\$55,331	\$57,511	\$63,568

Employment Prospects

Industry (NAICS)	Jobs in Durham Region (POW)	Durham Region Residents Employed (POR)
2382 Building Equipment Contractors	245	440

(Ministry of Advanced Education and Skills Development 2016 data in Durham Workforce Authority's 2017 Sector Report)

Additional Resources

- The Red Seal Program: <http://www.red-seal.ca/w.2lc.4m.2-eng.html>