Occupational Profile

FOCAL Initiative

Electricians (Non-Power System or Industrial)



The skills and talents of several skilled trade workers are required for buildings to meet safety standards and have access to utilities. Electricians ensure that power distributes properly through commercial and residential buildings, and work on electrical wiring, fixtures, control devices and other related equipment. They also layout, assemble, install, troubleshoot and repair electrical systems and components in motor vehicle manufacturing. Within the greater automotive industry, FOCAL projects a large recruitment gap for Electricians, leading to opportunities within the sector over the next decade.

Where do Electricians work?



What do Electricians do?

Support

Electricians are necessary for proper maintenance on electrical components and systems. This ensures that equipment is functioning safely and as intended. They mainly work hands on, performing repair and troubleshooting tasks in their daily work. Common work tasks include:

- Read and interpret drawings, circuit diagrams and electrical code specifications to determine wiring layouts for new or existing installations
- Troubleshoot and isolate faults in electrical and electronic systems, and remove and replace faulty components
- Test continuity of circuits using test equipment to ensure compatibility and safety of system, following installation, replacement or repair
- Conduct preventive maintenance programs and keep maintenance records

Career pathways & potential earnings of Electricians

Electricians can progress to supervisory and managerial roles and positions with experience and skill:

Electricians



Electricians are skilled trade workers that maintain electrical systems, and earn wages ranging between \$18/hr and \$46/hr.

Electrical Trade Supervisors

Experienced electrical trade workers can move to supervisor positions, increasing max wages up to \$53/hr.

Maintenance Managers



Maintenance Managers oversee the maintenance department of commercial and industrial facilities, and can earn up to \$60/hr.

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Electricians can also apply their skills and expertise in other occupations such as the following:

- Telecommunication installation and repair workers
- Aircraft instrument, electrical and avionics mechanics, technicians and inspectors

How do I become an Electrician?

There are several educational, licensing and training requirements to become an Electrician. Some requirements may vary by province or company. Below are the most commonly required qualifications to work as an Electrician:

- **Minimum Education:** Completion of secondary school is usually required.
- Certification, Licensing and Training: Completion of four-to-five years electrician apprenticeship program is usually required. Domestic electricians must have certification in NL and ON. Construction electricians must have certification in NL, NS, PE, NB, QC, ON, MB, BC, YT, NWT and NU.



What are the most important skills to have as an Electrician?

Electricians must perform their tasks with accuracy, and develop strong quality control analysis skills, as faulty diagnostic or maintenance work can be hazardous from a health and safety perspective. The necessary skills and knowledge to succeed as an Electrician are developed through education, training and experience.

Technical Knowledge and Skills

- Equipment Maintenance
- Equipment Selection
- Electrical and Electronics
- Operations Monitoring
- Quality Control Analysis
- Building and Construction

Soft Skills

- Troubleshooting
- Problem Sensitivity
- Complex Problem Solving
- Manual Dexterity
- Inductive Reasoning
- Visual Color Discrimination

The Future of Electrician jobs in Canada

The job market for Electricians in Canada is promising. In 2021, more than 89,000 were employed across Canada's sectors and industries. FOCAL projects more than 100 job openings for Industrial Electricians in Canada's automotive manufacturing sector between 2021 and 2030. FOCAL also forecasts that during the same period, 90% of job openings will requires additional workers to fill recruitment gap in the sector, especially as the sector transitions to electric vehicles and requires increased electrical charging infrastructure.

Learn more about the job market for electricians, as well as about many other developments and new technologies in Canada's automotive manufacturing by visiting our website <u>futureautolabourforce.ca</u>. You can also check our social media by following these links:



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