## **Occupational Profile**

### Industrial Electricians

FOCA

Initiative

Industrial Electricians are responsible for the upkeep of electrical equipment and the components that help them function. They lay out, assemble, test, install, troubleshoot and repair electrical wiring, fixtures, control devices and related equipment. As digitization becomes increasingly crucial, the significance of the electrical components enabling this transformation grows as well. Within the automotive sector, the increasing electrification of vehicles will also give industrial electricians the opportunity to work on developing exciting technologies and the infrastructure that support them.

Where do Industrial Electricians work?



Motor Vehicle and Parts Manufacturing

Metal Ore Mining Industry



Oil and Gas Extraction



Building Equipment Contractors



Pulp, Paper and Paperboard Mills

## What do Industrial Electricians do?

Industrial Electricians are critical in ensuring quality control and safety in industrial and manufacturing settings. By performing proper installation and maintenance procedures, they keep equipment operating efficiently and reduce risks caused by equipment malfunction.

- Install, examine, replace or repair electrical wiring, receptacles, switch boxes, conduits, feeders, fibre-optic and coaxial cable assemblies, lighting fixtures and other electrical components
- Maintain, repair, test and install electrical motors, generators, alternators, industrial storage batteries, and hydraulic and pneumatic electrical control systems
- Read and interpret drawings, blueprints, schematics and electrical code specifications to determine layout of industrial electrical equipment installations
- Conduct preventive maintenance programs and keep maintenance records

## Career pathways & potential earnings of Industrial Electricians

Industrial Electricians can progress to other roles and positions:

### Industrial Electricians



Industrial Electricians are skilled trade workers with wages ranging between \$25.64/hr and \$50/hr.

### Electrical Trade Supervisors

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

#### **Owners and Contractors**



Industrial Electricians can work through their own businesses, scaling up their income based on the size of their operations.

# **Occupational Profile**



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

- Electrical Mechanics
- Aircraft instrument, electrical and avionics mechanics, technicians and inspectors

## How do I become an Industrial Electrician?

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

- Minimum Education: A high school diploma.
- **Certification and Licensing:** Certification requires a four-to-five apprenticeship program or over five years of work experience and industry courses. Certification expands work opportunity and may be required on certain job sites.
- **Training and other requirements:** Industrial electricians may be required to have construction electrician certification if they work on equipment not owned by their employer.



## What are the most important skills to have as a Industrial Electrician?

Industrial Electricians perform maintenance tasks on a wide variety of equipment, and knowledge of which tools to employ, how to understand design documents and the ability to be able to detect problems through troubleshooting are essential to succeeding in the industry.

### **Technical Knowledge and Skills**

- Equipment Maintenance
- Equipment Selection
- Mechanics & Design
- Operations Monitoring
- Quality Control Analysis

### Soft Skills

- Troubleshooting
- Problem Sensitivity
- Complex Problem Solving
- Manual Dexterity
- Inductive Reasoning

## Future of Industrial Electrician jobs in Canada

The job market for Industrial Electricians in Canada is promising. In 2021, more than 20,000 were employed across Canada's sectors and industries. FOCAL projects more than 730 job openings for Industrial Electricians in Canada's automotive manufacturing sector between 2021 and 2030. FOCAL also forecasts that during the same period, more than 680 workers are needed 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 Industrial 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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