

Electricians

A guide for newcomers to British Columbia



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1. Working as an Electrician [NOC 2021: 72200, 72201, 72202 / NOC 2016: 7241, 7242 & 7243]

Job Description

There are three main categories of electricians:

- **Construction Electricians:** install, repair, and maintain electrical systems in all types of buildings and structures. You work for electrical contractors or building maintenance departments or may be self-employed.
- **Industrial Electricians:** inspect, install, maintain, test, troubleshoot and repair industrial electrical equipment and associated electrical and electronic controls. You work for electrical contractors and maintenance departments of factories, plants, mines, shipyards and other industrial establishments
- **Power System Electricians:** install, maintain, test and repair electrical power generation, transmission and distribution system equipment and apparatus. You work for electric power generation, transmission, and distribution companies

Your duties vary according to the type and place of your work. In general, as an electrician you have the following duties:

- Read and interpret drawings, blueprints, and electrical code specifications to determine electrical wiring layouts
- Install or repair various electrical systems and parts
- Maintain and test electrical components and systems
- Ensure compatibility and safety of electrical systems
- Conduct preventive maintenance programs and keep maintenance records.

Source:

- **WorkBC Career Profiles for Electricians**

<https://www.workbc.ca/plan-career/explore-careers>

Industry Overview

Demand for **Construction Electricians** depends largely on growth in the Construction industry. Over the next few years, the pace of residential construction is expected to slow, while industrial construction is expected to remain stable. Demand for these workers will remain, despite the shift in construction activity. In general, those working as maintenance electricians tend to find more stable employment than construction electricians.

Industrial Electricians: More than half of the job openings in the coming years are expected to come from new job growth. Large construction and transportation projects in the Mainland/Southwest may continue to be a source of job growth for industrial electricians. The increased use of automation in mills, mines, smelting, oil and gas operations and in construction will result in an increase in demand for industrial electricians who can install and maintain these new systems.

Work performed by electricians is expanding to include alternative energy supplies, such as solar power, wind power and fuel cells, wiring for smart homes and automated systems for high-tech industries and complex computer offices. Electricians who specialize in new technologies are expected to be in demand.

Sources:

WorkBC Career Profiles for Electricians

<https://www.workbc.ca/plan-career/explore-careers>

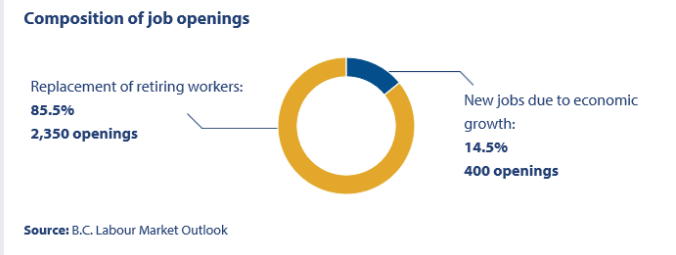
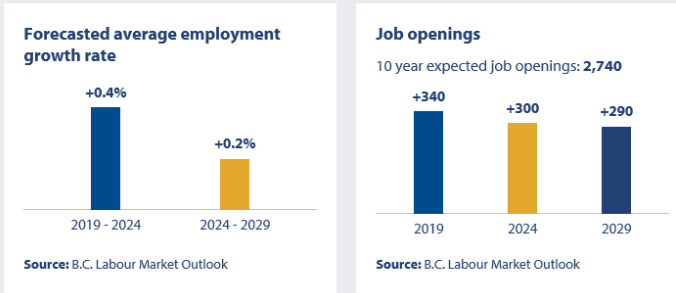
A Career as an Electrician: Becoming an Electrician in BC

<https://ejtc.org/apprenticeships/apprenticeships-overview/>

Job Outlook in BC

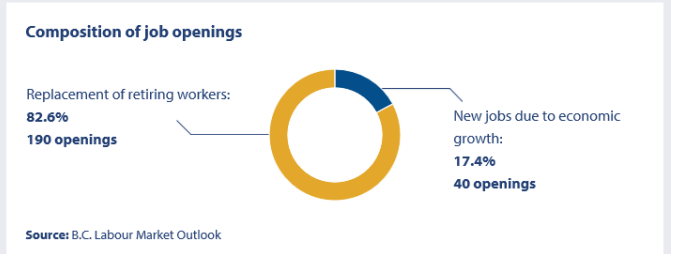
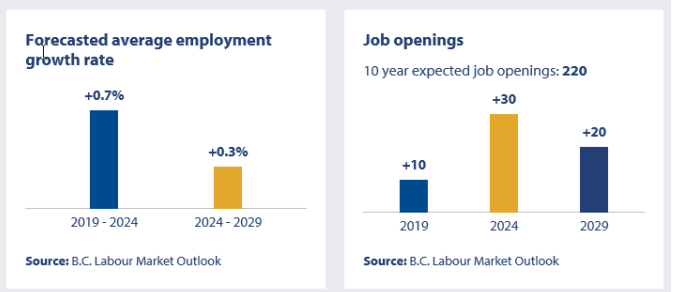
**Electricians NOC 7241 (except Industrial & Power Systems)
 Employment Outlook**

B.C. Labour Market Outlook (2019-2029)
 Provincial outlook



**Power Systems Electricians NOC 7243
 Employment Outlook**

B.C. Labour Market Outlook (2019-2029)
 Provincial outlook



Electricians

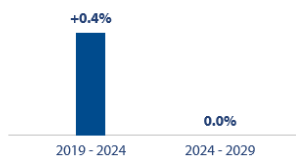
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Industrial Electricians NOC 7242

B.C. Labour Market Outlook (2019-2029)

Provincial outlook

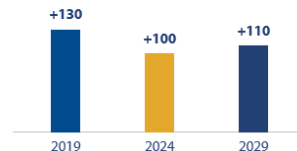
Forecasted average employment growth rate



Source: B.C. Labour Market Outlook

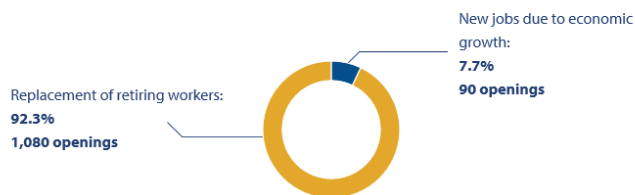
Job openings

10 year expected job openings: 1,170



Source: B.C. Labour Market Outlook

Composition of job openings



Source: B.C. Labour Market Outlook

You can learn more about working as an electrician in BC from:

WorkBC, Career Profiles at

<https://www.workbc.ca/plan-career/explore-careers>

Types of Employers

Electricians may work for electrical contracting companies, industrial plants, and construction companies, or are self-employed.

Industrial Electricians may work for:

- heavy industry
- maintenance departments of factories, mines, mills, oil and gas plants, shipyards, and other industrial establishments

Power System Electricians may work for:

- electric power generation and transmission companies

This is a very specialized occupation with very few employers in the province. BC Hydro is the main employer.

Salary

The median annual salary for electricians in BC is:

- **Construction Electricians** \$60,482 (electricians who have their own business may earn more)
- **Industrial Electricians** \$80,817.
- **Power Systems Electricians** \$87,595

If you are training as an apprentice, you generally earn a percentage of a fully trained electrician's salary. You receive increases in pay as you complete each year of your apprenticeship.

If you are employed full-time, you may also receive benefits such as paid sick days, and dental coverage.

Job Bank Canada provides average salaries in BC regions:

Construction Electricians

Community/Area	Wages (\$/hour)		
	Low	Median	High
British Columbia	16.26	28.00	39.00
Cariboo Region	N/A	N/A	N/A
Kootenay Region	16.26	28.00	39.00
Lower Mainland–Southwest Region	16.15	28.00	39.25
Nechako Region	N/A	N/A	N/A
North Coast Region	16.26	28.00	39.00
Northeast Region	19.80	31.00	41.00
Thompson–Okanagan Region	17.00	28.00	35.00
Vancouver Island and Coast Region	16.26	27.00	38.60
Canada	18.00	32.00	43.00

Source: Job Bank, Wage Report <https://www.jobbank.gc.ca/trend-analysis/search-wages>

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Industrial Electricians

Community/Area	Wages (\$/hour)		
	Low	Median	High
British Columbia	29.00	39.00	48.29
Cariboo Region	32.00	41.89	45.00
Kootenay Region	29.00	39.00	48.29
Lower Mainland–Southwest Region	29.50	36.26	44.85
Nechako Region	29.00	39.00	48.29
North Coast Region	29.00	39.00	48.29
Northeast Region	27.00	40.00	54.50
Thompson–Okanagan Region	20.00	42.00	48.29
Vancouver Island and Coast Region	29.80	39.00	62.87
Canada	22.00	35.00	48.00

Source: Job Bank, Wage Report <https://www.jobbank.gc.ca/trend-analysis/search-wages>

Power Systems Electricians

Power Systems Electricians NOC 7243 - Hourly Wages

Community/Area	Wages (\$/hour)		
	Low	Median	High
British Columbia	34.62	42.00	45.44
Canada	26.50	41.23	50.00
Cariboo Region	N/A	N/A	N/A
Kootenay Region	N/A	N/A	N/A
Lower Mainland–Southwest Region	34.62	42.00	45.44
Nechako Region	N/A	N/A	N/A
North Coast Region	N/A	N/A	N/A
Northeast Region	N/A	N/A	N/A
Thompson–Okanagan Region	N/A	N/A	N/A
Vancouver Island and Coast Region	N/A	N/A	N/A

Sources:

Career Cruising – profile for electrician

<https://www.vpl.ca/digital-library/career-cruising>

Available from the VPL Digital Library | Explore our Digital Library page

WorkBC, Career Profiles at

<https://www.workbc.ca/plan-career/explore-careers>

Working Hours

Electricians typically work 40 hours per week, with possible overtime. Shift work is common for industrial and maintenance electricians, and you may have to work evenings and weekends. Independent contractors may work 12 to 14-hour days, or 60 to 70 hours a week. Maintenance electricians may work nights and on the weekend. They may also get called in to work without much notice.

2. Skills, Education and Experience

Skills

- Detail oriented
- Good hand-eye coordination
- Reading skills
- Math skills
- Ability to interpret drawings
- Spatial perception
- Problem solving ability
- Good physical movement and the ability to work in a variety of places

Education and Experience

To work as an electrician in BC you usually require:

- completion of secondary school or equivalent course work
- a certificate of qualification from the Industry Training Authority

OR

- registration in an apprenticeship program leading to qualification

Certified electricians are required to write the Red Seal Interprovincial Exam. Those who pass this exam are awarded the *Red Seal*, which means you can work as an electrician in the other provinces or territories without having to re-certify.

Qualifications

To work as a **Construction Electrician**, it is recommended that you hold a certificate of qualification from the Industry Training Authority or registration in a four-year apprenticeship leading to qualification. Employers may however require trade certification. The electrician apprenticeship requires a combination of work experience and in-school instruction that typically takes four years to complete and is available through secondary schools, colleges and technical institutes or by direct entry to the workplace. Interprovincial Standards Red Seal certification is available to qualified electricians through the Industry Training Authority.

To work as an **industrial electrician in B.C.**, it is necessary to hold a certificate of qualification from the Industry Training Authority or be registered in a four-year apprenticeship that will lead to qualification. Requirements for trade certification include:

Completion of a four-year apprenticeship program or a combination of more than five years work experience and some high school, college or industry courses in industrial electrical equipment

To work as a **power systems technician**, it is necessary to hold a qualification recognized by the Industry Training Authority (<https://www.itabc.ca/>). Completion of secondary school is usually required, plus:

Completion of a four-year apprenticeship program for power system electricians
OR

a combination of over four years of work experience in the trade and some college or industry courses in electrical technology is usually required.

For more information on the certification process, see:

BC Industry Training Authority (ITA):

- Construction Electrician <https://www.itabc.ca/program/electrician-construction>
- Industrial Electrician <https://skilledtradesbc.ca/electrician-industrial>

Electrical Joint Training Committee

<https://ejtc.org/apprenticeships/apprenticeships-overview/>

Internationally Trained Electricians

If you have significant work experience as an electrician but have never been certified in Canada, you may apply to challenge the Red Seal certification. (To challenge you require 9,000 hours of directly related work experience). Being approved to challenge means that if you meet the criteria for your trade you will not be required to go through the full program. Instead, you will be allowed to become certified by writing and passing the final exam. In this case the completion of an apprenticeship program is not required.

For more information see:

- **Challenging Exams - ITA BC**
 - <https://skilledtradesbc.ca/challenge-skilled-trade>

The BC Industry Training Authority (ITA) provides assistance through the *Immigrants in Trades Training Initiative*. For information see:

- **Immigrants in Trades Training**
 - <https://www.itabc.ca/sites/default/files/docs/discover/2012-IITT-Fact-Sheet.pdf>
 - <https://www.itabc.ca/success-stories/helping-new-canadians-find-their-path-success>

3. Finding Jobs

You'll find job advertisements in local newspapers, trade journals, and electronic sources, as well as through professional associations' publications.

Local Newspapers

You can look at the *Vancouver Sun* & *The Province* at Vancouver Public Library for free. Check the job postings daily, the careers section in the *Vancouver Sun* on Wednesdays and Saturdays and in *The Province* on Sundays.

Online Job Postings

- **BC Electrical Association**
<http://www.bcea.bc.ca/jobs.php>
- **Indeed.com**
https://ca.indeed.com/advanced_search
Find jobs posted on a large number of company career sites and job boards
- **WorkBC – Job Search**
<https://www.workbc.ca/search-and-prepare-job/find-jobs#/job-search>
- **Talent.com**
<https://ca.talent.com/>
- **BC JobConnect**
<https://www.bcjobconnect.ca>
must have permanent resident number newcomers can post their skills, education and work experience to BC employers looking for workers

Professional Associations' Career Resources

- BC Electrical Association
https://www.bcea.bc.ca/industry_careers.php
- Vancouver Regional Construction Association
<https://www.constructionjobcentre.ca/>
- Careers in Construction
<https://www.careersinconstruction.ca/en/career/electrician>

Identifying the Right Position

When you browse job advertisements, you'll find a range of different job titles that are relevant.

For **construction electricians** look for these related job titles:

- Electrician
- Apprentice Electrician

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- Construction Electrician
- Domestic and Rural Electrician

For **industrial electricians**:

- Electrician, Shipyard
- Industrial Electrician Apprentice
- Marine Electrician
- Mill Electrician
- Mine Electrician
- Plant Electrician
- Plant Maintenance Electrician

Creating a List of Potential Employers

You can use directories to produce lists of potential employers. Contact them directly to find out if they're hiring.

- **BC Electrical Association Member Directory**
http://www.bcea.bc.ca/member_directory.php
- **BC Regional Construction Association Member Directories**
<https://www.bccassn.com/about-us/regional-associations/>
- **Electrical Contractors Association of BC Member Directory**
<https://eca.bc.ca/directory/#action=AdvancedSearch&cid=669&did=4&listingType=O>
- **Reference Canada**
<https://www.vpl.ca/digital-library/reference-canada>

Click on "Start Search" beside Canadian Businesses, then select the "Advanced Search" button. Select both "Keyword/SIC/NAICS" under Business Type and "City" under Geography. In the top search box enter "*electric*" or "*electrical*" and click SEARCH. Select the appropriate headings. Lower down, select the Province, choose the cities, and click the "View Results" button.

Available from the VPL Digital Library | Explore our Digital Library page

NOTE: You can access this database from a Library computer. If you are using a computer from outside the Library, you will need a Vancouver Public Library card to login to this database. After clicking on the database name, you will be asked to enter your library card number and PIN (usually last four digits of your telephone number).

4. Applying for a Job

In Canada, employers usually expect to receive a resume or curriculum vitae and a cover letter that identifies the position you are applying for and summarizes your relevant experience.

Use the library catalogue, <https://vpl.bibliocommons.com/> to find books on writing resumes and cover letters specific to your industry.

To learn about applying for jobs in Canada, use the following guides which are available in print at the Central Library or online at <https://www.vpl.ca/siic/>.

- **Writing Resumes and Cover Letters**
<https://www.vpl.ca/siic/guide/job-search-resources/writing-resumes-and-cover-letters>
- **Getting Canadian Work Experience**
<https://www.vpl.ca/siic/guide/job-search-resources/getting-canadian-work-experience>
- **Networking for Employment**
<https://www.vpl.ca/siic/guide/job-search-resources/networking-for-employment>
- **Learn More About Working in BC and Canada**
<https://www.vpl.ca/siic/guide/job-search-resources/learn-more-about-working-in-bc-and-canada>

5. Getting Help from Industry Sources

Industry Associations

Associations for electricians in BC and Canada can provide information and assistance. Registration and fees may be required for membership.

- **BC Electrical Association**
<https://www.bcea.bc.ca/>
- **BC Building Trades**
<https://bcbuildingtrades.org/>
- **Careers in Construction: Electrician**
<https://www.careersinconstruction.ca/en/career/electrician>
- **BC Construction Association – Integrating Newcomers**
<https://www.bccassn.com/jobs-&-careers/bcca-integrating-newcomers/default>
- **Skilled Trades Employment Program – BC Construction Association**
<https://www.stepbc.ca/>
- **Electrical Contractors Association of BC (ECABC)**
<https://eca.bc.ca/>
- **IBEW Local 213, International Brotherhood of Electrical Workers**
<http://www.ibew213.org/>

Industry Journals

Search the Vancouver Public Library catalogue for journals related to your profession. Examples at Central Library:

- **Electrical Business**
Available at the Central Library, 338.47 E3831E or online at:
<https://www.ebmag.com/>
- **Electrical Line**
Available at the Central Library, 621.305 E3831 or online at:
<https://electricalline.com/>

**Questions? Please ask the Information Staff in the Central Library,
Vancouver Public Library or telephone 604-331-3603.**

Please note that the information in this guide is also available online through the
Skilled Immigrant InfoCentre website at <https://www.vpl.ca/siic>.