

Sector Profile

Utilities

Atlantic Region

2024

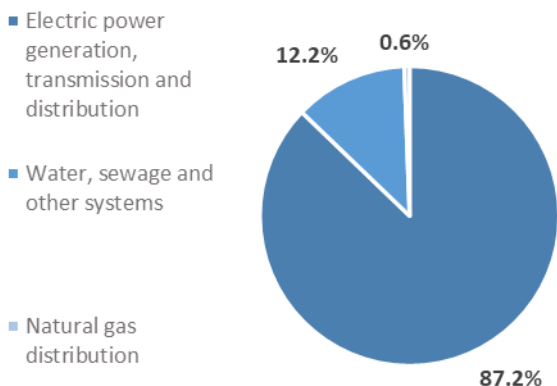


HIGHLIGHTS

- The utilities industry is capital intensive and small, in terms of employment. The industry is integral to the health of the broader economy as power generation, energy distribution, water and sewage systems are foundational to all industries.
- Those employed in utilities are typically highly educated as nearly half (48.2%) of the workforce possesses a postsecondary certificate or diploma, compared to the all-industry average of 38.4%.
- Employment remained relatively unchanged in 2023. The number of jobs has been high in recent years due to elevated activity stemming from the adoption of new technologies, tax incentives, and various other programs.
- Looking forward, employment growth in Atlantic Canada is expected to be near the all-industry average, with increasing population and offshore wind expansion being the main growth drivers.

ABOUT THE INDUSTRY

Employment Share by sub-industry



Source: Statistics Canada, Labour Force Survey 2023

Composition and Importance of the Sector

The services provided by utilities operators are crucial to the functioning of most other businesses. These include power generation, water and sewage systems, natural gas distribution and a variety of other resource and energy-related activities. Because of its importance, the industry is highly regulated in terms of safety and clean energy requirements.

The utilities industry is capital intensive and small, on an employment basis. Moreover, there are few employers, with most of them being crown corporations, and/or localised water and electricity providers. New Brunswick Power and Nova Scotia Power are major employers in the region, with over 2,800 and 2,200 employees, respectively.

Electric power generation, transmission, and distribution accounts for by far the largest share of utilities employment. Water, sewage and other systems account for the next largest portion, while natural gas distribution is the smallest, by a significant margin.



Atlantic Canada’s utilities industry saw significant growth over the past year as real GDP grew by 9.8%, compared to a 0.4%, across all industries. Looking more broadly at performance over the past decade, spanning 2014 to 2023, real GDP grew at an average annual rate of 2.9% - again, higher than the rate observed across all industries (+0.9%).

Geographic Distribution of Employment

The utilities industry’s share of employment is higher-than-average in Newfoundland and Labrador (N.L.) and New Brunswick (N.B.). It is a bit lower in Nova Scotia (N.S.) and is significantly lower in Prince Edward Island (P.E.I.).

Large investments tend to drive employment as firms need operators and maintenance crews to operate their infrastructure. Examples in the region include the upcoming Eastern Kings Wind Farm Projects in P.E.I., and the upcoming Mactaquac Generating Station refurbishments in N.B.

| | Employed 2023 | Industry Share (%) |
|---------------------------|---------------|--------------------|
| Atlantic Canada | 10,700 | 0.9% |
| Newfoundland and Labrador | 2,500 | 1.1% |
| Prince Edward Island | 300 | 0.3% |
| Nova Scotia | 3,100 | 0.6% |
| New Brunswick | 4,800 | 1.2% |

Source: Statistics Canada, Labour Force Survey

WORKFORCE

Workforce Characteristics

Nearly four-fifths (79.6%) of the utilities workforce is male compared to about half (50.7%) for all industries. Workers in this industry are also more likely to fall within the ages of 25 to 54 years (75.3% vs. 63.3% for all industries). This means that youth (ages 15 to 24 years) and seniors (ages 55 years and over) are under-represented. Compared to the average across all industries, there are both fewer young workers (4.7% vs. 13.4%) and fewer senior workers (20.0% vs. 23.4%). The utilities industry also has a slightly lower share of immigrants participating in the workforce (4.5%), compared to the average across all industries (6.5%).

Those employed in utilities are typically highly educated as nearly half (48.2%) of the workforce possesses a postsecondary certificate or diploma, compared to the all-industry average of 38.4%. Moreover, only 1.0% of workers in the industry had less than a high school education, compared to 7.6% across all industries.

Nearly the entirety of the industry’s workforce are employees (as opposed to being self-employed), at 98.8%. Moreover, 90.3% of these employees work on a permanent basis. This compares to all-industry averages of 89.7% and 76.3%, respectively.

Main Occupations

Electrical power line and cable workers make up the largest employment share, by occupation group. This is followed by power engineers and power system operators; supervisors, petroleum, gas and chemical processing and utilities; construction millwrights and industrial mechanics; and utilities managers.

The employment share for supervisors in petroleum, gas and chemical processing, and utilities increased by 3.3 percentage points (p.p.) from 2013 to 2023. Increases among the other top occupations identified in the table to the right ranged from 0.9 to 1.7 p.p.

| Top 5 largest occupations | Employed 2023 | % Share of Industry |
|---|---------------|---------------------|
| Electrical power line and cable workers | 900 | 8.5% |
| Power engineers and power systems operators | 850 | 7.9% |
| Supervisors, petroleum, gas and chemical processing and utilities | 825 | 7.7% |
| Construction millwrights and industrial mechanics | 550 | 5.2% |
| Utilities managers | 500 | 4.8% |

Source: ESDC/Service Canada



RECENT HISTORY

Utilities employment rose steadily from 2015 to 2021, declined in 2022, and remained relatively unchanged in 2023. Elevated employment in recent years has been supported by increased activity due to the adoption of new technologies, tax credits, and various other programs. The goal of a lot of recent government programming has been to help transition the region to net-zero emissions.

There has been a noticeable shift to renewable energy in the region, in recent years, with significant investments taking place in hydroelectric, wind and solar capacity. However, issues in project delays and maintenance have persisted in the industry. The importance of energy storage projects and transmission lines have also been emphasized throughout the region.

Electricity generation rose sharply from 2022 to 2023, largely due to production from hydraulic turbines, which grew by 5.3 million (M) megawatt hours (MWh). Nuclear power (+1.2 M MWh) and combustible fuels (+0.8 M MWh) also contributed to this growth.

The relative weights of the types of electricity generated shifted over the last decade. Hydraulic turbines increased in importance as it went from 64.3% of all electricity generated in the Atlantic provinces in 2014 to 70.2% in 2023. This is largely a result of increases in N.L. due to significant infrastructure investments such as Churchill Falls and Muskrat Falls. Combustible fuel decreased from 26.3% to 19.4% and wind rose from 2.2% to 3.7% of all electricity generated in 2014 and 2023, respectively. Investments in green energy and the implementation of the federal carbon tax are partially responsible for this shift. The electricity generated is largely used within the region, but a significant amount is also sold to Québec and the United States.

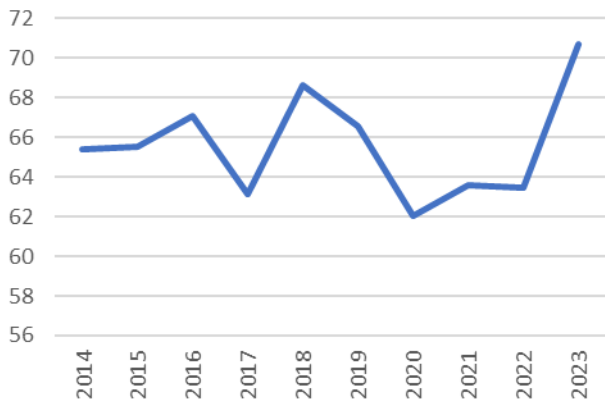
Industry stakeholders highlighted that there is uncertainty with respect to timelines for major projects, which makes it difficult to prepare workers with the necessary education and skills. A lack of training and skills, due to the uncertainty around timelines, has limited the opportunity presented by clean energy. The high cost of construction for major projects is another major challenge. The industry is also worried about housing and being able to find enough workers to build out massive energy projects all slated to begin before 2035.

Historical Employment Trend
Atlantic Canada



Source: Statistics Canada, Labour Force Survey

Electricity Generation, Atlantic Canada
Megawatt hours (in millions)



Source: Statistics Canada, Monthly Electricity Supply and Disposition Survey



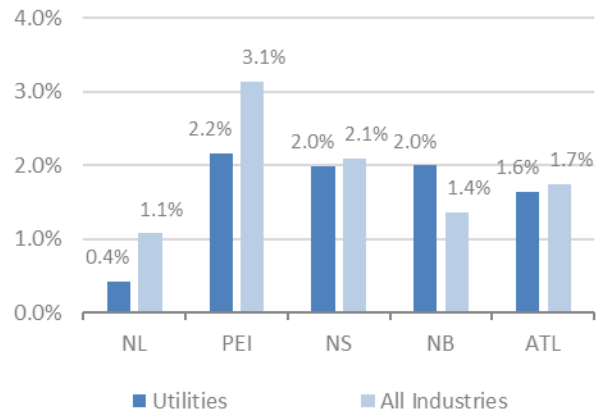
OUTLOOK

Utilities employment growth is projected to be higher-than-average in N.B. and lower in N.L., P.E.I. and N.S., when compared to the all-industry average. For the Atlantic region as a whole, growth is expected to keep pace with the all-industry average. Population growth and offshore wind expansion are expected to drive a significant share of this growth.

Upcoming major projects in the region include the Bay d'Espoir Penstock expansion in N.L., the Western P.E.I. Transmission Line, the Goose Harbour Lake Wind Farm in N.S., and the Brighton Mountain wind farm in N.B. NB Power also has several major projects planned, including work on the Mactaquac Generating Station geared towards extending its life.

Projected Average Annual Employment Growth Rate (%),

Atlantic Provinces, 2024-2026



Source: ESDC/Service Canada

Note: In preparing this document, the authors have taken care to provide clients with labour market information that is timely and accurate at the time of publication. Since labour market conditions are dynamic, some of the information presented here may have changed since this document was published. Users are encouraged to also refer to other sources for additional information on the local economy and labour market. Information contained in this document does not necessarily reflect official policies of Employment and Social Development Canada.

The analysis in this report was finalized as of **September, 2024**

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APPENDIX

Real GDP (2023) and Employment (2023) for Atlantic Canada

| | Utilities | | | All Industries | | |
|--------------------------------|-----------|----------------|-------|----------------|----------------|-------|
| | Number | Share of Total | AAGR* | Number | Share of Total | AAGR* |
| Real GDP (M\$) | \$3,250.9 | 100.0% | 2.9% | \$114,774.4 | 100.0% | 0.9% |
| Newfoundland and Labrador | \$706.0 | 21.7% | 3.3% | \$28,950.2 | 25.2% | -0.5% |
| Prince Edward Island | \$98.2 | 3.0% | 2.4% | \$7,267.1 | 6.3% | 2.5% |
| Nova Scotia | \$874.3 | 26.9% | 0.7% | \$43,765.1 | 38.1% | 1.5% |
| New Brunswick | \$1,572.4 | 48.4% | 4.4% | \$34,792.0 | 30.3% | 1.1% |
| Employment (000s) | 10.7 | 100.0% | 0.5% | 1210.0 | 100.0% | 0.8% |
| Male | 8.5 | 79.6% | 1.3% | 613.0 | 50.7% | 0.8% |
| Female | 2.2 | 20.4% | -2.3% | 597.0 | 49.3% | 0.8% |
| 15-24 years old | 0.5 | 4.7% | 4.8% | 161.8 | 13.4% | 0.8% |
| 25-54 years old | 8.1 | 75.3% | 0.4% | 765.4 | 63.3% | 0.5% |
| 55 years and older | 2.1 | 20.0% | -0.1% | 282.7 | 23.4% | 1.6% |
| Worked full-time | 10.7 | 99.4% | 0.5% | 1015.6 | 83.9% | 0.9% |
| Worked part-time | 0.1 | 0.6% | -8.1% | 194.4 | 16.1% | 0.2% |
| Self-employed | 0.1 | 1.2% | n/a | 124.5 | 10.3% | -0.7% |
| Employees | 10.6 | 98.8% | 0.4% | 1085.4 | 89.7% | 1.0% |
| Permanent job | 9.7 | 90.3% | 0.2% | 923.3 | 76.3% | 1.4% |
| Temporary job | 0.9 | 8.5% | 2.3% | 162.1 | 13.4% | -1.1% |
| Less than high school | 0.1 | 1.0% | 0.0% | 92.1 | 7.6% | -2.6% |
| High school graduate | 1.4 | 13.0% | -0.6% | 284.9 | 23.5% | -0.4% |
| Postsecondary cert. or diploma | 5.2 | 48.2% | -1.1% | 465.0 | 38.4% | 0.6% |
| University degree | 4.1 | 37.9% | 3.4% | 367.9 | 30.4% | 3.3% |
| Newfoundland and Labrador | 2.5 | 23.1% | -1.1% | 236.8 | 19.6% | -0.1% |
| Prince Edward Island | 0.3 | 2.9% | 4.1% | 89.0 | 7.4% | 2.0% |
| Nova Scotia | 3.1 | 29.1% | -1.1% | 497.8 | 41.1% | 1.1% |
| New Brunswick | 4.8 | 44.9% | 2.5% | 386.5 | 31.9% | 0.8% |

Source: Statistics Canada, Labour Force Survey - Custom Table; Table 36-10-0402-01

*Average annual growth rate for last ten years of available data (GDP 2014-23 and Employment 2014-23)

