

Power Engineer

Run the boilers, turbines and refrigeration plants that keep hospitals, refineries and cities working. Six figures with a two-year diploma.

TYPICAL PAY

\$102,000

a year, full time

PAY RANGE

\$62k to \$157k

starting to experienced

TIME TO QUALIFY

2 to 4 years

after high school

DEMAND

Good

job outlook

LICENCE NEEDED

Yes

regulated job

WHERE YOU WORK

Refineries, power plants, hospitals, oil sands, refrigeration plants

How you get there

- 1 High school diploma** Grade 12
Grade 12 math, physics and chemistry. Boilers are chemistry and thermodynamics in a steel box.
- 2 Power engineering program** 1 to 2 years
A two-year diploma at SAIT (Southern Alberta Institute of Technology), NAIT (Northern Alberta Institute of Technology), Saskatchewan Polytechnic, Red River, Conestoga or Nova Scotia Community College. Includes time in a real steam lab.
- 3 4th class certificate** During or right after school
Write the provincial exam papers. Most diploma programs let you challenge 4th class before you graduate, and SAIT graduates can challenge 3rd class.
- 4 Work and climb the classes** 1 to 2 years per class
Each higher class (3rd, 2nd, 1st) needs qualifying time operating a plant under a certificate, usually a year or more per class, plus more exam papers.
- 5 Chief engineer** 6 to 10 years total
A 2nd or 1st class certificate lets you be the chief of a large high-pressure plant.

Pros and cons

- + Six-figure median with a two-year diploma
- + Every hospital, refinery and university needs one
- + Certificate recognized across Canada
- Rotating 12-hour shifts, nights and holidays
- Hot, loud plants with real pressure and chemical hazards
- Years of exams to reach the top classes

Good to know

Not an engineer with a degree

Power engineers are certified plant operators, not professional engineers. The name comes from the steam era, when the person running the engine was the engineer. Ontario avoids the confusion by...

One exam system for the whole country

SOPEEC (Standardization of Power Engineer Examinations Committee) writes the syllabus and exam standards used by every province and territory, which is why a 3rd class ticket from Nova Scotia is accepted...

Optional boosts

The next class. Refrigeration operator. Gas process operator or water treatment. Instrumentation or electrical ticket.

Where these numbers come from

Job Bank: Power engineers, wages (updated Nov 2025)
SOPEEC (Standardization of Power Engineer Examinations Committee)
ABSA (Alberta Boilers Safety Association)
TSSA (Technical Standards and Safety Authority), Ontario

Numbers checked September 2026. Pay figures are typical full-time annual amounts in Canadian dollars, based on Government of Canada Job Bank wage data and published salary grids. They vary by province, employer and experience. Tuition is for domestic students. Sources, links and the click-through version: <https://career.help/ca/careers/power-engineer>



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