

Summary:

- UBC’s Program on Water Governance has conducted a detailed comparison of employment generated by Site C versus the alternative portfolios put forward by BC Hydro and the BCUC.
- Our analysis indicates that terminating Site C and pursuing the alternatives results in modest job losses in the short term, and **substantial job gains in the medium and long-term.**
- These jobs are generated by site remediation, energy conservation, and alternative energy projects.
- **Terminating Site C and pursuing any alternative portfolio creates a higher number of sustainable jobs in the province, including in the Peace Region.**
- Site C provides the **least** jobs per dollar spent.

Our “apples to apples” method.

We used the BC Hydro and the BCUC alternative portfolios, which provide the same annual energy and meet the same peak demand as the Site C Project. This “apples to apples” approach is also used by BC Hydro in its integrated resource plan. We used a conservative approach by estimating the employment in the alternative portfolios using BC Hydro’s low load forecast of future electricity requirements.

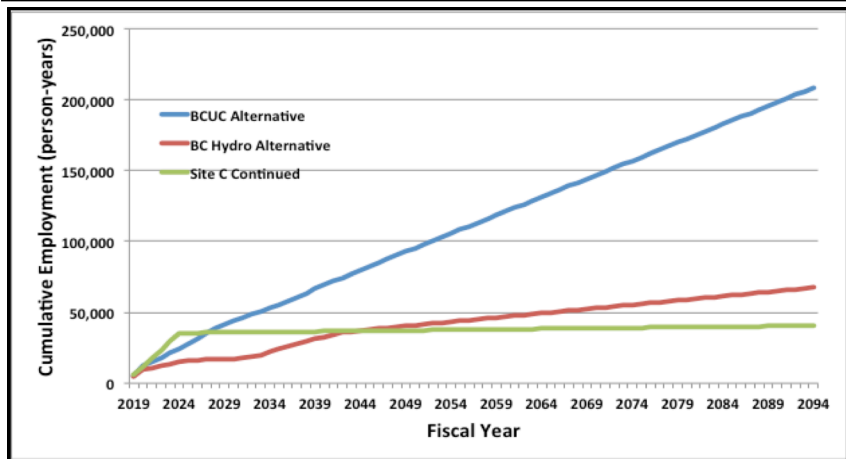
BC Hydro alternative portfolio.

In the long-term this portfolio outperforms Site C for job creation. This is because alternative energy generates more jobs per dollar spent.

BCUC alternative portfolio.

The Commission’s alternative portfolio provides somewhat less employment than Site C by 2024, but soon substantially exceeds Site C, due to site remediation, energy conservation, and alternative energy jobs.

Employment (person-years or “jobs”)	BCUC Alternative	BC Hydro Alternative	Site C Continued
Construction (remaining)	5,156	23,435	35,398
Operations (per year)	172	604	74
DSM Programs (annual average)	2,416	0	0
Site C Remediation (total)	9,556	9,556	0
Site C Monitoring (per year)	74	74	0
Cumulative to 2024	24,612	15,059	35,398
Cumulative to 2030	43,836	17,284	35,842
Cumulative to 2054	105,618	43,421	37,618
Cumulative to 2094	208,498	67,580	40,578



Conclusion:

Our analysis indicates that terminating Site C and pursuing the alternatives results in modest job losses in the short term, and substantial job gains in the medium and long-term. Site C provides the least jobs per \$ spent. **Terminating Site C and pursuing any alternative portfolio creates a higher number of sustainable jobs, including in the Peace Region.**

Continuing with Site C

- **Total construction jobs.** According to BC Hydro, Site C will create about 44,000 “jobs” or person-years of employment during construction, including direct (on-site), indirect (contractors), and induced (broader economy) jobs.
- **Cost of construction jobs.** Every direct job at Site C costs over \$1M. (For total employment, each job costs approximately \$225,000.)
- **Operations jobs.** Once construction is complete in 2024, according to BC Hydro the Site C Project would produce 74 jobs per year.

Approximately 80% of the construction jobs, or 35,000 person-years of total employment, remain on the Site C Project after December 31, 2017. Each job costs about \$225,000.

Terminating Site C

- **Site C remediation jobs.** Site C remediation would cost \$1.8 billion, the same spending as the previous two years of construction at Site C. This two-year remediation and 10 years of monitoring is expected to create nearly 10,000 jobs at similar pay and skill levels to current Site C construction jobs. If Site C were terminated, remediation provides a transition period for workers and the local economy.
- **Energy conservation jobs.** According to a study carried out for BC Hydro, spending on conservation or demand-side management (DSM) programs creates 30 jobs per \$1M spent.¹ Spending on energy conservation programs is the most effective way to create employment.
- **New peak demand project jobs.** If Site C were terminated, BC Hydro requires new resources to meet peak demand requirements as early as 2025, depending on future load. BC Hydro proposed pumped storage hydro, and the BCUC proposed geothermal projects. Planning would begin immediately for these projects, with construction starting in the early 2020s.
- **New wind energy project jobs.** All alternative portfolios involved the development of new wind projects, with construction beginning as early as 2025 depending on future energy requirements. Most wind development would occur in the Peace Region, which has the best wind resources.

The BCUC Alternative Portfolio envisions investing \$80 million/year in energy conservation programs, creating 2,400 jobs per year indefinitely. Each job costs about \$35,000.

The BC Hydro Alternative Portfolio envisions development of more than 1500 MW of wind, creating 17,000 construction jobs, and nearly 600 operations jobs per year indefinitely in the Peace Region.

UBC's Program on Water Governance published 5 research reports on Site C (www.watergovernance.ca/projects/sitec/), and made 6 technical submissions to the BC Utilities Commission. (<http://www.sitecinquiry.com/submissions-and-comments/>). The research reports were reviewed by independent academic experts and extensively cited by the BCUC during its Site C Inquiry.

¹ BC Hydro Power Smart. March 2010. Power Smart Employment Impacts. DSM Programs, Rates and Codes and Standards, F2008 to F2037, p.iv. (Converted to current dollars).