

Summer 2026 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Hub is pleased to offer current UBC graduate students the opportunity to work on sustainability internship projects. Successful candidates work under the guidance of a mentor from the partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region. The pay rate for the summer 2025 program is \$31.25/hour or \$7,812.50 for a 250-hour project.

- Visit the [Sustainability Scholars Program website](#) to learn [how the program works](#) and to [apply](#).
- Be sure to review the application guide on the Apply page to confirm your eligibility before applying.

Applications close at 11:59 pm on Sunday February 1, 2026.

Project title: Impacts of large data centres on energy demand, greenhouse gas emissions, and local air quality

Project Background

Investment in new data centres is increasing as more capacity is required to train and run artificial intelligence (AI) models. According to the [International Energy Agency](#), global installed data centre capacity nearly doubled in the past five years, and the associated electricity consumption rose by approximately 80%. IEA predicts the electricity consumption from data centres to increase by another 170% in the next 5 years to around [945 TWh by 2030](#) - slightly more than the entire electricity consumption of Japan today.

Amid this AI boom, Canada's federal government is developing a [Canadian Sovereign AI Compute Strategy](#) to increase compute capacity and support a domestic AI ecosystem. As part of the strategy, the government is planning to invest up to \$700 million to support build out and expansion of the capacity of commercial AI data centres in Canada, as well as up to \$1 billion to build public supercomputing infrastructure for researcher, government, and industry.

The AI-focused data centres require significant amounts of electricity to operate, particularly due to their high cooling demand. With some of the lowest electricity rates in North America, British Columbia is a potentially attractive destination for the build out of this infrastructure. In 2022, BC Hydro offered temporary a [electricity rate discount](#) for data centres, which was fully subscribed to by 2023. Earlier this year, Bell Canada [announced its plans](#) to build six AI data centres in the province.

Due to their large energy demand, if connected to the grid, AI-focused data centres may require a build-out of additional generation and transmission infrastructure, which may affect [consumer rates](#) and delay decarbonization efforts in other sectors. The BC Government has recently [announced proposed changes to energy rules](#) that would prioritize natural resource and

manufacturing projects, while requiring AI, data centres, and hydrogen-for-export projects to bid for the power. However, as seen in other jurisdictions, if AI-focused data centres cannot secure sufficient electrical grid supply, they may rely on on-site fossil fuel-powered electricity generation. For example, xAI's new data centres in Memphis, TN, have allegedly placed [35 gas turbines](#) on site to meet the facility's operational energy needs, releasing health-harming air contaminants and greenhouse gases.

In light of these challenges and concerns, it is crucial to improve our understanding of the implications of potential AI-focused data centre build out with respect to energy demand, emissions of health-harming air pollution, and regional climate objective.

Project description

The purpose of the project is to assess the impacts of hypothetical AI data centres being built in the Metro Vancouver region on energy demand, emissions, and regional climate objectives.

The findings could support Metro Vancouver's Air Quality and Climate Action Services team in planning future work related to assessing and addressing potential impacts of local data center build-out on the emissions of health-harming air pollutants and progress towards the regional climate objectives.

Project scope

As part of this project, the Scholar will:

1. Review current research on energy demand and emissions associated with AI operations, distinguishing between data centres for model training and inference;
2. Compare the impacts of facilities that are connected to the grid and those powered off-grid, highlighting how these choices influence energy demand and emissions;
3. Subject to information availability, identify mitigation approaches to reduce the adverse impacts, such as waste heat recovery. This may include a theoretical overview of potential solutions or 3 to 5 case studies from jurisdictions globally where such measures have been implemented in existing data centres or are planned for those under construction.
4. Time-permitting and if feasible based on the information available, assess the likelihood of different sizes and configurations (off-grid vs. on-grid) of data centres being constructed in the region.

To complete these tasks, the Scholar will conduct a review of academic and gray literature, policies adopted by different levels of government, and other publicly available documents. As needed, the insights may be supplemented by interviews with subject-matter experts from academia, BC Hydro, think tanks, and other relevant organizations.

Deliverables

- A final report containing a summary of the work completed and findings

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- 30 to 60 minute presentation on the findings to the broader Air Quality and Climate Action Services team
- A final report for the online public-facing [Scholars Project Library](#).

Time Commitment

- This project will take 250 hours to complete
- This project must be completed between May 1 to August 14, 2026
- The scholar will dedicate approximately 17 to 20 hours per week.
- The Scholar will be available to meet with the mentor weekly between 9am and 5pm, Monday to Friday during an agreed upon time

Required/preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Familiarity with research methodologies and survey techniques
- Excellent public speaking and presentation skills
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Project management and organizational skills
- Experience with and/or interest in exploring the environmental trade-offs of Artificial Intelligence and the development of data centres, an asset

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Apply here: [Click here to apply](#)

Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions

Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 19, 2026. [Click here for details and to register.](#)

Below are some links to useful resources to help you with your resume, cover letter and preparing for an interview (there are many more online).

<https://students.ubc.ca/career/career-resources/>

<https://www.grad.ubc.ca/cover-letter-cv-resume-templates-ubc-career-services>