

## Summer 2021 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Initiative (USI) is pleased to offer current UBC graduate students the opportunity to work on funded sustainability internship projects. Successful candidates work under the mentorship of a partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region.

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

**Applications close at midnight on Sunday January 31, 2021.**

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### **Project Title**

Assessment of Nitrogen Dioxide Emissions from Boilers and Generators on Neighbouring High-Density Residential Buildings

### **Project description**

Due to the densification of Metro Vancouver (MV), there are neighbourhoods where mid- and high-rise buildings are built close to each other. These buildings generally have boilers to provide heat and hot water and diesel generators to provide emergency power. The exhaust from these units may be located at the sides of the buildings, which creates a concern where nearby residents may be exposed through open windows or balconies to high concentrations of nitrogen dioxide (NO<sub>2</sub>).

NO<sub>2</sub> is an air contaminant of concern to MV as there is strong evidence that NO<sub>2</sub> causes respiratory effects and short-term mortality, as well as other adverse health impacts.

The primary role of the Scholar will be to conduct a literature review of building codes throughout different jurisdictions (i.e., US and Europe) and other related documents to assess how building exhaust in dense urban environments is addressed. The Scholar will also be responsible for conducting 5 to 10 staff interviews at municipalities with similar or higher population densities than MV. The outcome of this project will be to provide recommendations for amendments to MV's Boilers and Process Heaters Emissions Regulation Bylaw and to municipal building permit requirements.

### **Deliverables**

The Scholar will deliver a final report to Metro Vancouver and for the UBC Sustainability Scholars online project library that should include:

- A literature search of building codes and other related documents in other jurisdictions in Canada, the United States, and Europe.
- Results of 5 to 10 interviews with municipal staff in other cities with similar or higher population densities than Metro Vancouver

# SUSTAINABILITY SCHOLARS PROGRAM

- Recommendations for amendments to Metro Vancouver's Boilers and Process Heaters Emission Regulation Bylaw and to municipal building permit requirements.

## Time Commitment

- This project will take **250** hours to complete.
- This project must be completed between **May 3 and August 13, 2021**
- The scholar is to complete approximately **20** hours per week.

## Required/preferred Skills and Background

- Excellent research and writing skills
- Familiarity with research methodologies and survey techniques
- Ability to work independently
- Deadline oriented
- Project management and organizational skills
- Comfortable interacting with strangers to conduct public/in person surveys
- Familiar with or interest in air quality, building emissions

Applications close **midnight Sunday January 31, 2021**

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

Contact Karen Taylor at [sustainability.scholars@ubc.ca](mailto:sustainability.scholars@ubc.ca) if you have questions

## Useful Resources

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

Below are some links to useful resources to help you with your resume and cover letter (there are many more online). Some of these resources also provide information on preparing for your interview.

<https://students.ubc.ca/career/career-resources/resumes-cover-letters-curricula-vitae>

<https://www.grad.ubc.ca/current-students/graduate-pathways-success>

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