Summer 2023 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 on the Apply page to confirm your eligibility before applying.

Applications close at midnight on Sunday January 29, 2023.

Project title: Applying a climate justice lens to heat-pump retrofits in multifamily buildings in UBC's residential neighbourhoods

Project Background & Overview:
There is a growing urgency to retrofit existing multifamily buildings in British Columbia to rapidly reduce greenhouse gas emissions and to address human health impacts from overheating due to climate change, as demonstrated by the 2021 heat dome event that led to over 600 deaths in British. Historically, multifamily buildings in southwest BC have not required cooling systems, leading to vulnerability of residents from climate change driven heat waves, particularly for low income, renters and equity-deserving groups. In addition, building heating is often provided by carbon emitting fossil fuel systems that contribute to climate change and can add to community respiratory health and wellbeing impacts.

Heat pump retrofits provide an opportunity to foster community energy resilience and climate safe housing by addressing overheating risks and providing low-carbon heating in multifamily buildings. However, complexities of decision making in privately owned buildings, technical complexity and permitting requirements provide challenges in initiating retrofit projects. In addition, vulnerabilities of different demographic groups are poorly understood, as are the barriers and impacts of implementing heat pump retrofits in this building type, which may disproportionally impact some groups relative to others.

With a growing urban population (> 15,000) housed in a multifamily community and an existing building stock typically without cooling systems, the UBC's residential neighbourhoods provide a unique opportunity to better understand and address issues of climate justice and equity associated with access to cooling and low carbon heating in multifamily housing. Additionally, it is an opportunity to engage two key Strategic Priority areas of the UBC Climate Emergency Report and Recommendations; support community wellbeing in the face of climate crisis and accelerate emissions reductions.

Engaging a climate justice lens on access to cooling in UBC's residential neighbourhoods will improve understanding of the social impacts (e.g., physical and mental health impacts, impacts of displacement due to renovation), and improve understanding of who's prioritized for heat pump renovations – and who is not – and navigating complex approval processes.

Project description

This project will explore the objective of accelerating heat pump retrofits for UBC's residential neighbourhoods through a climate justice lens that considers equity, inclusion, diversity and accountably for vulnerable and impacted neighbourhood residents. The student will review neighbourhood demographics, and identify barriers to retrofits that disproportionally impact some community members relative to others. The student will review relevant studies and policies from other jurisdictions (best practices, examples incorporating climate justice into policy and program development).

This project will support UBC Campus and Community Planning (C+CP) , who have permitting authority for retrofits and the University Neighbourhoods Association (UNA), who provide services to residents of the campus neighbourhoods. This project will inform C+CP's retrofit approval process, and support the UNA in developing communication materials that help community residents and building owners better understand retrofit options and how to navigate retrofit processes, as well as identifying vulnerable groups to support prioritizing retrofits. The project will make policy and community programming recommendations for UBC and the UNA.

The project will build on learnings from a recently completed Sustainability Scholar's project "Low Carbon Resilient Retrofits for UBC Strata Residential Buildings" which reviews technical options and permitting requirements for heat pump retrofits in UBC's residential neighbourhoods.

Project scope

The project will undertake a demographic review to identify groups disproportionately vulnerable to overheating in UBC's residential neighbourhoods through a climate justice lens, and identify barriers to heat pump retrofits in neighbourhood housing (e.g., permitting, strata approvals, financial, navigating complex forms, no access to primary spoken language documents) The project will provide policy and program recommendations, including recommendations to C+CP and the UNA for UBC's retrofit approval processes, and UNA community outreach and communication programs.

Project work will include the following:

- review of UBC neighbourhood demographics using available StatsCan and other local data available from C+CP and the UNA.
- review of UBC's current and proposed policies related to heat pump retrofits
- review of other studies and policies from other jurisdictions related to heat pump retrofits in multifamily buildings
- undertake interviews with individuals responsible for managing retrofit policy from other local governments
- identify barriers to heat pump retrofits relative to groups identified in the demographic scan
- engage the Centering Justice in Climate Emergency Response: A Toolkit for Organizations and Institutions to provide recommendations on embedding equity and climate justice in UBC's retrofit policies and programs
- provide recommendations relevant to other BC jurisdictions (local governments, Metro Vancouver, and the Province of BC)

This project will offer a network of informational and knowledge support through the UNA, project leads, the UBC Climate Hub and other relevant stakeholders.

Deliverables

- A final report containing a summary of the work completed
- A final report for the online public-facing Scholars Project Library.
- A presentation slide deck and presentation to an invited audience

Time Commitment

- This project will take 250 hours to complete
- This project must be completed between May 1 to August 15, 2023
- The Scholar is to complete hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.

Required/preferred Skills and Background

☒ Excellent research and writing skills
☒ Demonstrated interest in sustainability
☒ Experience conducting stakeholder engagement events, including facilitation skills, is an asset
☒ Familiarity with research methodologies and survey techniques
☒ Community engagement experience
☒ Ability to work independently
☒ Deadline oriented
☒ Project management and organizational skills
☒ Comfortable interacting with strangers to conduct public/in person surveys
☒ Design and layout skills are an asset

Applications close **midnight Sunday January 29, 2023**
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 23, 2023. 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