Fall 2020

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.

Note: Projects must be completed remotely during the COVID-19 pandemic.

- 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 September 20, 2020.

Research project title: Developing an improved delivery model and implementation plan for low-income home energy retrofits in BC

Sustainability Goal or Operations Plan objective
Please indicate which of the four topic areas your project falls under and indicate which specific goals or sustainability objectives it will be addressing.

Good Health and Wellbeing
Specific goal area(s)/sustainability objective(s): Improving air quality and ventilation in homes, thereby reducing disease as a result of mould, moisture and cold

Sustainable Cities and Communities
Specific goal area/sustainability objective: Improving climate resilience and health of housing, integration with community energy goals

Responsible Consumption and Production
Specific goal area/sustainability objective: Realizing energy savings and supporting local energy systems through energy efficient heating technologies

Climate Action
Specific goal area/sustainability objective: Reducing emissions from homes by switching from carbon intensive heating fuels to energy efficient and non-polluting options, e.g. electric heat pumps

Project description
This project will consider new pathways for energy efficient and low-carbon retrofits of existing single-family homes in BC, with a particular focus on improving delivery of existing low-income retrofit programs. Programs currently offered by utilities have thus far not achieved widespread adoption or significant energy bill savings for the more than 270,000 BC households that experience energy poverty, defined as a lack of affordable access to basic energy services like heating, lighting and cooking. The recommendations and best practices established by this project will be used to directly inform

engagement with utilities and the BC Government, and will potentially provide the blueprint for a new low-income retrofit program for the province.

Purpose of the Project:
This project aims to explore options for redesigning or replacing the current Energy Conservation Assistance Program (ECAP), in order to increase the number and effectiveness of home energy retrofits that are occurring in British Columbia. Current low-income programming aims to provide a number of energy-saving measures to qualifying households, from energy savings kits (ESKs), to more substantial retrofit offers under ECAP. However, uptake of these programs is low, and historical savings have not been sufficient to balance overall increases in energy rates. We believe that an improved retrofit program model, combined with provincial incentives offered by Better Homes BC, has the potential to catalyse significant retrofit activity in the province and lead to more substantial energy cost savings and improved health and comfort for low-income households. The purpose of this project is to compare options and determine the most viable path forward for an improved low-income retrofit program model.

Scope of Work:
- Understand and summarize currently available home energy retrofit programs, including the Energy Conservation Assistance Program, Energy Savings Kits, Better Homes BC incentives, as well as more specialized offerings like the Indigenous Communities Conservation Program and Indigenous Community Heat Pump Incentive.
- Build on existing Ecotrust Canada and Canadian Urban Sustainability Practitioners Network (CUSP) research on low-income retrofit programs in other jurisdictions around North America, developing an understanding of best practices and examples of successful program design and implementation
- Conduct desktop research and interviews with staff in key jurisdictions to understand the barriers to energy efficiency and heating system retrofits in low-income households, particularly as they apply to rural and remote communities
- Working with Ecotrust Canada's Community Energy team and CUSP's Energy Poverty team, develop recommendations for new delivery models and program design options to catalyze low-income energy efficiency retrofits in BC. Recommendations should touch on program design, budget, funding and financing, administration, and evaluation.
- Present findings in a report that can be shared with key stakeholders, the Sustainability Scholars program and the project mentors
- Contribute to data analysis and visualization informed by the research as time permits

Deliverables
Note that a final deliverable (either a full report or, if the report contains confidential information, an executive summary) is required by the end of the program (March 12, 2021). The deliverable will be archived in the online public-facing Scholars Project Library.

The Scholar will deliver a final report containing a summary of their completed work complemented by a final presentation to the project mentors and/or key stakeholders. The report should include:
- A summary of barriers to low-income home energy retrofits in the province, including gaps and challenges with existing programming, and paying particular attention to the unique barriers faced in rural regions
- A summary of best practices and successful examples of programs that have been implemented in other jurisdictions

- A presentation of potential delivery model and implementation options for a reimagined low-income retrofit delivery model, including discussion of potential funding, administration, eligibility and implementation options
- Summary report of interviews with stakeholders
- A final report, containing a summary of completed work with recommendations, complemented by a final presentation to key stakeholders.
- A final report [or Executive Summary] for the UBC Sustainability Scholars online project library.

Time Commitment

The program runs for 22 weeks from October 19, 2020 to March 12, 2021, during which students work an average of 12 hours per week for a total of 250 hours. Please also use this space to indicate any critical dates for the project, and the optimal schedule for your Scholar's work if known.

- This project will take **250** hours to complete.
- This project must be completed between October 19, 2020 and March 12, 2021
- The Scholar is to complete hours that accommodate their own schedule as well as the mentor's, within regular work hours (9am to 5pm, Monday to Friday), for a total of approximately 12 hours per week.

Required/preferred Skills and Background

Required skills and background

☐ Excellent research and writing skills
☐ Demonstrated interest in equity issues within sustainability
☐ Familiarity with research methodologies and survey techniques
☐ Strong analytical skills
☐ Ability to work independently

Preferred skills and background

☐ An understanding of energy use, equipment and efficiency in residential buildings is an asset
☐ Experience conducting stakeholder engagement, by phone, email, or in-person is an asset
☐ Familiarity with existing energy efficiency and retrofit programs in BC is an asset
☐ An understanding of the government and utility energy policy landscape in BC is an asset
☐ An understanding of how programs and services are delivered by public sector organizations is an asset

Applications close **midnight Sunday September 20, 2020**.
Apply here: http://sustain.ubc.ca/scholarsapply
Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions

Useful Resources

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.

Resume workshop for prospective Sustainability Scholars: https://www.eventbrite.ca/e/resume-workshop-for-prospective-sustainability-scholars-tickets-117422877989

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