

## 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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### **Research project title**

Advancing Deep Emissions Retrofits through Existing Building Electrification Case Studies in the Lower Mainland

### **Project description**

Local existing building electrification case studies are needed to drive the adoption of high-efficiency electric equipment for space heating and domestic hot water. The existing building market in particular faces challenges when it comes to the transition to heat pumps. However, technology solutions are available for most applications and they are being implemented by early adopters across BC. Led by the scholar, this project aims to create multiple case studies of existing building heat pump retrofit projects of detached homes, multi-family residential, and / or commercial buildings.

### Objectives of Existing Building Electrification Case Studies

- Document and disseminate opportunities, barriers, and lessons learned from heat pump retrofit projects for different building types.
- Equip readers with an enhanced understanding of code requirements, different equipment options and applications, the value proposition of high efficiency electric solutions, marketing, and how retrofits can be achieved cost-effectively.
- Offer best practice recommendations for design principles, equipment selection, and working with trades and contractors so that industry practitioners can create repeatable processes that will facilitate achieving electrification projects cost-effectively.
- Write up the retrofit projects as stories so that readers can relate to participant and building profiles, choices made, and outcomes obtained.
- Raise the profile of early adopters.
- Provide local and provincial governments and programs with case studies that can be used in industry engagement and public consultation as examples of feasibility and outcomes of proposed policy changes and testimonials of specific technology solutions.

The scholar will be guided by the ZEBx team, and in particular, the Director of Programs, in the creation of the case studies.

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## Deliverables

- Interim short report or presentation about project status including preliminary findings.
- About five existing building electrification case studies of detached homes, multi-unit residential and / or commercial buildings ranging in length from four to eight pages.
- Summarize solutions and barriers in a consolidated short report or executive summary, complemented by a final presentation to key stakeholders (report or executive summary to also serve as final UBC Project Library report)

## Scope of Work

1. Connect with building owners, developers, and homeowners who have been identified by the ZEBx team to have carried out heat pump retrofit projects (both for space heating and /or domestic hot water).
2. Collect and review project documents, site and equipment pictures, and drawings.
3. Interview building owners, managers, HVAC contractors, designers and other relevant project team members to collect data, quotes, and relevant details about the retrofit project.
4. Document project data as per internal data collection template, derived from previous ZEBx case study program.
5. Design and layout of case studies in Microsoft Word as per existing ZEBx case study template.
6. Review case study drafts with ZEBx team and other relevant Subject Matter Experts.
7. Integrate feedback into final versions of the case studies.
8. Create a total of about five existing building electrification case studies of detached homes, multi-unit residential and / or commercial buildings ranging in length from four to eight pages.
9. Summarize solutions and barriers in a consolidated short report or executive summary, complemented by a final presentation to key stakeholders (report or executive summary to also serve as final UBC Project Library report)

## Time Commitment

- This project will take **250\*** hours to complete.
- This project must be completed between **May 3 and August 13.**
- The scholar schedule is flexible though it is expected that at least half of the time will be spent during office operating hours which are **9 am to 5 pm, Monday to Friday.** The scholar is expected to work approximately **17** hours per week.

## Required/preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Familiarity with research methodologies and survey techniques

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- ☒ Strong analytical skills
- ☒ Ability to work independently
- ☒ Deadline oriented
- ☒ Project management and organizational skills
- ☒ Strong technical and drafting skills
- ☒ Demonstrated experience in building science
- ☒ Design and layout skills

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>