

## UBC SUSTAINABILITY SCHOLARS PROGRAM

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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 organizational sustainability goals.

For more information about the Sustainability Scholars Program and to apply to work on this project, please visit the [Student Opportunities](#) page.

Please review the application guide (PDF) before applying.

Applications close **midnight Monday February 25, 2019.**

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### Research project title

Review Low Carbon Options to Supply Emergency Electricity During Power Outages

### Sustainability Goal or Operations Plan objective

Climate Leadership

Long Term Goal: Eliminate dependence on fossil fuels for emergency backup electricity generation

### Outline scope of project and why it is of value to your organization. Describe how and when the Scholar's work will be actionable.

- Review existing regulations and bylaws to understand when emergency backup power is required (by building type and system) and for what duration.
- Review building resiliency guidelines to determine what would be best practices for backup power to increase resilience (building systems covered and backup power duration).
- Review low-carbon options for backup power (including standalone batteries, batteries with solar PV, hybrid with batteries + PV + small backup generator, and other feasible options).
- Develop a preliminary schematic design of the proposed low-carbon backup power options that would be needed for a specific low-rise and mid-rise BC Housing building.
- Perform a cost/benefit analysis of the different options for the specific low-rise and mid-rise BC Housing buildings.

### 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 (August 12, 2019). The deliverable will be archived in the online public-facing [Scholars Project Library](#).*

- A final report, containing a summary of completed work with recommendations, complemented by a final presentation to key stakeholders.
- Case studies showing the results of the cost/benefit analysis of the different options for the specific low-rise and mid-rise BC Housing buildings.
- A final report [or Executive Summary] for the UBC Sustainability Scholars online project library.

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### Time Commitment

*Please indicate the total numbers of hours your Scholar will need to complete the project, the completion period (between April 29 and August 12), any critical dates for the project, and the optimal schedule for your Scholar's work.*

- This project will take **250\*** hours to complete.
- This project must be completed between April 29 and August 12.
- The Scholar is to complete hours between 8:30am and 4:30pm, Monday to Friday, approximately 12 to 20 hours per week.
- Any mandatory meetings, special events, etc. will be scheduled to ensure that the Scholar will be available

### Required/preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Strong analytical skills
- Ability to work independently
- Project management and organizational skills
- Familiarity preparing feasibility studies

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Apply here:

<https://sustain.ubc.ca/student-opportunities>

To learn more about the program here:

<https://sustain.ubc.ca/ubc-sustainability-scholars-program>

Read the application guidelines to confirm your eligibility to participate in the program here:

<https://sustain.ubc.ca/student-opportunities>

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