

## Summer 2024 Internship Opportunity

TITLE

### **Electrifying UVic's Fleet – Green Fleet Strategy**

#### **Organization**

Office of Campus Planning and Sustainability, University of Victoria

#### **Project Background & Overview**

The University of Victoria (UVic) has a long history of leadership in environmental sustainability and has received international recognition for its commitment to green campus operations, interdisciplinary research, real-life learning opportunities, and innovative community partnerships. Sustainability is a commitment to future generations and requires the collective action of the university community through long-term planning, shared learning, grassroots activities, and institutional leadership.

As a public sector organization, the University is required under provincial legislation to perform an annual greenhouse gas inventory and assessment. Since 2010, the University has been carbon neutral under the processes set out under BC's Carbon Neutral Government program, which includes Scope 1 emissions generated from fleet vehicles.

The University is committed to developing and contributing to climate solutions for a healthy and resilient planet, demonstrated by the release of the new Climate and Sustainability Action Plan (CSAP) and our targets, progress on the UN Sustainable Development Goals (SDGs), and signing on to the UN Race to Zero (RtZ) pledge – a massive global alliance dedicated to reducing carbon emissions to net zero by 2050.

**Greening our Fleet** - The University uses a range of vehicles (on-road and off-road) to deliver campus services and operational and research activities. Facilities Management and Campus Security manage most vehicles used in these operations, otherwise known as the Motor Pool. Several electric and plug-in hybrid vehicles have been added to the UVic fleet in recent years, replacing internal combustion engine (ICE) vehicles powered by gasoline/diesel.

To meet the University's ambitious targets in greenhouse gas emissions reductions, climate action, and the advancement of the UN SDGs, developing strategies for reducing our vehicle emissions is a priority.

The project aims to analyze UVic's in-scope fleet operations data to identify and assess operational improvements, providing the University with a roadmap to electrify its fleet fully.

## Project Description

This project's main objective is to prepare and identify a Green Fleet Strategy specific to UVic's campus-owned fleet vehicles to achieve the goals of UVic's Climate and Sustainability Action Plan (CSAP).

### The overarching aims of the project are to:

1. Understand best practices in fleet procurement and transition strategies from other Universities and public sector organizations.
2. Complete a Life Cycle Analysis (LCA) for all vehicle categories, comparing gas-powered units with zero and low emissions alternatives.
3. Prepare a decision-making matrix for green-fleet procurement.
4. Provide strategy and guidelines to inform future updates to the University's Purchasing Policy.

## Project Scope

The project encompasses the following key activities

1. **Fleet Partner Engagement:**
  - a. Prepare a stakeholder engagement plan to understand the unique needs and preferences of campus operations (Facilities Management, Campus Security, University Food Services).
  - b. Establish in-scope fleet baseline inventory, formalizing UVic's current vehicle fleet.
  - c. Identify key performance metrics (I.e., cost, service levels, GHG emissions) to be collected annually for mandatory and voluntary reporting frameworks.
2. **Research:**
  - a. Conduct extensive research for:
    - i. Lifecycle Analyses (LCA) for all vehicle categories, outlining the potential savings, greenhouse gas reductions, and long-term benefits to transition gas-powered units to zero or low emissions alternatives.
    - ii. Successful and unsuccessful case studies and lessons learned.
    - iii. Purchasing policies and decision-making frameworks for transitioning fleet vehicles to electric, plug-in hybrid, or hybrid electric vehicles in university campus or other public sector settings.
3. **Recommendations and solutions**
  - a. Formulate a decision-making framework and procurement processes based on research findings and Fleet Partner engagement.

- b. Prepare Appendix documents in the following areas:
  - i. Internal Combustion Engine (ICE) vs Electric Vehicle (EV) vs Plug-in Hybrid vs Hybrid Vehicle Lifecycle Analysis.
  - ii. Implementation guidance informing perceived opportunities, risks, and hurdles (such as EV charging, maintenance, financial incentives, and greenhouse gas emissions reductions).

*Note that, given the limited time available, an assessment of the campus EV charging infrastructure and recommendations for improvement is outside the scope of this study.*

#### **4. Report Compilation and Presentation:**

- a. Compile a detailed research report outlining the engagement processes, research methodologies, LCA findings, recommendations, and implementation strategies.
- b. Prepare purchasing guidelines and a decision-making framework related to each in-scope department.

Create an engaging presentation summarizing the key findings and recommendations for university administrators and stakeholders.

## **Deliverables**

The project will conclude with the submission of a comprehensive final report, "Green Fleet Strategy and Report," by the end of the program on August 15, 2024.

### **The report should cover:**

1. Executive summary
2. Introduction and background
3. Current conditions
4. Research and analysis
5. Recommendations
6. Implementation guidance

## **Time Commitment**

The project will be conducted during the Summer 2024 program, running from May 1 to August 15, 2024, and is expected to require 250 hours of work within this period.

### **Suggested project timeline:**

- May 1st – Project kickoff, timeline development, and stakeholder engagement
- June 4th – Research

- July 1st – Research completion and project check-in
- July 30th – Analysis completion and final report/presentation planning
- Aug 15th – Close-out presentation

## Required/Preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Experience conducting stakeholder engagement, including facilitation skills
- Familiarity with research methodologies and survey techniques
- Statistical analysis
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Familiarity with benchmarking methods and tools
- Comfortable interacting with strangers to conduct public/in-person surveys
- Experience with data analysis

## Additional Information

Additionally, access to local transportation or transit is essential for site visits and meetings (some remote meetings may be considered).

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### *UVic Sustainability Scholars Program*

*All current UVic graduate students are invited to apply to work on an impactful sustainability research project. Sustainability Scholars Program internships are designed and mentored by partner organizations and paid at a rate of \$30.87 per hour (after deductions) for 250 hours from May 1 to Aug 15. Explore details on our [website](#) and review eligibility criteria before applying.*

**Application Deadline:** January 31, 2024

Contact Laurel Currie with any questions: [sustainability-scholars@uvic.ca](mailto:sustainability-scholars@uvic.ca).