GREENEST CITY SCHOLARS PROGRAM UBC Sustainability Scholars Program, Summer 2018

Research project title

Lifecycle Analysis of Electric Vehicles

Research supports the following policies -

Greenest City Action Plan

Specific goal area: Lighter Footprint – Reduce Vancouver's ecological footprint by 33% over 2006 levels

Outline scope of project and why it is of value to City and describe how and when the scholar's work will be actionable

Scope of work:

- Research lifecycle impact of electric vehicles and internal combustion engine (ICE) vehicles
- Develop a method for comparative analysis of lifecycle impact of electric and ICE vehicles in a fleet setting
- Undertake a review of the real world data from the City's electric vehicle fleet and incorporate into lifecycle analysis
- Identify key items of impact in the lifecycle of an electric or ICE vehicle that could be reduced through feasible actions that the City's fleet team could undertake.

Why this work is of value:

• Understanding the lifecycle impact of the City of Vancouver electric and ICE fleet is a key step in achieving the Lighter Footprint goal in the Greenest City Action Plan.

Deliverables

- A final report containing a summary of their completed work with recommendations, complemented by a final presentation to key stakeholders. The report should include:
 - Summary of lifecycle analysis
 - o Summary of the steps the City fleet team could take to reduce lifecycle impact
 - A public facing final report (or executive summary) for the UBC Sustainability Scholars online project library

Time Commitment

- This project will take **250** hours to complete.
- This project must be completed between *April 27 and August 10th*
- The scholar is to complete hours between *8 am to 4 pm Monday-Friday*, approximately **16** hours per week.

Submit applications here: http://bit.ly/2DC2jpP

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Work location: Manitoba Yards – EQS Building (250 West 70th Avenue)

Skill set/background required/preferred

- Experience with engineering lifecycle analysis required
- \boxtimes Excellent research and writing skills.
- \boxtimes Demonstrated interest in greenhouse gas emissions reduction work.
- \boxtimes Strong technical writing skills.
- \boxtimes Strong analytical skills.
- \boxtimes Ability to work independently.
- \boxtimes Demonstrated time management skills.
- \boxtimes Deadline oriented.
- \boxtimes Familiarity with Excel.