

Summer 2024 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Hub is pleased to offer current UBC graduate students the opportunity to work on sustainability internship projects. Successful candidates work under the guidance of a mentor from the partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region. These opportunities are paid. The pay rate for the summer 2024 program is \$27.50/hour or \$6,875 for a 250-hour project.

- Visit the [Sustainability Scholars Program website](#) to learn [how the program works](#) and to [apply](#).
- Be sure to review the application guide on the Apply page to confirm your eligibility before applying.

Applications close at midnight on Sunday January 28, 2024.

Project title: Research to inform the development of a zero emissions maritime fuel collaborative

Project Background & Overview:

Shipping is powered almost entirely by fossil fuels, with the industry accounting for 2–3% of global CO₂ emissions; this figure could rise to 17% by 2050¹ if left unregulated.

Emissions from shipping also contribute to approximately 60,000 deaths annually due to air pollution exposure. This results in \$160 billion of health-associated costs yearly³, with health effects experienced most acutely among coastal communities.

A period of rapid development, deployment and standardisation of fuels, vessels and business models is expected to begin this decade, and legislation is starting to be introduced at regional and national level. For example, in March 2023, [the European Union passed a green shipping fuel requirement](#), which will enable cities and ports to unlock future investments in green shipping technologies and infrastructure.

There is a big gap in terms of zero emissions fuel supply vs. potential demand (for example, demand from shippers is being aggregated by initiatives like Aspen COZEV but ship owners are unable to secure supply at a scale or price this realistic – the premium is reported at 2-6x).

The maritime industry is in competition with other sectors seeking zero emissions fuels - these may gain priority if policymakers deem them to have the greatest need from a policy perspective (e.g. housing, transportation). So, it is important to communicate the demand and need to prioritize these fuels for large vessels (e.g., no alternatives like heat pumps for buildings or batteries for vehicles). However, the maritime sector is more fragmented and heterogeneous when it comes to engaging with zero emissions fuel producers, and therefore producers are unable to fully see the aggregate demand, or have a single point of contact to discuss potential partnerships or projects. From the producer perspective, scale is essential to make the projects economically feasible/bankable, and so aggregating demand from the sector is essential.

Industry is largely in agreement that getting to 5% zero emissions fuels in the global system is essential in order to reach a tipping point to keep the sector on track to meet Paris-aligned emissions reduction targets. Aggregation and collaboration around maritime fuels can be a driver for Green Shipping Corridor projects, and some efforts to develop a solution include the [ICS Clean Energy Marine Hubs](#).

Project description

This project will complete research and lay the groundwork for the establishment of a West Coast Zero Emissions Maritime Fuel Collaborative in BC, which can become that single point of entry for producers to speak to all the off-takers in BC seeking zero emissions fuels.

There is already considerable momentum in BC's maritime sector, and this project would:

1. Build on the industry collaboration underway at the Vancouver Maritime Centre for Climate.
2. Illuminate the needs of local players/off-takers that have demand for zero emissions maritime fuels in BC (e.g. shipping lines, ports).
3. Bring in lessons learned from other jurisdictions to inform a pathway forward (e.g. what are the most impactful and necessary functions of a fuel collaborative)
4. Identify what pieces are missing to move forward.

Project scope

Research, information gathering, and expert interviews to inform the development of a regional zero emissions maritime fuel hub. This would include:

- Jurisdictional scan to identify successful examples of fuel hubs including maritime and other sectors such as aviation, trucking, industry. Research to include a comparative analysis of their mandates and structures
- Based on the jurisdictional scan select 3 of the examples to research in greater detail and write up 3 case studies outlining the participants, collaboration model, how they are organized and funded, opportunities to collaborate across sectors and lessons learned
- The case studies are to be complemented by 3 expert interviews with organizations such as the International Chamber of Shipping; Global Maritime Forum;
- Additional 7-10 interviews with local industry players, such as Vancouver Maritime Centre for Climate members; Port of Vancouver, or other contacts provided by the mentor.
- Time permitting: conduct a roundtable with local industry experts (e.g., Vancouver Maritime Centre for Climate steering committee members) to learn more and to share the research for feedback.
- Collect and organize any other information that emerges, such as a list of organizations locally with demand for zero emissions fuels (aka 'offtakers'), or opportunities for collaboration in BC, potential host organization for a maritime fuel hub, etc.
- Recommendations for an approach to establish a maritime fuel collaborative in BC.
- Note: LNG is out of scope.

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Deliverables

- A final report containing a summary of the work completed
- A final report for the online public-facing [Scholars Project Library](#).
- Table/list of BC offtakers for zero emissions maritime fuels
- Clear recommendations for the mandate and structure of a BC fuel collaborative
- Case studies including lessons learned from 3 similar initiatives

Time Commitment

- This project will take 250 hours to complete
- This project must be completed between May 1 to August 15, 2024
- The Scholars is to complete their hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.

Required/preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability and/or maritime sector a strong asset
- Experience conducting stakeholder engagement events, including facilitation skills, is an asset
- Familiarity with research methodologies and survey techniques
- Excellent public speaking and presentation skills
- Community engagement experience
- Familiarity conducting focus group research
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Project management and organizational skills
- Demonstrated experience in Business Strategy and/or Program Development, an asset

Additional Information

There may be Zoom interviews required with experts outside of the BC time zone (e.g., Europe, Asia) and the candidate will need some flexibility to complete these tasks outside of regular work hours – these will be occasional and convenient times should be selected by the candidate.

Applications close **midnight Sunday January 28, 2024**

Apply here: [Click here to apply](#)

Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions

Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 23, 2024. [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>