Shining a Light on Foam-Based Floating Solar Panels and their Interactions with a Body of Water in Canada

Koami Soulemane Hayibo
*Western University*, khayibo@uwo.ca

Joshua M. Pearce
*Michigan Technological University*

Follow this and additional works at: [https://ir.lib.uwo.ca/inspiringminds](https://ir.lib.uwo.ca/inspiringminds)

**Citation of this paper:**
Hayibo, Koami Soulemane and Pearce, Joshua M., "Shining a Light on Foam-Based Floating Solar Panels and their Interactions with a Body of Water in Canada" (2023). *Inspiring Minds – A Digital Collection of Western's Graduate Research, Scholarship and Creative Activity*. 413. [https://ir.lib.uwo.ca/inspiringminds/413](https://ir.lib.uwo.ca/inspiringminds/413)
**Name:** Koami Soulemane Hayibo

**Title:** Shining a Light on Foam-Based Floating Solar Panels and their Interactions with a Body of Water in Canada

My research focuses on improving the materials used to float photovoltaic panels on bodies of water (FPV) to limit water evaporation. From my preliminary results, installing solar panels on water surfaces produces 15% more energy than solar panels installed on land with the same configuration, and at the same time is 90% more efficient in preventing evaporation. However, we know little about the interactions between water and the different materials used for FPV. Such interactions must be assessed given the current demand for green electricity because any systems that produce power at the expense of water quality and availability are nevertheless detrimental to human needs. My research aims to understand how foam-based flexible FPV operate in different water conditions in Canada, including freezing weather, and their effect on water quality to ensure that the technology continues to provide viable green energy while also maintaining our water availability.