



## Solar-powered water taxi in works for PEI

A new solar-powered water taxi will be in the water in time for PEI's upcoming tourism season. Entrepreneurs Steve Arnold and Peter Ixkes, of North Rustico, are converting an existing boat to solar electricity. At 38-feet, it will be the largest commercial solar vessel in North America.

Arnold came up with the idea last summer. He wanted to offer guests who were staying at his rotating house in North Rustico, a trip to the New Glasgow Lobster suppers via water for a "fun and different experience." He bought a pedal boat and a small electric motor and battery to make it go faster. This got him thinking about creating a bigger, "clean, green and quiet" boating experience for guests.

"I called my friend, Peter Ixkes, who deals with alternative energy solutions at his business E-365 in Charlottetown," Arnold says. "He suggested charging the boat batteries with solar panels. Peter was the missing link we needed in order to turn the idea into reality. We decided to collaborate and the one solar boat evolved into the Island Solar Transit System."

The project involves tearing out an old diesel motor from a boat previously used for Expo 67 and replacing it with a sleek new electric motor that will be connected to batteries powered by solar panels placed on the roof.

Montgomery Gisborne, Canada's foremost solar boat developer, has relocated to PEI temporarily to work on the project and the team is collaborating with second-year students from Holland College's Energy Systems Engineering Technology program.

"Working with the Holland College students allows us to have fresh ideas and minds coming together, which we can tap into as a resource," says Arnold. "Although the students will be learning much from Mr. Gisborne, he and the rest of us will also be sure to learn some things from the students."

The students will be responsible for initializing, maintaining and installing the battery bank, connecting and installing the photovoltaic (PV) solar array and electric motor, as well as other components going into the vessel.

"We thought it would be a very cool project for the students to become involved with," says Daryl Hardy, learning manager for the program. "The students are just beginning their studies on Photovoltaic Systems and the timing of (the solar boat) coincides directly with the delivery of the PV curriculum, so it will be a fantastic opportunity for the students to put their new skills into practice."

Once completed, the vessel will hold 45 people and make two runs a day from Stanley Bridge to Covehead, with stops at Cavendish and North Rustico. At night the vessel will do dinner cruises.

Island Solar Transit System will also be building other solar electric powered vehicles for both land and water use and Arnold says they are looking forward to working with Holland College students on an ongoing basis for years to come.

“As long as we are building solar-powered vehicles, Holland College will always have a spot to help their students develop and learn in this very important and emerging field of study,” he says. “This commercial solar boat will be North America's largest and the only one on the east coast of Canada and it was built here in PEI. Having Holland College students play an integral role in its build, puts Holland College and PEI permanently in Canada's history books.”

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