



## HYDROGEN EDUCATION FOUNDATION

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### University of Toronto Wins Grand Prize of 2017-2018 Hydrogen Student Design Contest on Power-to-Gas

**Award Ceremony Also Recognized Honorable Mentions University of Waterloo and Oregon State**

June 15, 2018 – WASHINGTON – Today, the Hydrogen Education Foundation (HEF) announced the University of Toronto as the winner of the 2017-2018 Student Design Contest at the Department of Energy Hydrogen and Fuel Cells Program 2018 Annual Merit Review and Peer Evaluation Meeting (AMR). The University of Toronto – University of Florida Joint Team presented their Power-to-Gas design, Motion+, at the H2@Scale and Technology Acceleration Session. It is the University's third HEF award and first Grand Prize win.

HEF also recognized two Honorable Mentions at the H2@Scale and Technology Acceleration Session, the University of Waterloo, second place, and Oregon State University, Cascades, third place, respectively. This is Waterloo's seventh award and fourth Honorable Mention, and Oregon State's first award.

"34 teams from around the world submit entries for this year's challenging contest," said Jeff Serfass, President of the Hydrogen Education Foundation. "I am pleased these bright students, who are at the forefront of shaping the future of clean energy, have the opportunity to present their designs at the Department of Energy Annual Merit Review and receive recognition for their hard work and effort."

The theme for the 2017-2018 Hydrogen Student Design Contest was "Designing a Power-to-Gas System". Power-to-gas is a flexible form of green energy storage, which allows increased renewable electricity generation without the need for costly grid upgrades. It converts electricity to a gas fuel, easily stored in large quantities and ready to be applied in a variety of energy uses, including grid management, transportation fuels, and renewable chemical production.

The University of Toronto's Motion+ design outlines a system that fuels luxury, hydrogen-powered yachts from a dockside hydrogen production and fueling facility using a PEM electrolyzer plugged into the electric grid. The facility would be located at the Pride of Muskoka Marina in Bracebridge, ON. The hydrogen is compressed, stored onsite and used to fuel the hydrogen fuel cell yachts, powered by Toyota Mirai fuel cells.

The teams' designs and materials are available on the website of the HEF

[www.hydrogencontest.org/2018.asp](http://www.hydrogencontest.org/2018.asp), the videos of the designs can be found on HEF's Facebook page: [www.facebook.com/pg/Hydrogen.Education.Foundation/videos](https://www.facebook.com/pg/Hydrogen.Education.Foundation/videos).

The abstracts and final submissions were evaluated by a multi-perspective panel of judges from the hydrogen and fuel cell industry, gas utility companies, and the National Renewable Energy Laboratory. The 2017-2018 HEF Student Design Contest would not have been possible without the financial contributions of its sponsors, Southern California Gas Company, Air Liquide, and Hydrogenics.

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#### About the Hydrogen Education Foundation

The Hydrogen Education Foundation, a 501(c)(3) organization, promotes clean hydrogen energy technologies through innovative national competitions and educational programs to encourage environmental stewardship, improve energy security, and create green jobs.

[www.HydrogenEducationFoundation.org](http://www.HydrogenEducationFoundation.org)

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