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New hydrogen-powered vehicle draws a crowd at faculty/staff barbeque

Humboldt State debuts hydrogen-run Prius

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The Schatz Energy Research Center (SERC) will celebrate the grand opening of a working prototype hydrogen fueling station on Sept. 4. The station is located next to the parking lot near Harry Griffith Hall.

Kim Sekas, who works in Alumni Relations at Humboldt State University, said that the speakers at the ceremony will include Congressman Mike Thompson, Humboldt State University President Rollin Richmond, California Department of Transportation District 1 Director Charlie Fielder, and SERC Director Peter Lehman. The Ceremony takes place at the station at 11 a.m.

The facility is one of the few in the state of California and is the first and only within the California State University system. There are 40 fueling stations currently located in the state. It is the first hydrogen fueling station in the state built by a research lab and specifically designed to closely monitor every step in the fueling and storing process.

"We're trying to develop the technology," said Dr. Peter Lehman, director of SERC. "[We're] trying to work all the bugs out."

Though hydrogen is a cleaner fuel than traditional gasoline, SERC is trying to make the station even greener. They hope to convert the electrical power that the station uses to create hydrogen to a solar source. "Right now, we're just getting electricity from the grid - from the same source as the rest of the university," said Lehman.

The station creates roughly 8.4 gallons of usable hydrogen per day, which is enough to fuel three cars on a regular basis.

Presently, the university has a part-time lease on only one car, which is shared by members of SERC and some university faculty members. The car is designed to give the researchers data about its performance at every refueling, to allow them to improve the technology and work out any bugs. This is a process that, according to SERC Senior Research Engineer Greg Chapman, might take 20-30 years.

"It's not a near-term thing," said Chapman.

Safety is a rather big concern when dealing with hydrogen. Hydrogen is a very combustible gas, which makes storing it safely a high priority. "Any fuel can be dangerous," said Lehman. Hydrogen is no exception.

The hydrogen that fuels the station is stored in two storage tanks, each made of 1-inch-thick steel. The station itself is equipped with hydrogen sensing equipment, flame detectors and emergency shut-off equipment.

In addition, the roof of the station is slanted, which allows any hydrogen that does leak to float away from the station. Hydrogen is a light enough gas to rise high above most of the earth's atmosphere. If it does explode, it burns quickly and completely - unlike liquid fuels, which can continue burning.

When talking about the future of hydrogen as a fuel, Lehman said that accidents could occur. "There will be accidents, but by and large, they'll be pretty benign," said Lehman.

Members of SERC are optimistic about the project. Lehman said that he's been approached by Eureka city officials, asking questions about what it would take to establish a hydrogen-powered bus system. While such a system won't be possible for some years, Lehman believes that it will someday be possible.

"I hope that this is the beginning of something." said Lehman.

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