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Project will demonstrate 'green' solar hydrogen

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In a "green" one-two punch, solar and hydrogen alternative energies will be combined in a demonstration at the Center for Hydrogen Research in Aiken designed to illustrate to the public how the system would work.

The technology already is being used at a housing development in Aiken, according to Ernest Chaput, special projects manager for the Economic Development Partnership, which sponsors the center.

Greer-based SunStore Solar is installing the solar panels at the outdoor site at the Savannah River Research Campus, slated to be open to the public by mid-May.

YOU CAN GO

■ **Center for Hydrogen Research, 301 Gateway Drive, Aiken, off U.S. 278 at Savannah River Research Campus. 803-641-3300.**

SunStore owner Bruce Wood said he's excited to be part of a program using "the concept of sunshine making a fuel that you can use to drive cars or turn into electricity at night."

Solar energy would power an electrolysis system to split the hydrogen from water, said Erika Myers, renewable energy coordinator for the South Carolina Energy Office.

The hydrogen will be diverted into tanks, which will be used to fuel a truck on site or a hydrogen fuel cell to produce electricity.

Now, natural gas is used to create about 95 percent of hydrogen as alternative energy, but natural gas is a finite commodity, and the process creates greenhouse gases, Chaput said.

Batteries can store solar power, but they have limited storage capability, are costly and inefficient and need to be replaced, according to Myers.

"Hydrogen could potentially be an excellent source to store the energy through electrolysis in the daytime, and then you could utilize the hydrogen any time of the day," she said.