Hydrogen Fuel Cell Vehicle Facility

(Above) Speaker Calvin Say leads members of the HouseCommittees on Higher Education and Energy and Environmental Protection on tour of Hydrogen Fuel Cell Vehicle facility at Join Base Hickam/Pearl Harbor.

Representative Nakashima coordinated visitations by the House Committees on Higher Education and Energy and Environmental Protection to the Hydrogen Fuel Cell Vehicle Facility at Joint Base Hickam/Pearl Harbor to learn more about the current technology and plans for introduction of hydrogen fuel cell vehicles into the consumer market.

The Hawaii Center for Advanced Transportation Technology serves as a catalyst to expand transportation technology development in Hawaii and is currently working in partnership with the US Air Force to develop and demonstrate zero emission and low emission transportation technologies to meet military and commercial needs.

A new electrolyzer which was being installed during our visit will continue to test the durability of the technology in the field. An electrolyzer is a device that converts water into hydrogen and oxygen. The new electrolyzer is portable, small enough to fit in half a Matson Container, and is

able to desalinate and purify the water before splitting the water molecule into its parts. This is important in military application as it would cut down on the need to transport hydrogen via supply lines and will allow for the manufacture of hydrogen closer to the point of use in the field. A hose need simply be put into a stream, pond or ocean to create the needed hydrogen for transportation.

An array of photovoltaic panels provide the necessary power to run the electrolyzer and no fossil fuels are utilized anywhere in the hydrogen creation process making it a totally renewable resource.

(Left) Photovoltaic panels provide power to the electrolyzer making the process renewable and a totally fossil fuel free process.