In a move that many consider to be long overdue, Congressman Steny H. Hoyer (D-MD) announced today that he will shortly introduce the PROGRESS Act. The act is a comprehensive energy bill that would, among other things, establish a New Manhattan Project for High Efficiency Vehicles. The original Manhattan Project, from 1942 through 1946, focused the massive resources of the United States in order to develop the first nuclear weapons before Germany or Japan did. Many people agree that this type of concentrated and disciplined effort is what is required for the United States to develop alternative energy sources that will alleviate the global warming and carbon-based energy resource crises which we are now facing.

"This effort would revitalize the goals of the Partnership of New Generation of Vehicles (PNGV) from the 1990s to build on current hydrogen and fuel cell work with a focus on battery, advanced diesel and variable compression engines, plug-in electric hybrids, and other vehicle programs," Hoyer said. According to the U.S. Department of Energy, “In 1993 the U.S. government and the U.S. automotive industry joined in a partnership [PNGV] to establish U.S. leadership in the development and production of affordable, fuel-efficient, low-emission vehicles that meet all customer needs.” The stated goal of the PNGV was to "build a car with up to 80 miles per gallon at the level of performance, utility and cost of ownership that today's consumers demand."

While many people believe that hydrogen is a panacea in that it is as easily obtained as water, this is not currently the case. Hydrogen does not exist in nature in its pure form. Currently, most hydrogen used for commercial purposes has to be recovered using processes that involve fossil fuels. You have to use energy that produces carbon-dioxide pollution in order to produce hydrogen. However, companies such as BMW are exploring the process of electrolysis to extract unlimited amounts of hydrogen from ordinary water. In theory, the electricity required for the process can be created from non-polluting, renewable energy sources such as solar and hydro-electric.

The wide-spread adoption of hydrogen as an alternate fuel also faces other hurdles. The hydrogen must be stored in the vehicle under high pressure. This creates both weight and safety issues. The distribution system is another hurdle that must be overcome. Existing fueling stations must either be converted to support hydrogen or new stations must be built. In 2004, California announced their plans for the "California Hydrogen Highway Network." The program involves building a network of 150 to 200 hydrogen stations no later than 2010.

Until the time that hydrogen vehicles can be widely deployed, many interim technologies and fuels are now being explored and implemented. Flexible Fuel Vehicles (FFV) are currently being sold that can burn E-85. E-85 is a blend of 85% ethanol and 15% gasoline. The ethanol can be

produced from renewable resources such as corn and switchgrass. Bio-diesel is yet another alternative. This is a diesel fuel that is produced from biological sources such as vegetable oil. In fact, in 1895, Rudolf Diesel built the first diesel engine to run on peanut oil. Many people also feel that the widespread adoption of these alternative carbon-based fuels will spawn new businesses that can bring much-needed employment back to the United States.

According to Hoyer, in addition to investing in additional research and development so alternative vehicles can become available at competitive market prices, the PROGRESS Act does the following:

-Establishes a National Energy Security Commission

-Establishes a National Biofuels Infrastructure Development Program

-Promotes Transit Use & Develops a Rail Infrastructure Program

-Ensures Federal Government Leadership in the Use of Alternatives to Oil

"Gas prices have risen 11 cents in just the last two weeks and Congress continues to rely on a short-sighted drilling only strategy to our energy challenges," Hoyer said. "To truly achieve energy independence, we must embrace a major national effort to make substantial gains in technology, conservation and vehicle efficiency, and the use of alternative fuels. The PROGRESS Act would do just that."

In preparation for the upcoming introduction of the PROGRESS Act, Hoyer today test drove a hydrogen fuel cell car at Walker Pontiac Buick GMC in Bowie. "Hydrogen fuel cells have the tremendous potential to power vehicles without greenhouse gas emissions, one of the leading causes of global warming," Hoyer said. "Investing in alternative energy sources is important for Maryland's environment, economy, and security."

Hoyer drove the HydroGen3, a hand-made version of a General Motors Opel Zafira, one of the company's European line of vehicles. It is powered by a fuel cell that runs on compressed hydrogen.

By coincidence, a new documentary titled, "Who Killed the Electric Car?" was released on June 28th. The film documents the birth of the GM electric car in California in response to the Zero Emissions Mandate (ZEV). According to the film's producers, "it was a revolutionary modern car, requiring no gas, no oil changes, no mufflers, and rare brake maintenance." However, to the dismay of many people, the car met an untimely death approximately 6 years after its birth — perhaps for reasons other than lack of consumer demand.