

## ALTERNATIVE ENERGY MEGA RESEARCH PARK

Currently, about 60% of our oil comes from foreign sources. That figure is projected to rise to approximately 70% in 2025. Considering that two-thirds of the oil we consume is used for transportation, it is clear that transportation needs must drive our energy research to achieve self-reliance and ensure environmental quality for future generations.

If California has Silicon Valley and Michigan has the Motor City, then it should be the alternative fuel capital of the United States. We need to create a regional collaborative environment to be a catalyst for the development of commercially viable hydrogen fueled engines, and the efficient hydrogen fuel distribution methods. We need to create and promote a Mega Research Park in S.E. Michigan, particularly in S.E. Washtenaw County that will house all entities that are involved in alternative energy research and development and other industries that support this endeavor.

At the moment, Alternative Fuel research is being done independently by different organizations, possibly because of a lack of leadership and coordination, or possibly because it is for entrepreneurial reasons. Unfortunately, it presents inefficiencies due to duplication of efforts. My proposal is to house all the researchers in the Mega Research Park, joining them together to form a solution for the optimum use of resources and to achieve it sooner than the government's target date, which is in the year 2020. I believe we can expedite the technological development process by several years, becoming a hydrogen economy sooner than expected.

The park will accommodate significant exploratory research and development, cooperative efforts by automotive and energy industries, universities, independent laboratories, international partners and more. They will work to overcome critical technical barriers in developing commercially viable, emissions-free hydrogen fuel cell vehicles, and infrastructure technologies. To achieve self-reliance and leadership in alternative fuel, we must pull all our resources together to address the hydrogen production, delivery, storage, and fuel cell technology challenges in order to become a hydrogen economy.

This conglomeration of different government and private entities will focus primarily on alternative energy, particularly hydrogen fuel. With our country's goal of having our vehicles begin to reach the commercial mass market by 2020 or earlier, a concentrated focus, non-duplication of efforts, and efficient use of resources and technical talents can be achieved through the Alternative Energy Mega Research Park (AEMRP).

"At some point in time we're going to reach a limit, and we will see a real impact of increased oil prices on our economic activity," says U.S. Energy Secretary, Samuel Bodman, to the Society of Automotive Engineers World Congress. "Whether \$95 [a barrel] or something north of that, I don't know. I can tell you, I'm worried about anything above the current levels." (WSJ-4/10/06) Well, in 2008, we have exceeded \$100 a barrel price levels.

"America is addicted to oil, which is often imported from unstable parts of the world," President Bush says. "The best way to break this addiction is through technology." We spend over *\$1.9 billion per day, or about \$700 billion per year on imported oil*. That accounts for the largest single element of our trade deficit. Imagine our transportation using hydrogen fuel, with virtually no pollution, and reducing about \$400 billion on imported oil per year and more if we add yearly price increases per barrel of oil. By producing our own transportation fuel, we will produce jobs in the process and become energy independent from foreign countries. **WE CAN DO IT!!!**

[AEMRP \(Alternative Energy Mega Research Park\) Funding](#) - A portion of the funding is anticipated to come from the Hydrogen Fuel Initiative budget (federal government program under the Department of Energy). This is in addition to the main energy and automotive industries' participation that are actively involved in this endeavor, such as Chevron Corporation, Daimler-Chrysler, Ford Motor Company, General Motors Corporation, Ballard Fuel Cells, Hyundai-Kia Motor Company, and Shell Hydrogen, LLC. There

are many advantages for these entities to join this endeavor such as the combination of tax incentives, co-ownership of intellectual properties, licensing priorities, cost sharing, and expediting the H2 Fuel project.

<b>Potential Benefits of Alternative Energy Mega Research Park</b>		
<b>State of Michigan</b>		
Automotive Industries	Ability to create new automotive technology utilizing hydrogen fuel	Revive Michigan's declining automotive industry
Jobs	Retain and create many jobs in Michigan	Stop the migration to other States of our professionally and technically skilled residents
Create spin-off businesses and industries	More jobs for our residents	Reduced transfer payments
State Revenue	Considerable increase in state revenue, which will restore revenue sharing with municipalities	More funds to fix our crumbling infrastructures and funding educational services, community health services and more
<b>United States</b>		
Energy Self-sufficiency	Considerably <u>less dependency</u> , IF NOT complete independence from foreign oil Protection of American consumers from unwarranted price hikes	Increased purchasing power of citizens' dollars on imported goods and services
Environment	Hydrogen fuel-cell vehicles are zero-emissions vehicles – they emit <b>only</b> water vapor	Hydrogen produced using renewable resources results in virtually zero greenhouse gas emissions
<b>The World</b>		
Energy Prices	Less dependency on imported oil	Lower energy costs
Effects on Poorer Countries	More money to spend on basic human necessities	Poorer countries will be able to afford USA's goods

By Owen Diaz, CFP  
Telephone: 734-645-8236