

Ladies and Gentlemen

I am really pleased to be here.

Let me start by bringing you very warm greetings from the US Ambassador to Denmark, James Cain, or “boss” as I call him. I know Ambassador Cain was really looking forward to participating in this conference. For those of you who don’t know, North Carolina is Ambassador Cain’s home state. So when he heard about this conference being first held in Charlotte and then moving to Denmark, it seemed like a synergy too good to pass up. I can tell you that this event has been on his calendar for months. It was only the intervening invitation of President Bush to Danish Prime Minister Anders Fogh Rasmussen which required him to travel to Washington today which explains his absence here. It's hard to compete against a command performance at Camp David, but I assure you the Ambassador sends his heartfelt greetings, especially to his fellow North Carolinians and wishes you a successful conference.

This is my first introduction to Hydrail, but I have to tell you, I am impressed.

It’s only in the last few years that research into hydrogen as a fuel has become more widely known. But, as I was doing a little research of my own in preparation for coming here, I was surprised to learn that America's astronauts have used fuel cells to generate electricity since the 1960s.

Then, in 1993 representatives from seven Federal agencies and the Big Three automakers (Chrysler, Ford, and General Motors) began key fuel cell work under the Partnership for a New Generation of Vehicles (PNGV) a U.S. government/industry research and development initiative to strengthen U.S. competitiveness in the automotive industry.

But of course, more research was needed to make fuel cells durable and cost-effective for wide spread use in cars, trucks, homes, businessesor rail engines. Only recently have we neared the point where hydrogen technology can be realistically applied to large-scale commercial transit.

And so, as we get closer to our goal it is important to maintain and increase our research.

As President Bush said just a few months ago on CNN [April 22, 2006]
"I strongly believe hydrogen is the fuel of the future."

But this is not a new-found insight. In his 2003 State of the Union Address, President Bush announced the Hydrogen Fuel Initiative, a \$1.2 billion commitment over 5 years to accelerate hydrogen related research to overcome obstacles in taking hydrogen fuel cell vehicles from the laboratory to the showroom. The vision was that the first car driven by a child born in the beginning of this century would be powered by hydrogen, and pollution-free.

Through partnerships with the private sector, the President's Hydrogen Fuel Initiative originally sought to develop hydrogen, fuel cell, and infrastructure technologies needed to make it practical and cost-effective for large numbers of Americans to choose to use fuel cell vehicles by 2020. Progress has been such that The Energy Hydrogen Program is now looking at a goal of a 2015 for commercialization of hydrogen-powered fuel cell vehicles and the infrastructure to fuel them.

Out of the President's Hydrogen Fuel Initiative grew the International Partnership for a Hydrogen Economy or IPHE, a coalition of 17 partners. The purpose of the IPHE is "to organize and implement effective, efficient, and focused international research, for the development, demonstration and commercial utilization activities related to hydrogen and fuel cell technologies." IPHE provides a forum for advancing policies, and common codes and standards that can accelerate the cost-effective transition to a global hydrogen economy to enhance energy security and environmental protection.

At its November 2003 inception meeting the IPHE identified the following priority areas for collaborative research and development:

- **Hydrogen Production**
- **Hydrogen Storage**
- **Collaborative Fuel Cell R&D**
- **Hydrogen and Fuel Cell Regulations, Codes and Standards**
- **Socioeconomics of Hydrogen**

Many of the countries represented here today, are members of IPHE.

The US continues to be committed to helping develop hydrogen as a clean, widely available fuel.

The US Department of Energy co-chairs an Interagency Taskforce for collaboration among nine federal agencies (Energy, Agriculture, NASA, Transportation, Commerce, State, Defense, Environmental Protection Agency, and the National Science Foundation).

President Bush's Budget has continued to provide strong support for the Hydrogen Fuel Initiative:

- The FY 2004 appropriation for hydrogen and fuel cell research and development through the Hydrogen Fuel Initiative was \$159 million.
- The FY 2005 appropriation was \$223 million.
- The FY 2006 appropriation is \$243 million.

On *January 25, 2006* Energy Secretary Samuel W. Bodman kicked off the Washington Auto Show with the announcement of \$119 million in funding and a research "roadmap"

aimed at identifying and overcoming the technical and manufacturing challenges associated with the further development of commercially available hydrogen fuel cell vehicles.

On April 6, 2006, Secretary Bodman announced a three-year, \$52.5 million solicitation to support new innovations in hydrogen technology. The solicitation will support research to assist in overcoming the scientific challenges associated with the production, use and storage of hydrogen.

We are committed to seeing through this development. Hydrogen and fuel cells have the potential to solve several major challenges facing America and the globe today: dependence on petroleum, poor air quality, and greenhouse gas emissions.

As transportation accounts for over two-thirds of the oil consumed daily in the US, our Department of Energy's Hydrogen Program is primarily focused on developing hydrogen technology for the transportation sector.

Much or most of that is for automobiles. Our population is not quite as dense as Europe or other parts of the globe. But in our population centers, where pollution is worse and transportation needs are the greatest, hydrogen powered Rail can make a huge contribution.

In May 2005 the "FIRST INTERNATIONAL HYDRAIL CONFERENCE took place in Charlotte, North Carolina, USA. This is only the second conference, but look how far we have come.

In 2002, Vehicle Projects LLC of Denver, Colorado, designed, built and delivered the world's first hydrogen fuel cell locomotive, a compact mining unit. They now lead an international team that's building the world's second hydrail locomotive—a 109-ton, 1.2 million watt diesel-to-hydrail locomotive conversion for the United States Army.

The achievements of Japan, Canada and Denmark and others speak for themselves and we are all looking forward to hearing more about them.

I've been impressed by the seemingly unbounded energy of Stan Thompson to build a consortium to attract hydrail to North Carolina. Mooresville, NC wants to become "Hydrogen, USA"

Because of dedicated people like Stan and the others at the Hydrogen Economic Advancement Team, we have gotten the attention of the world.

The theme of this conference is ambitious, but, I think, entirely appropriate.

“Hydrail is to Diesel what Diesel was to Steam”

Although still in the research and early demonstration phase, hydrail technology is poised to take advantage of infrastructure and technical advantages--especially on urban commuter rail lines.

Unlike other existing forms of transportation, we have the opportunity to get it right from the beginning and produce an integrated, coherent hydrogen rail system and infrastructure to support it.

Ambassador Cain and I have every confidence that through partnering and hard work, you will succeed in achieving the goal of cleaner rail transportation. You have our warmest wishes for a constructive, beneficial, successful and fun conference

Thank you.