Keynote Address of the U.S. Secretary of Energy Spencer Abraham
International Partnership for the Hydrogen Economy Ministerial Meeting
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Thank you, Kyle [McSlarrow]. It's a pleasure to be with you this morning. We had an excellent and productive session yesterday. I am confident today's will be even more fruitful.

For those of you not present for my opening remarks yesterday morning, let me again say welcome to the inaugural Ministerial meeting of the International Partnership for the Hydrogen Economy. President Bush and I appreciate the efforts you have made to be here, and value your involvement in this historic Partnership.

Looking out at this group of delegates, I have every confidence that someday we will indeed transform this world from one overly dependent on fossil fuels to one powered in large part by clean and abundant hydrogen.

The world today, and the one our children and grandchildren will inherit tomorrow, faces numerous challenges with respect to energy.

In particular we foresee global demand for oil skyrocketing. It is estimated the United States will need 50 percent more oil in 2025 than we use today. Other countries – notably China and India – will see similar increases.

Tied to the increased demand for oil are a bevy of environmental challenges, from air pollution and its effects on human health to questions about global climate change.

It was apparent to President Bush and our Administration that developing an alternative way to fuel motor vehicles, or to power our homes and businesses, would be a key to meeting our looming energy and environmental challenges.

That is why President Bush called on our department to pursue the promise of hydrogen by working to develop cutting-edge technological solutions.

Last year, he announced the FreedomCAR program, which is intended to develop automotive systems that would run on hydrogen-powered fuel cells. He asked the Department of Energy to oversee this important initiative.

In his State of the Union address in January of this year, the President announced his Hydrogen Fuel Initiative to concurrently develop the large-scale fuel production and distribution infrastructure necessary for the mass deployment of hydrogen-powered vehicles. Again, our Department is at the forefront of the Administration's efforts.

With these two project lines on track, we believe that the first car of a child born this year could be hydrogen powered and pollution free.

We are optimistic about the prospects for hydrogen, not just as the transportation fuel of the future, but also for its potential to generate electricity to heat and power our homes and businesses.

We are so confident that over the next five years the Department of Energy will invest $1.7 billion in research and development of hydrogen vehicles and hydrogen infrastructure technologies.

Let there be no question about this Administration's commitment to making the hydrogen economy a reality. We are dedicated to seeing this through.

As I said yesterday, and as the President mentioned in his message to you, we are convinced that the best way to usher in the age of hydrogen is through a broad international effort.

That's why we have so actively pursued the creation of the International Partnership for the Hydrogen Economy. We have a sincere belief that only a concerted international effort will speed the coming of the hydrogen revolution. It is not enough for us to be successful 100 years from now. Not even 50 years from now. We need to achieve tangible results in the next two decades.

This Partnership is the right vehicle to make that happen.

When I proposed this idea earlier this year in Paris and in Brussels, it was my hope to form the kind of partnership we have gathered this week to create.

Working together with international partners, we can:

- Leverage scarce resources and advance the schedule for research, development, and deployment of hydrogen production, storage, transport, and end-use technologies.
- Begin to develop the uniform codes and standards necessary for the development of hydrogen vehicles and the infrastructure to support them.
- Strengthen exchanges of pre-competitive information necessary to build the kind of common hydrogen infrastructures necessary to allow this transformation to take place.
- And formalize joint cooperation on hydrogen R&D to enable the sharing of information necessary to develop a hydrogen-fueling infrastructure.

The technical challenges before us are in themselves substantial. They will be met in the coming years through competition in the marketplace as much as by Ministerial collaboration.

But this initial collaboration – and the steps we take through this partnership – will go a long way to ensuring that our scientists and engineers and entrepreneurs are best prepared for their work.

If this Partnership is successful, as I know it will be, we will significantly accelerate the development of groundbreaking technologies. We will greatly further the construction of a hydrogen infrastructure. And we will make sure that uncertainty over codes and standards neither adds complexity to nor discourages our progress.

Businesses and industries that are conducting hydrogen research will have a greater incentive to invest and succeed if they know that the products they develop will have worldwide application. The sooner we establish these uniform standards, the sooner we can achieve our hydrogen revolution.

In closing, there is one other topic I'd like to address. The United States is committed to hydrogen research and development because of its obvious benefits for energy security

But we are also committed to hydrogen because it is clean.

That extends both from its use – the only emissions from hydrogen powered automobiles, for instance, will be water vapor – to its production.

Our goal is to make hydrogen from clean energy sources.

But we must recognize that a diversity of sources for hydrogen is inevitable. There are two reasons for this.

First, there will be intense competition to produce hydrogen as we build a hydrogen economy.

And second, as I've learned in my various travels and discussions about hydrogen, all over the planet people have different ideas about their hydrogen sources.

Today, most hydrogen produced for commercial application comes from natural gas.

However, some countries that use nuclear energy as a prime source of their electricity hope to develop nuclear power as a source to produce hydrogen.

Countries with an abundance of coal naturally hope to use coal as a source of hydrogen.

Many European Union officials indicate that that they hope to use renewable energy as a source.

Ladies and gentlemen, let me tell you today that the United States intends to pursue and substantially fund research in all of the above areas, because we don't as yet know what the best answer is … and because the best answer may be having a competitive marketplace for hydrogen production.

That means extensive research into clean coal and carbon sequestration technologies … into biomass and renewables … into next generation nuclear technologies … and into other promising areas.

In the earliest stages, the initial source of our hydrogen is likely to be natural gas – the fossil energy source that provides us with virtually all the hydrogen we use today.

Even with natural gas, the environmental benefits are abundant.

The total "well-to-wheels" energy consumption of a fuel cell vehicle powered by hydrogen from natural gas is 50 percent less than a comparable gasoline vehicle.

Moreover, total greenhouse gas emissions are 60 percent less.

But our aim is to do even better than that. By using renewable energy, nuclear energy, and fossil energy, combined with carbon sequestration technologies, to produce our hydrogen, we can totally eliminate air emissions from our light duty transportation systems.

The goal we have set for ourselves is nothing short of revolutionary. Every citizen of every one of our countries – not to mention many from other countries as well – will be directly affected by the transformation to hydrogen.

From the standpoint of how we drive our cars to how we power our homes … from the standpoint of air pollution and human health … from the standpoint of dramatically curbing greenhouse gas emissions … the move to hydrogen will be the defining point of a new era of energy, economic, and environmental security.

The global transformation we envision is breathtaking in its scope.

I am proud to serve a President who understands what is at stake, and who is committed to this program. The United States is prepared to put as much support as necessary toward furthering the global transition to hydrogen.

And I am proud to serve alongside so many of you, fashioning the pathway forward into this exciting new future.

Thank you, fellow Ministers, for joining me in this important effort.