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Remarks as Prepared For Delivery by U.S. Secretary of Energy Samuel W. Bodman
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Thank you very much, Hermann, for that kind introduction. I'm quite pleased to be a part of this important conference, and I want to thank everyone who worked so hard to put it together.

Renewable energy is helping us bring about a new energy future, one that is cleaner, more sustainable, more affordable, more secure and less reliant on carbon-based fossil fuels. While there is no "silver bullet" that will solve the world's energy problems, it is clear that renewable energy and efficiency technologies are an indispensable component of the solution. We must continue to aggressively pursue their development and widespread deployment. And, as this gathering makes clear, all nations must be involved in this effort.

Because, the truth is, improving our energy security and addressing global climate change are among the most pressing challenges of our time.

The International Energy Agency estimates that the world's primary energy needs will grow by over 50% by 2030. Meeting this demand will require the investment of billions of dollars annually for decades – around the world and at all stages of the energy cycle.

At the same time, we must develop and commercialize cleaner sources of energy to power our vehicles, homes and workplaces more efficiently and in an environmentally responsible way. That is why we are working – through the Major Economies Process – to accelerate the dialogue that will ultimately lead to a post-2012 Global Framework with all nations of the world. With the implementation of the "Bali Roadmap," we've turned the page from problem identification to problem solving, and the United States is poised to collaborate on the technology solutions that will enable the outcomes our world needs.

And of course, that's not even the full picture. In this country, there is an appropriately high level of attention on the impact of energy prices on our economy, our families and the health of our businesses. Believe me, I share that concern. And this is yet another reason why renewable energy is so critical. Because each megawatt of renewable energy brought online not only reduces our dependence on fossil fuels, it reduces the price volatility of those conventional fuels as well.

Even beyond our own borders, we know that the effects of high – and increasingly volatile – energy prices on smaller, developing economies can be severe. They can restrict development in a way that stifles economic development and business growth and inhibits improvements in the health and well-being of so many people around the world. As a matter of principle – and as a matter of policy – we must keep the energy needs of the world's poorest nations in our discussions. We should not leave the priorities of the developing world behind – nor can we afford to. A major global effort to promote renewable energy will support economic growth and allow developing nations to "leap-frog" over some of the dirtiest, but most rudimentary and prevalent, fossil-fuel-based technologies – improving public health and our environment.

This whole set of global energy challenges grows more acute with time. But I'm confident that we will meet them. And, even more than that, I'm optimistic that they represent a major opportunity for the world. Because just as the components of the problem are all too clear today, the components of the solution are also coming into focus – and more so everyday.

First, we have what I believe to be one of the most important elements of a successful strategy: a global imperative to act. In this country, as perhaps never before, the American people are calling for action – and taking action themselves. We are seeing a growing – and admirably strong – commitment to not just affordable energy, but clean, secure and sustainable energy as well. This is true at all levels – government, businesses, households – and not only in the United States, but around the world as well. And it is increasingly resulting in a renewed focus on energy efficiency and the adoption of renewable energy technologies on a scale and in a time frame that is having a measurable impact.

Secondly, under President Bush's leadership, we have put in place a series of federal policies to increase our national investment in the R&D to break our over-dependence on fossil fuels and harness the tremendous power of renewable energy. Through the President's Advanced Energy Initiative, we have identified the technologies that are having the greatest impact – today and over the course of the next decade. And we are going after them with increased resources, measurable metrics and milestones, and national plans that include aggressive timelines. There is a strong emphasis on renewable energy here—and let me highlight a few prominent examples.

Over the past year alone, the Energy Department has announced over \$1 billion of investments to spur the growth of a robust, sustainable biofuels industry, and in particular to tap the great potential of cellulosic biofuels derived from waste streams rather than edible fuel sources.

As part of that effort, our Office of Science is investing over \$400 million (over five years) in three cutting-edge Bioenergy Research Centers that are attracting world-class scientists and engineers from academia, industry and our National Laboratories to work to apply the great strides we've made in human genomics to our energy challenges. And after six months of work we're already starting to see some very promising scientific results coming out of this investment—some of which will be featured tomorrow at Ray Orbach's session on Bioenergy Conversion Processes.

With the technical leadership of DOE's applied science program, we've announced the selection of six large-scale biorefinery projects including one, Range Fuels, based in the State of Georgia, in which we are partnered with Vinod Khosla, who is Chairman of Khosla Ventures and the primary financier of Range Fuels. He will address this conference later on this morning. These six projects—Range Fuels and the other five—together will receive up to \$385 million – and a total of more than \$1.2 billion to be cost-shared through public-private partnerships – over the next four years. When fully operational, these six biorefineries are expected to produce more than 130 million gallons of cellulosic ethanol per year. Many of these projects are already underway.

There are many others as well – in fact, today the U.S. Departments of Agriculture and Energy are jointly announcing over \$18 million for an additional 21 biomass research and development projects around the country.

As part of our major commitment to biofuels, we are also working with NGOs like Conservation International, our National Laboratories, the private sector and Nobel-Prize-winning scientists to ensure that we transform our nation's energy use in an intelligent, environmentally sensitive and sustainable way. And let me emphasize this point: we welcome you and visitors from around the world to learn more about our efforts in this area, to visit our National Labs, and to continue to collaborate with us in pursuit of a cleaner, more sustainable energy future.

Our investments are advancing our national goal of making cellulosic biofuels cost-competitive with gasoline by 2012, and reducing America's gasoline consumption by 20% within a decade. This has the potential to lower greenhouse gas emissions at the tailpipe by up to 85%, and thereby significantly reduce carbon emissions from our transportation sector.

Our goals are similar with regard to other renewable energy sources. Solar energy is a clean, abundant and renewable energy source that can increase our electricity-generating capacity, particularly during periods of peak demand; reduce our dependence on natural gas; and reduce greenhouse gas emissions from electricity generation overall. And so we're working to get the costs down and to accelerate the growth rate of these technologies in the marketplace. In fact, over the last 7 years, installed photovoltaic capacity in the U.S. has grown at a rate of 30% per year.

Through the President's Solar America Initiative, we are aggressively funding R&D programs – many in partnership with industry – and also encouraging the absorption of new, energy efficient solar technologies in high-rise construction, home construction and other projects. Distributed solar technologies will enable the ultimate goal of affordable and widely available zero-energy homes and buildings that reduce our carbon footprint and transform the built environment.

Just last month, the Energy Department helped to officially open Nevada Solar One, the world's largest concentrated solar power plant built in 15 years. And we've promoted education, outreach and the deployment of new solar technologies through programs like the Solar Decathlon, an international competition that brings some of the world's brightest engineering and design students to Washington to demonstrate commercially viable ways to power homes using transformative building technologies.

This is a University based program. The students from 20 leading universities build a solar powered home on their campus—they then disassemble the home, put it on a truck or a ship—and bring it to Washington. Every other year, we have a village of solar powered homes on the Mall on Independence Avenue in front of the Energy Department. The program is going so well that we have recently “franchised” it to the government of Spain to run an analogous program in Europe.

Through our Wind Energy program, competitively selected, cost-shared R&D projects are addressing the barriers to operability, reliability and storage that will bring costs down and enable even greater industry growth. And we're already seeing extraordinary results. In 2007, the United States installed 5,240 MW of new wind power, a 45 percent increase over 2006. The U.S. has had the fastest growing wind power capacity in the world for the last three years in a row, and is anticipated to resume its position as the world leader of total installed wind capacity by the end of 2009. Of the total current installed wind capacity in the U.S., 85% has been installed since President Bush took office in January 2001. Thanks largely to wind energy's contribution, renewable energy sources accounted for 30% of all new nameplate electricity capacity additions in the U.S. in 2007 – up from just 2% in 2004. And we envision a future where wind supplies 20% or more of our total national generating capacity.

It is quite clear that federal policies and regulations in support of renewable energy are having a positive impact. It's also clear that we can and must do more—not only in terms of aggressive technology development and deployment but also in terms of predictable and durable policies that enable greater private investment. To that end, the Department of Energy is arranging more than \$38 billion in loan guarantees over the next three years to commercialize any technology that avoids, sequesters or reduces greenhouse gas emissions. The goal here is to support early commercial use of advanced energy technologies by helping projects realize lifecycle profitability.

And that brings me to a third component of a successful energy strategy: All of our catalytic efforts at the federal level are being reinforced by the indispensable role of the private marketplace.

Having spent a fair amount of my career in the financial sector, I can honestly say that for the first time in my life we are seeing the venture capital community put increasingly sizeable amounts of money into entrepreneurial companies in the alternative energy business. In 2007, the so-called “clean tech” sector, which includes renewable energy and efficiency technologies, saw record venture capital investment levels of \$2.2 billion – a 46% increase over 2006 – according to a recent industry report.¹ Or look at it this way: in 2005, about \$500 million was invested in this sector; in 2006, it jumped to \$1.5 billion; and in 2007, \$2.2 billion, as I mentioned. That is remarkable growth by any measure.

¹ Report by the National Venture Capital Association and PriceWaterhouseCoopers, Q4/Full-year 2007.

The clean-energy market is not just viable, it is thriving, and particularly in places where innovation and investment is valued and enabled by clear, simple, transparent and enforceable commercial and legal frameworks. After all, we know that investors – which many of you represent – did not enter this field for purely altruistic reasons, though the importance of the mission may inspire your success. You need a market. And, you now have one, and it will grow even more robust with time. The private sector recognizes that there is an opportunity here, one that can favorably impact balance sheets as well as our global energy security and environmental health.

The bottom line is this: we are seeing a convergence of forces that tells me that our world is on a path to a cleaner, affordable, and more secure energy future, and renewable energy is at the center of it all.

We certainly have a lot of work ahead of us, and this is not going to be an easy fix. But look what we have going for us: We have forward-looking leadership and funding commitments from Washington and governments around the world. We have the dedication and ingenuity of our scientists and engineers. We have the innovative power and the unmatched capital of the private sector. And we have the commitment of the global community to achieve together what none of us can do alone.

Tomorrow you will have the opportunity to hear from President Bush as he talks more about the role of renewable energy in securing our energy future. I thank you very much for your time this morning and for being a part of our collective effort to bring about a new energy reality for our world.

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