

EIA 2008 Energy Conference: 30 years of Energy Information and Analysis
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April 7, Plenary Session
Sam Bodman, Secretary of Energy Secretary

Thank you, Guy. It is a pleasure to be here this morning.

I want to congratulate Guy and everyone at E.I.A, not just for their consistently fine analysis but for all of the hard work that went into pulling this conference together. As I understand it, there are more than 1,500 registrants from more than 45 countries in attendance. At the very least, Guy, you all deserve, in addition to my appreciation, a round of applause.

It's good to be here with my friends Dan Yergin, of Cambridge Energy Research Associates, and Jim Schlesinger, my predecessor as United States Secretary of Energy by almost 25 years. I look forward to hearing what both of them have to say this morning.

The Department of Energy recently held a ceremony to mark the 30th anniversary of its establishment. Since the very beginning the Department and the Energy Information Administration – a vital part of our organization – have stood for excellence in all that they do.

Over 30 years we've come to depend on the EIA as a primary source of information about what is occurring and what is projected to occur in the United States and global energy markets.

There are a number of important organizations, like the International Energy Agency and the International Energy Forum, that also make valuable contributions to the collection and reporting of global energy data.

America needs accurate and timely information and high quality, unbiased analyses. America depends on the EIA. I depend on the EIA. And, I suspect, there are quite a few people in governments and markets around the world that also depend on the EIA.

America is better off because these institutions were brought into existence, even though the foundations upon which Secretary Schlesinger built them first came into being as part of The Manhattan Project.

The activities of the Energy Department, the Energy Information Administration and their predecessor agencies were, and are, essential to America. They played major roles in some of this country's greatest achievements. And I am certain they will continue to do so long into the future.

But I am not here today to dwell on the past, or to talk about the distant future. I am here to talk about the importance today of markets and information in bringing about a secure energy future for America.

The Energy Department has, as part of a broad portfolio, the responsibility to promote the production of safe, clean, reliable, sustainable, affordable energy supplies and to support the development and deployment of new or advanced technologies to make that possible. It is a job, if I may say so, that we do reasonably well.

And, in an era of changing world markets and growing energy demand brought about by growth in the global economy, it has become all the more important.

There has been considerable discussion of late about the Administration's energy policy. That it is, as one critic recently put it, "focused on one thing: getting more oil." Well – and appropriate for this subject of my talk with you this morning – our critics either have bad data, or they are interpreting it incorrectly.

The reality is that the U.S. economy will be dependent on fossil fuels for energy production for some time to come. I believe it is right that we should do more to spur additional, prudent, environmentally-responsible domestic exploration. After all, our energy challenges have been decades in the making and will not be solved overnight.

However, this Administration's energy policy is designed to reduce America's dependence – or to quote the President, "our addiction" to fossil fuels. Our policy calls for the adoption of clean energy and energy efficient technologies.

Since 2001, the U.S. government has spent more than \$12 billion to research, develop and promote alternative energy sources. In 2007 alone, the Energy Department announced more than \$1 billion to spur the growth of a robust, sustainable biofuels industry – with a focus on cellulosic biofuels.

The U.S. government continues to make critical investments in solar and wind power, hydrogen fuel cells, plug-in hybrid electric vehicles, advanced nuclear

power and cutting-edge clean coal technologies like carbon capture and sequestration; I'll say a little bit more about these in a moment.

The important thing is that these efforts are already producing results in the marketplace. This work has been under way for years and must continue at a rapid pace.

Our national strategy is not a reaction to high oil prices. It's a comprehensive policy that seeks to address two of the most fundamental challenges we face: improving our energy security and combating global climate change.

Today's high energy prices only underscore the urgency of these efforts.

The government should focus, and I believe we do focus, almost exclusively on what can be done to enable private capital to perform in the public interest. Specific to my remarks today, that includes the collection of data and the production of quality analyses.

The Department of Energy has within it a network of world class research facilities – our 17 national laboratories – where cutting edge scientific and energy research are constantly underway. These efforts, once commercialized, are helping to reduce America's dependence on imported energy.

In my judgment, the transition to a more energy efficient U.S. economy will occur because of changes arising largely in the private sector – in some cases with government support and in some cases with government taking the lead.

The U.S. government is the nation's largest energy consumer. But we must not lose sight of the fact that the market moves faster than government and accommodates and absorbs technological breakthroughs more quickly. But our common requirement, almost above all else, is the need for access to reliable, verifiable, dependable information and analysis.

Information is the lifeblood of the marketplace, something scholars – if not our everyday real world experience – shows us over and over again.

At their 2005 Gleneagles Summit, President Bush and the other G-8 Leaders explicitly recognized the importance of energy information. The chairman's summary issued following the meeting put the matter succinctly, noting that: "Higher and more volatile oil prices are an issue of particular concern both to us and to vulnerable developing countries. We emphasize the need for concrete

actions to reduce market volatility through more comprehensive transparent and timely data.”

At that time, oil changed hands at \$ 59.71 per barrel.

Energy market developments since that summit have only served to underline the importance of reliable data.

The Department of Energy has taken a number of steps to insure America has improved access to better information. We are strongly supportive, to give one example, of the International Energy Forum Secretariat's creation of JODI – the Joint Oil Data Initiative.

JODI helps to insure the collection and availability of reliable data on global oil production, demand and inventories. It now has close to 100 countries participating and is just one of the ongoing efforts we support to promote greater transparency and integrity of hydrocarbon data.

But information – and timely access to it – is just part of the picture.

Ninety percent of the world's untapped conventional oil reserves are controlled by governments or state-owned oil companies.

If, as some have suggested, the West is running out of sources of easy-to-find, easy-to-pump crude, we must plan for the development of increasing numbers of alternatives. But even if we are not running out, the planning process is still worthwhile because it will help us identify ways to increase U.S. energy security.

Either way, the securing of data and the production of competent analysis is a critical component of our ability to successfully address the challenges before us.

In order to answer key questions about the future of our conventional energy production and consumption, we must have a good sense of what the right answers might be to fundamental questions like, are the investments necessary to bring sufficient hydrocarbons to market being made? Is the investment climate in producing countries conducive to inviting such capital flows? Are large consuming nations having the right type of discussions with producing nations? If not, why not? Are we adequately investing in ways to produce fossil energy more cleanly and efficiently?

We depend upon the EIA to advise us.

Whatever we choose to do, our choices must be based upon the collection of good information and thorough analysis. Energy policy makers, investors and the general public all let their decision-making be guided by good information and analysis.

This promotes well functioning markets, it informs and enlightens and it provides a much-needed window into complex issues that affect our everyday lives as well as those of future generations. And, given what I like to call “the new energy reality,” these decisions are of great importance.

It is easily apparent, even to casual observers of the energy market, that global energy demand is skyrocketing.

The projections are all too familiar to many people. According to EIA’s International Energy Outlook 2007, between 2004 and 2030, world energy consumption will increase by 54 percent. Non-OECD countries will account for more than 80 percent of the world increase in energy use; with non-OECD Asia, which includes China and India, accounting for 53 percent of the world increase in energy use over the 2004-2030 projection period.

The global demand for electricity alone is expected to almost double over the same period. According to EIA’s Annual Energy Outlook 2008, U.S. demand for electricity will increase by 30 percent between 2006 and 2030.

Meeting this rising global demand for energy will require significant investment. The International Energy Agency estimates that, between now and 2030, \$22 trillion in new investment is needed to meet expected demand.

This investment must occur around the world, in developed and developing countries alike, and at all stages of the energy cycle. And it must be invested wisely. To do that, we must have access to good information in order to develop analyses of quality. For the greatest danger we face is that this much-needed investment may not occur.

Fortunately, there are a number of encouraging signs at the moment that this is happening. Our “catalytic” efforts at the federal level are being reinforced by the private sector.

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.

To look at it another way, in 2005, about \$500 million was invested in the “clean tech” sector; in 2006, investment jumped to \$1.5 billion; and in 2007 to \$2.2 billion, as I just mentioned.

This is remarkable growth by any measure.

The clean-energy market is not just viable – it is just one example – it’s thriving, 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 do not enter these fields for reasons that are purely altruistic; markets are necessary, the potential for profit is a powerful motive. Now, as far as clean energy is concerned, we have a market that will grow even more robust with time.

The private sector recognizes, because of the available information and analysis of the type provided by the EIA, that an opportunity exists that will favorably impact balance sheets while increasing global energy security and environmental health.

We’re seeing a convergence of forces that tells me that our world is on a path to a cleaner, affordable, and more secure energy future, with renewable energy at the center of it all. And I think the developments in the United States are a leading indicator of what the world is or will be doing over the next few decades.

Here in the United States we have, because of developments in technology, managed to increase our use of fuels made from biomass, wind, solar, and clean, safe, reliable nuclear power. But this is only a start. The bottom line is that we must diversify our nation’s energy supply in a cost-effective, sustainable, and environmentally responsible manner.

Government can assist in the deployment of these new technologies in a variety of ways. It can be, as is the case with fuels made from biomass, a standard setter. This is a tactic that productively encourages private investment, as we

have done by directing increases in renewable and alternative fuel production and by increasing fuel economy standards for cars and light trucks.

And the federal government can enter into partnerships with states, as we have done with Massachusetts and Texas by choosing them to host advanced wind turbine blade test facilities. The purpose of these facilities is to ensure that the U.S. has a capacity in place to test the blades necessary to run megawatt-scale wind turbines.

Blade-testing is required to meet wind turbine design standards, reduce machine cost, and reduce the technical and financial risk of deploying mass-produced wind turbine models.

Or, as we are doing to help stimulate America's nuclear renaissance, we can use loan guarantees that provide the backing of the U.S. government to help the private sector mitigate risks.

Again, this effort is driven by the data.

According to the EIA, high sustained conventional fuel prices, improved reactor designs, streamlined regulatory frameworks and environmental considerations can be expected to improve prospects for safe, emissions-free nuclear power capacity in many parts of the world, and a number of countries are now expected to build new nuclear power plants.

World nuclear capacity is expected to increase from 368 gigawatts in 2004 to 484 gigawatts in 2030. Declines in nuclear capacity are projected only in OECD Europe, where several countries, including Germany and Belgium, have either plans or mandates to phase out nuclear power.

Whatever energy strategies we employ to meet the challenges of the future, they all depend on innovations in technology, on strategic collaborations between governments and the private sector and, at their foundation, on information.

In my view, technology is the key to resolving our nation's most pressing energy challenges, from producing more efficient, more affordable and cleaner energy from renewable and alternative sources; to using traditional fossil fuels in a more sustainable way; to tackling the realities of global climate change – another area in which EIA performs important work by collecting and processing relevant data into well-constructed analyses.

The need to increase global energy security and reduce greenhouse gas emissions demands responsible action from consuming and producing nations alike. But to act in a responsible manner, we must have the right tools available – and that includes the data, analysis and forecasts that we look to the EIA to provide us.

I applaud your past contributions and look forward to continuing to work with all of you in the future.

Thank you.