

## **"The Economic Case for Comprehensive Energy Reform"**

Remarks to the U.S. Energy Information Administration Conference

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A few months before I came into government, my twin daughters completed their course in AP U.S. history at their local high school and I reviewed for their test with them. There were two aspects of that experience that stuck with me as I thought about my objectives in advising President Obama.

The first is that while I, as a macroeconomist, thought of the 1982 recession as a big deal, thought of the inflation of the 1970s as a big deal, thought about the 1987 stock market crash as a big deal, none of them got mentioned in my daughters' history course.

On the other hand, they spent six weeks on the events of the 1930s.

And the lesson I took away, coming into office a year ago, was that our first priority had to be making sure that a depression was avoided. Making sure that the vicious cycle of deleveraging and contraction that then plagued the economy was first contained and then ultimately reversed. And so this was remembered as a very disturbing economic fluctuation, but not as the kind of depression that defined an era.

And the evidence, I think, suggests that the President has made very substantial progress with that objective.

- Fifteen months ago, a depression did not look unlikely as three-quarters of a million Americans were losing their jobs each month.
- The stock market was, after correcting for inflation, at 1966 levels.
- And the output was declining at 6 percent a quarter.

Today, we have a long way to go, but a 6 percent GDP loss in first quarter gave way to a 6 percent gain in GDP, according to the most recent statistics.

Markets have risen by 75 percent since last March as conditions have substantially normalized.

And while there are special factors and there will be fluctuations, the economy has begun to produce jobs again: 162,000 last month, the largest increase in the number of jobs in three years.

While we have a long way to go in an economy with 9.7 percent unemployment and \$1 trillion short of potential, we are at last moving in the right direction.

As we move in the right direction, as this recovery unfolds, as what economists call the left tail of the distribution recedes in likelihood, it becomes essential that

- We think about the renewal of the American economy;

- We think about creating an economy with a stronger foundation for prosperity than the one that we inherited;
- We invest more and consume less;
- We technologically engineer more and we financially engineer less;
- We look to the long view and to the short view less;
- We compete in the global economy and we win.

To do so, in many areas, will require a change in our gestalt. Not the continuation of existing battles and of existing conflicts, but the reformulation of problems in new ways that permit us to cut across old debates and to as a nation move forward.

It is the accomplishment of those tasks of national economic renewal that are what came through again and again as what history remembered in that history course my daughters took.

Whether it was the land grant colleges and intercontinental railroad of President Lincoln, whether it was the Sherman Act and national parks and much more of President Theodore Roosevelt, whether it was the expansion of the concept of protection so as to save the market economy from itself with Social Security and unemployment insurance and deposit insurance of President Franklin Roosevelt, ultimately the most historically memorable accomplishments are those which renew our market system, which approach problems in different ways, and extend our efforts to create a more stable and more durable and more secure prosperity.

And it is that across a range of areas that will, I believe, define President Obama's presidency when its history is written.

That was the motivation for the President's historic battle for comprehensive health reform.

That was the motivation and is the continuing motivation for our efforts to insist that we rebuild our financial system and particularly the way in which it is regulated on a much more secure foundation after all the crises of the last generation.

And it is this approach of a new gestalt, a new view, a new paradigm, and a commitment to renewal that I believe needs to shape our approach to energy policy going forward.

To be sure, energy policy is about much more than economics.

There are only two ways in which mankind can affect the basic terms of life on earth on a planetary scale. One is what happens with respect to nuclear weapons. That's outside my sphere, but in Prague later this week and in Washington next week we are making substantial progress with respect to the challenge of nuclear weapons.

The other, of course, is with respect to global climate change, where it is an imperative for this planet that we act so as to reduce the risks that current science points up.

Equally, it is imperative that we address the consequences of excessive dependence on oil for our national security. Our dependence on government-controlled oil supplies from the most

politically fragile parts of the world represents a serious national security concern. And it's one that at long last we have to address.

There are others who will speak at this conference who can speak more knowledgeably to those two challenges than I can. So I want to address the rest of my remarks to the relationship between our energy strategy and our broadest economic objectives.

What do I mean when I say reformulate our national energy policy base?

You know, we've been talking about the need for national energy policy strategies and the like, probably since the founding of the republic, but certainly with very great frequency and in every presidential campaign since the first energy shock of 1973. Nearly 40 years. And the debate, frankly, has fallen into a series of ruts.

- Is it going to be energy efficiency and conservation, or is it going to be increased exploration?
- Are we going to focus on renewable power, or are we going to focus nuclear power?
- Is our central objective environmental protection, or is our central objective economic progress?
- Is our focus the profits for producers, or is it the costs for consumers?

I could give more examples. Those debates have their place and they have illuminated tradeoffs that policymakers ignore at their peril.

But I would say to you that if ever there was an issue where we needed to move from "either/or" to "both/and," that it is energy.

Instead of debating the relative importance of the priorities of different camps on the left and on the right, of the Southwest and of those in New England, of those oriented to the economy or those oriented to the environment, instead we have the opportunity to move forward by embracing the priorities of multiple groups, by taking an eclectic approach to forming a new energy policy.

For this much is clear from the record of four decades when emissions have gone up, when dependence has increased, and when our goals again and again have not been met.

Which, I ask you, has greater danger going forward: that we will, in the name of comprehensive energy policy somehow do too much that will affect energy markets by encouraging efficiency or encouraging exploration, or that we will again miss the opportunity, that we will again not act strongly enough with respect to a gathering storm?

Read the history of great nations. Read how they succeed and read how they fail. Their ability to mobilize to solve problems before they are absolutely imminent crises is what determines their longevity. That's why this task of economic renewal is so important broadly. And that's why I believe it is so important that we move for economic reasons to pass comprehensive energy legislation.

I believe comprehensive energy legislation can contribute to our prosperity in five ways.

First, it will raise demand and create jobs.

Under the Recovery Act:

- We will double the renewable energy capacity over the next three years.
- We will make critical investments in transformative technology.
- We will enhance the energy efficiency of federal buildings by 75%.

What better time is it to make these kinds of investments than now, when we have substantial unemployed resources?

And we are making them in the way that is most cost effective in terms of creating demand to a significant extent. If the government spends a dollar, that is a dollar of demand. If the government lends a dollar with a 10 percent credit subsidy because it is likely to be paid back, then the cost to the government is 10 cents, but the extra demand created can be a dollar before you even get to its multiplier effect as it reverberates through the economy.

That is why it's so important that at a moment when credit markets are having their difficulties, albeit reduced difficulties, the Recovery Act has made significant credit available to support up to \$40 billion in renewable energy and transmission.

Support for energy investment that creates demand and puts people back to work at a time of unemployed resources and excess capacity is the first way that energy policy strengthens our economy.

Second, comprehensive energy legislation will reduce uncertainty and increase confidence. The cheapest stimulus program in the world is enhanced confidence.

I first met Ben Bernanke 35 years ago, when we were both graduate students in Cambridge, Massachusetts. His PhD thesis was an important part around exactly this point. He studied the question of the impact of uncertainty on investment. His example, when he talked about his work, was a boiler.

- If you knew the price of energy was going to be high, you'd be one kind of boiler.
- If you knew the price of energy was going to be low, you'd be another kind of boiler.
- If you didn't know what the price of energy was going to be, you'd stick with your existing boiler for another year, waiting to see what was going to happen to the price of energy.

Until we pass comprehensive energy legislation, that is exactly what we are doing. We are creating an environment in which there is no certainty for someone building a new power plant.

There is no certainty for someone making the commitment to an industrial production process.

There is no certainty for someone thinking about the generation of automobile models after the current generation of automobile models, five or ten years out.

Clarity brings certainty, certainty brings confidence, and that is what moves the economy forward.

I would also say to you also that uncertainty is not just about our own future policy. Look at the full range of the distribution of oil prices as you can infer from options. As long as we are as dependent on foreign oil as we now are, there is a substantial uncertainty about the range of outcomes, and that too discourages investment, reduces confidence, and slows our economy relative to what we could have achieved.

Third, comprehensive energy legislation will reduce reliance on heavy-handed regulation and increase reliance on market forces.

This is true in our country and this is true around the world.

You know, the first rule of holes is that when you're in a hole, you should stop digging. In that spirit, the first principle of rational energy policy is that when a fuel is associated with all kinds of what we economists call externalities, pollution locally, carbon dioxide globally, national security risks associate with importation, it is a bad idea to subsidize it.

Yet around the world, fossil fuel subsidies exceed \$300 billion a year – \$300 billion a year – and account for 12 percent of global greenhouse gas emissions.

I think there's a chance that when the history is written the most important thing that happened in the last year was the agreement by the G20 countries that contain the vast majority of the world's GDP to eliminate over time their energy subsidies. It doesn't go far enough – ultimately the price of carbon is going to have to rise – but an elimination of those \$300 billion of energy subsidies is a substantial step forward towards allowing market forces to operate in the energy arena.

It's not just eliminating subsidies in other countries. It's what we do here. Now I'm an economist, so I'm a bit of an evangelist for markets. But anyone who thinks about our energy policy debates has to be impressed by the record of the smaller-scale, because this is a smaller-scale issue, but similarly designed sulfur oxide program in the United States.

Many thought it was too hard to introduce a market. Many thought that the right answer was command-and-control legislation. But the fact is that by 2000 sulfur dioxide pollution had fallen nearly below 30 percent below 1990 levels, and the cost was a relatively small fraction of what everybody expected in 1990.

We are going to regulate fossil fuel emissions in the future. Much better than we do it with market based mechanisms than enable those who can economize most cheaply to be the ones who economize.

Allowing market forces to operate is the third reason why this is so important.

Adding flexibility for the private sector will be particularly important with respect to ensuring that we take advantage of the vast increase in our potential natural gas supplies that has been identified over the past several years.

Fourth, the right energy legislation will support what is for the very long run most important for our economy, which is our leadership in innovation.

If what's true in the short run is that what determines how many people are working is how much demand there is for the products they're willing to produce, what determines our standard of living in the long run is how productive we are. And that depends on our ability to innovate and bring those innovations to market.

In the nineteenth century, the technologies that reverberated across the economy included the transcontinental railroad, the telegraph, and the steam engine.

In the twentieth, it was the automobile, the jet plane, and, over the last generation, everything associated with information technology.

We can't know exactly what the next defining innovation will be. It will come in multiple, different sectors. Each one of these technologies has their own story.

But think about maximizing potential and minimizing risk for our country.

Should we not seek to assure our leadership in energy and environmental technology, given their stake in some of the largest problems facing the planet?

That's why the President's energy agenda is directed at strengthening the economic ecology that has been so crucial for America's prosperity – an educated workforce, a fluid environment that stimulates entrepreneurship.

When you think about the strengths and weaknesses of our country, never forget this: we are the only country in the world where, if you have a sufficiently good idea, you can raise your first \$100 million dollars before you buy your first suit. That is, and that has been, a crucial feature of our country, and it is something we have to perpetuate.

Enacting comprehensive energy legislation will help our country move down the technological learning curves in key sectors associated with energy efficiency, associated with battery technology, associated with renewables, that will be economically important in the years ahead.

Finally, the emphasis on innovation is tied to my fifth and last point. Comprehensive energy legislation will strengthen our international competitive position. The twentieth century was an American century for many reasons. The size and scale of our country. The quality of our democracy. But I would say to you that it also had to do with our leadership in key science and technology.

The twentieth century was a century of physics. The atomic bomb, the nuclear reactor, the computer, the silicon chip, the transistor, the Internet. We led in all those technologies, and that was crucial to why we led the world.

No one knows exactly what will define leadership in the twenty-first century, but I would suggest to you that making sure that we lead as a developer of the technology is crucial.

I would suggest something else to you. Producers need markets. We are the largest economy in the world. If we use the fact that we are the largest economy in the world, and we will be for a good long time, to ensure that we are also the world's largest market for innovative energy technology in every sphere, that will create a virtuous circle of innovation and adoption, adoption and innovation, that can be a very substantial source for our country in the new century.

Ultimately, economic policy choices, like investment decisions for a family, involve seeking opportunity and involve minimizing risk.

If you think about the risks to our ecology, the risks to our security, we minimize those risks with comprehensive energy policy.

And if you think about the opportunity to lead in what is really important, we maximize that opportunity with comprehensive energy legislation.

That's why energy is so crucial a part of President Obama's economic strategy.

Thank you very much.