

We still have tremendous potential for strides forward. The estimates we have before us are that the United States can cost-effectively reduce energy consumption by an additional 25 to 30 percent or more over the course of the next 20 to 25 years. That is a significant fact. That should be a significant part of our national energy policy. The kinds of things we need to do there are the kinds of things we need to be debating and voting on and incentivizing in the Senate.

The Alliance to Save Energy estimates that if the proper energy efficiency measures across the industrial, residential generation and transportation sectors were put into place, we could save \$312 billion a year. The savings in the residential sector alone total \$145 billion a year or \$500 for every citizen over a 10-year period. An example: The new fluorescent light bulbs use one-fifth the electricity of a conventional light bulb and can save \$50 apiece over the lifespan of just one light bulb. Other ways include greater appliance efficiency standards, smart grid technologies, as well as weatherization. Research and technology are key to this. In fact, one of the things we can do in our transportation sector to reduce our reliance on petroleum is to move to low-energy vehicles. Battery research is well underway, and we could move to plug-in hybrids or hydrogen fuel cell vehicles relatively soon, if this Congress would get engaged and incentivize and strengthen our commitment to that technology effort.

We already have implemented new CAFE standards, which was a proper and positive step forward. My point is this: One of the first things we need to do in our rational comprehensive energy policy is to engage in conservation and efficiencies. It is our fifth source of fuel and one of our most significant potential sources.

We also need to move into renewable and alternative energy sources. We have listed a sampling of them here: Hydropower, nuclear, biomass, solar, wind, geothermal, and tidal. Some of them are not at the stage where they can economically survive without support or incentives. Frankly, as a government, we need to be working in every one of those areas to do the research, the technology, and to provide incentive support for us to move aggressively into those areas.

Let me give a couple examples of what we could do. Nuclear power is the only reliable base load generation that emits no carbon or other air pollutants. To supply our growing electrical generation needs, the EIA estimates at least 60 new nuclear plants are needed in the next 25 years to supplant new fossil-fuel generation. But no new plant has been built in the last 30 years. The main reason for this is the facilities are expensive to site and to build. They require enormous amounts of capital for design and construction before any profits can be realized, and our current

regulatory process challenges this whole system and extends just the permitting process so long that it makes it hard financially to make it pan out. Congress could fix that. We need to be as aggressive as we possibly can to incentivize, strengthen, and expand our nuclear energy industry.

Geothermal: An MIT study concluded it would be affordable to generate over 100 gigawatts of geothermal electricity by 2050 in the United States alone for an investment of \$1 billion in research and development over 15 years. To give perspective, that would replace 100 coal plants.

Wind: Idaho is ranked 13th in the Nation for wind energy, and global wind power currently stands at 94 gigawatts per year. China has a plan to equal that itself by the year 2020.

Biofuels and ethanol: I support this diverse energy portfolio, and biomass and biofuels, conventional and cellulosic ethanol, as well as biodiesel, are one part of the solution. As concerns about the rising price of corn mount, the need for commercial cellulosic ethanol production becomes more apparent. It is estimated that 1.3 billion dry tons of biomass can be harvested annually from U.S. forests and agricultural land without negatively impacting food, feed or export demands. What that translates into is enough ethanol to replace 30 percent of the current U.S. petroleum consumption.

Hydropower produces 7 percent of the U.S. electricity supply and almost 70 percent in my part of the world. It also accounts for 80 percent of the Nation's total renewable electricity generation, making it the Nation's leading renewable energy source. Hydropower turbines are capable of converting 90 percent of the available energy into electricity, which makes them more efficient than any other form of generation.

The point is the United States can make great gains to, No. 1, become less dependent on petroleum and, No. 2, to generate much more energy supply, if we will get aggressive about focusing on renewable and alternative energy sources. I have gone through a few in this sampling.

Having said all that, that we can do what we need to, to effectively monitor and control and manage our futures markets, that we need to focus on renewable and alternative energy sources, that we need to have an aggressive efficiency and conservation effort, does that mean we can simply ignore the price of oil? The answer is no. Let's go to the next chart. Even if we were to agree today and the President were to sign into law all these new incentives and the many things we could be doing in terms of conservation, renewable and alternative fuels and the like, it still would take several decades to transition away from being a purely almost totally petroleum-based economy. During that transition time, we still need oil. Oil is going to be key to our energy future now and for years in

the future. While we transition away, we have to recognize that. But today, based on Energy Information Administration estimates, the United States is expected to spend \$570 billion on imported foreign oil in 2008.

If you have been watching the T. Boone Pickens ads and the information that comes on those, the estimates are even higher, as high as \$700 billion. That is \$500 to \$700 billion that flows right out of the U.S. economy to other nations. What does a transfer of that kind of wealth mean? Every year that we send \$500 to \$700 billion outside the United States for other countries to produce oil and sell it to us, we erode our national security through loss of physical control over our own resources. We certainly lose jobs. Imagine the number of jobs we could have in the United States if we were engaged in production of our own oil. We increase foreign holdings of U.S. dollars that are out of our control. We have increased foreign holdings of American debt. We have a loss of domestic investment in huge amounts. Overall, we have a weakened U.S. dollar. We are sending our wealth overseas because we are too dependent on foreign sources of petroleum.

Do we have the opportunity to change that? Can we do any different? Or are we in a situation where the United States does not have access to oil resources? The world is using more oil, but U.S. production has fallen to its lowest levels in 60 years. The IEA projects that global oil consumption is going to grow by 37 percent in 2030; whereas, annual oil production will need to be 13.5 billion barrels higher today to meet that increase in demand. What kind of potential do we have in the United States? Let's go to the next chart.

There are a number of things we can do. The United States must be recognized as one of the strongest and most energy-rich nations, when you think about oil in the world. There has been a lot of debate about the Outer Continental Shelf. The projected OCS resources would equal almost 50 years of imports from OPEC. Think about that. Let's go to the next chart. Our OCS is estimated to have over 100 billion barrels of oil. We yearly import a little over 2 billion from OPEC nations. Simply turning to the Outer Continental Shelf instead of sending all the money we now send to OPEC nations, we could generate that oil ourselves simply on the OCS in the United States.

We have Western shale oil resources. These are phenomenal. Proven American oil shale resources could provide our country with 800 billion barrels of oil, which is more than three times the reserves of Saudi Arabia. This chart shows some very interesting information. Over here is the world's proven oil reserves. I think that is 1.7 trillion barrels of oil. This is the Saudi Arabia proven portion of that. This is the U.S. proven oil shale reserve. Remember oil shale is not considered to be the same

as oil. So if we were to take the oil shale and then produce it into oil, what could we start doing in comparison to the oil available in the world? This is what we know we have: U.S. proven oil shale reserves, 800 billion barrels. But there are estimates that the 800 billion barrels is low and that we actually have up to 2 trillion barrels of oil available in our oil shale reserves. Yet we send dollars overseas to get our oil.

So we have the OCS and the oil shale reserves. We have the Arctic National Wildlife Refuge, and we have debated this in the Senate and House for years. But projected resources in ANWR would equal over 17 years of our imports from OPEC. Again, another major source of oil that the United States can access.

The reason I am going through this is to show that the United States does not have to be dependent on foreign nations for our oil. We have other resources. The U.S. onshore resources—and that is not the Outer Continental Shelf but what we have right here onshore—are shown here at basically 35.5 billion barrels of oil. The yellow part NWR; the red is all the rest. Again, the comparison there is to OPEC. Yet the United States has allowed itself to become so dependent on OPEC that we transport \$570 billion a year to other nations. They are not all OPEC nations, but the vast majority of it goes to OPEC nations.

Another source is coal to liquids. The United States has 496 billion tons of demonstrated coal reserves, which is equivalent to almost 1 trillion barrels of oil, over 30 percent larger than the known Middle East reserves of crude oil. In fact, the United States is often called the Saudi Arabia of coal. But that may actually be an understatement, according to the American Coal Foundation, because domestic coal reserves contain more energy than that of all the world's oil reserves combined. Again, the United States has a phenomenal resource here that we are not taking advantage of.

These are groups that are starting to now come forward—and this is, again, a sampling of the list—coming forward and saying the United States must get engaged in its own oil production.

I know my time is running out, but the response that has been made to this is that: Well, we can't get this oil for another 10 years. In fact, some say we can't get it for another 20 years. Well, depending on the source or the specific location, whether it is the Outer Continental Shelf or the onshore sources or the oil shale, it will take 5, 10, to 15 years to bring this resource into production. My first answer to those who say: Well, this will take 10 years to get on line is that is what you said 10 years ago. In fact, it was what was said 15 years ago; it was what was said 20 years ago. We need to make the step now to begin making the United States less dependent on foreign sources of oil.

It is also said we have 68 million acres of lease land that is not being

produced right now. Well, let's take another look at what that means. That assumes somebody is basically hoarding acreage on leased land. The success rates for new onshore and offshore oil leases are not 100 percent; in other words, not every lease the United States issues results in oil being produced commercially. The reason is there is not oil underneath all the land. The companies that have to make the investment to go out and explore for it and then ultimately produce it don't know for sure whether there is oil under there when they purchase the lease. So it takes about 10 years of time from the purchase of the lease to go through the exploration process, and then if there is oil found, the permitting process, and then they move forward.

Most of the obvious places have already been leased out. The new leases are generating onshore about 10 percent success; offshore, 20 percent; and then in the shallow offshore, 33 percent success. The point being it is far too easy to simply say: Well, we have 68 million acres of leases out there; let's rely on those. Those leases are all in the process of either being explored or being returned because they are not being produced.

Let's look at the next chart. This chart shows what the status of these nonproducing leases is. For those who say let's go out and get the 68 million acres of leases and use them, right now, 50 percent of them are in the data-gathering process and they will either be produced or returned, depending on whether there is oil there that can be commercially found, but they are in the process of being pursued. Twenty-five percent they have found oil on and they are drilling or they are preparing for drilling. In another 10 percent, they have confirmed discovery and they are under construction. In 15 percent, the initial analysis is complete, and there is low commercial potential and they are likely to be returned to the Federal Government. That is the status of the ones that are currently not producing.

The point, though, is those who argue we should rely totally on the current status of our lease effort are saying let's have no new production. Everything they are talking about is either in production or in exploration or in preparation for production, but what they don't tell you is that 85 percent of the Outer Continental Shelf off the lower 48 States is off limits to development. There are no leases there. Eighty-three percent of the onshore Federal lands are currently off limits or facing restrictions to development. There are no leases there.

If you go back and think about the potential we have in the offshore oil, in the oil shale, in ANWR, in our onshore oil, and in the tremendous coal-to-liquids potential we have, there is no reason the United States should not aggressively seek to become energy independent in the arena of oil.

There are those who say: Well, that is because the big oil companies have the Republicans in their pockets and as we heard today, there is plenty of oil being produced. We just have to look at these acres, these leases that are not being used. Again, the reality is the United States of America, since the 1970s, has said no, basically no to further production, and that is why we see us increasingly and more increasingly dependent on foreign sources of oil.

In conclusion, the United States faces very serious threats to our future way of life. Our national security and our economic security are at risk. It is appropriate that we be here debating in the Senate on this issue. What is not appropriate is that ideas about all of these different kinds of production and renewable and alternative energy sources and conservation and efficiency measures are not allowed to be debated on this floor. Instead, we are told we are simply going to have a new government regulation system and the government is going to have a little more control of our markets and that is going to fix the problem of oil, and that is going to make it so the price of gas goes down. Well, it is not. I call on our leadership in this Senate to simply allow us to have a traditional, fair system of debate on the floor on the energy issue so we can debate all of these ideas. If some of them are bad, let them be voted down, but let's debate these ideas and the many ideas that others of my colleagues have about how we should solve our energy crisis in this country. I am confident if we will allow such a full and robust debate to occur, a tremendous amount of good ideas will come forward, and out of that debate will come a comprehensive, rational national energy policy that will focus on a diversification on our approach to energy and will put the United States on a sound, strong pathway toward energy independence.

If we don't do that and we refuse and shut down debate and allow only some kind of a market regulatory solution to be put into place, we will find we will have fouled up our markets, caused volatility in the price of oil. We will not have done anything to generate one more drop of oil or one more kilowatt of electricity or one more energy conservation effort that would reduce the consumption of oil or electricity, and we will see gas prices continue to rise.

It is incumbent upon us as Senators to call for a full debate. If we do so, the United States has the capacity, the resources, the ingenuity, and the ability to become energy independent and to become strong in the context of our energy policy.

Thank you, Mr. President.

Mr. President, I note the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.