

somebody is actually going to get credit for having solved a problem. I think that is a risk we ought to take because if Democrats and Republicans were actually working together to try to solve problems, I think both sides would get credit and the American people would feel better about their elected officials and feel as though maybe Congress and Washington are somehow a little less disconnected from the rest of the country.

For example, we know that when we left here in August, one of the things we had hoped to do was to get a vote on more domestic drilling to be able to produce American energy rather than depend, as we do—\$700 billion worth—on importing that energy from other sources. I am glad there have been some continuing discussions, and I am hopeful that ultimately we will be able to actually do something—do something relevant, do something responsive, do something significant to deal with these high prices. We know there are several things we can do—yes, conservation is part of it, using less, but also producing more American energy so we are less dependent on importing oil from dangerous and unfriendly regions of the world.

Now, it is interesting, because I think the majority of the American people look at Congress and they don't necessarily distinguish between Republicans and Democrats and who is in charge and who is not in charge. I have to say congratulations to our Democratic friends who won the majority in the Senate and in the House in the 2006 election. That is the good news. The bad news is the Democrats are actually in charge of setting the agenda. When Congress is stalemated over something as important to the average American and Texas family as high energy prices and we are unable to get it teed up so we can actually have a meaningful debate and a vote, an up-or-down vote on more domestic production of American energy, it is because our friends on the Democratic side control the agenda and they so far have refused to allow us that vote. I hope, after traveling their States and listening to the American people over this last month, their position will have softened a little bit and they will be open to this idea of producing more American energy so we are less reliant on imported energy from other countries.

We are going to have a couple of chances to do this. If presumably there were an energy bill that was allowed to come up, that would be one chance. There is another chance we know we are going to have because this is basically the vote we are going to have before we leave that is going to decide whether the Federal Government is going to continue a moratorium on offshore drilling.

For almost 30 years now, Congress has imposed an annual appropriation rider on appropriations bills that has banned exploration and production of oil from offshore sources. We are going

to have a shot at that regardless of what happens because we are going to have to renew that to keep the Government going forward. My hope would be that we would be a little more farsighted than that and we would be a little bit more willing to consider ideas on both sides of the aisle to do what I know the American people are desperate to see Congress do, and that is to actually work together to solve the country's problems on a bipartisan basis and not to continue to turn a deaf ear to people who are in some distress because of high energy prices and all of the consequences associated with it.

We know the economy has moved to the top of the Nation's priority list in the upcoming election, some 56 days from now. Of course, there is more to the economy than high energy prices, but I submit that is a significant—a very significant—part of it.

We need to deal with issues such as obstructing free trade. We have had the Colombia Free Trade Agreement which actually would create markets for American-produced agriculture and manufactured goods in a country that now—my State alone sells \$2.3 billion worth of goods a year to that country, but they are put at a disadvantage because there is a tariff added to the cost of those goods as they are imported into Colombia but not so when their goods are sent to the United States. So wouldn't it make sense, when our economy is softening and when people are concerned about jobs, as we all are, to say: Yes, we need to have more markets for American agricultural produce and for manufactured goods because that would create jobs here at home. To me, it just makes common sense, but we see nothing but obstruction there.

Then, when it comes to suggestions about how to deal with so many issues, our friends on the other side of the aisle—and including, frankly, some Republicans in the so-called Gang of 10 regarding the Energy bill—have proposed raising taxes on domestic oil and gas production by \$30 billion. We tried that before. There is going to be some division, some difference of ideas on both sides of the aisle. We tried that before during the Carter administration, and, because of a windfall profits tax, rather than increasing our independence, increasing our self-sufficiency, we actually depressed domestic production of oil and gas because those taxes were put disproportionately on American-based, shareholder-owned companies when, in fact, you cannot impose those taxes on Saudi Arabia or Canada or Mexico. By Congress, in a discriminatory fashion, imposing those taxes on American shareholder-owned oil companies, it actually depressed domestic production, which is opposite of what we have all said that we want to do, which is to decrease our dependence on foreign oil.

So we have some huge challenges, there is no doubt about it, and the American people are crying out for a

Congress that is actually going to respond to those issues.

We also know that in the national security debate that is so much a part of this Presidential race but ought to be a part of what we focus on—job No. 1: the national security of the American people—they want to make sure there is responsible leadership in place dealing with an ever-dangerous world. If there was any doubt about it, the Russian invasion of the Democratic Republic of Georgia should have reminded people that this is a dangerous world. We cannot let our guard down. We need to remain strong because only from a position of strength will the United States be able to maintain peace. When our enemies see us let our guard down and do things such as try to micromanage the troops and set an arbitrary timetable on when they come home rather than based on conditions on the ground, they see that not as a sign of strength, they see that as a sign of weakness, which emboldens bullies and emboldens nations that would like to take advantage of that.

The last thing I wish to mention in my 10 minutes is that the American people want fiscal responsibility. They want to see Congress actually doing the job we get elected to do and get paid to do. For us to be here now in September having not yet passed a single appropriations bill out of 13 appropriations bills is not fiscal responsibility. It is simply kicking the can down the road and more of the same. Frankly, what the American people do not want to see is more of the same. They want change all right. But I submit to you they want the right kind of change. They wish to see a Congress that is actually functioning, actually addressing their concerns, and actually working together to solve problems.

So far, with this Congress that is controlled by our friends on the other side of the aisle, we have been unable to tee up many of these important issues. I hope in the short period of time we have in the month of September, where we are actually going to be in session, we will have a productive session and work together to try to solve some of these problems because, frankly, our record so far under the Democratic leadership is dismal.

I yield the floor.

The ACTING PRESIDENT pro tempore. The Senator from Tennessee is recognized.

Mr. ALEXANDER. Mr. President, would the Chair let me know when 9 minutes has elapsed.

The ACTING PRESIDENT pro tempore. The Chair will do so.

#### CLEAN ENERGY INDEPENDENCE

Mr. ALEXANDER. Mr. President, I thank the Senator from Texas for his wise comments. As usual, he is right on the mark. I want to talk about the same subject, which is on the mind of almost every Tennessean I saw in the last 5 weeks, and I am sure it is on the

minds of most Americans. During this work period, all during August and part of September, in Tennessee, I did what I imagine most of us from the Senate did. In my case, I visited a producer in Knoxville who delivers tomatoes and vegetables to schools and restaurants. He was talking about the triple whammy that high energy prices cause when they have to pay extra for fuel to bring them to Knoxville, and pay extra to deliver them; and then the farmer, in the first place, had to pay extra to grow them because of energy costs. For the trucking company in Jackson, TN, and the food banks in Nashville and Memphis, it is all the same story about how high energy prices are hurting people and affecting the lives of Tennesseans.

I wasn't surprised to find that Tennesseans and most Americans know there is no silver bullet and they know we cannot solve this problem tomorrow. But they expect us to start today, not tomorrow, to deal with the problem. That is why last May I went to Oak Ridge, TN, to say what I thought we ought to do about high energy prices. I proposed a new Manhattan project for clean energy independence. I said, to begin with, we should do the things we know how to do, and that is to drill offshore environmentally for oil and gas that we know we have and that we can use to increase our supply and reduce the price at home. That is in the case of transportation, primarily.

In the case of electricity, we should pursue much more aggressively the technology we invented, which is nuclear power. It is only 20 percent of our electricity, but if you care about global warming and clean air, it is 70 percent of our clean electricity. My proposal was that we borrow a page from history, from World War II, when President Roosevelt created a secret plan to build a bomb before Germany did, because if Germany got the bomb, it would have blackmailed the United States and the world. We succeeded due to that Presidential leadership, by the congressional leadership, and by drafting companies, literally, into the Manhattan project, by recruiting the best scientists in the world, by stating a clear objective and using American know-how to do it. I suggested we should do that same thing—maybe seven mini-Manhattan projects with seven grand challenges:

No. 1. We should make electric cars and trucks commonplace. That is getting to be a little more accepted. I talked to the head of the Austin, TX, utility district. He said they have a million cars in his district—and light trucks—that he guesses maybe 10 percent of them could be run by electricity instead of gasoline within 5 years, and maybe half of them within 15 to 20 years. That is 120 million vehicles if that percentage applied to the whole country. I asked how many more powerplants would you have to build so half of your cars and light trucks could

be run on electricity instead of gasoline. "Zero" is the answer, because if you plug in at night, his utilities, and the Tennessee Valley Authority, and most utilities have plenty of excess electricity unused at night that they can sell to us at cheaper rates to plug our cars and trucks into. So that is one way to use less gas and oil—by using more electric cars. So over 5 years we should make that commonplace.

A second grand challenge that I offered was to make carbon capture—the capturing of carbon out of coal plants—a reality within 5 years. We talk a lot about this, taking carbon out of coal plants' pollution—that produces about half of our electricity—and make it a reality. We have not done it yet. We do it a few places by putting carbon back down into the ground for oil. But over 5 years, if we made a crash program out of it, as we did with the Manhattan project, we might find a way to get rid of that carbon, help global warming, use the powerplants, which is home-grown electricity, and it would set an example for China, India, and other places that are building dirty coal plants that will affect our air as well.

Third, making solar power cost competitive with fossil fuels. Wind is useful in some places, and it has a subsidy. More widespread and promising is solar power. Solar thermal powerplants are solving the problem we have with wind, which is that we cannot store electricity made from it yet. It blows when it wants to. With these solar thermal plants, they make steam, which can be put in the ground and use it when needed to create electricity.

Fourth, safely reprocess and store nuclear waste. We should do that.

Fifth, make advanced biofuels cost competitive with gasoline. There is a limit to what we can do with corn to make fuel, but there are plenty of crops, such as switchgrass, which, with further research on a crash program, we could use less gas and oil.

Sixth, we should make new buildings green buildings. Over the next 30 years, we should make new buildings green buildings.

Finally, participate in the international research for fusion. I know that is a long shot. But the United States should participate in trying to recreate on Earth the way the Sun creates energy.

If we had a new Manhattan project for clean energy independence that began by doing what we already know how to do—drill offshore, create more nuclear power, and do the seven things I mentioned—that would be the kind of policy we should adopt and people would respect us for. But what happened? We didn't take it up. When we left in August, despite the fact that, according to surveys by Dave Winston, 81 percent of the American people agree with the idea of a new Manhattan project for clean energy independence, we were still arguing about whether we ought to be discussing high gasoline prices.

Unfortunately, the Democratic leader didn't want to allow us to bring up legislation that we wanted to bring up, which would find more American energy. Apparently, that has changed a little bit, and I am glad to see that. We may have some choices this month.

The question is: What can we do in the next 3 weeks? We are having an energy summit on Friday. That is good. The Democratic and Republican leader and the Democratic and Republican head of the Energy Committee will organize it. It would have been better if we had it in June or July. But that is good. Apparently, we will have legislation to consider, perhaps from the House, and perhaps Senator BINGAMAN will have legislation. And there is the legislation that the group called the Gang of 10, 16, or 20, a group working in a bipartisan way to solve the problem, is working on. We Republicans offered the Gas Price Reduction Act, which includes drilling offshore, encouraging electric cars, dealing with speculation and oil shale in the Western States. That would be a start.

As the Senator from Texas said, we have to deal with the question in the appropriations process that has restricted all these years our ability to drill offshore. You see, we stick it in the appropriations bill every year and say you cannot drill offshore. So we are going to have to deal with that by the end of the month. The responsible way to do that is to bring it up and vote on it. Let everybody stand up and say whether they think it is a good idea to give every single American State the opportunity to drill for oil and gas at least 50 miles offshore, and for that State to keep 37.5 percent of the proceeds. If I were the Governor of a State with a coastline, which I am not, I would be doing that quickly and using those revenues for higher education, keeping taxes down, and improving the environment.

At the very least, we should make certain in these next 3 weeks that we do job one, which is, to me, making sure that we drill offshore to produce American energy. That would keep \$50 billion or \$60 billion more at home and send a signal that the third largest producer of oil in the world is willing to produce, and it would at least get us started down the road to finding more American oil and using less foreign oil.

I ask unanimous consent that my remarks in Oak Ridge in May about a new Manhattan project for energy independence be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

United States Senator Lamar Alexander,  
Oak Ridge National Laboratory, May 9th,  
2008

A NEW MANHATTAN PROJECT FOR CLEAN  
ENERGY INDEPENDENCE

SEVEN GRAND CHALLENGES FOR THE NEXT FIVE  
YEARS

*Plug-in electric cars and trucks, carbon capture,  
solar power, nuclear waste, advanced  
biofuels, green buildings, fusion*

HISTORY

In 1942, President Franklin D. Roosevelt asked Sen. Kenneth McKellar, the Tennesseean who chaired the Appropriations Committee, to hide \$2 billion in the appropriations bill for a secret project to win World War II.

Sen. McKellar replied, "Mr. President, I have just one question: where in Tennessee do you want me to hide it?"

That place in Tennessee turned out to be Oak Ridge, one of three secret cities that became the principal sites for the Manhattan Project.

The purpose of the Manhattan Project was to find a way to split the atom and build a bomb before Germany could. Nearly 200,000 people worked secretly in 30 different sites in three countries. President Roosevelt's \$2 billion appropriation would be \$24 billion today.

According to New York Times science reporter William Laurence, "Into [the bomb's] design went millions of man-hours of what is without doubt the most concentrated intellectual effort in history."

THE GOAL: VICTORY OVER BLACKMAIL

I am in Oak Ridge today to propose that the United States launch a new Manhattan project: a 5-year project to put America firmly on the path to clean energy independence.

Instead of ending a war, the goal will be clean energy independence—so that we can deal with rising gasoline prices, electricity prices, clean air, climate change and national security—for our country first, and—because other countries have the same urgent needs and therefore will adopt our ideas—for the rest of the world.

By independence I do not mean that the United States would never buy oil from Mexico or Canada or Saudi Arabia. By independence I do mean that the United States could never be held hostage by any country for our energy supplies.

In 1942, many were afraid that the first country to build an atomic bomb could blackmail the rest of the world. Today, countries that supply oil and natural gas can blackmail the rest of the world.

NOT A NEW IDEA

A new Manhattan Project is not a new idea—but it is a good idea and fits the goal of clean energy independence.

The Apollo Program to send men to the moon in the 1960s was a kind of Manhattan Project. Presidential candidates John McCain and Barack Obama have called for a Manhattan Project for new energy sources. So have former House Speaker Newt Gingrich, Democratic National Committee chairman Howard Dean, Sen. Susan Collins of Maine and Sen. Kit Bond of Missouri—among others.

And, throughout the two years of discussion that led to the passage in 2007 of the America COMPETES Act, several participants suggested that focusing on energy independence would force the kind of investments in the physical sciences and research that the United States needs to maintain its competitiveness.

A NEW OVERWHELMING CHALLENGE

The overwhelming challenge in 1942 was the prospect that Germany would build the bomb and win the war before America did.

The overwhelming challenge today, according to National Academy of Sciences president Ralph Cicerone, in his address last week to the Academy's annual meeting, is to discover ways to satisfy the human demand for and use of energy in an environmentally satisfactory and affordable way so that we are not overly dependent on overseas sources.

Cicerone estimates that this year Americans will pay \$500 billion overseas for oil—that's \$1,600 for each one of us—some of it to nations that are hostile or even trying to kill us by bankrolling terrorists. Sending \$500 billion abroad weakens our dollar. It is half our trade deficit. It is forcing gasoline prices toward \$4 a gallon and crushing family budgets.

Then there are the environmental consequences. If worldwide energy usage continues to grow as it has, humans will inject as much CO<sub>2</sub> into the air from fossil fuel burning between 2000 and 2030 as they did between 1850 and 2000. There is plenty of coal to help achieve our energy independence, but there is no commercial way (yet) to capture and store the carbon from so much coal burning—and we have not finished the job of controlling sulfur, nitrogen, and mercury emissions.

THE MANHATTAN PROJECT MODEL FITS TODAY

In addition to the need to meet an overwhelming challenge, other characteristics of the original Manhattan Project are suited to this new challenge:

It needs to proceed as fast as possible along several tracks to reach the goal. According to Don Gillespie, a young engineer at Los Alamos during World War II, the "entire project was being conducted using a shotgun approach, trying all possible approaches simultaneously, without regard to cost, to speed toward a conclusion."

It needs presidential focus and bipartisan support in Congress.

It needs the kind of centralized, gruff leadership that Gen. Leslie R. Groves of the Army Corps of Engineers gave the first Manhattan Project.

It needs to "break the mold." To borrow the words of Dr. J. Robert Oppenheimer in a speech to Los Alamos scientists in November of 1945, the challenge of clean energy independence is "too revolutionary to consider in the framework of old ideas."

Most important, in the words of George Cowan as reported in the excellent book edited by Cynthia C. Kelly, "... The Manhattan Project model starts with a small, diverse group of great minds."

I said to the National Academies when we first asked for their help on the America COMPETES Act in 2005, "In Washington, D.C., most ideas fail for lack of the idea."

THE AMERICA COMPETES MODEL FITS, TOO

There are some lessons, too, from America COMPETES.

Remember how it happened. Just three years ago—in May 2005—a bipartisan group of us asked the National Academies to tell Congress in priority order the 10 most important steps we could take to help America keep its brainpower advantage.

By October, the Academies had assembled a "small diverse group of great minds" chaired by Norm Augustine which presented to Congress and to the President 20 specific recommendations in a report called "Rising Above the Gathering Storm." We considered proposals by other competitiveness commissions.

Then, in January 2006, President Bush outlined his American Competitiveness Initiative to double over 10 years basic research budgets for the physical sciences and engineering. The Republican and Democratic Senate leaders and 68 other senators spon-

sored the legislation. It became law by August 2007, with strong support from Speaker Pelosi and the President.

NOT ELECTED TO TAKE A VACATION THIS YEAR

Combining the model of the Manhattan Project with the process of the America COMPETES Act has already begun. The National Academies have underway an "America's Energy Future" project that will be completed in 2010. Ralph Cicerone has welcomed sitting down with a bipartisan group to discuss what concrete proposals we might offer earlier than that to the new president and the new Congress. Energy Secretary Sam Bodman and Ray Orbach, the Energy Department's Under Secretary for Science, have said the same.

The presidential candidates seem ready. There is bipartisan interest in Congress. Congressman Bart Gordon, Democratic Chairman of the Science Committee in the House of Representatives—and one of the original four signers of the 2005 request to the National Academies that led to the America COMPETES Act—is here today to offer his ideas. Congressman Zach Wamp, a senior member of the House Appropriations Committee who played a key role in the America COMPETES Act, is co-host for this meeting.

I have talked with Sens. Jeff Bingaman and Pete Domenici, the chairman and senior Republican on the Energy Committee who played such a critical role in America COMPETES, and to Sen. Lisa Murkowski, who likely will succeed Sen. Domenici as the senior Republican on the Energy Committee.

Some say a presidential election year is no time for bipartisan action. I can't think of a better time. Voters expect presidential candidates and candidates for Congress to come up with solutions for \$4 gasoline, clean air and climate change, and the national security implications of our dependence on foreign oil. The people didn't elect us to take a vacation this year just because there is a presidential election.

SO HOW TO PROCEED?

A few grand challenges—Sen. Bingaman's first reaction to the idea of a new Manhattan Project was that instead we need several mini-Manhattan Projects. He suggested as an example the "14 Grand Challenges for Engineering in the 21st Century" laid out by former MIT President Chuck Vest, the president of the National Institute of Engineering—three of which involve energy. I agree with Sen. Bingaman and Chuck Vest.

Congress doesn't do "comprehensive" well, as was demonstrated by the collapse of the comprehensive immigration bill. Step-by-step solutions or different tracks toward one goal are easier to digest and have fewer surprises. And, of course, the original Manhattan Project itself proceeded along several tracks toward one goal.

Here are my criteria for choosing several grand challenges:

Grand consequences, too—The United States uses 25 percent of all the energy in the world. Interesting solutions for small problems producing small results should be a part of some other project.

Real scientific breakthroughs—This is not about drilling offshore for oil or natural gas in an environmentally clean way or building a new generation of nuclear power plants, both of which we already know how to do—and, in my opinion, should be doing.

Five years—Grand challenges should put the United States within five years firmly on a path to clean energy independence so that goal can be achieved within a generation.

Family Budget—Solutions need to fit the family budget, and costs of different solutions need to be compared.

Consensus—The Augustine panel that drafted the "Gathering Storm" report wisely

avoided some germane topics, such as excessive litigation, upon which they could not agree, figuring that Congress might not be able to agree either.

#### SEVEN GRAND CHALLENGES

Plug-in electric cars and trucks, carbon capture, solar power, nuclear waste, advanced biofuels, green buildings, and fusion.

Here is where I invite your help. Rather than having members of Congress proclaim these challenges, or asking scientists alone to suggest them, I believe there needs to be preliminary discussion—including about whether the criteria are correct. Then, Congress can pose to scientists questions about the steps to take to achieve the grand challenges.

To begin the discussion, I suggest asking what steps Congress and the Federal government should take during the next five years toward these seven grand challenges so that the United States would be firmly on the path toward clean energy independence within a generation:

1. Make plug-in hybrid vehicles commonplace. In the 1960s, H. Ross Perot noticed that when banks in Texas locked their doors at 5 p.m., they also turned off their new computers. Perot bought the idle nighttime bank computer capacity and made a deal with states to manage Medicare and Medicaid data. Banks made money, states saved money, and Perot made a billion dollars.

Idle nighttime bank computer capacity in the 1960s reminds me of idle nighttime power plant capacity in 2008. This is why:

The Tennessee Valley Authority has 7,000–8,000 megawatts—the equivalent of seven or eight nuclear power plants or 15 coal plants—of unused electric capacity most nights.

Beginning in 2010 Nissan, Toyota, General Motors and Ford will sell electric cars that can be plugged into wall sockets. FedEx is already using hybrid delivery trucks.

TVA could offer “smart meters” that would allow its 8.7 million customers to plug in their vehicles to “fill up” at night for only a few dollars, in exchange for the customer paying more for electricity between 4 p.m. and 10 p.m. when the grid is busy.

Sixty percent of Americans drive less than 30 miles each day. Those Americans could drive a plug-in electric car or truck without using a drop of gasoline. By some estimates, there is so much idle electric capacity in power plants at night that over time we could replace three-fourths of our light vehicles with plug-ins. That could reduce our overseas oil bill from \$500 billion to \$250 billion—and do it all without building one new power plant.

In other words, we have the plug. The cars are coming. All we need is the cord.

Too good to be true? Haven't U.S. presidents back to Nixon promised revolutionary vehicles? Yes, but times have changed. Batteries are better. Gas is \$4. We are angry about sending so many dollars overseas, worried about climate change and clean air. And, consumers have already bought one million hybrid vehicles and are waiting in line to buy more—even without the plug-in. Down the road is the prospect of a hydrogen fuel-cell hybrid vehicle, with two engines—neither of which uses a drop of gasoline. Oak Ridge is evaluating these opportunities.

Still, there are obstacles. Expensive batteries make the additional cost per electric car \$8,000–\$11,000. Smart metering is not widespread. There will be increased pollution from the operation of coal plants at night. We know how to get rid of those sulfur, nitrogen, and mercury pollutants (and should do it), but haven't yet found a way to get rid of the carbon produced by widespread use in coal burning power plants. Which brings us to the second grand challenge:

2. Make carbon capture and storage a reality for coal-burning power plants. This was one of the National Institute of Engineering's grand challenges. And there may be solutions other than underground storage, such as using algae to capture carbon. Interestingly, the Natural Resources Defense Council argues that, after conservation, coal with carbon capture is the best option for clean energy independence because it provides for the growing power needs of the U.S. and will be easily adopted by other countries.

3. Make solar power cost competitive with power from fossil fuels. This is a second of the National Institute's grand challenges. Solar power, despite 50 years of trying, produces one one-hundredth of one percent of America's electricity. The cost of putting solar panels on homes averages \$25,000–\$30,000 and the electricity produced, for the most part, can't be stored. Now, there is new photovoltaic research as well as promising solar thermal power plants, which capture the sunlight using mirrors, turn heat into steam, and store it underground until the customer needs it.

4. Safely reprocess and store nuclear waste. Nuclear plants produce 20 percent of America's electricity, but 70 percent of America's clean electricity—that is, electricity that does not pollute the air with mercury, nitrogen, sulfur, or carbon. The most important breakthrough needed during the next five years to build more nuclear power plants is solving the problem of what to do with nuclear waste. A political stalemate has stopped nuclear waste from going to Yucca Mountain in Nevada, and \$15 billion collected from ratepayers for that purpose is sitting in a bank. Recycling waste could reduce its mass by 90 percent, creating less stuff to store temporarily while long-term storage is resolved.

5. Make advanced biofuels cost-competitive with gasoline. The backlash toward ethanol made from corn because of its effect on food prices is a reminder to beware of the great law of unintended consequences when issuing grand challenges. Ethanol from cellulosic materials shows great promise, but there are a limited number of cars capable of using alternative fuels and of places for drivers to buy it. Turning coal into liquid fuel is an established technology, but expensive and a producer of much carbon.

6. Make new buildings green buildings. Japan believes it may miss its 2012 Kyoto goals for greenhouse gas reductions primarily because of energy wasted by inefficient buildings. Many of the technologies needed to do this are known. Figuring out how to accelerate their use in a decentralized society is most of this grand challenge.

7. Provide energy from fusion. The idea of recreating on Earth the way the sun creates energy and using it for commercial power is the third grand challenge suggested by the National Institute of Engineering. The promise of sustaining a controlled fusion reaction for commercial power generation is so fantastic that the five-year goal should be to do everything possible to reach the long-term goal. The failure of Congress to approve the President's budget request for U.S. participation in the International Thermonuclear Experimental Reactor—the ITER Project—is embarrassing.

#### ANYTHING IS POSSIBLE

This country of ours is a remarkable place. Even during an economic slowdown, we will produce this year about 30 percent of all the wealth in the world for the 5 percent of us who live in the United States.

Despite “the gathering storm” of concern about American competitiveness, no other country approaches our brainpower advan-

tage—the collection of research universities, national laboratories and private-sector companies we have.

And this is still the only country where people say with a straight face that anything is possible—and really believe it.

These are precisely the ingredients that America needs during the next five years to place ourselves firmly on a path to clean energy independence within a generation—and in doing so, to make our jobs more secure, to help balance the family budget, to make our air cleaner and our planet safer and healthier—and to lead the world to do the same.

Mr. ALEXANDER. Mr. President, I yield the floor.

Mr. KYL. Mr. President, is there 10 minutes remaining on our side?

The ACTING PRESIDENT pro tempore. There is 9 minutes 20 seconds.

#### GRIDLOCK

Mr. KYL. Mr. President, the American people sent us here to get things done, and they are obviously very frustrated with the fact that this has been a do-nothing Congress, a do-nothing Senate. We have not gotten much done. In fact, the problem has been identified by both of the Presidential candidates, Senators McCain and Obama, who have railed about the fact that we need reform in this body because nothing is getting done on behalf of the American people.

The Democrats have been in charge of the Senate and House for the last 2 years. So one wonders why haven't we been able to get things done? For example, to fund the Government for next year, we are supposed to by now have passed 13 appropriations bills to fund all of the departments of the U.S. Government. Not one appropriation bill has been passed and sent to the President. We are going to have to bundle everything up in a giant ball at the end of September and, instead of carefully considering each individual department, we are going to have to adopt a continuing resolution so the Government can continue to operate. That is not the way to do business.

With rare exception, the majority leader in the Senate has been less interested in enabling the Senate to work its will and finding consensus than simply pushing an agenda of the majority in a sort of my-way-or-the-highway kind of approach. This has led to gridlock and, as I said, not much getting done.

Let me illustrate this by a simple statistic that says it all. In 2008 alone, so far, 28.4 percent of all rollcall votes have been cloture votes. That is a record historic high. Over 28 percent of our votes—over a fourth of them—have been cloture votes. Last year set the all-time record at 14 percent, and the average is 4.3 percent.

Why is this important? Because cloture stops debate, and it stops Republicans, in this case, from offering our solutions, alternatives, or amendments to what the Democratic leader puts on the floor. He says it is either this way