political contributions. In 2006, $31 million. Most of that money went to Republicans, but in fairness, now that the Democrats are in the majority, they're probably writing checks to Democrats, too.

They're doing this because they want to hang on to their greedy practices. They want to hang on to their antitrust exemption. They want to hang on to the fact that they can collude. They want to hang on to the fact that they can turn around and have the lowest taxes in America and that they have zero Federal regulation, that there is nothing that the Federal law can do to stop them from these practices.

But you know what? We have right on our side. We have the best interest of the homeowner, whether he's in Kansas, Massachusetts, Mississippi, California, when we think that there's better ways to offer an all-fairness insurance, backed by our Nation, that's going to be there when we need it.

So Madam Speaker, with that in mind, I'm going to yield back the remainder of my time. And for the very, very patient staff of the House of Representatives, I kept you here as late as I did, but I appreciate this opportunity to speak to the people.

PEAK OIL

The SPEAKER pro tempore (Mrs. BOYDA of Kansas). Under the Speaker's announced policy of January 18, 2007, the gentleman from Maryland (Mr. BARTLETT) is recognized for 60 minutes as the designee of the minority leader.

Mr. BARTLETT of Maryland. Today oil, I think, went to its highest price ever, about $140 a barrel. So all of America is now thinking about energy and oil, and I would like to start this evening's discussion by referring to some comments made in a speech 51 years ago, the 14th day of this past May, by Hyman Rickover, the father of our nuclear submarine, to a group of physicians in Saint Paul, Minnesota.

I would encourage everyone to pull this speech up, a Google search for ''Rickover'' and ''energy speech'' and it will pop up. Or you can go to our Web site, and you will find a link there to it.

Hyman Rickover was a very perceptive person, and every time I read this speech I am again amazed at how prophetic and insightful he was. He says in this speech 51 years ago, Remember now, there is nothing man can do to rebuild exhausted fossil fuel reserves. They were created, he says, by solar energy 500 million years ago and took eons to grow to their present volume. In the face of the basic fact that fossil fuel reserves are finite, the exact length of time these reserves will last is important in only one respect—and this is 51 years ago—the longer they last, the more time do we have to invent ways of living off renewable or substitute energy sources and to adjust our economy to the vast changes which we can expect from such a shift. This was counseled 51 years ago.

What he's saying is that it's obvious that oil cannot be forever. That it is finite; one day it will run out. He noted that at this time we were about 100 years into the age of oil, which he called ''this golden age,'' and he noted that how long it lasted was important in only one regard: that the longer it lasted, the more time would we have to plan an orderly transition to other sources of energy which will, of necessity, be renewable sources of energy.

Then this last little paragraph here is one that I really like. It is so perceptive and so prophetic of what our attitude has been. Fossil fuels, he says, resemble capital in the bank. A prudent and responsible parent, that is the leaders of the world's countries, will use this capital sparingly in order to pass on to his children as much as possible of his inheritance. A selfish and irresponsible parent will squander it in riotous living and not care one wit how his offspring will fare.

The next chart is an additional quote from this same speech. He says, I suggest this is a good time to think soberly about our responsibilities to our descendents. We really haven't done that, have we? I have 10 kids and 16 grandkids and two great-grandkids, and I think a lot about our responsibility to our descendents, those who will ring out the fossil fuel age. Hyman Rickover noted that in 8,000 years of recorded history that the age of oil would be but a blip in the history of man.

We might give a break to these youngsters by cutting fuel and metal consumption so as to provide a safer margin for the necessary adjustments which eventually must be made in a world without fossil fuels.

Our behavior has in no way indicated that we recognize the inevitability of reaching a maximum production of oil and then less and less and less oil until finally there is none of it left. Obviously, it is not infinite. Obviously, one day it will be gone. Where are we? Where are we in this long sequence of events from the discovery of oil, its massive use, and finally the waning use of oil until we finally transition to other fossil fuels?

The next chart shows what's happened in our country, and we need to go back 52 years ago to kind of put this in perspective because 52 years ago, the 8th day of March, in San Antonio, Texas, an oil geologist by the name of M. King Hubbert gave a speech to a group of executives and other oil people assembled there in San Antonio. And he told them that in just 14 years, the United States—which was then, I think, king of oil, producing more oil, consuming more oil, exporting more oil than any other country in the world—he said in just 14 years, our country is going to reach its maximum production of oil. And after that, no matter what we did, the production of oil was going to fall off, as you can see from the chart here which shows the production of oil in our country.

And he was predicting the lower 48, Texas and the rest of the U.S.A., and to him the rest of the U.S.A. was the rest of the 48 States. And in 1956 at this point he was predicting that in 1970, just 14 years later, that we would reach a maximum oil production. After that, it would fall off.

Now, we found a lot of oil in Alaska, and we found some oil in the Gulf of Mexico, and we learned to get more natural gas liquids; but in spite of this huge discovery in Alaska and through that 4-foot pipeline—and I've been to Dead Horse, to Prudhoe Bay and seen the beginning of that pipeline—through that for a number of years flowed 25 percent of our domestic production.

In spite of that, except for this little blip, it's been down, down, down. And now in the lower 48 we produce well less than half of the oil that we did in 1970.

We have tried very hard to make M. King Hubbert out a liar. We have drilled more oil wells than all the rest of the world put together. We are really, really good at finding oil. We're really, really good at pumping oil.

The next chart shows that another prediction M. King Hubbert made has, in fact, almost certainly come true. In 1979, that's just 9 years after we peaked in our country, using his same analysis technique, he predicted that the world would be peaking about now.

Just a word about his analysis and how he did it. It's no magic. He observed that in our country that an individual oil field increased its production until it reached a maximum production, at which time about half the oil had been pumped, and then the last half of the oil, as is reasonable, was harder to get and so less and less was pumped. So you had a little bell curve produced by that.

And he reasoned that if he knew how many little bell curves there were in our country and how many more fields we would find, that he could then predict when we would be reaching our maximum oil production. And using that technique, he predicted correctly that we would reach our maximum production in 1970, just 14 years after he made that prediction.

Using that same technique, he looked at the world and the world fields and all of the countries producing oil, and he calculated that we should be reaching the world maximum production, called ''peak oil,'' about now.

On this chart are two curves. These are data collected by the two entities in the world that probably do the best job of keeping track of the production and consumption of oil, and of course they're the same. We use what we produce. This is the IEA, it's an international organization, and the EIA, the Energy Information Administration, a part of our Department of Energy. And both of these, as you can see, have oil production essentially flat for the last 36 months.

Now, what's happened with this flat oil production for the last 36 months is

shown by this lower curve here, and obviously this is a bit old because this shows oil at only $95 a barrel. I didn't make it all that long ago, this chart. It now would be well off the top. I think it hit $140 a barrel today. Well, that's what happens when you have a static supply and an increasing demand. The price goes up and up.

The next chart, and this is a really information-filled chart, and if you had only one chart to use, this would be the chart because it has so much information in it. The bars here show the discoveries of oil and the year on the abscissa here on which they were discovered. And you see that we were finding a lot of oil back in the 1940s. By the way, I can remember when gasoline was kind of a little gas war, and it was kind of on sale. It was $6 per gallon. Another age, wasn't it?

□ 2045

Then we found a bunch in the 1950s, and boy, it really peaked out in about the 1970s, which is interestingly the time that M. King Hubbert said that we would reach our maximum oil production.

And then ever since then, it's been down, down, down, down, and that's with ever better techniques for discovering oil. We now have 3–D seismic. We have computer modeling. And still our discoveries of oil, year by year, on average have gone down, down, down.

The solid black line here represents the consumption of oil, and we're going to see this curve on several of the other charts that we're going to show. And this shows a very interesting exponential growth through the Carter years, with a stunning statistic.

Every decade up through the Carter years, we used as much oil as we had used in all of previous history. Now, think about that for a moment. Had we continued on that path, when you have used up half of your oil, you would have just 10 years of oil remaining. But fortunately, we didn't think it was so fortunate at the time. Fortunately, we had the Arab oil embargo price spike hikes in the 1970s, and a worldwide recession resulted from that, and there was actually a decrease in the use of oil. It actually fell off.

Following that, we really put some effort into efficiency. Your refrigerator is now two or three times more efficient than it was then, and most of the energy using things, your refrigerator, your air conditioner, are very much more efficient than they were then. So now the rate of growth is very much slower, as you can see. Notice what would have happened had we not had that shock and put some effort into efficiency. This curve would have gone off the top of the chart here.

Well, you know that if you integrate under a curve, the area under the curve represents, in this case, the volume used. You can understand that, if you note that, you could round off these discoveries by putting a line like so, and the area under that line would represent the totality of the discoveries. So the area under this line represents how much we have used.

From about 1980 on, we have found less and less on the average each year, and we've been using more, but we had a lot of reserves back here that we hadn't used. So now we are dipping into these reserves, and we're filling in this area here with reserves from back here.

Now, yes, here are some reserves, and we'll find some more. There's a lot of dispute about how much more we're going to find, but I will tell you that most of the world's experts believe that we have probably found about 95 percent of everything that we will find, and the new finds are really interesting. The big one in the Gulf of Mexico, for instance, was under 7,000 feet of water, 30,000 feet of rock, and they haven't yet started to exploit it with oil at $140 barrel because it's very hard to get here.

Now, what will the future look like? Well, you're going to have to make some guesses and educated guesses as to how much more we're going to find. Those who put this chart together think that on the average it will be like so, but obviously, it won't be as nice, smooth like that. It will be up and down, but on the average like that. I'd draw the line a little lower actually if I were averaging, a little lower than that.

Then we have all of these reserves back here we haven't used, and so we now, in addition to what we find in the future, we can use more because we can use them back here. And so we will be going down, down, down. If we go up, up, up, by the way, you're soon going to run out of these and fall off of a cliff, but fortunately, geology won't let us do that because we can only get it so fast, which is our problem today. We aren't able to produce oil any faster than we are now producing it. Within some limits, we can control what the future looks like with enhanced oil recovery and so forth, but one thing you cannot do is pump oil that is not there.

I'd like now to return to the next chart to another quote from Hyman Rickover. He says: Whether this golden age, this age of oil which he called the golden age, will continue depends entirely upon our ability to keep energy supplies in balance with the needs of our growing population.

That is precisely what we have not done. You saw in one of the previous charts, the demand has grown and the supply is static, and when that happens, of course, you have an increase in price, and the price has gone up from $10 a barrel a relatively few years ago to $140 a barrel today.

The next chart is from one of four studies that our government has paid for. This was the first of those four studies and the biggest. This one was done by the big SAIC corporation, Science Applications International Corporation, a huge, very well-regarded company. And the study was headed by Robert Hirsch, and so this is called the Hirsch Report, and they present a chart there which is a very interesting one.

For reasons that are difficult to understand, some, including some in our Energy Department, are predicting that we will find as much more oil as all the reserves that are yet to be pumped. And it's a really interesting story how they got there to that conclusion. But they're predicting that we will find almost as much oil as we now know exists that we can pump.

Most of the world's experts—and this number will be up and down a little bit—but most of the world's experts believe that the recoverable oil at the end of the day will be about 2 trillion barrels. This table has it at 2.248 trillion barrels, roughly 2 trillion barrels. They're predicting that we'll find enough more to represent 3 trillion barrels. That's a lot more oil to find from that previous chart we showed. You would have to reverse the trends of the last 30 years, where it's been down, down, down, and now you're going to reverse that and it's going to go up? Laherrere says that what they're proposing is absolutely implausible. Laherrere is a French expert in this area.

But I show you this chart because even if we found that much more oil, the maximum production of oil would be pushed out only, according to this chart, to 2016. That curve that I told you you would see again and again, the rapid increase in use through the Carter years, the oil price spike shocks of the 1970s, the reduced demand worldwide, and then the slower rate of growth now, they're predicting a 2 percent growth. This is 2 percent.

By the way, exponential growth, Albert Einstein was asked what the next great force in the universe was going to be after nuclear energy, and he said the greatest force in the universe is the power of compound interest. You see, 2 percent growth, and that's so small that our stock market really doesn't like that, and it begins to go negative with 2 percent growth. But 2 percent growth doubles in 35 years. It's four times bigger in 70 years. It's eight times bigger in 105 years. And it's 16 times bigger in 140 years. So even very modest growth like 2 percent, gee, that's not much, but it's 16 times bigger in 140 years. And we still expect our children's children to be around in 140 years.

Now, this chart has another illustration on it. Suppose we're able to use some enhanced oil recovery and really suck it out fast, and you now continue up to 2037. You've now pushed the peak over to 2037, and then you fall off a cliff. Again, you cannot pump what is not there.

I will tell you that this is most unlikely to happen. I do not think the technologies are there to pump the oil that fast, but the point that I wanted to make in this chart was that even if

we found as much more oil as all of the oil that's now known to be there that can be pumped, it would push the peak out—this chart says only to 2016. That's not very out. That's just around the corner.

As a matter of fact, that Hirsch Report said that unless you anticipated peak oil by two decades you would have some economic consequences. If you anticipated it by only a decade, you would have very serious economic consequences. So even if this is true, even if this is true that we find as much more oil as all the oil that we currently know is out there to be pumped, it would push it out only to 2016. So we should have started an aggressive program of renewables a couple of years ago if we're going to avoid serious economic consequences.

The next chart is just another chart showing this same phenomenon, how little additional time you get with enormously increased discoveries of oil, and you need to think about this when you're thinking about pumping the oil in ANWR and on the Outer Continental Shelf and under our public lands. If ANWR has 10 billion barrels of oil—and that's the 50 percent probability. The 95 percent probability is considerably less than that, and 95 percent is more probable obviously than 50 percent probability. But suppose it has the 50 percent probability, that oil would last the world only 120 days. Now, I say the world because under present circumstances it is impossible not to share your oil with the world, because if we use oil that we produce, then the oil we might have bought from Venezuela or Saudi Arabia or Iran, someone else can buy. So, in reality, you are sharing your oil with the world.

Well, the only way not to do that, by the way, is to own so much oil that you don't need to get any from the outside, and then to use it all for yourself, even though others may need the oil more than you. Obviously we're not going to be doing that because we have only 2 percent of the known reserves of oil, and we use 25 percent of the world's oil.

This chart shows that roughly 2 trillion again. They show it as 1.92 trillion, and they show the peak occurring about 2010 roughly now with that. But if we find, again, this huge amount of additional oil and it goes up to 2.93 trillion, roughly the 3 trillion that you saw in the previous one, that will move the peak out only to about this point. It's a little different in their calculation, how far it moves the peak out, but all of this is within the lifetime of our children. And then they think that we will find a lot of unconventional oil. In a little bit I think we'll have a chance to talk about some of that unconventional oil. We may get a lot of that. We may not get much of that.

There's another dimension in this whole discussion that I have a couple of charts on, and the next chart introduces this, and that is the geopolitical implications of where we are.

This was a statement by Condoleezza Rice, our Secretary of State in 2006: We have to do something about the energy problem. I can tell you that nothing has really taken me aback more as Secretary of State than the way that the politics of energy is, I will use the word, ''warping'' diplomacy around the world. We have simply got to do something about the warping now of diplomatic effort by the all-out rush for energy supply.

And I'm sure that she had in her mind when she said that the next chart, which is a really interesting chart. And this shows the world according to oil, and this shows you what our world would look like if the size of each country was determined by the amount of oil that it had.

And you see here that Saudi Arabia really dominates the landscape, and it should because Saudi Arabia has, we believe, 22 percent of all the reserves in all the world. And notice the countries very near them: Iraq, tiny little Kuwait, Iran. These are one, two, three and four in terms of supply of oil in reserves in all the world. United Arab Emirates, you almost have to have a magnifying glass to find them on the map, and look how much oil they have. Here we are, United States, bunch up there in Canada and the Lower 48 here. We only have 2 percent of the oil in the world. This represents one-fiftieth of the land mass here.

□ 2100

And our biggest supplier of oil is Canada. Our third biggest supplier of oil—it was the second until a few months ago—is Mexico. And notice, they have less oil than we. As a matter of fact, together I don't know that they have any more oil than we have. They're exporters, because in Canada there aren't very many people, and in Mexico the people are too poor to buy the oil, and so they're able to export it. Now our second largest supplier is Saudi Arabia. Notice, Venezuela dwarfs everything else in this hemisphere.

Another really interesting thing to look at is the size of China and India in this ''World According to Oil.'' Here they are, China and India; about 2.3 or 4 billion people total, having less oil than the United States, with a booming economy. The economy in China, the last data I saw, growing at 11.7 percent. Japan in its heyday never grew faster than that, and notice the tiny amount of oil that they have.

Notice Russia. Russia is one of the largest exporters in the world today. They don't have the most oil by any means, but they're very aggressively pumping their oil and exporting it. And they are considerably larger, many times larger than we, and they have a much smaller population than we have. Well, very interesting map. And this points out some of the geopolitical realities in the world.

The next chart shows China's response to this reality. China has seen this ''World According to Oil,'' and this is their response to it. This shows our globe, and it shows the countries on it. And these little symbols represent who is buying the oil. Now, there are a few dollar signs, not very many, as you see. And there are a lot of these symbols that represent China. As a matter of fact, they almost bought Unocal in our country. Remember all of the hysteria over that possibility a couple of years ago?

Look what they're doing in the Middle East. Look what they're doing in northern Africa. Look what they're doing in Indonesia and in Russia. They're buying oil all over the world. At the same time, thinking about this geopolitical picture, at the same time that they are aggressively buying oil they are aggressively building a blue water navy. Why would they buy the oil when in today's world it doesn't make any difference who owns the oil? We own only 2 percent of the world's oil, but we use—and the next chart will show that. The next chart shows that we use 25 percent of the world's oil, owning only 2 percent of it. And we import almost two-thirds of what we use. And we're able to do that because he who comes to the auction block with the dollars buys the oil.

So why would China buy oil when in today's world it doesn't make any difference who owns the oil? The country that comes with the dollars buys the oil. Could it be that they're buying this oil and building this huge blue water navy because one day they may have to tell the rest of the world, gee, I'm sorry, we have 1,300,000,000 million people clamoring for the benefits of an industrialized society and we just can't share this oil. Something to think about, isn't it?

The next chart is another look at this geopolitical reality that we're in. And there are two bars here. The bar on the right shows the top 10 oil and gas companies on the basis of how much reserves they have. Well, pretty obvious from looking at that ''World According to Oil'' that most of those are going to be over in the Middle East. As a matter of fact, among the top 10, 98 percent of all the oil is owned not by companies, but by countries. And only 2 percent is owned by Luke Oil, which is kind of a company. One might argue that it had a lot of national control.

The bar on the left represents the top 10 oil and gas companies on the basis of how much they produce. Now, the really big guys that a lot of our people are concerned about because they're making big profits, they don't look big at all when you look at it from a world perspective. They own none of the oil of the top 10. They don't even count in the top 10 countries or companies that own oil. And they represent only 22 percent of the production of oil. They're pumping somebody else's oil is what that means, and not much of that relative to the oil that's produced by these countries.

The next chart is another quote from the Hirsch Report. And this came out

in '05. Our country has paid for four reports, all saying essentially the same thing. And you may ask a really legitimate question, how come I haven't heard about these? All saying essentially the same thing: ''The peaking of oil is either present or imminent, with potentially devastating consequences.''

The first report was the Hirsch Report early in '07. Later in '07 was another report by the Army Corps of Engineers saying essentially the same thing. Then last year, in '07, there were two reports, one by the Government Accountability Office, and another requested by the Secretary of Energy and the President, the National Petroleum Council. They came out last year in '07. All four of these reports say about the same thing, the peaking of oil is either present or imminent, with potentially devastating consequences. Now, how come you haven't heard about this? Why hasn't your government told you about this? And why haven't you heard about a really aggressive program to address the challenge presented by this reality?

World oil peaking is going to happen. This was in the Hirsch Report, '05. ''World production of conventional oil will reach a maximum and decline thereafter.'' It happened in our country in 1970. The same person who predicted that predicted the world would be peaking about now. I have a very simple question I've asked myself over and over again. If M. King Hubbert was right about the United States—and he was, incontrovertible evidence that he was right about the United States—and if he predicted in 1979 that the world would be peaking about now—and by the way, by 1980, we knew of a certainty that he was right about his prediction of the United States because, in looking back from 1980, we can see, gee, he was right. In 1970, we really did peak, and we're now over the peak and sliding down the other side. Shouldn't someone have said, gee, if M. King Hubbert was right about the United States, might he not be right about the world? And if, in fact, he is right about the world, shouldn't we really be doing something about this? It's an interesting question. I'm not sure I know the answer to it.

People tend to hear what they want to hear, they tend to see what they want to see. My wife tells me that I shouldn't be talking about this. She said, don't you know that in ancient Greece they killed the messenger that brought bad news. And I tell her this is really a good news story. The good news is that if we start today to fix this problem, the ride is going to be less bumpy than if we start tomorrow. And the second good news about this is that—I'm really exhilarated by this. There is no exhilaration like the exhilaration of meeting and overcoming a big challenge, and this is a huge challenge. I believe that America is up to this. If America knew what the problem was, if America knew what needed to be done to solve the problem, I think that we would do now what we did in World War II. And I lived through World War II. I was born in 1926. Yeah, you've done the arithmetic right, I'm 82 now. And I lived through World War II, and I remember how everyone was involved in that war. And I think Americans would do that again.

This maximum is called the peak. A number of competent forecasters project peaking within a decade. That was in '05. Now, 3 years later, this is within a decade, and most of them were predicting it peaking about now. Some uncertainty, and a lot of things contribute to that uncertainty, and that's what he talks about here in the rest of this paragraph.

''Oil peaking presents a unique challenge.'' And then this statement, ''The world has never faced a problem like this without massive mitigation more than a decade before the fact.'' Now, if peaking is upon us, it is impossible to do this mitigation a decade before the fact. ''Without massive mitigation more than a decade before the fact, the problem will be pervasive and will not be temporary. Previous energy transitions, wood to coal and coal to oil, were gradual and evolutionary. Oil peaking will be abrupt and revolutionary.''

The next chart is additional quotes from this Hirsch Report. ''The peaking of oil production presents the United States and the world with an unprecedented risk management problem.'' As peaking is approached, liquid fuel prices and price volatility will increase dramatically.'' Wow, that's exactly what's happened in the last few months, isn't it? ''And without timely mitigation''—which we have not done—''the economic, social and political costs will be unprecedented.''

Now, these are the words of a very serious study done by one of the most prestigious organizations in our world today. ''Without timely mitigation, the economic, social and political costs will be unprecedented.''

The next chart. And if a picture is worth a thousand words, this may be worth a million, huh? Here is a guy with his huge SUV, and he's standing beside the dwarf of a pump there, ''Demand and Supply.'' And he says, ''Just why is gas so expensive?'' That's what happens when the demand exceeds the supply.

The next chart looks at U.S. energy consumption by sector. I would like to spend a few moments now looking at the gross energy picture. Energy, by the way, is a very unique entity. You use it once. You can't recycle it. All energy eventually ends up in the lowest form of energy, which is heat. And then it gets radiated to space and it's gone. If you want more energy, you've got to either get it from the sun as it comes in, or the consequences of the sun, the wind blowing and so forth, or the waves. Or you've got to find energy that was produced by the sun a very long time ago. And of course it was the shining of the sun that made the little organisms grow in these ancient, subtropical seas that then settled to the bottom and sediment came in. And we believe the Earth opened up, the tectonic plates moved and they were submerged, so they were close enough to the molten core that, under the right temperature, the right pressure, with enough time, finally became gas and oil. And there is no gas there unless there is a rock dome over it to hold the gas, otherwise it escapes, and then you have some really gummy oil that's going to be extremely difficult to get. The Saudis are now trying to exploit a field like that, the Khurais field, I think they call it. And they may get 1,000,200 million barrels a day starting next year, but it's a very technical field. They've spent billions of dollars drilling wells. They're going to inject seawater under pressure to periphery the field to try to move the oil, which is very stiff and sticky, to the center of the field where they can then move it out to the well.

But this shows the U.S. energy consumption by sector. Electric power, 40 percent; transportation, 28 percent; residential and commercial, 11 percent; and industrial, 21 percent.

The next chart shows us what we use to produce the electricity. And I wanted to look at this because I want us to remember that we have two basic kinds of energy we use today; one is electric energy and the other is liquid fuels energy. And there is some ability to use one or the other, but there is a limit to what this transferability is. But some of the energy we use to produce electricity could be used in our cars and trucks and trains and so forth.

Coal, actually, we could use that; the Germans did it, the South Africans did it when they were producing oil from coal by the Fisher Tropes method. It's a 100-year-old method, we know how to do it. And we could convert our coal into a gas or a liquid. Here is natural gas, and you see city buses running on natural gas. Nuclear, that just produces electricity. Hydro, that just produces electricity. Petroleum liquids and coke, not very much there. About 3 percent of our electricity is produced by diesel, by liquid fuels.

I just wanted to show that, by conserving in electricity or by producing a lot more of our electricity with nuclear, which now produces only about 20 percent, we could free up some of the natural gas and some of the coal that could be converted to a gas or liquid because our really big challenge in the future is liquid fuels.

□ 2115

I'm pretty sanguine about what we can do electricity-wise for the future, much less sanguine about what we can do for liquid fuels.

We use some renewables. The next chart shows us the renewables that we're using. And I want you to look at the scale of this. This is 1 percent. I think totally 2½ percent of all of our electricity is produced by renewables.

And we have lots of wind machines. We have lots of solar panels on the roofs of houses. And the biggest one of these is wood and then wind.

By the way, this is wood waste used by the timber industry and by the paper industry. The opportunities to massively grow this are not all that much. Waste energy is a great idea, but we need to remember that a huge waste stream is largely the result of profligate use of fossil fuels. In a fossil fuel-deficient world, that waste stream will be nowhere near as big as it is now. But for the moment, it represents an opportunity to create more electricity, and I think we ought to be exploiting it.

This is true geothermal. That's tapping into the molten core of the Earth. You go to Iceland. I didn't see a single chimney in Iceland. They get all of their energy there, as far as I know, from geothermal. We have some places in our country where we are close enough to the molten core of Earth that we could do that.

Here is solar, and I'm a big fan of solar. I have a little getaway place in the mountains of West Virginia, and I'm off the grid. All I have is solar there. But notice the trifling amount. This is 1 percent here, 1 percent, this whole thing. Notice the trifling contribution that solar is making now.

The next chart, this is an interesting one because what it does is it shows us how much of our energy we are getting from fossil fuels.

We are very much like the young couple whose grandparents have died and left them a big inheritance, and they now have established a life-style where 85 percent of all the money they spend comes from their grandparents' inheritance and only 15 percent of the money comes from their income. And the inheritance, if they live a normal life span, the inheritance is going to run out before they die, before they retire even. So, obviously, they have got to do something. They have got to either spend less or make more. That's precisely the predicament that we are in. It's the predicament that Hyman Rickover was cautioning about 51 years ago. We get 85 percent of all of our energy from coal, petroleum, and natural gas, and we get only 15 percent of it from other sources. The major part of those other sources is nuclear power, which provides 8 percent of our total energy for the country, about 20 percent of our electrical energy.

And here are the renewables. These are the things that Hyman Rickover was talking about, which we inevitably will transition to. Now, we may for a long time be able to get a lot of energy, maybe much more than this, from nuclear. But except for nuclear energy, this list, and you could make it a little bigger and include a few more things in it, but this is the kind of the things that we are going to have to be living on in the future. We will inevitably transition to renewables. Oil is not forever. It will run out. The only question is when. So we need to be doing something about this.

The next chart shows some things that I have personally been involved with to help this transition. Renewable energy and energy tax credits, I introduced a bill in the House which is a companion bill to the Senate, Senate 2821, the Cantwell-Ensign bill. And this passed the Senate, by the way, 88–8. And the House bill is 5984. What it does is to continue the tax credits for developing renewables. Without those tax credits, they are not yet competitive with oil. If we wait until they are, the challenge will be even greater and the problem even bigger. So we must get these things going now. We should have had them going a long time ago. And we really need these tax credits. They are about to expire.

Renewable domestic sources, H.R. 6107. I set up, with my good friend TOM UDALL from New Mexico, the Peak Oil Caucus. And we have a resolution that we hope the Congress will vote on, recognizing the reality of peak oil and the necessity of doing something about it.

ARPA–E, I'm a very strong supporter of ARPA–E. DARPA, after which ARPA–E is patterned, is part of our defense organization, and it has been enormously successful in pioneering envelope-pushing things. The Internet is the result of early work by DARPA. All of our unmanned aircraft wouldn't be here if it weren't for DARPA, and we think that we need something like that in energy. The government needs to be involved in this. Some of the things we need to push are not near enough term that businesses can justify investing money in it. That's why we have DARPA. It has been enormously successful for the military. And I'm a big fan of ARPA–E. We need to prioritize what's probably going to work, where we should invest our money.

CAFE standards, I have been a big fan of increasing CAFE standards.

The other day driving to work, I noticed in front of me in one lane was an SUV with one person in it. In the lane next to it was a Prius, and I drive one. I bought the first one in Congress, the first one in Maryland, as a matter of fact. But I noted that the two people riding in that Prius were getting six times the miles per gallon per person as compared to the one person riding in the SUV. We have enormous opportunities for conservation.

Let me note at this point that there's only one thing that will bring down the price of oil. For the moment drilling won't do it because that oil will not flow for years. Investing in renewables will not do it because they will not be of any moment for a while. I'm a strong fan of renewables, and I now signed on to a bill to drill in ANWR if we use all of the Federal revenues to invest in alternatives because we desperately need to accelerate the development of these alternatives. Only one thing will reduce the price of oil, and that is to use less of it. Supply and demand. Now, there is a little bit of speculation in there, but the market will eventually punish them if they are artificially increasing the price of oil. If you buy oil for $140 a month from now if, in fact, it's $130, you've got to come up with $10 a barrel for every future barrel you bought. They cannot forever inflate the market. Ultimately they will pay for their sins if, in fact, this is going on.

Farms can't produce all of their own energy and some for the people living in the city. We're really in trouble for the future.

Tax credit for hybrids, we really need to extend that. People are buying hybrids. You know, $4 gas is a big incentive. We need to accelerate that. We need to incentivize people to park their SUV, to get in this hybrid, which will get more mileage.

Fuel flexibility, neutrality. This is an interesting one, the so-called DRIVE Act, and what this would do would mandate that all of America's cars in the future will be flex-fuel cars. It costs less than $100 per car, to build a car that would burn any fuel. The only cars produced in Brazil are flex-fuel cars. They can burn gasoline. They can burn ethanol. They can burn any percentage mixture of ethanol and gasoline. And we can have flex-fuel cars that can burn any fuel. We have no idea 10 years from now what fuels will be out there to use because the average car stays in the fleet for 16 to 18 years. So we need to be making these flex-fuel cars so we will be prepared to use whatever fuels are available in the future.

The next chart, and this is kind of an expansion of the previous chart we saw. What this looks at is the energy sources that are available to us as we transition from fossil fuels ultimately to renewables. We have some finite sources and we have nuclear. We have finite sources, and these are the tar sands and the oil shales and coal. Just a word about each of those, and I need to come to the floor and spend a lot of time talking about these because there is a lot of irrational exuberance, as Alan Greenspan would say, about the potential for production from some of these sources.

Just a word. The tar sands of Canada are getting a million barrels a day. They know what they are doing is not sustainable. By the way, the world uses about 85, 86 million barrels a day; so a million barrels a day is a bit more than 1 percent of what we use. But it's not sustainable. They're using gas that will run out. They're using water that will run out. They're thinking about putting a nuclear power plant there. I understand if you think of it as a vein which is now on the surface, when that's mined, it ducks under it and overlays; so they're going to have to develop it in situ. They don't know how to do that. There's a huge amount of potential oil there, more than all the reserves of oil in all the world. But how much we can develop it and how quickly we can develop it is really very uncertain at this time.

Oil shales, the same thing can be said about those. Those are in our country out in Colorado and Wyoming and so forth, Utah. We have probably 1½ trillion barrels of potential oil there. This isn't really oil, but with some heating and so forth, it can be converted into oil. Nobody yet is exploiting any of that. A lot of money has been spent there. Shell Oil Company did a big experiment a few years ago. We may get a lot from that; we may get little or nothing from it. It is very uncertain.

Our coal, it's said we have 250 years of coal. Let me hold that discussion for just a moment because we are going to have a little chart in a moment if we have time for it.

Nuclear, I'm a big fan of nuclear. There are three ways to get nuclear power: One is the light water reactor, the fissionable uranium. That is finite. It will run out. We cannot build power plants forever and fissionable uranium. But we can go to breeder reactors, which, as the name implies, produces more fuel than they use. You borrow some trouble when you go to those, transporting fuel for enrichment, weapons-grade fuel, and so forth, but it produces really clean energy.

Then there's nuclear fusion. If we get that, we're home free. That's what the sun does, and that's what we do in the hydrogen bomb. But to control that, we have been working on it for a long while, and it's always very elusive, always way out in front of us. If you think you're going to solve our energy problems with fusion, you probably think you're going to solve your personal economic problems by winning the lottery. I think the odds are probably about the same. By the way, that doesn't keep me from enthusiastically voting for the $250 million a year we spend on fusion because if we get there, we're home free. That's all the energy we could ever need forever. But the high probability is we are going to be using a combination of these renewable sources. The next time I come to the floor, I'm going to spend a lot of time talking about realistic expectations for these renewables.

Two bubbles have already broken: the hydrogen bubble and the corn ethanol bubble. The National Academy of Sciences said if we use all of our corn for ethanol, it would displace 2.4 percent of our gasoline. All of it. And the amount we have used has now driven up the price of food around the world, as you have noted. They made a similar observation for soybeans. If we use all of our soybeans for soy diesel, it would displace 2.9 percent.

By the way, they noted that for corn ethanol, all of the corn going to ethanol, if you tuned up your car and put air in the tires, they said, you would save as much gas as using all of our corn to produce corn ethanol. We get incredible amounts of energy from these fossil fuels. The quality and quantity of energy in these fossil fuels is just incredible.

I mentioned earlier that I was excited by this. This presents a huge challenge to us. We had a huge challenge in World War II. I lived through that. And what I think we need to address this problem is a program that involves everybody in the Nation. And the last time that happened was in World War II. Everybody needs to be involved. We had a victory garden. We had daylight savings time. We saved our household grease. No new cars were built for people in 1943, 1944, and 1945. And then we need the technology focus of putting a man on the moon, and we need the urgency of the Manhattan Project. We are the most creative, innovative society in the world. I'm convinced that, properly informed, the American people can perform miracles. I think we once again can become an energy-exporting country, energy exporting in the terms of exporting the technology it takes to exploit these renewables. I'm excited about this. I think we need challenges. Our young people's lives are just too easy in this country. As I tell audiences, young people, some of them, not a majority of them, spend far too much time watching dirty movies and smoking marijuana. They wouldn't be doing that if they had a real challenge. I can imagine Americans going to sleep at night saying, ''Today I used less energy than I did yesterday and I'm okay.''

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Just one last chart and then I have got to close. The last one.

Using less energy doesn't mean you have a lesser quality of life. It doesn't mean you have a lesser quality of life. This chart shows a number of the countries of the world and the amount of energy they use and how good they feel about life on the ordinate. Here we are, using more energy than anybody else in the world, but notice, there are I think 24 countries, some of them using only half the energy we use, that don't feel as good about life as we do; they feel better about life than we do.

There are lots of opportunities for efficiency and conservation. We will come to the floor and talk about realistic expectations for what we can get out of these renewables and about all of the opportunities that we have for efficiency and conservation.

I'd just like to close, Mr. Speaker, by saying that America really can respond to this. We have performed miracles in the past, we can do it again. So I am excited about this. With my wife's counsel that I shouldn't be talking about this, I think that this is a good news story because America really, really, really responds well to a challenge. We did it in World War II, we did it in putting a man on the moon. We can do it here again.

Thank you, Madam Speaker.

FURTHER MESSAGE FROM THE SENATE

A further message from the Senate by Ms. Curtis, one of its clerks, announced that the Senate has passed with amendments in which the concurrence of the House is requested, a bill of the House of the following title:

H.R. 5690. An act to remove the African National Congress from treatment as a terrorist organization for certain acts or events, provide relief for certain members of the African National Congress regarding admissibility, and for other purposes.

AFRICAN NATIONAL CONGRESS EXEMPTION

Ms. LEE. Madam Speaker, I ask unanimous consent to take from the Speaker's table the bill (H.R. 5690) to remove the African National Congress from treatment as a terrorist organization for certain acts or events, provide relief for certain members of the African National Congress regarding admissibility, and for other purposes, with a Senate amendment thereto, and concur in the Senate amendment.

The Clerk read the title of the bill.

The text of the Senate amendment is as follows:

On page 2, strike line 12 through the end of line 21 and insert the following:

(a) EXEMPTION AUTHORITY.—The Secretary of State, after consultation with the Attorney General and the Secretary of Homeland Security, or the Secretary of Homeland Security, after consultation with the Secretary of State and the Attorney General, may determine, in such Secretary's sole and unreviewable discretion, that paragraphs (2)(A)(i)(I), (2)(B), and (3)(B) (other than clause (i)(II)) of section 212(a) of the Immigration and Nationality Act (8 U.S.C. 1182(a)) shall not apply to an alien with respect to activities undertaken in association with the African National Congress in opposition to apartheid rule in South Africa.

The SPEAKER pro tempore. Is there objection to the request of the gentlewoman from California?

Mr. ROYCE. Madam Speaker, I reserve the right to object, although I do not intend to object. I do so here for the purpose of debate only. I thank the gentlewoman for her request, and I rise in support of this measure, H.R. 5690. I concur in my colleague's request for unanimous consent to pass this measure as amended by the Senate.

Madam Speaker, this bill corrects a longstanding error on U.S. policy towards South Africa. The House passed the bill on May 8 of this year, and the Senate passed the bill by unanimous consent just a few moments ago.

Madam Speaker, I am honored to participate in the process of updating U.S. immigration law as it applies to visits to the United States by South African officials, such as former President Nelson Mandela, to reflect the appropriate status of the African National Congress, and I look forward to personally sharing news of passage of this bill with Mr. Mandela and the South African government when I visit South Africa next week with Chairman BERMAN.

Ms. LEE. Will the gentleman yield?

Mr. ROYCE. I yield to the gentlelady from California.

Ms. LEE. First, let me thank the gentleman from California for yielding and for his leadership and for his commitment and his assistance in helping