DISCRETIONARY APPROPRIATIONS FOR FISCAL YEAR 2006—COMPARISON OF CURRENT LEVEL WITH APPROPRIATIONS COMMITTEE 302(a) ALLOCATION AND APPROPRIATIONS SUBCOMMITTEE 302(b) SUBALLOCATIONS—Continued

[In millions of dollars]

Appropriations Subcommittee	302(b) suballocations as of November 2, 2005 (H. Rpt. 109–264)		Current level reflecting action completed as of January 27, 2006		Current level minus suballocations	
	BA	OT	BA	OT	BA	OT
Foreign Operations	20,937	25,080	20,937	25,213	0	133
Homeland Security	30,846	33,233	30,846	33,184	0	−49
Interior-Environment	26,159	27,500	26,159	28,760	0	1,260
Labor, HHS & Education	142,514	143,802	142,514	143,848	0	46
Legislative Branch	3,804	3,804	3,804	3,809	0	5
Military Quality of Life-Veterans Affairs	44,143	81,634	44,143	41,803	0	−39,831
Science-State-Justice-Commerce	57,854	58,856	57,854	58,537	0	−319
Transportation-Treasury-HUD-Judiciary-DC	65,900	120,837	66,518	121,433	618	596
Unassigned	0	430	0	0	0	−430
Total (Section 302(a) Allocation)	843,020	916,836	833,432	912,162	−9,588	−4,674

PEAK OIL PRODUCTION

The SPEAKER pro tempore. Under the Speaker's announced policy of January 4, 2005, the gentleman from Maryland (Mr. BARTLETT) is recognized for 60 minutes as the designee of the majority leader.

Mr. BARTLETT of Maryland. Mr. Speaker, this is a historic event for me personally because it was just one year ago this date that I first came to this floor to talk about the subject of peak oil. As a matter of fact, that subject was so new that when we were preparing to give that first talk, we were debating should we talk about the great rollover or should we talk about peak oil.

The great rollover refers to that peak of the curve when it rolls over and you start down the other side of that consumption curve, which is the availability curve of oil. We finally decided that the proper designation to use was ''peak oil,'' and I guess that most other people who are talking about this subject have decided the same thing, because in this year, Mr. Speaker, just about everybody is talking about peak oil.

We looked at the statistics for last year and found that oil has increased about $10 a barrel, about 52 or 53 last year, 62 or 63 this year. Gasoline, I think, was about $2.05 last year. Now it is up and down a little, but $2.35, $2.45. Local stations where I live it is now $2.45.

A couple of very interesting things have happened in this last year. Oh, I have another document here, Mr. Speaker, which is about another very historic event; and it was 50 years ago, the 8th of this month, and I am sorry that I didn't know that date last year or I would have tried to do my first Special Order on peak oil on the 8th of March, because it was just 50 years ago on the 8th of March that M. King Hubbert gave his very famous talk at the spring meeting of the Southern District of the Division of Production of the American Petroleum Institute, Plaza Hotel, San Antonio, Texas. And this was a startling article. It is now very historic. This was in 1956.

In that speech, he predicted that the United States would peak in its oil consumption in about 1970. He did that with words. He did that with graphs, and he showed the graphs of the use of oil up to that time in 1956 and how much oil he thought that the United States would find and, therefore, when we would peak in oil production.

He was able to do this, Mr. Speaker, because he had watched the exploitation and exhaustion of individual oil fields, and he found that they all followed a very similar pattern. The oil production increased until it reached a maximum. That maximum production was, for most fields, about the halfway point of all the oil that you would get out of the field. And after reaching that maximum, no matter how vigorously you pumped that field, the production fell off steadily until at the end of the exhaustion of the field it reached a zero. And he theorized that if he knew how many individual fields there were in the United States, he could predict when the United States would peak in oil discovery.

This is a long paper with a lot of math in it. This wasn't just some intelligent guesses from looking at the data. He did a lot of mathematical analysis. Here is one of his graphs, for instance; and we have a larger one that we will show you in a minute. But this graph shows that he expected a peak about 1970. That was 14 years after he made this prediction.

So this tonight for me is a historic event because it is 1 year since I gave the first speech here on this subject. Since then I have given nine others. This will be the 10th since then and the 11th overall.

About the time I started this, 30 prominent members of our society, and let me put up a chart that shows that here for just a moment and then we will come back to two things that have happened in this year, which are really very interesting.

These numbers encouraged 30 prominent members of our society, including Boyden Gray and McFarland and Jim Woolsey and Frank Gaffney and 26 others, a number of retired four-star admirals and generals, to write a letter to the President saying, Mr. President, the fact that we have only 2 percent of the world's oil reserves and we consume 25 percent of the world's oil, and import about two-thirds of what we use, is a totally unacceptable national security risk; and, Mr. President, we have to do something about that.

□ 2000

I just want to show one chart here. Then I will introduce my colleague, and I will read a little paragraph from a recent report before doing that.

This is the curve that M. King Hubbert predicted in this article, reprinted here from 50 years ago, an article and a speech. The smooth green curve here was his prediction. The larger symbols, where the actual data points, and you see that right on target, we peaked in about 1970.

The red curve is the Soviet Union. They had a bit more oil than we. They peaked a little bit after us. Then they kind of fell apart when the Soviet Union dissolved, and they did not reach their potential. There will be a second little peak now, but they are nowhere near their former peak. They reached peak oil some time ago.

Mr. Speaker, in fact, I think 33 of the 45 countries in the world that produce oil have already passed their peak. Many others are at their peak or rapidly approaching it.

I want to read briefly from a new study, and this is one of the two really interesting things that have happened in the past year. One was a study by SAIC funded by the Department of Energy. I have some charts in a few moments that I will show, some of the comments that they made. There is another study that has just come out. Although this is not a brand-new study, the date on this study is September 2005. This is dated September 2005; but for some reason, it has not been released from the Pentagon.

This was done by the U.S. Army Corps of Engineers, and I am going to read from it a little later. Ordinarily, I don't read, but I haven't had time to make charts of this. I think this is so interesting and so startling, and it just came out. Yesterday, I think, may have been the first day; and for most people today, this was the first day they could get a hold of it.

Mr. Speaker, let me read you something, from that article and this will introduce my colleague, WAYNE GILCHREST, who said he would be happy to come down and join me in this talk, if he could talk about global warming. I said, WAYNE, that is exactly what the Corps of Engineers was talking about.

Let me read what they said here: ''Worldwide consumption of fossil fuels

and its coincident and environmental impact continues to grow.'' The Earth's endowment of natural resources are depleting at an alarming rate, exponentially faster than the biosphere's ability to replenish them.

Mr. Speaker, I would remind you that this is not an article from some environmental journal. This is from a report, which has kind of been kept under cover now since last September, just released. I think that it was inadvertently released, by the way. But now that it is out, you can get a copy of it. This was done by the Corps of Engineers. This is a U.S. Army publication. The Earth's endowment of natural resources are depleting at an alarming rate, exponentially faster than the biosphere's ability to replenish them. It took nature 100 million years to create the energy the world uses in 1 year. Fuel consumption affects the global climate with the production of greenhouse gases and localized production of acid rain, low-lying ozone, and smog.

Mr. Speaker, this is not from some environmental journal; this is from the U.S. Army Corps of Engineers. Mining and production of fuels destroy the ecosystems and biodiversity. The loss of habitat is leading to localized extinction of species. This reduction of biodiversity results in greater vulnerability of the planet to ecological stresses.

Mr. Speaker, I would like to digress for just a moment to note how wise this observation is. There may be a species that you don't think has much environmental impact; but when you lose that, you have lost a gene pool that for one reason or another we may need to go back to in the future.

I just want to give one little example of this in agriculture. To produce hybrid corn, you have to have male and female. You have to take the tassels, that is the male part of the corn. You have to take the tassels off the top parts of the stalks whose ears you want fertilized by the male from the other corn.

For many years they hired college students to go through and break the tassels off, always a chore because some came out later and you could not have a tassel here or there which was going to fertilize the other ears, the female part of the silk.

They discovered what they call a Texas male-sterile cytoplasm. When they put this gene in the corn, the male was sterile. They didn't have to go through the field and pull off these tassels. There was a blight, I think it was, that struck all plants that had the Texas male-sterile cytoplasm. We couldn't produce any hybrid corn the way we ordinarily produce it.

If it weren't for Hawaii, where we could go to produce two generations of corn, you see, we had to go back to the old gene pool that we were no longer using. We went back to that older gene pool, and they went to Hawaii where you could produce two crops of corn in 1 year.

Over the winter season, they produced two crops of corn so that we would have enough seed so that we could do the planting in this country, but still the seed was somewhat scarce and considerably more expensive. This reduction of biodiversity, they said, results in greater vulnerability of the plants to ecologic stress. If the gene pool is not there, you cannot go to that gene pool for more diversity.

Waste from nuclear power generation plants is accumulating, and no viable means exist to safely and effectively dispose of them. Current energy policies and consumption practices are not sustainable. They clearly limit, boy, this is quite a statement, they clearly limit and potentially eliminate options for future generations. Mr. Speaker, just think for a moment what they are saying. They clearly limit and potentially eliminate options for future generations.

Mr. GILCHREST, a discussion of climate change and global warming is perfectly appropriate and anticipated by this report from the Corps of Engineers.

I would yield to you, sir.

Mr. GILCHREST. Mr. Speaker, I thank the gentleman from Maryland for yielding.

Mr. Speaker, just to support Dr. BARTLETT's assertions on peak oil that he has so eloquently and scientifically presented here on the House floor for about a year now, Mr. BARTLETT is looking at the security problems of peak oil, the economic viability problems with peak oil, and the environmental problems of peak oil. Dr. BARTLETT mentioned a report from the Army Corps of Engineers in which it says in part that we are using or burning in decades, in about the last 50 years, what we have used as far as fossil fuel, especially where oil is concerned, for our transportation needs that it took nature millions of years to lock up.

What does that mean? That means that we are releasing into the atmosphere greenhouse gases, in this case specifically carbon dioxide in a few short years, what took the geologic forces of the planet to take out of the atmosphere in millions of years. Is there a potential for climate disruption as a result of that scenario? The answer is yes.

Human beings, in the last century or so, or in the Industrial Age, have become a factor in the heat balance of the planet. Heretofore, the only factor that could contribute to the heat balance of the planet, the greenhouse effect of the planet, the warming, the cooling, the various cycles, the storm cycles of the planet, were natural geologic forces. The oceans, the land mass, the tectonic plates, volcanoes, those kinds of massive, natural geologic forces have shaped the way the planet looks today.

What we are seeing, and what Mr. BARTLETT is talking about in his discussions on energy usage, is that in the latter part of the Industrial Revolution, human beings and their activities are a geologic force, because we are putting into the atmosphere in decades what it took the natural forces millions of years to lock up. We human beings, in our activity, are a geologic force affecting the climate, affecting the atmosphere.

If we went back to James Watt in 1769, we would see through various scientific methods that there was about 280 parts per million of CO_2 in the atmosphere, 1769. About 100 years later, 100 years after that, 1895, partly because of natural warming, the climate has been warming since the Ice Age, there were 290 parts per million, 100 years after James Watt discovered the steam engine; and we know that the steam engine enabled us to burn coal in greater abundance than we had prior to that.

Mr. BARTLETT of Maryland. Mr. Speaker, if the gentleman would yield for just a moment, I would like to note that during the Christmas break, because I am a senior member of the Science Committee, I went down to Antarctica to our experiment station down there at the South Pole. That is about as far away as you can get from any factory that is burning fossil fuels. The CO_2 you measure there is going to be probably lower than the CO_2 any place else; and it will fairly represent the base for CO_2 increase, and they will give you a chart there, they have now been following this, charting this for a number of years. They will give you a chart which shows exactly what you said, that the CO_2 is rapidly increasing.

They have done corings of the ice pack there, and it goes back for tens of thousands of years. It is a desert down there with about 2 inches of precipitation a year, but it has been accumulating so long that the ice is almost 2 miles thick in the middle of the continent, up about 10,000 feet.

When we go back to those corings, they can find the CO_2 level of the atmosphere, because ice is totally impervious to CO_2, and it is trapped there. They can find the level of CO_2 in the atmosphere, and they can judge from the pollen and so forth what the temperature of the Earth must have been, because there was more growth.

They have found that every time in the past that there was an increase in temperature this was accompanied by an increase in carbon dioxide. You are exactly right. They have now been measuring this, I think, in the best place of the Earth to measure it. That is at the South Pole, which is as far as you can get away from any place where they are burning fossil fuels.

I thought this would be interesting. It would just emphasize what you have been saying that the CO_2 is increasing in our atmosphere.

I yield back to you again, sir.

Mr. GILCHREST. Mr. Speaker, I thank the gentleman.

Mr. BARTLETT and I a few years ago traveled together to the Antarctic to

McMurdo Station and the South Pole. It is a fascinating, majestic place, a little harsh, but nature in the raw seldom mild.

I will say it is an arduous trek, even in this day and age, to Antarctica. I want to compliment the gentleman for taking a second trip down there.

I will briefly conclude on the correlation of increase in CO_2 in the atmosphere that has a direct effect on the heat balance of the planet. In the first 100 years of the Industrial Revolution, CO_2 increased by about 10 points, 280 parts per million, to 290 parts per million. If you look at the third generation of the Industrial Revolution, which ends with us, about 100 years from 1890, the latest calculation in 2003 was 370 parts per million.

That is increasing. Look at the last 100 years of increasing CO_2, which is 100 parts per million increase.

Mr. BARTLETT of Maryland. Mr. Speaker, if the gentleman will yield again, you are talking about this exponential increase. It reminded me of a very interesting and startling statistic.

Up until the Carter years, every decade, the Earth used as much oil as had been used in all of previous history. That slowed down after the crash of the 1970s and so forth. Up until then, each decade, we used as much oil as had been used in all of previous history. What that meant was that when you had used half of all the oil in the world, that just 10 years of oil would remain.

□ 2015

Now we are better than that today, because we have slowed down. I am going to read you some numbers in a few minutes from this report from the Corps of Engineers.

But you were talking about exponential increase, and this was a startling example of exponential increase, and fortunately, we are more efficient today and we have slowed down, or we would be in bigger trouble than we are. May the gentleman continue?

Mr. GILCHREST. I would agree with the gentleman, we continue with a sense of urgency. We should continue with a sense of urgency, that efficiency is one of the components to stave off a really very difficult economic time period if we do not find alternatives to fossil fuel.

One last item about the chronology of increasing CO_2. As CO_2 increases, the temperature of the planet and the corresponding manner has also increased. And if you look at the increases in CO_2, they cannot be shown with natural influences of the planet.

When you take a mathematical calculation as to the cycles of CO_2 in the atmosphere and where it comes from, the natural process will add, and has been adding CO_2, over the last 10,000 years. In a corresponding way, the temperature of the planet has continued to increase over the last 10,000 years.

But if you take the amount of CO_2 with the natural influences, it does not account for the dramatic increase in CO_2 that we have seen over the last 100 years. And so if we are looking at environmental conditions, energy independence, economic viability with a positive alternative energy source, there is a sense of urgency that I think Congressman BARTLETT has brought to this House and to the Nation.

Mr. Speaker, I thank the gentlemen for yielding.

Mr. BARTLETT of Maryland. Thank you very much. I appreciate you coming down and joining us.

Mr. Speaker, I wanted to come back again to this very historic document, this speech that was given by M. King Hubbert, just 50 years and a few days ago, and because this is so important, Mr. Speaker, I would like to place this in the RECORD at this point.

Mr. Speaker, I want to return to these numbers here, the 2 percent of world oil reserves, the 25 percent of the world's oil which we use, and the roughly two-thirds which we import. I want to look at a couple of other numbers here.

We produce 8 percent of the world's oil. And we do that from only 2 percent of the reserves. What that means is we are pumping our oil pretty quickly. In a couple of minutes, I am going to read you a statement from this report from the Corps of Engineers, it startled me when I read it, that talks about relationship here.

We represent a little less actually than 5 percent of the population of the world. And I want to read something else here from this report, from the Corps of Engineers. It is understood a subheading called ''Security.''

You will remember, Mr. Speaker, that it was security that these 30 people wrote to the President about, national security. ''In an age of terrorism, combustible and explosive fuels along with potential weapons-grade nuclear materials create security risks. The United States currently has 5 percent of the world's population, but uses 25 percent of the world's annual energy production.

''This disproportionate consumption of energy relative to global consumption causes loss of the world's good will.''

You need to think about what they are saying for a moment. A summer ago, I was in Europe on a trip visiting the major shipyards there. And at one of the events, one of the Europeans mentioned to me, you mean gas is still only $2 a gallon in your country, it was about $2.05, still $2 a gallon in your country?

His tone was somewhere between anger and disdain. And I thought of that comment when I read this statement. ''Causes loss of the world's good will and provided a context for potential military conflicts at the cost of lives, money, and political capital. A more equitable distribution of resources is in our best interest for a peaceful future.''

That is a very wise observation, I think, Mr. Speaker. What they are saying is that our disappropriate use of these resources, only 5 percent, actually less than 5 percent of the world's population, one person out of 22, using 25 percent of the world's energy has not gone unnoticed. And they note here that it causes a loss of the world's good will.

So in addition to providing for our national security, by freeing ourselves from our dependence on foreign oil, it will increase the good will that the United States has in the world, is what they are saying here, and I think that is correct, Mr. Speaker.

There were two things that happened in this past year that confirmed my concerns. And by the way, I need to say this evening, Mr. Speaker, what I say every time I speak about this, and that is that I hope I am wrong. I hope that all of these experts, I hope that this study by the Corps of Engineers is wrong. I hope the Hirsch report is wrong, because if they are not wrong, and if I am not wrong, I think we are in for a very bumpy ride as we transition from the fossil fuels to the renewables.

Two things happened in this last year. One was this study that was done last September, dated then, but just came out now. You have to wonder a little, Mr. Speaker, why it was kind of kept under wraps for this long.

And the other thing that came out was a study funded by the Department of Energy done by the very prestigious SAIC organization. Dr. Robert Hirsch, was the principal investigator on this, and it is generally called the Hirsch report.

If you do a Google search, you can find the Hirsch report. Here are some comments from their report. The peaking of world 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, and without timely mitigation, the economic, social and politically costs will be unprecedented.

Let me read now, while that is up there, a quote from this report by the Corps of Engineers. ''The days of inexpensive, convenient, abundant energy resources are quickly drawing to a close.'' When I read that, Mr. Speaker, I was reminded of an introductory sentence in a report by Matt Savinar, that you can find if you do a Google search for peak oil, and then click on Matt Savinar.

And the first little sentence of his report says, ''Dear reader, civilization as we know it is coming to an end soon.'' My wife read that and said the guy is an idiot, I am not going to read any further, and I said, please reserve judgment and read on.

And she did. And by the time she finished reading it, she was genuinely frightened. If you will click on Matt Savinar, you will get about 11 pages. If you then click on page 2, you will then get another 33 pages. That is well worth doing. Because there he discusses all of the potential alternatives

and the pluses and minuses of these alternatives.

Matt Savinar, Mr. Speaker, may be audacious, but he is not an idiot. Domestic natural gas production, reading again from the Corps of Engineers study, and listen to these numbers. They are striking and frightening. Domestic natural gas production peaked in 1973. The proved domestic reserve lifetime for natural gas at current consumption rates is, what do you think? Is about 8.4 years.

Maybe that is why gas is $6, $7, it has been $12 and $14 for 1,000 cubic feet. The proved world reserve lifetime for natural gas is about 40 years, but will follow a traditional rise to a peak and then a rapid decline, like the curve that we saw a few minutes ago for oil.

Domestic, that is the United States oil production, peaked in 1970 and continues to decline. In spite of feverish drilling in the 1980s and in spite of Prudhoe Bay, it continues to decline.

Now this is a number, in this next sentence, which shocked me, but I saw it twice in their report, so I am guessing it is not a typo. Proved domestic reserve lifetime for oil is about 3.4 years.

Now that gets us back to that we have only 2 percent, we are producing 8 percent of the world's oil. We are really good at pumping oil. We have been so good at pumping oil, we have drilled, by the way, 530,000 oil wells in this country.

Saudi Arabia has roughly 400, Iraq has maybe 300. We are really good at pumping oil. The Corps of Engineers say that we have 3.4 years remaining. World oil production is at or near its peak. They believe we are either at peak oil or very near peak oil.

And current world demand exceeds the supply, and that is why oil is $62 a barrel today rather than the $10 a barrel it was a relatively few years ago. Saudi Arabia is considered the bellwether nation for oil production. And it has not increased production since April 2003.

A few months ago, the Saudi Arabia oil sheik was over in our country talking to the President. And you may have noticed from the news that he did not, I think the proper verb is could not, promise the President that the Saudis would increase oil production.

One of the current experts in this area is Matt Simmons, who runs one of the largest, if not the largest energy investment bank in the world, personal energy advisor to the President, I think in both of his campaigns. And Matt Simmons had gone to Saudi Arabia, gone to the library, gone through a great deal of material there, and he has written a book with the interesting title, Twilight in the Desert.

He believes, as the Corps of Engineers believes, that the Saudis have probably reached their maximum oil production. The great oil field, the granddaddy of all oil fields, Garwar, probably reached its peak production several years ago.

After peak production, supply no longer meets demand. Prices and competition increase. World proved reserve lifetime for oil is about 41 years.

Now, Mr. Speaker, this is not 41 years at current use rates and then you fall off a cliff. We are going to follow that traditional bell curve, the curve that the United States has been following. We are well down the other side of Hubbert's Peak now, we are going to follow that curve.

There will still be a lot of oil available 40 years from now, but in greatly reduced amounts, and probably by the end of the century, we will have gone through or very close to being through the age of oil.

Most of this they say, of the oil for this 41 years, is that declining availability. Our current throw-away nuclear cycle, and here is another number that surprised me, our current throw-away nuclear cycle will consume the world reserve of low cost uranium in about 20 years.

That, Mr. Speaker, is at current use rates. If we build more nuclear power plants, the use rate will go up and it will last less than that. That does not mean that we cannot have nuclear power 25 years from now, what it does mean is it is going to cost more, and we are probably going to have to go to breeder reactors. France and Japan are already doing that, so it is not like we would be plowing new ground.

Unless we dramatically change our consumption practices, the earth's finite resources of petroleum and natural gas will become depleted in this industry.

I think there may be a little at the end of the century, but it is going to be a very small amount compared to what we are now pumping.

□ 2030

We may, Mr. Speaker, long before that, decide that it is really not very bright to burn this gas and oil you remember which is the feed stock for a very important petrochemical industry.

We really live in a plastic world. And if you look around you and see how much of your automobile, how much of your office, how much equipment you buy is made from oil, it is just everywhere.

Coal supplies may last into the next century. If we can find that coal chart, I would like to look at that. Coal supplies may last into the next century depending on technology and consumption trends as it starts to replace oil and natural gas. This is a very correct statement. It may last into the next century, but only if you keep using at current use rates. It will last 250 years with current use rates. You see on the abscissa here, 250 years. But if you increase the use of oil just 2 percent, that is not much, if you increase the use just 2 percent, it reduces the supply to 85 years.

When Albert Einstein was asked after the discovery of nuclear energy and the detonation of the nuclear bombs, Dr. Einstein, what will be the next big energy discovery in the world? And he says, it is already discovered. The most powerful force in the universe is the power of compound interest. That is exponential growth. Just 2 percent exponential growth doubles in 35 years. And that reduces the 250 years with no growth to only 85 years with 2 percent growth; and then when you recognize that much of the use that you will have to make of that energy cannot just be coal. We will have to do in our country, and the world will have to do, what Hitler was forced to do in World War II and that is to make oil and gas from coal; and the technology for doing both of those is readily apparent.

As a little boy, we did not have electricity in our house until I was near a teenager, and we used what was universally known then as coal oil lamps. And after other people were calling them kerosine lamps, we still called them coal oil lamps because the oil used in the original lamps, the oil that replaced whale oil, saved the whales, thank goodness, when we learned to get oil from coal, was called coal oil.

When you use enough energy to convert the coal into an oil or a gas so you can use it, now it is shrunk to just 50 years. So their statement that it may last depending upon use is a very correct statement.

They say we must act now to develop the technology and infrastructure necessary to transition to other energy sources. Policy changes, leap-ahead technology, breakthroughs, cultural changes, and significant investment are requisite for this new energy future.

Time is essential to enact these changes. The process should begin now. Just back for a moment to the Hirsch report. That is not what they said. What the Hirsch report said, and I do not have those charts with me, they said unless you start 20 years before peak oil, there are going to be meaningful economic consequences.

Here are some other quotes from the Hirsch report. World oil peaking is going to happen. The study by the Corps of Engineers says that, in other words, it is not ''if,'' it is ''when''; and they believe that it is now or very shortly in the future. World production of conventional oil will reach a maximum and decline thereafter. That maximum is called the peak.

A number of competent forecasters project peaking within a decade. And now to that list has been added the Army Corps of Engineers. Others contend it will occur later, few in this category. Prediction of the peaking is extremely difficult because of geological complexities, measurement problems, pricing variations, demand elasticity, and political influences. Peaking will happen, but the timing is uncertain.

Oil peaking presents a unique challenge. This is a startling statement. The world has never faced a problem like this. Maybe that is why our government has not claimed ownership of either the Hirsch report or the study

by the Corps of Engineers. As a matter of fact, they have asked for a new study. The results of these are so startling, Mr. Speaker, and they indicate that we should have a number of years ago begun addressing this problem, and to make sure that we need to invest time, energy, and money and so forth that is going to be required if we are going to make this transition.

I understand the desire of the administration to make sure that this is real so that now they have commissioned another study by the National Petroleum Council. If they are looking at the same data these other two studies looked at, they should reach the same conclusion. It is not like the Department of Defense is not doing anything, because the Department of Defense Under Secretary for Acquisition Technology and Logistics and the Office of Force Transformations is sponsoring a new interagency monthly series of seminars entitled ''Energy, A Conversation About Our National Addiction.'' And they are borrowing the President's word from his speech when he said we are ''addicted'' to oil.

By the way, recovering from addiction to most things requires some trauma, and I think that there will be sufficient trauma here in breaking our addiction to oil. The Department of Defense is the single largest buyer of fuel in the United States, so I am really glad that they have initiated this series of seminars. The first speaker is Jim Woolsey, and I think the second month I will be the speaker at this series of discussions.

Back to comments, and again I apologize for reading, but I have not had a chance to make charts, and these are such significant comments because the Hirsch report said, and it has been out for several months now, and we have been saying this, Mr. Speaker, this is now the 11th time that I have come to the floor to talk about peak oil. A year ago I was kind of a lone voice. As I mentioned, we were debating should we call it ''peak oil'' or the ''great rollover.'' But since then, peak oil has found its place in the common jargon and many people are talking about it, and I am really pleased that these two major studies are saying the same thing that we thought the evidence was saying when we started doing these floor speeches a year ago.

Our best options for meeting future energy requirements are energy efficiency and renewable resources. Energy efficiency is the least expensive, most readily available and environmentally friendly way to stretch our current energy supplies. The oil you do not use is the cheapest oil you can buy. For efficiency and renewables, the intangible and hard to quantify benefits such as reduced pollution and increased security yield indisputable economic value.

They have a little subtitle in their report called ''Petroleum'' and they say: ''Historically, no other energy source equals oil's intrinsic qualities of extractability,'' poke a hole in the ground and it came gushing out in many places, ''transportability,'' put it in a pipeline and move it hundreds of thousands of miles. Put it in a truck and carry it over the road. Put it in a tanker and carry it across the ocean.

''Transportability. Versatility.'' How many different ways do we use oil? To heat our homes, to cool our homes, to run our cars, to run our ships.

How many different way do we use it? The qualities that enabled oil to take over from coal as the frontline energy source for the industrialized world in the middle of the 20th century are as relevant today as they were then. Oil's many advantages provide 1.3 to about 2.5 times more economic value per Btu than coal. Currently, they say in the report there is no viable substitute for petroleum. Let me read that again.

This is the Corps of Engineers. Currently, there is no viable substitute for petroleum, and petroleum has probably reached its maximum production. It will hold at about this level for about awhile, and then it will inevitably taper off. It will become smaller and smaller as we go through the years.

In summary, they say, the outlook for petroleum is not good. This especially applies to conventional oil which has been the lowest cost resource. Production peaks for non-OPEC conventional oil are at hand. Many nations have already passed their peak and are now producing at peak or below peak capacity.

The next chart shows where we have gotten our oil from in our country. Now, M. King Hubbert's prediction was for the lower 48. And the curve has followed exactly what he said for the lower 48. If we take out Alaska, Prudhoe Bay, you see that it peaked in 1970 and then fell off. Now we found a lot of oil in Prudhoe Bay at Dead Horse. There is a 4-foot pipeline there. I have been there at the beginning of that 4-foot pipeline, that has for a number of years been producing about a fourth of all of our domestic oil. But notice that that caused only a blip in the slide down the other side of Hubbert's Peak.

The next chart shows a stylized curve. By the way, you can make this curve as steep as you want by simply changing the dimensions on the ordinate and the abscissa. This is a 2 percent growth rate. We know that because in 35 years it doubles. And you see the little yellow there which represents the shortfall if we are at that point. I believe we are, I hope we are not, but I believe we are at that point. And this represents the shortfall that will occur over the next 35 years. Notice that the problem occurs before peaking, before you actually reach the peak. The demand curve has deviated from the supply curve.

Now, Mr. Speaker, if we are going to have any energy to invest in renewables, in alternatives, we are going to have to have a pretty massive program of conservation because today there is no surplus energy to invest. If there was any surplus energy, oil wouldn't be $62 a barrel.

The next chart looks back through history and that is a really interesting chart and the Corps of Engineers talked a little about this. This shows only 400 years of 5,000 years of recorded history, but it kind of puts in perspective where we are. The little brown hump on the bottom there is the Industrial Revolution that began with wood. We learned to make steel with wood. We denuded the mountains of New England. More forest today in New Hampshire than there was at the Revolutionary War. We denuded many of the hills, the mountains there to send charcoal to England to make coal.

Catocin Furnace just up the road here near Emmitsburg, near Thurmont in Emmitsburg, is a little furnace where they denuded the hills there in northern Maryland to make steel there. Then you see what happened to the Industrial Revolution when we found coal. But look what happened when we found gas and oil. That is the red curve. Going on this scale, and this is only 400 years of our 5,000 years of recorded history, on this scale going almost straight up, you notice there at the top of it what happened in the seventies. It really made a difference.

Remember I noted that up until the Carter years every decade we were using as much energy as we had used in all of previous history. That is on the steep part of this curve. We now have broken away from that, thanks to a lot of energy efficiency. Your air conditioner today may be two or three times as efficient as it was in the seventies. The similar thing for your refrigerator. We really are very much better today at efficiency than we were then. By the way, that is one of the things that we ought to be exporting from our country because much of the developing world is using oil energy very inefficiently.

□ 2045

For now, about 150 years we have been in what you call the age of oil, and another 100 to 150 years, the report by the Corps of Engineers says maybe less, we will be through the age of oil. What does that mean?

I started thinking about this subject probably 40 years ago. I guess it is the scientist in me. I knew that fossil fuels could not be forever, and I asked myself the question, what does that mean? Do we have 10 years remaining? Do we have 100 years remaining? Do we have 1,000 years remaining? I had no idea when I started looking into this what the dimensions of this problem were.

If you can think about this, Mr. Speaker, and where we are and where we come from, for 5,000 years of recorded history, the world's population was somewhere between a half billion and a billion people, and then we hit oil. And not only did the economy grow, represented here on the ordinate by quadrillion Btus, not only did we use ever increasing amounts of energy,

but boy, did our population spurt. If we had an ordinate on the other side with population curve on it, it would follow. It would pretty faithfully follow this increase in energy production.

Once we are through the age of oil, and we will one day be through the age of oil, and thinking about this, I often think about my father, who was a little boy in Kentucky. He remembered the first one-cylinder gasoline engine that came into Lincoln County, Kentucky. He died in 1985. He lived within a score of years, roughly halfway, through the age of oil.

What is the carrying capacity of the earth minus this incredible resource we have in gas and oil? I want to, for a moment, give you a couple of illustrations of how important this gas and oil has been to our life and our economy.

Just 1 barrel of oil, the refined product you can buy now, is just a little over $100. Forty-two gallons, a little over $100 at a pump will buy you the work output of 12 people working all year for you in manual labor, and you buy it for $100. To give some sense, if this is probably correct, reflect on how far a gallon of diesel or gasoline, and I was drinking a little bottle of water last evening and drove by a service station and noted the $2.45 gas, and I paid more for my bottle of water than for that in the grocery store. So gasoline is still cheaper than water.

But reflect on how far that little gallon of gas takes your car or your SUV and how long it would take you to pull it through. Now, I drive a Prius. I get about 50 miles per gallon, but it would take me a long time to pull my Prius 50 miles. I could get it there with a come-along and hooking to the guardrail or tree, but it would take me a long time.

Another little indication of the incredible quality of these fossil fuels is electricity. If I work really hard at manual labor all day long, I can get more mechanical work out of an electric motor for less than 25 cents worth of electricity. That may be humbling to recognize that I am worth in terms of manual labor less than 25 cents a day, as compared to the energy we can get from fossil fuels.

Future historians, after the age of oil, may very well wonder how we could have done this, how we could have found this incredible resource, one barrel of which provides you the work output of 12 people working for you all year long, incredible wealth, how we could have found this and not have stood back and asked ourselves the question, what are we going to do with this? How could we get the most good to the most people for the longest time out of this enormous wealth that we found under the ground? But that is not what we did. Like children that found the cookie jar, we just pigged out. I wonder what future generations will say about us.

Well, our time is running out, and there are so many other things I would like to talk about. Let us look at the chart that says where we go to now, and we will transition ultimately, Mr. Speaker, to renewables. Geology will demand it. We either do it because we are running out of readily available, high quality gas and oil, or we do it on our schedule which will be a kinder, gentler schedule.

These are the alternatives. We have some finite resources: the tar sands, the oil shales, the coal. We talked about coal. Nuclear, light water reactors, feeder reactors, fusion. If we ever get to fusion, we are home free; low odds, I think. These will only tide us over for a while. Then true renewables, which now represent, as the next chart shows us, tiny percentages of our total energy production.

We are very much like a young couple that has gotten married and their grandparents have died and they have got a big inheritance and they have established a lavish lifestyle where 85 percent of the money they spend comes from their grandparents' inheritance, and only 15 percent from their work. They look at the reserves and their inheritance and how much they are spending, and it is going to run out. So they have got to do one of two things. Either they have got to make some more money if they want to continue that lifestyle, or they are going to have to change that lifestyle. That is exactly where we are.

I use those numbers because 85 percent of our current energy use comes from coal, petroleum and natural gas, and these are not all renewables, by the way. They are alternatives. Nuclear is a bit more than half. Other people may have only 6 percent for the renewables. This chart uses seven. These renewables, seven are blown up, and you see that the biggest contributor there is conventional hydro. It is not going to grow in our world. Wood, that is, the paper industry and timber industry, wisely using a waste product, and then solar, winds, agricultural, geothermal, alcohol from fuel is part of agricultural, and energy from waste, that is a big one that should grow and could grow.

Mr. Speaker, if we are going to transition to these, and we will, I shouldn't say if. We are going to. We are going to transition, but if we are going to do that as painlessly as possible, we need today a very aggressive program. Time is running out. The Hirsch report says that. The study by the Corps of Engineers says that. Common sense says that. If we are at peak oil, where is the energy going to come from to invest in the alternative?

We need a program, I believe, Mr. Speaker, that has the dimensions of putting a man on the moon and the urgency of the Manhattan project. I think it can be very challenging. I think Americans will rise to the challenge. I think Americans will feel good about victory gardens, about getting cars that have high mileage, about two and three going together in a car. Life is so easy today that I think Americans would be challenged, that they would feel really good about making a contribution.

What we need, Mr. Speaker, is a national commitment to a program that has the commitment of putting a man on the moon and the urgency of the Manhattan project. If we do that, Mr. Speaker, I think we can have a relatively smooth transition and Americans feel good about their contribution.

GULF COAST DISASTER RECOVERY CAUCUS

The SPEAKER pro tempore (Mrs. DRAKE). Under the Speaker's announced policy of January 4, 2005, the gentleman from Louisiana (Mr. MELANCON) is recognized for 60 minutes as the designee of the minority leader.

Mr. MELANCON. Madam Speaker, I appreciate the opportunity to be here tonight. With the recent events that have occurred over the past seven, eight months, since Hurricanes Katrina, Rita and Wilma have hit the gulf coast of the United States, in the recent week, a group of us got together, and we have set up the Gulf Coast Disaster Recovery Caucus to basically try to make sure that this Congress and America and this administration do not forget the disaster and the catastrophe that has occurred and inundated people all along the gulf coast.

It is not just a New Orleans thing. It is Louisiana, across the entire breadth of the State. It is Mississippi, across the entire coastal area. It is Alabama, it is Texas and it is Florida, on the west coast this time.

I look at the news articles and such. I have had some concerns with some of the statements that have been made in the past about being below sea level, the honesty and the integrity of elected officials in Louisiana. It really bothers me because I do not see the moneys, the $85 or $87 billion that have been attested to be sent to the gulf coast in the hands of the people that need it, in the hands of the victims. There has been billions of dollars that have gone around that are somewhere between Washington, D.C., and the gulf coast of the United States, and I can tell you, it has not gotten to the people that are in need.

If you look at some of the instances of what is going on, parish governments that want to retain their own contractors cannot get what the cost of the Corps of Engineers and FEMA are paying to their contractors, and it is believed on best information that that price may be double to triple what is being paid by the local contractor, by the local government who is doing the job faster, better, and apparently, we believe, if we can ever get the numbers, more efficiently.

$4.2 billion has just been approved to gravel a 172-acre parking lot for mobile homes in Hope, Arkansas. Now, that goes on top of the $25,000 a month paid to the city of Hope, Arkansas, and I am