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THE ENERGY POLICY AND CONSERVATION ACT
OF 1975: ARE WE POSITIONING AMERICA FOR
SUCCESS IN AN ERA OF ENERGY ABUNDANCE?

THURSDAY, DECEMBER 11, 2014

House of Representatives,
Subcommittee on Energy and Power,
Committee on Energy and Commerce,
Washington, D.C.

The subcommittee met, pursuant to call, at 9:30 a.m., in Room 2123, Rayburn House Office Building, Hon. Ed Whitfield [chairman of the subcommittee] presiding.

Present: Representatives Whitfield, Shimkus, Pitts, Terry, Latta, Olson, McKinley, Gardner, Pompeo, Kinzinger, Griffith, Barton,

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Rush, McNerney, Tonko, Yarmuth, Engel, Green, Capps, and Barrow.

Also Present: Representatives Flores and Mullin.

Staff Present: Nick Abraham, Legislative Clerk; Charlotte Baker, Deputy Communications Director; Sean Bonyun, Communications Director; Leighton Brown, Press Assistant; Allison Busbee, Policy Coordinator, Energy & Power; Patrick Currier, Counsel, Energy & Power; Tom Hassenboehler, Chief Counsel, Energy & Power; Brandon Mooney, Professional Staff Member; Graham Pittman, Staff Assistant; Chris Sarley, Policy Coordinator, Environment & Economy; Joe Banez, Minority Policy Analyst; Peter Bodner, Minority Counsel; Matt Connolly, Minority Professional Staff Member; Michael Goo, Minority Senior Counsel; and Caitlin Haberman, Minority Professional Staff Member.

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Mr. Whitfield. I would like to call the hearing to order this morning. And before we get into the subject of the hearing, I would mention that this will be the last hearing of the 113th Congress for this subcommittee, and I did want to recognize a number of Members who are on the subcommittee and have been valuable Members of Congress for a number of years who will not be coming back.

First, on our side of the aisle we have Ralph Hall of Texas. All of you know Ralph. And unfortunately, he was involved in a car accident right after the election and I think is still in the hospital.

We have Lee Terry from the great State of Nebraska on the subcommittee. Dr. Bill Cassidy will be moving over to the U.S. Senate and Cory Gardner will be moving over to the U.S. Senate. But I just wanted to thank them for the many contributions that they have made and the great job they did representing their constituents.

And then on the Democratic side, of course, the ranking member, Henry Waxman of California, served many years on this committee as chairman and as ranking member, will not be returning. Mr. John Dingell, who all of you know, chairman of this committee for many years. John Barrow of Georgia and Donna Christensen of the Virgin Islands.

So I just want to thank all of them for their many contributions. And with that, you can talk about them in your opening statement if you want to, Bobby. I think that is okay.

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But anyway, I will go on at this time and recognize myself for an opening statement. This morning's hearing we are going to be focused on the Energy Policy and Conservation Act of 1975. We are going to get a little history lesson. As many of you remember, that act established the price controls on domestic oil, also established the Strategic Petroleum Reserve, also established CAFE standards, and also set the prohibition on the export of crude oil.

And as you know, Ronald Reagan eliminated the price controls when he became President. Certainly, Strategic Petroleum Reserve and the CAFE standards are still out there and have a great impact on our economy and our society.

And the big question that we hear more and more about, though, is the wisdom of maintaining this prohibition on the export of crude oil. Of course, under the act, the President does have the authority to allow the export of crude oil, but Joe Barton and others have raised the issue about adopting legislation that would remove this prohibition. And just as we had extensive review of the impact of such a move on the export of natural gas, that is what we intend to do on this question of export of crude oil.

So we are going to have a lot of hearings. We want to hear from all sides of the issue because there are a lot of different opinions about it. And that is why we are delighted to have our distinguished

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witnesses with us this morning to provide us with this historical perspective. And we will be having some more hearings about it, because as I said we want to be very thorough before we make a decision to go one way or the other.

And with that, I yield back the balance of my time, and I recognize the gentleman from Illinois, Mr. Rush, for his opening statement.

[The prepared statement of Mr. Whitfield follows:]

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Mr. Rush. I want to thank you, Mr. Chairman. I, too, want to thank and congratulate and commend those departing Members from this subcommittee. They were all very, very highly esteemed and contributed mightily to the work of the subcommittee and the work on the full committee, work of the Congress, and certainly to the benefit of all the citizens of our great Nation. And I just want to take my hat off to them and wish them good biddings and bright futures and many continued blessings as they move forward in their lives.

I want to take particularly time out to allow me a statement to bid farewell to Mr. Waxman, who has been the former chairman on the full committee and been an extraordinary leader on environmental issues and other issues, and particularly as it relates to consumer protection and protection of the environment against the harsh realities that we are confronted with today, climate change and many, many others.

And I want to also take a moment out of my opening statement to commend the one man who has probably affected my life more than any other legislator in my service in the Congress, and that is John Dingell. John Dingell has not only been a true friend of mine and worked with me, helped advise me, but John Dingell is the kind of legislator, I call him, and a lot of others call him the lion of the House. You can learn just by watching John Dingell. He doesn't have to be doing anything or saying anything especially to you. You just

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learn how he operates and watch him from afar, and you will learn more than most legislators learn in a lifetime just watching the example of John Dingell, and his impact on this committee and on this Congress will never fade.

And so, Mr. Chairman, I want to thank all those departing members for their contribution.

I want to thank you, Mr. Chairman, for holding this important hearing. As we enter into an era of the new American energy renaissance that we are experiencing, it is important to better understand all of the implications that are associated with exporting crude oil due to the recent surge in domestic production. I think it is entirely appropriate for this subcommittee to revisit the Energy Policy and Conservation Act of 1975, which restricts the export of domestically produced crude oil, as conditions today have shifted dramatically from the 1970s when the bill was first enacted.

What is less clear, however, is how long this current increase in oil production will last and what type of impact will lifting the ban -- permanently, I might add -- have here on domestic consumers.

Mr. Chairman, I come to this issue with truly an open mind, and I look forward to hearing from today's panel of experts. To be more specific, I am looking for answers regarding how exporting this important commodity would impact American families and the American

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economy in general in regards to domestic gas prices, consumers goods, manufacturing, and jobs.

Mr. Chairman, I am going to close my mouth and open my mind now, and I want to thank you. I was going to yield my time to Mr. Green, who asked for it, but I will yield my time back, Mr. Chairman. Thank you so very much.

[The prepared statement of Mr. Rush follows:]

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Mr. Whitfield. Thank you very much.

Is there anyone on our side of the aisle that -- okay. Joe, you are recognized for 5 minutes. They hadn't instructed me who all was speaking today. So I am glad to recognize you for 5 minutes.

Mr. Barton. Well, Mr. Chairman, if you need some of that time, I can give some of it back. I mean, I do want to talk for a couple of minutes.

Well, thank you, Mr. Chairman. We have a number of Members on this committee that probably weren't alive when we passed the Energy Policy and Conservation Act of 1975. In that same time period, I believe in that act, we put into place a ban on the export of crude oil from the United States.

Now, in the mid-1970s, Mr. Chairman, the OPEC oil cartel had had an oil embargo against the United States and Western Europe, and it devastated our economy. I can remember living in Crockett, Texas, and I could buy 10 gallons of gas on odd days. I could go to the gas station and buy 10 gallons of gas on odd days based on the last digit in my license plate. That was not fun. There were gas lines. There were plant closings. We were producing, I can't remember exactly, but we were probably producing 5 or 6 million barrels of oil a day, but we were consuming in the neighborhood of 15 to 16, I think.

So putting a ban on crude oil exports at that time made some sense,

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to husband that resource as a strategic commodity. Well, what is the situation today, Mr. Chairman? The United States is the number one oil producer on a daily basis in the world. Today we will produce in the neighborhood of 9.5 million barrels of oil in the United States of America. If you combine the oil that we import from Canada and Mexico, our NAFTA partners, you can put another 2 million barrels a day, maybe even 3.

Our consumption is down. Our production is up. We have a surplus on the world market today, Mr. Chairman, of 2 to 3 million barrels a day. And the result is that instead of \$110-barrel oil, we have, I think yesterday, West Texas Intermediate closed at about \$63 a barrel.

That is a good thing for the American consumer, Mr. Chairman. It is a good thing that you are holding this hearing. And I would hope in the new Congress we take a look at the bill that I have introduced this week, H.R. 5814. It is a page-and-a-half bill. It is very simple. It repeals the ban on crude oil exports, and it requires a study reported to this committee of what we do with the Strategic Petroleum Reserve.

It is a different world today, Mr. Chairman, and when you are number one you use that status. If we allow our producers to export the crude oil that can't be consumed here in the United States or refined

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here in the United States, we put pressure on OPEC, we put pressure on Russia, we create jobs here at home, and we make sure that that world price which sets the crude oil price is based on real supply and demand, and that is a good thing for everybody.

So I am extremely pleased that you are holding this hearing. I would ask you also to look at such anachronisms as the Renewable Fuel Standard, and I know how contentious this is on our Gulf Coast States. But I think we should also look at the Jones Act, and as I said earlier, the Strategic Petroleum Reserve.

With that, Mr. Chairman, I still have about a minute, and I would be happy to yield to whoever you wish me to.

[The prepared statement of Mr. Barton follows:]

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Mr. Whitfield. Does anyone seek this additional minute?

Okay. The gentleman yields back. At this time, Mr. Yarmuth, do you or Ms. Capps want to make a comment? Ms. Capps? Mr. Barrow? We have already thanked you for your service, John, so thanks.

Mr. Barrow. That would be John Barrow, the late.

Mr. Whitfield. Okay. Thank you.

Well, that concludes the opening statement. And as I said, we have a distinguished panel of witnesses.

And I am just going to introduce you as I introduce you to make your opening statement.

So first opening statement will be by Adam Sieminski, who is certainly no stranger to this panel.

And we welcome you back, Mr. Administrator, with the U.S. Energy Information Administration, and you are recognized for 5 minutes for your opening statement.

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STATEMENTS OF ADAM SIEMINSKI, ADMINISTRATOR, U.S. ENERGY INFORMATION ADMINISTRATION; LOU PUGLIARESI, PRESIDENT, ENERGY POLICY RESEARCH FOUNDATION, INC.; CHARLES K. EBINGER, SENIOR FELLOW, THE BROOKINGS INSTITUTION; AND DEBORAH GORDON, DIRECTOR, CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE

STATEMENT OF ADAM SIEMINSKI

Mr. Sieminski. Chairman Whitfield, Congressman Rush, members of the subcommittee, thank you for the opportunity to be here today to discuss the history of the U.S. ban on crude oil exports and to contrast the market conditions at the time of the ban with those today.

The U.S. Energy Information Administration, EIA, is a statistical and analytical agency at the Department of Energy. By law, EIA's data analyses and forecasts are independent of approval by any other officer or employee of the U.S. Government, so the views expressed here should not be construed as representing those of the Department of Energy or any other Federal agency.

At the time of the passage of the Energy Policy and Conservation Act in 1975, U.S. net imports of petroleum were rising rapidly due to declining domestic production while growth in consumption was

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rocketing up. U.S. net oil imports more than doubled between 1970 and 1978, from 3.2 to 8.6 million barrels per day, driving imports as a share of total consumption from 22 percent to 47 percent.

Internationally, when OPEC declared an oil embargo against the United States in 1973, 65 percent of rising U.S. crude oil imports were coming from OPEC countries. To protect consumers from price shocks, the U.S. policy response at the time was to limit the price for oil produced from U.S. wells existing in 1972 while allowing new oil to sell at world market prices. Limiting exports prevented circumvention of these domestic price controls; however, the separation of new and old oil pricing did not really stem the production declines as oil production in the lower 48 states fell some 23 percent between 1973 and 1980.

By 1981, it was clear that the policy wasn't working, and the price and allocation controls were removed. That is on figure 2 of my testimony. For nearly 3 decades after the removal of price controls, declining production, coupled with rising demand, pushed the U.S. towards ever-increasing imports until net imports as a share of total U.S. petroleum consumption peaked at 60 percent in 2005.

Restrictions on crude oil exports remained in place, but limited modifications from time to time allowed exports to Canada, exports of production from Alaska that went through the Trans-Alaska Pipeline,

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and certain California heavy crude oil. Since 2008, however, these conditions have been reversed, partly as a result of the growth in domestic supply, and also as a result of swelling demand. U.S. domestic crude oil production has increased by 3.4 million barrels a day, some 68 percent, to its highest level since 1986.

Meanwhile, between 2008 and 2014, this year, we are estimating for the full year, total U.S. liquid fuel consumption fell from 19.5 million barrels a day to 18.9 million barrels a day. The U.S. went from being the world's largest net importer to becoming a big net exporter of petroleum products. In 2014, net imports as a share of total U.S. petroleum consumption is now down to below 30 percent, close to 25.

The dramatic production growth in the U.S. midcontinent and Canada has resulted in logistical constraints that are reflected in a wide variation of prices for domestically produced crudes. If 2008, benchmark crude, West Texas Intermediate, or WTI, sold for a premium of \$2.73, a premium higher than Brent, that comes from the North Sea.

In 2014, through October, WTI has been trading at a discount of over \$6 a barrel to Brent crude oil. EIA's latest short-term energy outlook forecasts recent trends in U.S. petroleum markets will continue into 2015 with domestic crude oil production averaging 9.4 million barrels a day, 10 percent above the 2014 level.

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Gasoline demand and net imports as a share of domestic consumption could be 21 percent as recent dramatic declines in crude prices may affect our outlook, but more so, I think, in the longer term rather than in the very short term.

So petroleum market conditions today are very different than they were in the 1970s when the ban on crude oil exports was enacted. Key trends in U.S. oil markets have reversed. Then, demand was rising rapidly and production was falling. Now, production is rising rapidly and demand is falling. U.S. crude production may soon hit an all-time high, surpassing the previous record set in 1970. Gasoline demand is down from its peak and is likely to decline even more as the vehicle fleet becomes more efficient.

In addition to this trend reversal, international oil production is less concentrated. OPEC's share of production is down from 53 percent in 1973 to about 35 percent today. The existence of oil contracts on the futures markets, the development of benchmark crude oil pricing, and the availability of basic data from EIA, created by Congress in 1977, have all brought greater transparency to the oil markets.

As described in my written statement, EIA is actively pursuing a number of important initiatives related to the timeliness and detail of oil market data. I would like to thank you for the opportunity to

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testify here today, and I hope to be able to answer your questions.

Thank you.

Mr. Whitfield. Thank you very much.

[The prepared statement of Mr. Sieminski follows:]

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Mr. Whitfield. And our next witness is Mr. Lou Pugliaresi, who is the president of the Energy Policy Research Foundation.

And you are recognized for 5 minutes.

STATEMENT OF LOU PUGLIARES I

Mr. Pugliaresi. Thank you. Thank you, Mr. Chairman, and thank you, members.

Mr. Whitfield. Be sure and turn your microphone on.

Mr. Pugliaresi. Yes, I think we have some slides. The next slide. So what I would like to do is sort of put a little bit of this in context, and the first thing I think we ought to talk about a little bit is what is energy security.

So we tend to think about energy security as a concentration of low-cost reserves in unstable parts of the world which tend to provide two risks to the U.S. One, they can restrict output and charge higher prices that would prevail in more competitive environments. And two, some of these guys could go out of business with more terrorism, even embargoes also imposing price spike and large costs on the national economy.

So one of the best ways to deal with this threat or this problem is to have a production platform in a stable part of the world, which

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turns out to be North America. And if you look at what has happened here in this slide, you can see that, if you take the U.S. and Canada together, which Congressman Barton just spoke about, we have had a remarkable increase in production. And it is very important to look upon this through a North American lens because it is this North American lens that is so stable, and it is this rapid runup in production, particularly if you include natural gas liquids, that has made a remarkable change.

Next slide.

Now, you can see prices have come down, but I don't think we quite understand what this means. And I have testified here many times where Members have said, well, you know, we know, Mr. Pugliaresi, if we open up ANWR, if we do X or Y, we will get more production, but OPEC will just cut production, the price won't come down. Well, the price has come down, and this price decrease is an enormous benefit to the world economy. The world consuming centers are going to get a savings of approximately \$1.3 trillion next year if these prices persist. The American driver who spends about \$3,000 a year in gasoline is going to get an \$800 savings. This is enormous boom and benefit to the national economy, to the world economy, and it is being delivered to us through these production gains we are having in this stable North American platform.

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Mr. Pugliaresi. And we want to preserve that platform. Right? We want to make the distribution of crude oil efficient. That is why we need Keystone. We want to have good regulations. We want to open up the federal lands a lot more. You know, all this production we have seen has come from federal lands.

Next slide.

This shows you the permit activity for oil and gas drilling permits just for 90 days prior to the -- December 1st, 2014. Of course, we are a little concerned that these lower oil prices -- and we are getting some evidence that the permit activity is coming off.

And I think that is a good reason to have this hearing. We need to look at our whole regulatory structure and see, "Okay. What do we -- what do we need to do to make it as efficient as possible?"

Because, once again, we want this platform, the upstream, the midstream, and the downstream -- we want it to perform as best as possible, and we are concerned about this.

But I must say we met with some of the world's best extraction technologists in Houston the last couple of days. There is a lot of exciting things going on out there. As long as we have an open system,

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I think we are going to find ways to drive down these extraction costs.

I mean, there is very interesting things happening out there.

Next slide.

This is our estimate of -- in a sort of \$80 environment of what we think the U.S. could do, at least in the near term, by API gravity. You see we are producing a lot of light sweet crude, and we are not sure how much this is going to be disturbed by these lower oil price environment. Probably going to see some reduction there. But, you know, the outlook is still very positive.

Next slide.

I want to leave you with just a couple of things here. One, if you look at this slide, it is quite interesting. Traditionally, conventional oil had a very modest decline rate, maybe 5 percent, and a pretty high recovery factor, as much as 50 percent.

What I don't think we understand is that, even though we have this very high decline rate in these unconventional resources we have now, but we have to keep drilling, our recovery factor is quite small. Small improvements in this recovery factor are going to make a big difference. That is why we want -- you know, we want to see this technology continue to progress.

And, you know, if you look at this whole North American success story and we get back to EPCA, keep in mind that we should have a lot

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of humility about how we proceed. We want you to -- we had mandates on ethanol. We had price -- we had 6-month oil embargo, and then we had 10 years of price controls. We had a Fuel Use Act which prevented the use of natural gas.

So as we go forward, I think one of the things I want the members to think about is: What are the benefits of an open system? You know, William Pratt, the famous -- Wallace Pratt, the famous geologist, said in the 1930s, "Oil is first discovered in the mind of man." And I think that we want to keep that intellectual capacity going here in the U.S.

Thank you, Mr. Chairman.

Mr. Whitfield. Thank you very much.

[The prepared statement of Mr. Pugliaresi follows:]

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Mr. Whitfield. And our next witness is Dr. Charles Ebinger, who is a senior fellow at the Brookings Institution. Thank you for being with us. And you are recognized for 5 minutes.

STATEMENT OF CHARLES K. EBINGER

Mr. Ebinger. Thank you, Mr. Chairman, and thank you, Congressman Rush, for inviting me to testify this morning on the origins of the crude oil export ban, which ironically was enacted nearly 40 years ago.

Given the profound changes that have occurred in unconventional oil and gas production that we have already heard about over the last 6 years, I think it is important to look back and remind ourselves how our energy situation has evolved since 1975.

In the years prior to the OPEC oil embargo, the chief issues dominating energy policy in the United States were debated over the future of nuclear power, especially whether we should recycle plutonium and develop the breeder reactor, price controls on domestic oil and natural gas, which, I remind you, were enacted by President Nixon back in 1971 out of concern that inflation had reached the dangerous levels of 4.4 percent, and various programs, both a voluntary oil import program and a mandatory oil import program, to hold down oil imports as a protection for our domestic industry.

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In reviewing this history -- and this is a critical point -- what stands out is just as is the case today. Most energy issues were discussed in isolation from one another.

On the geopolitical front, the early 1970s saw momentous changes in the Middle East and North Africa as King Idris in Libya was deposed by Colonel Gaddafi, and in response to a decline in real oil prices, the major oil-producing countries mounted a unified campaign against the petroleum companies to extract more of the economic rent from their oil production.

Under two major agreements negotiated in Tehran and Tripoli between the international oil companies and OPEC, the OPEC, concerned about inflation and a general sense that they were not being treated fairly by the international oil companies, demanded a major increase in the price of their oil.

After these two agreements, OPEC was able to introduce an escalation clause in its contracts that it believed would protect their members from inflation. This proved, however, not to be the case.

But what helped OPEC was -- as Mr. Sieminski noted, was the surge in demand worldwide not only in the United States, but in Western Europe and Japan, which allowed OPEC to, every time a contract was up for renegotiation, demand further upward price revisions.

Mr. Chairman, it is worth noting that the global market conditions

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in the early 1970s could not have been more different than they are today, as we heard from Congressman Barton. Demand for oil throughout the industrialized world was skyrocketing.

In the United States, domestic production had peaked in 1970, leading a Cabinet task force to recommend the gradual elimination of the quotas under the mandatory oil import program.

In retrospect, given the changed circumstances confronting the U.S., it is remarkable that this recommendation did not receive more salience from the Congress, despite the fact that U.S. oil consumption was skyrocketing, domestic production was peaking, and oil imports were up to nearly 30 percent of U.S. consumption on the eve of the oil embargo.

The U.S. could not have been more ill-prepared for the embargo. In response, one of the primary actions taken was enactment of complex regulatory procedures for oil and gas prices as well as an incredibly complex system of allocation controls leading to gasoline lines in the districts and surplus supplies in Potomac.

Unfortunately, they were so -- these were so ill-conceived that they accentuated the impact of the crisis and exacerbated gasoline shortages, causing long lines for angry -- angry motorists buying regulated volumes of fuel. And I am glad the Congressman got 10 gallons because, as a graduate student, I only got 5 gallons in New England.

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In response to the crisis, President Nixon launched Project Independence, designed to eliminate oil imports by 1980, when comprising a host of initiatives, including the Energy Policy and Conservation Act.

Under EPCA, the President was granted the authority to restrict exports of coal, petroleum products, natural gas, petrochemical feedstocks, and supplies of materials and equipment for the exploration, production, refining, and transportation of energy.

EPCA also authorized the President to exempt crude oil and natural gas exports from such restrictions where doing so was deemed by the President to be in the national interest.

As the act today only relates to crude oil, the main exceptions that have been made are predominantly for shipments to our neighbors in Canada and Mexico in recognition of our historic trading relationships. Other exemptions to the ban are noted in detail in my formal testimony.

Today, through modifications to EPCA, the U.S. allows unrestricted exports of all fuels except crude oil and natural gas has to go through a cumbersome regulatory procedure, but it is not banned. The only expressed ban that remains today is on crude oil.

In reviewing the history since the early 1970s, it is apparent that, whenever the U.S. Government has tried to favor a particular

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fuel, absent market realities, there have been unintended consequences which have been deleterious to the U.S. economy and to our natural energy security.

Controls on natural gas prices led to the failure to develop the Alaska Natural Gas Transportation system, creating massive natural gas shortages in my home territory in the industrial midwest in the winter of 1977-1978 with devastating economic impact, some of which remains to this day.

The ban on using oil and gas in industrial boilers and power generation led to a major switch away from gas and oil towards coal. This rush towards coal has led to scores of aging coal facilities that now have to be replaced as part of our national environmental policy and our international climate policy.

Mr. Chairman, in conclusion, it is evident that the U.S. energy situation today is far different from what it was when EPCA was enacted. With crude oil production continuing to rise, it would be detrimental to U.S. energy and economic policy to keep the ban on crude oil exports.

Keeping the ban and attempting to manipulate policy to control a globally traded commodities with hopes that the U.S. oil boom will lead to energy independence is a fallacy as the U.S. is part of the global market and must, therefore, participate in it.

Lifting the ban will generate paramount foreign policy benefits,

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it will increase U.S. GDP -- and Brookings did a major study on this issue that is on our website, if anyone cares to look at it -- and it will reduce unemployment, all of which will be foregone if the ban remains in place.

Thank you, Mr. Chairman.

Mr. Whitfield. Thank you.

[The prepared statement of Mr. Ebinger follows:]

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Mr. Whitfield. And our next witness is Deborah Gordon, who is the Director at the Carnegie Endowment for International Peace.

And you are recognized for 5 minutes.

STATEMENT OF DEBORAH GORDON

Ms. Gordon. Subcommittee Chairman Whitfield, Ranking Member Rush, distinguished members of the subcommittee, thank you for the opportunity to testify today about EPCA in an era of oil transition.

In my remarks, I will discuss three key points: First, the need to understand the changing conditions influencing today's crude oil market; second, the need for better information about the makeup and specifications of U.S. oils; and, lastly, the need to deal with the environmental consequences from an unconditional lifting of the oil export ban. I explore these issues in greater detail in my written testimony, which I submitted for the record.

The bottom line is that oils are changing and a more complex array of hydrocarbon resource is replacing conventional oil. Public and private stakeholders need to understand the environmental impacts inherent to different oils. The best way to position America for success amid energy abundance is to generate information necessary to make wise decisions among many oil options.

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The truth is we know precious little about these new resources. The Nation needs reliable, consistent, detailed, open-source data about composition and operational elements of U.S. oils. Significant information gaps have accompanied the Nation's oil -- increased oil production.

Although EPCA was adopted in response to a set of -- a specific set of oil supply problems, it can serve as a template for addressing some of the shortcomings that exist today as America struggles to manage the economic, geopolitical, and climate impacts of its new oil bounty.

It will be important for policymakers to think comprehensively about the full range of current oil issues. Several EPCA provisions merit careful review and consideration and possible updating: One, widely expanding oil data collection, making this information publicly available; two, increasing the heavy-duty vehicle efficiency standards for trucks and marine vessels that move the oil and petroleum product that we are trying to consume less of at home; and, three, revisiting oil accounting practices so that the SEC is fully informed about oils that are on tap to bolster U.S. markets.

America is one of the first in line to win the unconventional oil lottery, but despite newfound energy resources at home, the U.S. exists in an increasingly oil interdependent world. As such, if U.S. policymakers enact effective safeguards to minimize unintended

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consequences, America will be better positioned to chart a path that others can follow.

Two questions require attention.

First, do policymakers in the public have sufficient information about America's oil? Unfortunately, they do not. Ironically, there is more detailed open-source data about OPEC crudes than the oils in the Bakken, Permian, and Eagle Ford.

In seeking to obtain and verify these needed oil data, we have encountered several obstacles, from data inconsistencies, to withhold -- to withheld data, to Government -- to withheld data to Government limitations on expanding oil reporting.

I would be happy to elaborate on any of these issues. The overarching concern, however, is that oil markets cannot function efficiently without transparent high-quality information.

Question 2. What are the environmental risks these new oils pose? The Carnegie Endowment is developing an oil-climate index that compares global oils with one another in terms of total greenhouse gas impacts. Together with Stanford University and the University of Calgary, we are modeling the entire oil value chain, from where the oil comes out of the ground through to how the products are used.

Our preliminary findings, based on 28 sample oils, global oils, are that oils' greenhouse gas footprints vary by at least 80 percent

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from one another. In other words, replacing a high greenhouse gas oil with a lower one could almost halve the impacts of greenhouse gases for every barrel of oil.

There are several categories of higher emissions from oils. These include gassy oils, like the Bakken or Nigeria, where gas associated with oil is flared or burned instead of separated and sold; heavy oils, those that use more heat, steam, hydrogen through their value chains to yield more bottom-of-the-barrel products like petroleum coke, a coal substitute; watery oils, which are interesting, like those in California's San Joaquin Valley where it takes a tremendous amount of energy to lift as much as 50 barrels of water for every one barrel of oil that you produce; and extreme oils like those in the Gulf of Mexico that are miles below the surface or those in the boreal peat bogs in Alberta where carbon is naturally sequestered.

As one of the world's fastest-growing oil producers, the U.S. has the opportunity and the responsibility to be a global leader in the energy sector. A balanced energy policy informed by oil transparency must guide energy decisionmaking in ways that satisfy U.S. consumers, strengthen the American economy, protect the climate, and enhance national and global security.

In closing, a national discussion, one informed by reliable open-source data about the composition, quality, and environmental

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profile of new oils will be key to making effective and sustainable decisions.

Thank you.

Mr. Whitfield. Thank you, Ms. Gordon.

[The prepared statement of Ms. Gordon follows:]

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Mr. Whitfield. And thank all of you for your testimony.

At this time I will recognize myself for questions, and then we will give every other member the opportunity as well.

Just from a practical aspect here, anytime you start talking about crude oil, most of the American people think about gasoline prices. That is why it is more volatile, I think, when you talk about exporting crude oil than certainly natural gas or something like that.

Do any of you have an opinion on, if you were at a rotary club, how you would explain that exporting additional crude oil would not necessarily raise gasoline prices?

Mr. Sieminski.

Mr. Sieminski. Mr. Chairman, it is always a challenge. Usually, at those rotary club functions, I get asked why gasoline prices are so high. Lately I haven't gotten that question.

Mr. Whitfield. Right.

Mr. Sieminski. EIA has tried to examine your question from the standpoint of how gasoline prices are set in the U.S. markets and what gasoline prices relate to. And what we found in a study that we published just a short while ago was that -- that these two benchmark crudes that I talked about, the one in the U.S., WTI, West Texas, and Brent in the international markets, that gasoline prices historically tend to be much more closely related to Brent crude oil prices than

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to the domestic benchmark.

The second thing that we found was that U.S. gasoline prices tend to be more closely related to gasoline prices in markets like Singapore and Rotterdam in the global markets than to comparing, let's say, Chicago prices with prices in the Gulf Coast.

The conclusion that one would draw from that is that -- that gasoline prices, because we are exporting and importing so much gasoline, are really set in the global markets -- there is one market gasoline prices in the U.S. tend to reflect that global market -- and that, if exports of crude oil resulted in higher prices for West Texas Intermediate or crudes that are benchmarked to that, would not have much impact on gasoline prices.

Mr. Whitfield. And I am glad you mentioned we are already exporting gasoline anyway. So we are talking about --

Mr. Sieminski. Quite a bit, actually.

Mr. Whitfield. Quite a bit.

Did you have a comment, Mr. Pugliaresi.

Mr. Pugliaresi. I think, you know, how I would explain is that, if you want to constrain volatility in the market, if you want to constrain rising gasoline prices, you should promote a very stable and growing production of crude oil in North America.

Mr. Whitfield. Right.

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Mr. Pugliaresi. We have evidence that this is having a big effect. And that is the answer. We are -- as Adam said, we are well integrated into the world oil market. The only thing we can -- well, what we can do is have a stable growing production of crude oil outside of these more volatile areas.

Mr. Whitfield. Right.

And do you have a comment, Dr. Ebinger?

Mr. Ebinger. If I could just add, Mr. Chairman, I think an easy way to look at this is, since, as Mr. Sieminski said, gasoline prices are predominantly set in the international market, if we have a set volume of crude oil in that market and all of a sudden we put more oil into that market, adding to supply while demand stays relatively constant, on the basis of kind of fundamental economics -- more supply, constant demand -- prices should come down and then refiners buying that oil around the world will -- in theory at least, if they wish to be competitive, will lower their product -- petroleum product prices, including gasoline, and, hopefully, for New England, home heating fuel. I think that is the way I find sometimes trying to explain it, seems to have some say in it.

Mr. Whitfield. Ms. Gordon, do you have a comment?

Ms. Gordon. Yeah. I don't know that it would be easy for consumers to understand this. But because oils are so different, the

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oils that we are largely now set to refine, the heavier oils, don't preferentially make more gasoline. They make more diesel.

So the oils that we are now looking to export, the light tight oils, those do. They are lighter oils. They go through hydroskimming refineries. They make more gasoline.

So we might be getting ready to export the perfect oil to make more gasoline in order to keep and refine the oil that makes more diesel.

It is not a consumer issue then because our consuming public doesn't use diesel. They use gasoline. So it gets a little bit complicated here.

And the big question that Lou raised was volatility. I think that consumers are going to need to understand -- in the future, possibly not be explained high prices, but volatile prices.

And volatility will really hurt America because we are equal, in large parts, consumer and producer of oil and product, that, if the markets become very volatile, we are going the hurt more than anyone else.

Mr. Whitfield. Okay. Well, my time is expired.

Mr. Rush, you are recognized for 5 minutes.

Mr. Rush. I want to thank you, Mr. Chairman.

I share the optimism of the panel, but there are some cautionary items or cautionary indications that I want to at least consider for

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the record.

Ms. Gordon, what type of impact would lifting the crude oil ban have on climate change? Are these precautions or conditions that Congress should consider if we were to lift the ban on crude oil altogether?

Ms. Gordon. It is a great question. And the reality is, as my testimony stated, we just don't know enough about these light tight oils that are coming out of America.

What we do know is, like I said, they are lighter oils. Our refineries are set to run much heavier crudes. Those heavier crudes need much more heat. They produce more bottom-of-the-barrel products. So the heavier oils are generally more greenhouse gas-intensive.

So we are setting ourselves up to be a refiner of higher greenhouse gas oils as we export possibly, if they are not flared, lower greenhouse gas oils to others, which puts a bigger burden on America to control -- in terms of global climate agreements, control what we are doing when we are handing off our oils.

So I think that there are real questions from a climate perspective, what are these oils and what are we giving away.

Mr. Rush. Is there any other panelists who would like to comment on this? Are there any other panelists that would like to comment on this?

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Well, let me ask you a question. Mr. Ebinger, in your written testimony, you stated that lifting the ban on crude oil exports would boost economic growth, wages, employment, trade, and, overall, the economic welfare of the Nation.

What, in your opinion, are potential downsides to removing the ban?

Mr. Ebinger. I don't believe, Congressman, that there are sizeable downsides to lifting the ban, with the possible exception of what Ms. Gordon said, that we don't know completely the impact on greenhouse gases.

In a major study that Brookings recently did in association with the economic consulting firm NERA, we have some very detailed data in there on what we think will happen to employment, overall economic welfare for the Nation, and the numbers in various scenarios are almost constantly positive.

And our study has been pretty much seconded or maybe a couple came out before us, but there have been now five or six major studies done by IFC, done by a whole -- some by the Government, that have all concluded the benefits far outweigh any potential costs. So I guess I will leave it at that.

Mr. Rush. Well, I want to ask the other three panelists: Do you have any comments regarding the economic impact on lifting the ban?

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Mr. Pugliaresi. So I think you want -- whenever we go to a free trade alternative -- which, you know, I think everybody here has a lot of training in economics. No one is going to be against free trade. We think it is a good thing and it is going to make the economy more efficient.

But there will be dislocations. I think some sectors -- some segments of the U.S. refining industry, particularly if we have this high production scenario, will have -- you know, will find themselves in a less, you know, economically advantaged position.

However, we have a very complex and advanced refining sector in the United States. The capacity to refine very complex kinds of crudes are there. I think we want to -- you know, as we go -- if we go to lifting the ban on crude oil, we want to look and make sure, "Okay. Are we burdening the downstream sector with kind of unnecessary regulations? What is RFS doing? What is ozone regulations doing? What is the permit doing?"

In other words, you know, also, as Congressman Barton raised, maybe we need to look at some -- some kinds of adjustments in the Jones Act. That is very tough. I understand. But, you know, there will be -- there will be adjustments. But, on balance, the economy will be better off.

I think, in the short term, the refining industry probably -- you

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know, probably can handle what is going on right now. It is really a more longer term problem.

But I also think that, you know, probably immediately we should look -- look very closely at the condensate issue, which is starting to cause a lot of problems in Eagle Ford.

Mr. Sieminski. Congressman Rush, let me just add that the reason that the U.S. is exporting gasoline from the Gulf Coast is that we really have a surplus of gasoline. Domestic demand for gasoline has been declining and is likely to continue to go down as autos become more efficient.

And, in a sense, what refiners are doing is -- is exporting the surplus product so that they can more efficiently fill the demand for other products in the U.S. market that are more valuable. So the export of gasoline may actually be helping keep overall product prices for U.S. consumers down.

Mr. Rush. I want to thank you, Mr. Chairman. I yield back.

Mr. Whitfield. At this time I recognize the gentleman from Texas, Mr. Barton, for 5 minutes.

Mr. Barton. Thank you.

I am just looking around the dais here, Mr. Chairman.

First of all, we want to welcome Mr. Flores. We see he is here. He is a new number of the committee. We are glad to have him here.

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We have got Mr. Bud Albright Bratta in the audience. He used to be a staffer in the committee. We are glad to have him here.

Mr. Whitfield. We got Mr. Mullin, too, here.

Mr. Barton. I didn't see him. From Oklahoma. Glad to have him here.

I see Mr. Barrow over there. He is a member who is not going to be here next year. His state is the Peach State.

Do we have a ban on exports of peaches? Yes or no?

Okay. We got Mr. McKinley up here, who is the Coal State.

Do we have a ban on the export of coal? No.

We got Ms. Capps from California.

Do we have a ban on the export of movies? I don't think so.

We have got Mr. Pompeo and Mr. Terry from the Corn States.

Do we have a ban on the export of corn? No.

Mr. Whitfield. We are exporting Bourbon, too.

Mr. Barton. I was saving that for last, Mr. Chairman.

My point is that there are -- in a free market economy like the United States, there are almost no commodities or products that we have a ban on. We are the free market Nation in the world.

Now, as has been pointed out, in the 1970s, the OPEC cartel banned exports of crude oil to the United States and we retaliated by creating the Strategic Petroleum Reserve and also requiring that no crude oil,

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with few exceptions, could be exported from the United States. That made some economic sense and some strategic sense in the 1970s, but this isn't the 1970s.

Now, the key question -- or one of the key questions the chairman of the subcommittee has already asked, you know: What would happen if we repealed the ban? What would happen to domestic gasoline prices? I haven't seen any study that says they would go up.

And, you know, the reverse question would be: What would happen if we don't? What happens to domestic oil production in the near term, in the mid term, in the long term if we keep the ban in place?

Now, the key issue there is the market for domestic crude oil. U.S. refinery capacity, I think, is around 12 million barrels a day.

Is that correct, Mr. Sieminski?

Mr. Sieminski. If you add in all of the other things. Domestic crude oil is getting close to 9 million barrels a day, and you get to 12 by adding in biofuels and --

Mr. Barton. No. I am asking what the refinery capacity is, the U.S. --

Mr. Sieminski. Oh. Over 16 million barrels a day.

Mr. Barton. It is over 16.

Mr. Sieminski. Yes, sir.

Mr. Barton. Okay. I didn't think it was that high.

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My point was going to be, if we don't have a market in the United States for the crude oil at our refineries, if you can't export it, you keep it in the ground.

But if it is 16 million barrels, then we can increase domestic supply fairly significantly and we just -- we just freeze out or push out imports from overseas. Wouldn't that be correct?

Mr. Sieminski. You raise an interesting point, Congressman.

The -- you could -- many people look at the growth in domestic production and the flatness in demand and they envision a world where the U.S. is not importing any oil.

But, in fact, the U.S. may continue to import oil simply to refine it in our very efficient refining system and sell those products back out into the global markets.

Mr. Barton. Well, Mexico is finally freeing up their oil economy and, if they follow through with their constitutional change, you will see a large number of U.S. producers and explorer exploration going down to Mexico.

And I would assume that there would be additional oil in Mexico that could come up to the United States in the next 5 to 6 years. Plus, we have got Canada. And I know there are some issues on the environmental front with the Canadian heavy oil.

I guess I only have 22 seconds. I didn't -- if I had to look at

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this panel and you had to vote yes or no on repealing the ban, I think I have three yeses and a maybe.

I am going to ask Ms. Gordon -- I didn't sense that the Carnegie Institute is totally opposed to repealing the ban. I think your concern is transparency and information for environmental purposes. Is that correct?

Ms. Gordon. Yeah. I think we have a reprieve here because demand has really cooled off globally. So there is not much of a place to put a lot of oil right now.

And that gives time to do the due diligence that has to happen with information so that we have a better sense of what is going to happen when we do change policy some day, because I do think we are headed toward more open markets, I mean, in general.

But do remember, I just should add, the oil market is one of the least efficient markets. There are so many reasons: barriers to entry, barriers to exit, not enough information, externalities. There is far more efficiency in peach markets than in oil markets. So that is -- it is a big question.

Mr. Barton. Could I ask one more question?

Is it possible for these lighter shale oils that are being produced in the Eagle Ford and up in North Dakota to be exported as refined products because they are so light and almost need no refining?

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Ms. Gordon. They are really different from each other. The Bakken oil is like Nigerian crude. In fact, we have backed out a lot of Nigerian crude since we have been producing in the Bakken.

So if we export Bakken, we are probably going to have implications for Nigeria in the North Sea because that is what the oil is like.

The Eagle Ford is really unusual. It is much, much lighter and it needs to have the condensates stripped out of it. So even with the light tight oil category, there is a lot of diversity here that we don't have a lot of information about.

Mr. Barton. Thank you, Mr. Chairman.

Mr. Whitfield. At this time I recognize the gentleman from Kentucky, Mr. Yarmuth, for 5 minutes.

Mr. Yarmuth. Thank you very much, Mr. Chairman.

I thank all the witnesses for their testimony and knowledge.

I have learned a lot, but I am still not sure where I am on this issue. And I am curious. We talked about the potential downside. And while everything looks wonderful right now with an abundance of oil and petroleum in the world and prices down, that would seem to be -- mitigate against worrying about a crisis.

But isn't it entirely possible that we could return to a 1970s situation? I was a staffer here in the 1970s and remember those lines as well.

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So would it not be useful to have at least some contingency measure if we -- whether it is an international outbreak or a war, terrorism, whatever it may be, that we have some way to protect our domestic supply in case of an emergency as opposed to just saying we are not -- we will worry about that when we get to it?

Ms. Gordon?

Ms. Gordon. So I think, because we are in this era of new oil and everything is changing, the risks are changing. We have the geopolitical risks, on the one hand, with many of the places abroad that have historically produced oil, and then we have operational and environmental risks here that we have to contend with.

So we have new oils, new conditions, and then we have huge growth in China in terms of demand that is sporadic. It is not going to be, you know, red hot consistently. It is a market. And so we do tend to talk about oil at a moment in time, maybe because it is sold on every corner, that it is as if this is the condition that exists for all time.

But the reality is it is very dynamic and we could easily return with risks, differential risks, different consumption patterns. Even in America, we are selling a lot more SUVs right now. They are up tremendously. I mean, we could -- we are reversing our demand profile, as Adam said, but we are not necessarily bound to that.

Mr. Yarmuth. So there is no guarantee, given the volatility of

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the market, that if we eliminate the prohibition, that we can have the kind of impact on prices that we would expect, that the prices will necessarily be lower. We can't guarantee that.

Ms. Gordon. Yes. And in addition to what was said earlier where we will -- because we have the huge -- the largest refining capacity, we will maintain imports of oil even -- you know, just because we want to put product on the market. That is what industry does here. It is one of the big parts of industry.

Mr. Ebinger. I think, if I could just --

Mr. Yarmuth. Sure.

Mr. Ebinger. If I could just add -- answer your question, you know, most of the oil we consume in the United States is in the transportation sector. And it seems to me that, rather than maintain the ban on crude oil exports, we would be much wiser to have an accelerated program to use our vast natural gas reserves to a greater degree in transportation.

There have been numerous studies -- you know, it would take a long -- it would be a long-term effort, but if we could replace the diesel fuel that we use in our 18-wheel trucks, some people say that would be another 1.8 million barrels a day of oil we didn't use.

If we can use natural gas in marine transportation on the Great Lakes and our major rivers, coastal trade, that is another major place

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we could save. And we have companies already experimenting with using LNG in railroad locomotives.

So if we could reduce the use of oil in transport by relying on our vast natural gas, I think that would be a far more prudent policy than continuing the ban on crude oil exports.

Mr. Pugliaresi. If I could just add one thing, you know, if we go back and look at the history of EPCA and everything we did, if you want to take one lesson out of that, we need policies which are robust against uncertainty.

And every time we try to guess or we think we know what the future looks like, nuclear power is going to be too cheap to meter or we are going to ban the use of natural gas and power plants, we -- you know, we -- we really have a hard time getting this right.

And nobody really -- we don't really know what the future looks like, but what we do know is that we do much better when we have policies that allow a lot of -- you know, a lot of the marketplace and individuals to adjust to changing circumstances.

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Mr. Pugliaresi. Because once we you put something in place here in Capitol Hill, it is really hard to fix it, you know. Those of us who go way back remember, you know, we had dozens of these small refiners. So people remember this? We had dozens of these small refineries which came of the arcane regulations of price controls. And when it came time to decontrol crude oil prices, it was really hard because we had a political establishment of small refiners all over the country. So I think we have to keep in mind as we go forward that what the real lessons of this renaissance is, it was an open system, right? This all occurred on private land.

The government -- the heavy hand the government was really not trying to stop these guys. We didn't have to rely on Federal land. And so as we go forward, we ought to really think hard about what kinds of strategies are likely to be more productive.

Mr. Yarmuth. Thank you, Mr. Chairman. My time is up. I yield back.

Mr. Whitfield. At this time, I recognize the gentleman from Illinois, Mr. Shimkus, for 5 minutes.

Ms. Shimkus. Thank you, Mr. Chairman. This is a tremendous

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panel and a great hearing, so thank you, Chairman, for that.

I have tons and tons and tons of questions, so I want to try to put them in some sensible order.

But, Ms. Gordon, I appreciate your testimony. EPCA, the original EPCA, I didn't know there was reporting requirements more transparency. And following up on what Congressman Barton said, there is probably some truth to getting more information so that markets can operate more effectively and efficiently, so I appreciate those comments. There is different type of crude oil, that is going to be the major front to my question.

But we also know refiners have made major investments based upon a world they perceived 6 years ago, which has significantly changed today -- from heavy crude to light sweet and the refinery expansions.

I think the other thing that has not been a part of this discussion or debate is transportation costs and long pipeline versus what could actually happen in the future with all these more localized resources available is that you could see closer interaction between these new finds and more local refineries in a more localized system.

Mr. Pugliaresi, I appreciated this statement because of the need for production platform in a stable part of the world, I think is really not just for what it does on hedging the risk -- the volatile risk of pricing, really kind of addressing my colleague from Kentucky's

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question. But also internationally, and I focus on Eastern Europe a lot of times, and I understand energy extortion. And so importation of LNG, which we have passed through the House that we would like to see for other allies in Europe and Eastern Europe, I think would be true on crude oil exports. But you have to have a stable platform to be able to do that; hence the next kind of position.

Because even in the map, the figure that you have in your testimony, figure 3, you have these major basins, but there are probably more are going to develop, like the southern Illinois basin, which now we have gone through the legislative process. But you have the online basin, we still have more Deepwater applications. We have got Anwar debate that will always be there. We have the National Petroleum Reserve. We have the Atlantic Coast exploration. We have Keystone XL debate.

What I hear I think is that -- because I am afraid we have this huge supply, but we can't rely on government to set these parameters. We have got to let the markets do it. The markets will then send a signal of which of these oil basins are recoverable based upon the pricing of a barrel of crude oil.

Some of these may not be able to be now exploited because the cost of recovery is high. But then in the case where there is a new change in world dynamics, then that cost might be available for continued

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exploration. Do I make sense in any of that analysis?

Mr. Pugliaresi. Let me say, right now, there is a race going on between the lower valuations and the advances in well productivity and technology. As I said, we are seeing some things, they are out there a few years. Some things are very near in which -- if you look at a traditional hydraulic fracturing job, across the U.S., 40 percent of the frack jobs are very uneconomic in some ways. Or they are 40 percent of the preparation on a horizontal pipe are not working. But there is technologies developing now that are going to drastically improve that.

So you can have a high-cost basis, which doesn't look like it is doing too well right away, but in a few years, things could change. Once again, we want strategies which are robust under uncertainty. If we try to prescribe the future, we are going to be wrong.

Ms. Shimkus. Dr. Ebinger, in your testimony, you did state that increasing oil exports will help lower the prices at the pump, that was part of your written testimony.

Mr. Ebinger. Lower gasoline prices, yes, sir.

Ms. Shimkus. And then the last thing I want to ask, because it has been raised -- we are now having people think we might do this. We are starting to get talked to by a lot of people. Is there a difference, because really, except Ms. Gordon may -- start separating

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heavy, sour and light sweet, is there a difference, is there a credible argument in separating the crude oil price and easing the ban on one, but not easing the ban on the other? That will be my last question if some people want to weigh in on it.

Ms. Gordon. I just will add that I think the time is coming that we are going to have baskets of crude that are split much more on quality than on location. I think that these oils are quite different from each other, and they get very long-term investments that last generations. So the market needs this information. So whether regulations follow or not, I think that the idea of separating oils into these baskets, which is somewhat done but not largely in the market right now, is probably a wave of the future.

Ms. Shimkus. The rest of you are chicken and not going to answer that question?

I yield back.

Mr. Whitfield. This time I recognize the gentlelady from California, Ms. Capps, for 5 minutes.

Mrs. Capps. Thank you, Mr. Chairman.

I want to thank each of our witnesses for your testimony today at this hearing.

I also want to take a moment since it is I believe our last hearing in this session of Congress to honor and acknowledge -- as I walked

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in the room, I realized I am walking into the John Dingell room. The incredible service that -- it is the John Dingell room, our colleague, former chairman and under whose leadership I was first asked to be on the committee. And also my colleague from California, ranking member and my neighbor, Mr. Henry Waxman, for their incredible service to this committee and to our Nation.

I know he stepped out, but I want to also bid fair well to our friend John Barrow from the Peach State, who I believe has added much value to this committee as well. These are people who will be missed.

The oil market export market is complex. I picked that up from the hearing today. We need detailed, accurate information, I believe, to conduct a proper assessment of increasing exports.

Yet, Ms. Gordon, in your testimony, you say that accessing this information is difficult. In fact, you said we actually have more data, which I find quite stunning, about OPEC crude oils than about some new American oils, crude oils.

My question for you to elaborate a bit is on that. Why is this information so difficult to access?

Ms. Gordon. There are so many reasons why the information is not there. The first reason is that the light tight oils are the newest kid on the block so to speak. They just haven't been around as long. In the 20 test oils that we have modeled in the oil-climate index, we

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have Venezuelan oils. And you think about getting information from Venezuela. There is UAE. There are oils from all over the world, Indonesia, but we don't have any oils that are from North Dakota or Texas, these light tight oils.

There are -- one of the big problems is that in order to get information on oil, you do an assay, which is a chemical footprint of the oil. But everyone does assays differently, so when assays are reported, you can't compare oils to one another. So having more consistent reporting on information is one big problem.

Another one, having met with DOE, is that apparently -- and I think Mr. Sieminski could talk more about this -- apparently, the Energy Department can't really collect data on oil freely. It turns out OMB -- and I was kind of flabbergasted when I learned this -- but OMB says this is duplication of effort. Industry submits data on oil. DOE doesn't set reporting requirements for oil.

Although, when you read EPCA, there is room for this to happen. It just hasn't really evolved that way. So DOE is actually only getting the information that industry wants to report out. These are new oils; there is less information reported out.

The third one I will mention, one of our partners tried to purchase data. There is data that is owned by these big oil consultancies, and after negotiating for a matter about a year and hundreds of thousands

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of dollars, they were told the data wasn't for sale because it is competitive. They don't want the academic sector to compete with the consulting sector. So there a lot of concerns when it comes to oil data, especially as now more oils are out there.

Mrs. Capps. I want to use that last sentence as a segue to another kind of topic that might be appropriate now. Any discussion of oil exports must also be considered in the context of our overall energy policy and the realities of climate change. And you also touched on that.

You have done an extensive analysis on the climate impacts of your Nation's oil policies. In your testimony, you discussed preliminary research on the climate impacts of various types of American crude oils that could be exported if the current ban is lifted.

Now my question, given the transparency challenges that you just described, have you been able to complete this climate assessment with the data available to you?

Ms. Gordon. No, none of the 28 oils that we have been able to model are -- we have U.S. oils that have been around like Gulf of Mexico, Mars, but we don't have Arlex and North Slope, but we don't have any of the new light tight oils so far in the 28 test oils because data is just not available.

Mrs. Capps. I am prepared to yield back, but Mr. Chairman, this

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lack of transparency I believe is very concerning not just for our assessment of oil export policy but for conducting proper oversight of the industry in general. If the industry is asking us to lift the export ban, I believe they need to provide the information that is so clearly needed to properly assess the very policy that they asking us to expand upon. I yield back.

Mr. Whitfield. The gentlelady yields back.

At this time, I recognize the gentleman from Pennsylvania, Mr. Pitts for 5 minutes.

Mr. Pitts. Thank you, Mr. Chairman.

Thank you for your testimony. I, too, remember the long lines in the 70s. What wasn't said is that after waiting for 45 minutes or an hour with your car idling, and the lines backed up on the highway, and some people just topping off, and some people about to go empty, there were a lot of short tempers. And it was a very bad situation, wasting a lot of oil and gasoline.

Were any studies ever made on how much waste there was with those long lines back in the 70s? Mr. Sieminski.

Mr. Sieminski. I don't think that EIA did, but I think you are absolutely right, Congressman Pitts, that the whole idea behind the program I think made some sense at the time, but the implementation of it left a lot to be desired. A lot of the problems had to do with

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the availability of gasoline in different areas. It was based on the year-ago use. And as we got into the crisis, you didn't have enough -- people in the prior year were all out having vacations outside of the cities, and that is where all the gasoline went. But during the crisis, they were all in lines in the cities. And so they couldn't get the gasoline to go out on their family holiday. It was a bit of a mess.

Mr. Pugliaresi. So, actually, I worked on this program a bit when I was with the Department of Energy. You cannot imagine the small changes, you know, people just think a refinery takes crude oil and processes it into gasoline, but they are blending dozens of components. And we were trying to control the prices of all of these. And every day, there was enormous misallocation shortages, the wrong kind of mixes, because the market was completely surpassed by the government price control system. I mean, I don't think you can find anybody who has looked at this program that wants to defend it. It was an unmitigated disaster. It substantially delayed our capacity to even adjust to the crisis.

Mr. Pitts. In addition, after waiting for 45 minutes to an hour, the station, many of them would run out of gas, you would have to go home and come back on another day.

The average family as we heard can expect to save several hundred

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dollars a year if prices stay where they are. Administrator Sieminski, how can we maximize these benefits and sustain them over the long run?

Mr. Sieminski. The benefit to household income is coming from lower oil prices, most of that coming in gasoline, the number of about \$800 per household is right for a \$30 decline that is from average prices last year that would be sustained for about a year. Those numbers could even be a little bit higher than that, depending upon where oil prices settle out.

That is going to have a pretty positive affect on the ability of households to spend. And I think we will begin to see the positive impact of that on the economy EIA macroeconomist took a look at this, if we had this \$30 decline sustained for a year, it could add as much as 1 percent to U.S. GDP.

Mr. Pitts. If the ban were lifted, what effect would it have on gasoline prices? And how would it impact our refinery sector? Do you want to continue?

Mr. Sieminski. Well, gasoline prices, again, if we stay at these levels, gasoline prices could be down almost 77 cents a gallon. That is, again, a huge plus with gasoline prices averaging that much lower than the prior year. Obviously, there will be some losers in the production, producers are going to have lower income, this could have big effects on countries like Venezuela and others. It depends on oil

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revenues. That could lead to unrest there. This is why I think the idea that policies, that outcomes, and forecasts are uncertain is really huge. If you lost that oil production from Venezuela because of social unrest there, you could see prices come back up again.

I think, in general, when I think about, Mr. Yarmuth, about policies, you know, EIA is not a policy organization, but I think I could describe the three components of energy policy: It is what does it mean for the economy? What does it mean for the environment? And what does it mean for national security? And you were asking about national security issues. I would imagine that a key thing in thinking about this is how to weigh those impacts from a policy standpoint. I think the Strategic Petroleum Reserve is probably our key tool in security.

My time is expired. Thank you.

Mr. Whitfield. At this time, I recognize the gentleman from Georgia, Mr. Barrow, for 5 minutes.

Mr. Barrow. No questions, thank you.

I would like to yield time to Mr. Green.

Mr. Green. Thank you, Mr. Chairman.

I hope I get my own 5 minutes. I thank my colleague.

I represent Houston, Texas, and we have five refineries in East Harris County, but also, I have all my service companies, obviously,

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Halliburton, you name it, Baker Hughes and groups like that.

I want to keep them working in the oil patch, but I also know that this is probably the best time in my history that we have seen the refinery margins where we are at. That is why I wanted to ask Mr. Sieminski -- or Admiral -- typically, the integrated oil companies that have refiners and production, they have refining, but that is not their profit center. Most of the profit center is the production side. Although we do have three of those refineries are also independent refiners that are not integrated or majors.

Have you seen -- have you all done any research on the refining capacity, because I know the shutdown of refineries, smaller refineries around the country, there was some concern over the years that even though -- and we weren't producing as much crude as we needed right now, but also we were losing refining capacity. Have you all looked at those numbers?

Mr. Sieminski. We have a study underway on the ability of U.S. refineries to absorb this increase in the lighter oils that are being produced from the shale formations. And we will have that out I think some time in the early part of next year. I think the general feeling is and if you come back to the complexity to this, there are -- if -- moving the export ban does have impacts on different sectors in the economy, and the independent refiners are very concerned about

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how they would come out in that analysis.

Mr. Green. And what happened in the 1990s is because we weren't producing lighter sweet in the United States, most of our refiners who were successful converted, and it cost I know at one refinery about \$2.5 billion to convert to do the heavier crude.

Have you all put any cost estimates on --

Mr. Sieminski. Congressman, you are right in there, we should come up and brief you when we have this study done. We are going to have some estimates in there of what the costs are associated with adding the equipment that is needed to take care of this increase and lighter crudes and how fast those light crudes will be growing.

What we do know is that over the past -- if you look back over the last decade, billions of dollars were invested in upgrading refineries in Texas, Louisiana, and elsewhere on the Gulf Coast to process heavy crude oil, and now we have a surplus of light crudes and so it has created problems.

Mr. Green. I think the concern -- that surplus of light crude because they are typically the shale plays in those wells are very short-lived; although they are much cheaper to drill than the earlier ones. There are some issues with are we going have to reinvest for those refineries another \$2.5 billion to handle heavier to lighter crude.

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Mr. Sieminski. There are upgrading and new construction projects underway right now to allow the refiners to handle that, and a lot of those are taking place in your district.

Mr. Green. Has EIA looked at the issues, because in the past, we typically used whatever we refined in our country. But now we are producing so much more that it is actually we are having those downstream jobs that are exports. Back in Houston, we are exporting just tons in the last few years of low sulfur diesel. Because of the heavier crude, we get more diesel. But the low sulfur diesel actually is improving the environment in the countries we are sending it to, in Latin America particularly where our customers are and, of course, Europe, but Latin America predominantly.

Have you all looked at some of those issues. And I am going to ask if that has been looked at by our environmental community? Has EIA done that?

Mr. Sieminski. We -- that is going to be part of our study.

Mr. Green. Okay, I look forward to the study.

Ms. Gordon, has there been any qualification of that, even though we are doing heavier crude and are producing a lot more diesel that we don't use in our country, but it is also low sulfur because that helped in the countries that are buying that from us? Now, compared to the diesel that may be coming from other parts of the world.

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Ms. Gordon. Yes, certainly taking the sulfur out will be fantastic for health and for the environment. But a bigger question with the heavier oils is petroleum coke and what happens with the very bottom of the barrels. So when you put coking capacity into these refineries, you basically remove the middle of the barrel and you end up with a lot more gasoline and diesel, which is good for profit, and then a lot more of a solid substance, called petroleum coke. And we are also exporting that.

I think we have increased out of Texas, we have increased -- the U.S. has increased its petroleum coke exports to China like seventyfold in the last several years. It is a coal substitute, and it is worse than coal in terms of emissions. So it kind of cuts both ways.

Mr. Green. Mr. Chairman, I know I am over my time. But I would like to talk about petroleum coke when I get to my time.

Mr. Whitfield. This time right now the gentleman from Ohio, Mr. Latta, for 5 minutes.

Mr. Latta. Thank you, Mr. Chairman.

Again, as already has been stated, thanks for our panelists for being here today. It has been really informational. I really appreciate your time.

If I could just kind of hit a few points. As we have been sitting here, I checked where we started committee that West Texas was selling

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\$60 when we started. It is down to \$60.51. And Brent was at \$64.23, and it dropped to \$64.00 in the last few minutes.

I think the discussion we are having here is very informational, because also I think it was in the Wall Street Journal this morning, it was the headline in one of the sections of the paper about what the decreasing costs of oil from West Texas and what that is doing here in this country to a lot of our producers, especially out west. Of course, in Ohio and also in Pennsylvania with our Utica Marcellus Shale that we are developing in our States, especially for me in Ohio, it is really interesting and also your concern because if the price drops, you want to make sure that we can keep that production up and also keep people out there producing.

Administrator, if I could just go to your testimony. I really found it interesting, because, on page 5, you state that the U.S. crude imports declined by 2.4 million barrels per day, or 25 percent, the lowest since 1995. And the percentage of U.S. crude demand supplied by imports has fallen by 67 to 47 percent, the lowest level since 1992.

In the testimony, you all have been talking about today, especially about the oil coming in and the refining, how much when that oil comes in that we have imported goes back out as an export, just as a curiosity -- or a product? Administrator, would you like to take that? And then anybody else like to answer the question?

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Mr. Sieminski. The U.S. has net a product exports of about 2 million barrels a day. So the gross amount of imports and exports are different than that. We are exporting it. We are now kind of getting up to close to 4 million barrels a day of exports but we are also importing, especially gasoline into the east and west coast. So when you net it out, it ends up being about 2 million barrels a day.

Back to Congressman Green's comments, a lot of that exported product is coming from the Gulf Coast region of the U.S. It is going to countries in Latin America and Europe. The gasoline -- one of the better exports that we have is gasoline and the reason for that is we just don't need it here in the U.S., and it is needed in places in Latin America.

Mr. Latta. Thank you.

And if I could turn to Mr. Pugliaresi -- I hope I pronounced your name properly -- as we look across what has happened and we have seen the increase here, are there any regulatory or market barriers preventing our refiners out there right now from doing anything else to adapt to these new surges that we are having?

Mr. Pugliaresi. Well, I do think the refining industry is a lot of our downstream processing sectors do face a pretty formidable regulatory environment. They also face fuel constraints in like the renewable fuel standard. I think -- it is not that ethanol, for

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example, is a bad thing. We think ethanol is very useful to the American transportation field sector. It is the mandates that give you all these problems, because as demand shifts radically or the supply side shifts radically, the refiners are unable to adjust in a cost-effective way.

So I think as we go forward with this, and look at crude exports, we don't want to unnecessarily harm these high-value-added downstream processing centers. They add a lot to the economy as well. So we are not in favor of protection, but we are in favor taking a hard look at the trade adjustments you need to do when you move into an export mode.

Mr. Latta. Thank you very much.

Again, I thank our panelists.

And Mr. Chairman, I yield back.

Mr. Whitfield. At this time I recognize the gentleman from California, Mr. McNerney, for 5 minutes.

Mr. McNerney. Thank you, Mr. Chairman.

Suppose that the U.S. becomes a reliable and consistent exporter of natural gas and crude oil, how much impact will our natural gas exports have on the geopolitical issues relative to how much impact our diplomatic and military policies have on those geopolitical issues? Does anyone care to take that?

Ms. Gordon. I could just say that because these oils within

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relative bounds kind of trade as like types of oil, as I have been talking about, you do have to look at the geopolitics and the kinds of oil that we would be exporting.

So the light tight oil, as I mentioned earlier, has backed Nigerian imports out of the U.S. As we produce more of that oil, we are importing now no oil from Nigeria. We are importing oil, but it is just not from Nigeria. Well, that has a geopolitical impact, say, on Nigeria.

I think even though oil is not being used at all as a weapon, it ends up being something that can counteract the peacekeeping and the other efforts that we have in these very fragile nations around the world. Venezuela was mentioned.

Mr. McNerney. I am thinking in particular of Russia and Mr. Putin. Will our exports have more impact on his behavior than our military or diplomatic activities?

Ms. Gordon. It is a really good question, but I do think that Russia is reeling from the price of oil. It is not our exports that are really changing what is going on in Russia right now. It is \$60 a barrel oil that is changing what is going on in Russia now, which is a much bigger demand question. That is not about our exports.

Mr. Ebinger. If I could weigh in on that. The problem we have is twofold. We have had a lot of very, you know, I think impassioned

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proposals to do something to help Ukraine with the Russian crisis and other geopolitical events. But the reality is, of course, that our oil and gas are owned by private companies, and they are likely to ship the oil or gas -- oil if we allowed it -- to where the market gives them the greatest profit.

Right now, although it is changing before us as I speak, it has always been assumed that the market for LNG primarily would be in the Far East, because the premiums there have been much higher than those in Europe. Although, now we have LNG prices crashing in Asia down to very low levels where it is even questionable whether we can deliver LNG into some of those markets competitively. By the time we actually have LNG people ready to go, outside contracts have already been signed.

Geopolitically, I think the issue of exports is extremely important. Our allies in Korea and Japan and Taiwan are very desirous to have energy from the United States because they see an increasing bellicose China, threatening sea lanes on which all of their energy imports come from, not only oil and gas but also coal. So they are delighted. And I think it does improve our diplomatic status to the extent that we send energy there, but again, these are going to be commercial choices made by the companies that own that oil and gas.

Mr. McNerney. It is clearly a complicated question.

Mr. Ebinger. It is very complicated.

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Mr. McNerney. Well, whoever can answer this, how much do you see oil exports increase -- how do you see oil exports increasing over time if we were to repeal the Energy Policy and Conservation Act? Do we see a large bump, or do we see a slow increase? How do we see that playing out?

Mr. Sieminski. Well, we --- EIA is -- we do tend to look at those in our annual energy outlooks, which we do every year. We will have that one out we hope some time in late February or March. The answer to that I think probably lies more towards the lower end rather than the upper end. The reason I say that is that the kind of oil that we have in surplus here is light sweet crude. The market for that is not unlimited, so the question is how much of that could be put out on to the global markets before you have saturated the global markets? Something on the order of a million or a million and a half barrels a day might be the number that would be exported.

Mr. McNerney. Thank you, Mr. Chairman.

I yield back.

Mr. Whitfield. At this time, I recognize the gentleman from West Virginia, Mr. McKinley, for 5 minutes.

Mr. McKinley. Thank you, Mr. Chairman.

And I thank you for the panel. This is very interesting at the end of session. This would have been more interesting perhaps a little

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earlier, because some of the subjects we have gotten into have been particularly beneficial.

I have a series of questions. After waiting an hour and a half, my question was just asked by my predecessor, because I wanted to get at the geopolitical aspect of it. I think you have answered it in some respects. Perhaps we need to get into that a little bit deeper. One of the questions I would ask you is, who is asking for this ban to be lifted?

Mr. Sieminski. Well, the first groups are producers that have wanted to see the ban removed or those who are producing the lightest of the crude oil, because that is being discounted the most, and the attractiveness of exporting that into the global markets is high. And so we have seen that coming from some of the independent producers in Texas.

Mr. McKinley. I am also curious before I get to my last -- I have got three or four questions here, but one would be is back towards the tail end of the Bush administration, gas was selling at \$1.85 a gallon. Then we went up to \$3.50, \$3.85, almost \$4 for regular. Is there an impact here? What caused that? Why did it go from -- doubled in price?

Mr. Sieminski. Say that again, Congressman.

Mr. McKinley. When gasoline prices were \$1.85 under the Bush administration, what happened to take them up to double?

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Mr. Sieminski. The biggest thing -- the overwhelmingly most important factor in gasoline pricing is what the price of crude oil is in the global markets. The next biggest thing after that is probably the different levels of taxation in different States.

Mr. McKinley. That hasn't changed much; taxes haven't changed much.

Mr. Sieminski. The crude oil prices go up and down.

Mr. McKinley. The crude is down now -- what -- \$63 or something like this, OPEC?

Mr. Sieminski. Yes.

Mr. McKinley. Where was it?

Mr. Sieminski. It had been on average up over \$100 a barrel.

Mr. McKinley. I understand, but I haven't seen the price get back to \$1.85 yet. What is it going to take to get to \$1.85?

Mr. Sieminski. Well, it might have been \$1.85 when prices were a lot lower, and when we had \$40 oil --

Mr. McKinley. That is what your answer is, we need crude to get to about \$40.

Mr. Ebinger. There is one other issue that I think is controversial, but I think if you look at it, you will find that the mandates for biofuels being mixed with gasoline, we have seen ethanol prices go up very high in some of those markets. That has been a major

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contributor to the price of gasoline.

Mr. McKinley. My last question, I have less than 2 minutes. I have a small boutique refinery in West Virginia, Ergon. It fills a niche in the marketplace. What could be the impact if the export ban were lifted, what would be the impact on Ergon? 22,000 barrels a day.

Mr. Sieminski. In your area, probably very little.

Mr. McKinley. Because?

Mr. Sieminski. Those refiners out in the mid-continent where they have access to discounted WTI, benchmark crude, would see their costs go up.

Mr. McKinley. I think they are starting to tap into the Utica Shale gas now -- well, shale gas and then the Utica is what is providing the petroleum, the crude that they are going to be able to tap into. So you are thinking Ergon would be not affected?

Mr. Sieminski. In your State, sir.

Mr. McKinley. Well, they ship all over the country.

Mr. Sieminski. Right, but the question is what would the cost of feed stocks into the refinery in West Virginia be, and I would suspect that it won't change very much.

Mr. McKinley. Thank you very much.

I yield back the balance of my time.

Mr. Whitfield. At this time, I recognize the gentleman from

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Texas, Mr. Green, for 5 minutes.

Mr. Green. Thank you, Mr. Chairman.

Let me get back to some of the issues.

Well, first, Mr. Chairman, I would ask unanimous consent to place a statement into the record.

Mr. Whitfield. Without objection.

[The information follows:]

***** COMMITTEE INSERT *****

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Mr. Green. And I think it is no doubt that, in fact, the CBO report that was just released talked about a policy shift in exporting crude would pinch refiners' profit margins but also harm foreign oil producers.

But let me go down the list about we are exporting oil now, but it fits the definition of a condensate, that there actually is a mechanism where you get that lighter sweet out of the ground, you run it through what I would call a very limited refining process, but it fits the definition that we can export right now. How does EIA classify lease condensate, is that exporting?

Mr. Sieminski. Mr. Green, there are at least four big ways of trying to define condensate. The way EIA has historically done this is literally based on the location. If it is produced on an oil lease and is mixed back into the crude oil stream, we counted it as lease condensate and measured it in barrels.

Mr. Green. Is that the same definition as the Department of Commerce for export?

Mr. Sieminski. The Department of Commerce is looking at it from a different standpoint. And reportedly, the Commerce Department is now through letters, through the individuals who asked for a ruling on it has -- is allowing processed condensate. So if you take this very light crude oil, process it through a distillation tower, it would

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qualify as a product, and products under U.S. law right now are -- can be exported.

Mr. Green. Okay. Would it help to have a uniform definition for government agencies, particularly if lawmakers wanted to craft better regulation or legislation, to have one definition for condensate?

Mr. Sieminski. At EIA, we have been trying to understand the different definitions. And I suspect that a one size fits all might not actually work perfectly. We would still have -- at EIA, for example, we would want to make sure that we are able to count this process condensate so that we don't double count how much of the material is in our system. And that is a complication of the existing rules.

Mr. Green. Does EIA track exports of condensate production now -- or production and exports, do you track any of that production?

Mr. Sieminski. The export data is provided to EIA by the Customs people, so we do not have that. We do our own survey of imports. Interestingly, you think about all of the history that has been brought up here today. If we wanted to do our own survey of imports, because that was what was really big and that what was supposed to grow and we don't have a survey of exports.

Mr. Green. How readily available is that information?

Mr. Sieminski. That information is actually -- is available

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from the Customs people, and we have been working with them on speeding up EIA's ability to get that data.

Mr. Green. Dr. Ebinger, I know your testimony in your briefing book "Big Bets and Black Swans" in early 2014, you authored a section to lift the ban on U.S. oil exports. You state that unrestricted exports, in combination with increased investment in infrastructure, are expected to generate income, jobs, and taxes through the production change.

Do you think domestic transportation of oil is a major factor facing our energy sector? A good example, limitations of pipelines.

Mr. Ebinger. Yes, sir, I do. I think the fact that we have not built some major pipelines, Keystone being one of them, has certainly led to a more dangerous transportation system, by rail particularly, but also by truck and barge. A more expensive transportation system than would be needed if we built some pipelines.

So I think if as a Nation we are going to accept unconventional oil and gas drilling, which I certainly do, then we need to build the intended infrastructure as cost-effectively as possible to get that to market.

Mr. Green. Mr. Chairman, thank you.

Mr. Whitfield. At this time, I recognize the gentleman from Kansas, Mr. Pompeo, for 5 minutes.

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Mr. Pompeo. I thank you, Mr. Chairman.

I did a little work in the run up to this hearing to see which of you had predicted \$63 oil on December 11th, 2014. None of you did. You should know you should count yourself among the many. I couldn't find anyone who did. I saw a few traders who make a claim that they were in the market and the right place; they were on the short side and got to the right spot. And I mention that only because as I hear you talking about more data and more information in the hands of government and all that, I think if we unleash markets, glorious things will happen.

So I have heard multiple things today. I have heard folks talk about an export ban lifting, which seems right to me as a good direction. I have heard folks talk about the Jones Act. We have imposed enormous costs on our refiners with their renewable fuel standards, and we have seen a government agency totally incapable of dealing with the transition of what happened in the marketplace there. Can't get a set of rules out to deal and tell folks what to build, I mean, based on some prediction that Congress set, some levels Congress set. As we all as policymakers think about how we are going to handle this, we should not be at all certain that \$63 is here for tomorrow, let alone for 2 months or 3 months. No one mentioned the greenhouse gas rules that are about to hit. America -- no one mentioned CAFE standards that

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have had such a dramatic impact on our transportation and the uses for them.

You mentioned natural gas transportation, Mr. Ebinger, you said, Gosh, if we could get there -- I don't know what is standing between us and then. I couldn't tell you -- natural gas prices are at prices that you think, gosh, folks would go and want to invest. But the truth is you have markets operating in a state of uncertainty trying to get to the right outcome. We should not have a hubris to think that we have any possibility of getting in front of that place.

As you think about this export ban, I think it is incredibly important that we don't lift an export ban in base because, gosh, today we have certain oil prices that are sitting in the low 60s range. I think we made a mistake putting it in place in the 1970s. I think that is the kind of thing that policymakers should all consider.

I want to ask you, Mr. Sieminski, you did a report a month ago on what impacts gasoline prices. The Saudis changed the world here in the last quarter. Does that change how you think about the study that you put out in any material way?

Mr. Sieminski. No, I believe that that study would probably be still valid in terms of trying to understand what it is that relates the price of gasoline in the U.S. to the global markets for either crude oil or gasoline. Mr. Pompeo, I think that your comment about, did EIA

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predict \$63 oil, no we didn't. I would like to say in my defense that we --

Mr. Pompeo. No defense required --

Mr. Sieminski. That we talk -- every month, we publish something that that is actually worth thinking about for everybody here. We use the options market for crude oil to work backwards to what the confidence interval is on forecasts for crude oil prices and that -- 6 months ago, that confidence interval got down to the low 60s.

So that we have hit the bottom of the 95 percent confidence range. And for the committee here today, I just looked at some numbers, for West Texas Intermediate, the 95 percent confidence range. Will it fall in there? Is -- for April of the coming year, is \$50 to the low side and about \$90 for the high side? And that is telling you that the people who are in those markets, they are not really sure either.

Mr. Pompeo. Yeah, yeah. Folks with real capital at risk. I will ask anyone who may want to answer this, I have read lots of articles just recently -- they are pop news more than anything else -- about whether OPEC still exists. It is still the same force that when I was a little bit younger could impact markets in material ways. We talked about how these markets have changed. Does anybody care -- today want to say today that OPEC is dead?

Mr. Pugliaresi. I think market power by some big producers waxes

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and wanes, but if you have enough production outside of these other low-cost, high-volume producers, their market power gets reduced, and that is what you are seeing now. The distribution of crude oil outside of these few players, which North America is a big force today, is undermining the capacity of other folks to constrain output and charge higher prices. That is just the reality of it. That is the one -- that is a huge benefit of this North American platform, that is why we ought to pay attention to how it performs. Make sure we have a regulatory environment that doesn't hurt it.

Mr. Pompeo. Thank you.

My time has expired. Thank you, Mr. Chairman.

Mr. Whitfield. At this time, I recognize the gentleman New York, Mr. Engel, for 5 minutes.

Mr. Engel. Thank you very much, Mr. Chairman.

You know, last week, I moved my office. We hadn't moved in 10 years, and so we were throwing out all kinds of things. And there was this huge chart which said, "The World According to Oil." And it either shrank or increased the map of different countries based on the powerhouse of oil. And it is interesting because that was probably about 15 to 20 years old. The United States was very, very tiny. Saudi Arabia and Venezuela were very, very big. I couldn't help but thinking that if we did that map today, how different it would be. And I think

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that is a good thing.

Mr. McNerney asked about the geopolitical impact of it. And as the ranking member of the Foreign Affairs Committee, which I am, I care very much about the geopolitical aspects of it.

I like the idea of countering Mr. Putin. European countries are reluctant to stand up to him, because they need his oil. They could buy our oil. They might actually develop a backbone. So I have looked at this in a totally different approach than I looked at before. But everything, of course, is still a balancing act. I care about the environment. We want to make sure that we can continue to export and increase the export, and I think it is a balance.

So I want to say, Dr. Ebinger, I read the findings in your report, which finds that lifting the ban on crude oil would boost U.S. economic growth and put downward pressure on world oil prices. Larry Summers also called for lifting the ban.

Let me ask a few questions to anyone who cares to answer: Department of Commerce has granted licenses during the past year to a few oil companies to export a relatively small amount of an ultra light crude, as Mr. Green mentioned, is condensate. I believe condensate comes from shale plays. So, please, correct me if I am wrong. And so, therefore, increased production of condensate would mean for fracking, would it not?

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Mr. Ebinger. Yes, sir, it would.

Mr. Engel. It would. Among the companies exporting condensate are Pioneer Natural Resources, Enterprise Products Partners. Which shale plays are they getting their condensate from, do we know?

Mr. Sieminski. The Eagle Ford, Texas.

Mr. Engel. Okay. And where did it go? Are there existing refineries in friendly parts of the world that would take and refine this additional crude?

Mr. Pugliaresi. I can answer. I think most of the shipments went into the Far East, probably Korea, maybe the Singapore market. I don't actually have the -- the Department of Commerce has a much different policy towards handling data than EIA. This is considered proprietary information so I don't think it is publicly available yet.

Ms. Gordon. I would just add, it is petrochemical feedstock that condensates largely so it is going to -- it is not going to refining. It is going to making petrochemicals so the Far East makes sense.

Mr. Engel. Thank you. I am asking these questions because, obviously, in addition to economics, there are environmental conditions, and geopolitical factors that merit consideration and I really think the whole thing -- I think there is a balance. But I do think that this is something that we should look at very seriously. It makes sense to me, again, because I think the United States obviously

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being a world power has to be concerned with the geopolitics of it. I know that when we are trying to get some of our allies in Europe, Germany and some of the other countries to stand up to Putin and his aggression to Ukraine, there was some reluctance there because they rely on Russia for their energy resources. I can't help but thinking if they relied on us or if we were available, we could exert more pressure. And I think that would be an important policy goal of the United States. Again, I think it has to be balanced with environmental concerns and other concerns as well.

Thank you all. Thank you, Mr. Chairman.

Mr. Whitfield. The gentleman yields back.

At this time, I recognize the gentleman from Nebraska, Mr. Terry, for 5 minutes.

Mr. Terry. Thank you. So one of the reasons I ran for Congress 16 years ago was the high level of reliance on foreign fuel to full our economy and wanted to change that. So I am pleased to see that we are down to 33 percent. We are only 33 percent of our fuel needs of oil is imported now. So, in a geopolitical sense, why do we still have 33 percent import of oil into our country? And I will start with Mr. Sieminski.

Mr. Sieminski. Mr. Terry, what we are talking about mostly here today is oil, but within a year and a half, the U.S. is likely to be

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a net exporter of natural gas. We are already a net exporter of coal. We don't really import very much electricity. A little bit of that comes from Quebec, and Canada, and from Saskatchewan. So, on the oil side, we are a net exporter of oil products. The only thing that we are still importing is crude oil. Those numbers will come down if you say, well, do you want that to go to zero? The answer would be, well, not necessarily because those refineries import oil and sell product.

Mr. Terry. And particularly Venezuelan oil bothers me, but do we have a geopolitical responsibility to allow some importation of Venezuelan oil?

Mr. Sieminski. I don't -- I will stay away from the policy decision of what we would want to do with Venezuela or not. But I would say that Venezuela is at the top of EIA's list of what could go wrong in the global markets. It could push prices up. You have got Iranian sanctions issues. You have the ISIS problems in Iraq. Maybe OPEC will at some point decide to reduce production. You can have difficulties in Russia even.

There are lots of things that could make prices go up. Prices could come down, too. What really triggered prices coming down I believe over the course of the last few months was the combination of the unexpected recovery of oil production in Libya, at the same time that the economy in China was slowing down and demand forecasts began

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to recede.

And in that background of increasing U.S. oil production, the combination of all of those things I think was just was a tipping point and changed everybody's mind about what the future looked like.

Mr. Terry. Mr. Pugliaresi.

Mr. Pugliaresi. I guess one of the things I would encourage the members to is to look at this through North American lens. When you put Canada in the mix --

Mr. Terry. Absolutely.

Mr. Pugliaresi. -- we really don't like the self-sufficiency approach to thinking about energy security. We really say, look, we want this platform to be productive, U.S., Canada, large continental lands.

Mr. Terry. And Mexico. Let's think of it as North American independence.

Mr. Pugliaresi. There may be efficient solutions for the platform which allows both exports and imports, because refining configurations are all different kinds. We have a lot of very capital invested in processing heavy crude. And so that heavy crude ought to come from Canada and get processed where -- that is where it is most valuable.

Mr. Terry. And that makes sense to me. So, in our refining

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capacity in the United States -- I will follow up on your comment here, do -- are we ready to be able to expand or do we need to expand refining capabilities in the United States if we are going to have a mix of more sweet and then the heavier crude from Canada? Who wants to go with that one?

Mr. Sieminski. Well, it is difficult to convince refiners to expand capacity when the demand here in the U.S. is going down. Typically refineries are built closer to where consumers are. But we have got a terrific advantage in both technology and low natural gas prices -- natural gas is used as the refinery fuel -- that make our refineries the best in the world. And taking advantage of those situations I think is what the refiners are doing exporting products into the global market.

Mr. Terry. Ms. Gordon.

Ms. Gordon. Yes, I would just say that in terms of the -- as I said earlier, the global production has become very -- it is not site specific anymore. It is happening all over. But this is also going to happen in refining. The country that added more refining capacity to the world market than any other last year was Saudi Arabia. So we are seeing China adding refining capacity, Saudi Arabia adding refining capacity. And demand, as we have just said, is really in the developing world. So to move that demand closer, refine products closer to people

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that will consume -- we are talking Latin America, the Middle East, Africa -- that is where future demand growth is, throughout Asia. So the whole market is really shifting somewhat. I don't think you can really draw a circle around North America very easily in this market.

Mr. Terry. Although I want to.

Ms. Gordon. I know.

Mr. Terry. Thank you.

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RPTS KERR

DCMN WILTSIE

[11:30 a.m.]

Mr. Whitfield. At this time I recognize the gentleman from New York, Mr. Tonko, for 5 minutes.

Mr. Tonko. Thank you, Mr. Chair.

In a number of the hearings I have attended, I have noticed that where the subject is an environmental public health or consumer regulatory issue, there are a number of questions about the estimates of the cost and benefits of the policy in question, and that is fine.

Those questions explore the assumptions made in the analyses, the relative uncertainty or certainty of the estimates, and how sensitive the results are to changes in the assumptions, initial conditions, or data that go into the model.

Frankly, this is a major focus of most of our conversations about the projections on climate change, with much emphasis on the uncertainties and what we don't know and little emphasis on all the things that we have learned and the generally robust conclusions of climate models.

Economic forecasts don't receive the same scrutiny and, frankly, they often miss very significant changes. We have spilled blood and

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treasure over this commodity. As we all know, it still plays a major role in fueling our economy. We need to understand fully the implications before we make this change.

I note in Administrator Sieminski's testimony, when he provides the results of the EIA's latest short-term energy outlook, that he includes the disclaimer, "Of course, the recent dramatic declines in crude prices may affect our outlook in the coming months."

So I would like to better understand how robust these benefits -- benefit estimates provided in the studies refer to are likely to be.

Dr. Ebinger paints a very positive picture resulting from lifting the crude oil export ban, reporting a gain in GDP over the next 25 years of \$600 billion or -- billion to 1.8 trillion. That range is dependent upon which EIA scenario is used. These are model results based on other model results, EIA's model results.

What are the assumptions, I would ask the panel, about the world price of oil in the underlying EIA scenarios? And how would changes in that world price impact those given estimates?

Dr. -- or Honorable Sieminski, if you could, please.

Mr. Sieminski. Congressman, we will be looking at this and will have a lot more to say, I think, when we publish the annual energy outlook early next year. I think what I could say is that lower oil

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prices, if they were to remain, will slow down this growth in U.S. oil production. I mean, that is supply and demand, pricing.

The other possible effect it could have is to make it less profitable for companies to export natural gas in the form of LNG from the United States, and the reason for that is exports of LNG from the U.S. generally are predicated on selling into a market where that gas in Europe or Asia is priced at an oil equivalent. And with lower oil prices, the spread or profitability of exporting U.S. LNG into the global markets would be reduced. And so that might change those dynamics a little bit.

The -- so there are going to be a lot of places, you know, in our forecast. I think we are building in a possibility that lower prices could stay for awhile, would have an impact, and we will have plenty to say about that in the coming months.

Mr. Tonko. Thank you.

Ms. Gordon, do you have anything to add to that?

Mr. Ebinger. If I could add, sir, if we look at past situations where we have had precipitous price declines, I think you can look internationally and say that the price declines at some point become the engines of renewed growth because the Chinas and Indias and Brazils of the world, all of a sudden, if they start seeing \$50 oil, they start saying, "Let's rejuvenate some of our economies and rev up projects

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that didn't make sense at \$100 oil."

And remember that -- I think it was in 1998 -- that the price of oil fell, I think, from 117, 118, something like that, down to \$38 in 7 months, but it came rapidly back up. I believe, if I remember correctly, at least into the 70s and then worked its way up to where it was before the current price drop.

So, you know, low oil prices for those countries that are huge oil importers and fast-growing populations we have talked about in Asia -- low oil prices are a boom, and, at some point, it will rejuvenate the Chinese and Indian economies and bring, hopefully, the rest of the world along with it as demand for goods and services, once again, intensify.

Mr. Tonko. Mr. Chair, I yield back. My time is up.

Mr. Whitfield. The time is up.

At this time recognize the gentleman from Virginia, Mr. Griffith, for 5 minutes.

Mr. Griffith. Thank you, Mr. Chairman. I appreciate that. Petroleum coke. I always love coming to these hearings and listening because I learn all kinds of things.

Ms. Gordon, tell me about petroleum coke. And you said earlier in your testimony that it was worse than coal. I am assuming that means from a pollution standpoint.

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Can you explain that to me, please.

Ms. Gordon. So petroleum coke is the bottom of the barrel. It is when you wring all of the liquids out of the heavy oil. It comes out of every refining process, but in very small amounts.

But with heavy oils, you have a lot of these high-carbon bottom-of-the-barrel. And so, when you put in coking capacity that actually cleaves these molecules, you get more liquids out, which is good, but then you get more solid out of your refinery.

Petroleum coke is a solid fuel. If it is a very, very high-quality petroleum coke, which doesn't come out of refineries, it goes into steel and glass and ceramic manufacture.

If it is low-quality coke, high in sulfur, high in heavy metals -- this is what comes out of the oil production process -- that goes into power production and steam, and then you are basically burning coal.

It has about 10 percent higher greenhouse gas emissions than coal and higher nickel, vanadium, sulfur, than some of the worst coals, and it runs a bit counter to coal.

So when coal is priced high, as it had been recently and before we were exporting a lot of our coal, China was wanting the petroleum coke because it was an economic benefit for them to burn coke instead of coal. Now prices of coal are low. And so coke is a little bit out

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of favor.

And, if you remember, there was a news release last year about -- it was in Detroit. There was a pile of petroleum coke that got a lot of attention in the press. It is very -- it is black. It is voluminous. They are spreading in Alberta.

It has spread for miles because they haven't -- it is landlocked. They can't really export it. So it ends up being a problem. They are going to want to send us the heavy oil so that we export the petroleum coke because we are closer to ports of call.

Mr. Griffith. Okay. Now, let me go back on your testimony just a little bit in there.

You said that it is now cheaper or more expensive than --

Ms. Gordon. Than coal.

Mr. Griffith. -- the coal product.

Ms. Gordon. Coal prices have come down. So petcoke is more -- it is really priced to sell. It is very hard to get data on petcoke, actually. It is not traded. It is traded, you know, in the trade -- with traders. It is very person to person, company to company.

But because it is a byproduct of refining and no one really wants to make this petcoke, it builds up and you have to get rid of it. So, of course, you know, refiners want to get a lot of money for it. But, if they can't, they still have to put it into the market. So the price

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is relatively volatile.

Mr. Griffith. Okay. So from an environmental standpoint, we would be better off exporting low-sulfur coal from the United States, say, Central Appalachia, that I happen to represent and Mr. McKinley represents, than we would be flooding the market in China with this petcoke. Am I correct?

Ms. Gordon. Petcoke's worth.

Mr. Griffith. I appreciate very much.

Pipelines were brought up earlier, about whether or not we should be building them and the safety of bringing the oil.

And I think I understood from the comments -- just from the tenor of the comments that the consensus or the general understanding was that the oil is going to find a way to the United States coming out of Canada whether it is by pipeline or by truck or by train. Is that a fair assessment?

And each one of you can answer that.

Mr. Pugliaresi. Yeah. I think it will. The question is cost. Right. The reason the pipelines -- I mean, there is a real value to rail. There is a lot of optionality where the markets are not settled. But, you know, when capital gets deployed, it is quite interesting.

If you want to build a major transloading facility -- rail transloading facility, you just get a local permit. You don't have

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a NEPA review. If you want to build a pipeline, you are going to cross federal land or you are going to do some action that is going to trigger a NEPA review.

So we have a regulatory program that is somewhat unbalanced. You can put a rail facility and move things out pretty quickly. You want to build a pipeline, you have got a mountain of paperwork and intervenors before you.

Mr. Griffith. Yeah. I appreciate that.

I was -- there was one of these questions that I don't think has been asked in relationship to the international situation, and that deals with the U.S. recently won a trade case against China over their export ban on rare earth.

How does that case then appear, at least from a public perception standpoint, when we are banning the export of our oil products?

And does that weaken the President's hand in these discussions with other countries about exporting rare earth and the U.S.'s position on oil?

Anybody want to take that one?

Mr. Ebinger. It has been raised by a number of people, at least in the think tank community, as an issue. And I know a number of international trade lawyers that think it is quite possible that someone might bring an action against the United States for the

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continued ban on crude oil exports on the same premise, that it is an unfair barrier to trade.

Mr. Griffith. All right.

Ms. Gordon. I would just add that, because China's oil tends to be heavier, their refining capacity isn't really well suited to our light tight oil. And because we can export product -- a lot of product and there is no ban on that, substantively --

Mr. Griffith. That is China bringing an action. But in the think tank world, at least there is some concern that somebody else might bring an action.

Mr. Ebinger. It may not be China, but it may be someone else.

Mr. Griffith. May be someone else. I appreciate that.

And my time is up. And I yield back, Mr. Chairman.

Mr. Whitfield. Thank you, Mr. Griffith.

That concludes the questions.

And did you want to ask some additional questions, Mr. Green?

Mr. Green. Mr. Chairman, I would just like to follow up with Ms. Gordon on the --

Mr. Whitfield. I will recognize you for 5 minutes.

Mr. Green. Oh. Well, thank you.

The Energy Policy and Conservation Act of 1975 you discussed, importantly, EPCA also addressed vehicle standards, energy efficiency,

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conservation, and created a Strategic Petroleum Reserve.

If the next Congress addresses the export issue, should there be an effort to address the other sections like the Strategic Petroleum Reserve?

Ms. Gordon. I think we are in a transition when it comes to oil, and that has been very obvious. And so oil policy, energy policy, is going to be an important new chapter that follows that.

Mr. Green. Okay. Well, most of that Strategic Petroleum Reserve actually is just east of where I live in southeast Texas, and it is important.

But, again, if we are producing what we are -- although we are still not producing enough oil for our own consumption mainly because of the types of oil we have.

And, like I said earlier, the refineries that I have represented over the years have been retooled to do the heavier crude, and it would take, you know, billions of dollars to go back to do the lighter sweet. And just like -- I mean, it is an investment decision if that happens.

In your testimony, you discuss environmental risk and that, stated earlier, you have seen conflicting climate articles discussing U.S. refined products, exports.

Is the U.S. refined product better or worse than the product currently consumed in other parts of the world? Do we produce gasoline

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or diesel better than India or China, for example? And I know we compete with Europe on the product, too.

Ms. Gordon. Well, from a climate perspective, it is carbon. It would be similar. From an air quality perspective, it depends on the refining specifications.

And they are, you know, lower in Europe than the specifications might be lower in Asia. But from a climate perspective, I don't think there is a difference between our products and theirs.

Mr. Green. And I know that, if there is a ton of carbon going up in China, that is the same as a ton of carbon going up in east Harris County. And that is why some of us would like to see some kind of national agreement so we don't compete with one hand behind our back.

As the U.S. produces more light sweet crude and exports condensate, the ultra-low-sulfur diesel. And I mentioned it earlier, but I just want -- that is benefiting some of our trading partners in Latin America, particularly, and, I assume, Europe because we have low-sulfur diesel. And I know it went -- the refining industry went through some problems through it. So they are actually doing very well in exporting it.

Does that help the climate, at least the pollution issues in other countries?

Ms. Gordon. Not climate, but air pollution.

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Mr. Green. Not climate, but air pollution.

Ms. Gordon. Yeah. Sulfates that are in the air. So it would be much more of a respiratory issue and not climate.

Mr. Green. Well, that is probably more immediate than rise in the sea level and things like that. So -- but it does have a benefit for those countries.

Now, let me talk about petroleum coke for the last minute.

The highest mountains -- the highest points in my district is either a landfill or the tons of petroleum coke, and it is shipped out.

And in the 2005 energy bill where we set up loan guarantees through Department of Energy for a number of things, including wind and solar -- and my colleague Joe Barton is not here -- we put in there for research and what we could utilize petroleum coke for other than just shipping it to China and India to burn, which, again, puts carbon in the air, but also the local.

Is -- is there any support for trying to use something alternative?

I got involved with coal ash because it was used for roadbeds. Is there anything else we could use for -- petroleum coke for? Because it is -- we can't burn it here because it is so bad.

Ms. Gordon. Exactly.

You know, it is a matter of taking the bottom of the barrel where

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there is no economics left and putting more money into it.

There are definitely things you could do with that petroleum coke, the fuel-grade petroleum coke. You could take heavy metals and the sulfur out and make it actually a beneficial industrial byproduct, but it is going to cost money to do that.

Mr. Green. Yeah. So it is not economical.

Ms. Gordon. It is not economical.

Mr. Green. It is much cheaper to put it on a --

Ms. Gordon. Not if no one will take it.

Mr. Green. -- a ship and send it to someone else to burn it?

Ms. Gordon. Uh-huh.

Mr. Green. Okay.

Mr. Pugliaresi. You know, Mr. Green, I am only going to say one thing about the SPR, the Strategic Petroleum Reserve.

I think it is important to remember this is a strategic asset. We are still connected to the world oil market. We might have to change the way we distribute the SPR because of the huge flow of crude oil into the Gulf Coast, but I don't think -- I think we should -- you know, and I am sure we are going to study this carefully.

But, you know, things can change in the world. We are not going to get rid of the 82nd Airborne and we are not -- and I think we ought to look at the SPR that way. The world could change and we may need

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that. Even if we are relatively independent, a price spike in the world oil market for some catastrophe somewhere could do a lot of damage to the American economy. We will want that asset at that time.

Mr. Green. And that is correct.

And where I come from, the goal of that was to buy that oil and put it in that when it was low. So -- and then when we release it because -- when oil goes up because of embargo or whatever else it does.

But Mr. Chairman, you have been more than kind today. Thank you.

Mr. Whitfield. I also want to mention Bill Flores is here, a member from Texas who was recently elected chairman of the Republican Study Group. He is going to be a member of the Energy and Commerce Committee in the 114th Congress and a member of this subcommittee.

And since, Bill, you sat there so patiently for all these hours, do you want to ask a few questions before we get out of here?

Mr. Flores. Well, I think that I just heard the voting buzzer go off. So I will, first of all, thank you for recognizing me and thank you for allowing me to have the time. I will keep my -- my comments short.

One of you -- well, more than one of you on the panel talked about the cumbersomeness of having federal policy trying to interfere with free markets. And I think that is something that we on this side of the room need to always remember, that anytime that we try to violate

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the laws of economics, it is like violating the laws of physics.

And you can think about gravity as an example. The more you violate the laws of gravity, the harder the impact at the end. And that was one of the first things that my economics instructor taught me back when I was in college.

And so I think that we on our side, again, need to be constantly reminded that the free market works best when it lets the -- when the Federal Government doesn't have too heavy a hand.

There was some conversation here about the transparency related to the oil markets, and I would vigorously disagree with those comments because of this.

If you say there is no transparency, that means that the buyers and sellers that are out there taking this oil and refining it know nothing about it, and that is not the case.

That oil is being moved around. It is being trans -- I mean, it is being bought and sold and refined and put into finished product and being sold to an end user and being consumed.

And so to say that there is no transparency in the market is just false because buyers and sellers are out there. They are happy with the level of information that they have.

If they weren't, then there would be no trading. There would be no commerce in those products. And so I would not like the panel to

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get too affixed to those comments because they just are not true.

And, with that, I yield back, Mr. Chairman. And thank you.

I hope everybody has happy holidays and Merry Christmas.

Mr. Rush. Mr. Chairman, I would really ask for unanimous consent to allow Ms. Gordon to respond to that because --

Mr. Whitfield. Without objection, go ahead.

Ms. Gordon. There is certainly some transparency in the market. I mean, it is working. But I think the best example of why there isn't enough information in the market is the explosiveness of the rail cars taking Bakken oil.

The market really didn't know the composition of that oil, and the equipment wasn't really designed to deal with that oil.

So I think that we are seeing physical manifestations of the fact that there isn't enough transparency in this market.

Mr. Whitfield. Did you want to ask for unanimous consent?

Mr. Rush. Mr. Chairman, I also want to ask for unanimous consent that this report from the -- ostensibly, from the United Steelworkers -- that it be included into the record.

And, also, I have here an article from a Mr. Mason Inman on the -- entitled, "The Fracking Fallacy." I would like for that to be included into the record.

Mr. Whitfield. These will be included in the record.

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[The information follows:]

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Mr. Whitfield. And then, also, I would like to put into the record a letter -- letters from the American Petroleum Institute, the American Fuel and Petrochemical Manufacturers, and the Diesel Technology Forum. Without objection.

[The information follows:]

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Mr. Whitfield. So that concludes today's hearing.

I want to thank you once again for your testimony and for your patience and responding to our questions.

And we are going to have more hearings on this when we reconvene for the 114th Congress. And the record will remain open for 10 days for additional materials.

So that concludes this.

Mr. Rush. Mr. Chairman, I want you to join with me in wishing everybody happy holidays.

Mr. Whitfield. You think we should?

Mr. Rush. I think we should.

Mr. Whitfield. Merry Christmas. Happy holidays. And enjoy the break.

That concludes today's hearing.

[Whereupon, at 11:50 a.m., the subcommittee was adjourned.]