AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

RISING OIL PRICES AND DEPENDENCE ON HOSTILE REGIMES: THE URGENT CASE FOR CANADIAN OIL

HEARING

BEFORE THE

SUBCOMMITTEE ON
THE WESTERN HEMISPHERE

OF THE

COMMITTEE ON FOREIGN AFFAIRS
HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

MARCH 31, 2011

Serial No. 112–24

Printed for the use of the Committee on Foreign Affairs

Available via the World Wide Web: http://www.foreignaffairs.house.gov/

U.S. GOVERNMENT PRINTING OFFICE

65–494PDF WASHINGTON : 2011

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON FOREIGN AFFAIRS

ILEANA ROS-LEHTINEN, Florida, *Chairman*

CHRISTOPHER H. SMITH, New Jersey
DAN BURTON, Indiana
ELTON GALLEGLY, California
DANA ROHRABACHER, California
DONALD A. MANZULLO, Illinois
EDWARD R. ROYCE, California
STEVE CHABOT, Ohio
RON PAUL, Texas
MIKE PENCE, Indiana
JOE WILSON, South Carolina
CONNIE MACK, Florida
JEFF FORTENBERRY, Nebraska
MICHAEL T. MCCAUL, Texas
TED POE, Texas
GUS M. BILIRAKIS, Florida
JEAN SCHMIDT, Ohio
BILL JOHNSON, Ohio
DAVID RIVERA, Florida
MIKE KELLY, Pennsylvania
TIM GRIFFIN, Arkansas
TOM MARINO, Pennsylvania
JEFF DUNCAN, South Carolina
ANN MARIE BUERKLE, New York
RENEE ELLMERS, North Carolina
VACANT

HOWARD L. BERMAN, California
GARY L. ACKERMAN, New York
ENI F.H. FALEOMAVAEGA, American Samoa
DONALD M. PAYNE, New Jersey
BRAD SHERMAN, California
ELIOT L. ENGEL, New York
GREGORY W. MEEKS, New York
RUSS CARNAHAN, Missouri
ALBIO SIRES, New Jersey
GERALD E. CONNOLLY, Virginia
THEODORE E. DEUTCH, Florida
DENNIS CARDOZA, California
BEN CHANDLER, Kentucky
BRIAN HIGGINS, New York
ALLYSON SCHWARTZ, Pennsylvania
CHRISTOPHER S. MURPHY, Connecticut
FREDERICA WILSON, Florida
KAREN BASS, California
WILLIAM KEATING, Massachusetts
DAVID CICILLINE, Rhode Island

YLEEM D.S. POBLETE, *Staff Director*
RICHARD J. KESSLER, *Democratic Staff Director*

SUBCOMMITTEE ON THE WESTERN HEMISPHERE

CONNIE MACK, Florida, *Chairman*

MICHAEL T. MCCAUL, Texas
JEAN SCHMIDT, Ohio
DAVID RIVERA, Florida
CHRISTOPHER H. SMITH, New Jersey
ELTON GALLEGLY, California

ELIOT L. ENGEL, New York
ALBIO SIRES, New Jersey
ENI F.H. FALEOMAVAEGA, American Samoa
DONALD M. PAYNE, New Jersey

CONTENTS

Page

WITNESSES

The Honorable David L. Goldwyn, president, Goldwyn Global Strategies, LLC (former U.S. Department of State coordinator and special envoy for International Energy Affairs) 8
Mr. Lucian Pugliaresi, president, Energy Policy Research Foundation, Inc. (former National Security Council member) 18
Paul Sullivan, Ph.D., professor of economics, National Defense University, adjunct professor of security studies and of science, technology, and international affairs, Georgetown University 25
Mr. Jeremy Symons, senior vice president, Conservation and Education, National Wildlife Federation 57

LETTERS, STATEMENTS, ETC., SUBMITTED FOR THE HEARING

The Honorable David L. Goldwyn: Prepared statement 11
Mr. Lucian Pugliaresi: Prepared statement 20
Paul Sullivan, Ph.D.: Prepared statement 27
Mr. Jeremy Symons: Prepared statement 60

APPENDIX

Hearing notice 84
Hearing minutes 85
The Honorable Connie Mack, a Representative in Congress from the State of Florida, and chairman, Subcommittee on the Western Hemisphere:
Prepared statement 87
Statement from the Council of the Americas 89
The Honorable Eliot L. Engel, a Representative in Congress from the State of New York:
Letter from mayors to the Honorable Hillary Clinton dated March 24, 2011 92
Letter from LiUNA! to the Honorable Hillary Clinton dated October 22, 2010 95
Written responses from Mr. Lucian Pugliaresi to questions submitted for the record by the Honorable Connie Mack 97

RISING OIL PRICES AND DEPENDENCE ON HOSTILE REGIMES: THE URGENT CASE FOR CANADIAN OIL

THURSDAY, MARCH 31, 2011

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON THE WESTERN HEMISPHERE,
COMMITTEE ON FOREIGN AFFAIRS,
Washington, DC.

The committee met, pursuant to notice, at 2 o'clock p.m., in room 2172 Rayburn House Office Building, Hon. Connie Mack (chairman of the subcommittee) presiding.

Mr. MACK. I would just like to start by thanking everyone for being here and thanking our witnesses and the members for their patience as we try to work through votes that occurred at the same time as the starting of this hearing. Again, I want to thank the witnesses for being here today.

After recognizing myself for 5 minutes, myself and the ranking member each for opening statements, I will recognize members of the subcommittee for 2 minutes each for their statements. We will then proceed directly to hear testimony from our distinguished witnesses.

The full text of their written testimony will be inserted into the record.

Without objections, members may have 5 days to submit statements and questions for the record.

After we hear from our witnesses individual members will be recognized for 5 minutes each to question our witnesses.

I now recognize myself for 5 minutes. Again, I want to thank everyone for their patience and thank the witnesses for being here.

In light of the recent events in Egypt, Tunisia, and Libya, the political unrest throughout Northern Africa and the Middle East has caused significant instability in world oil markets. In the last month, the price of oil has risen to $105.00 per barrel, a 29-month high, which led President Obama to consider tapping into U.S. oil reserves.

I was pleased to hear the President say yesterday in a speech at Georgetown, and I quote:

> "Importing oil will remain an important part of our energy portfolio for quite some time, until we have gotten alternative energy strategies fully in force. And when it comes to the oil we import from other nations, obviously we have got to look at neighbors like Canada and Mexico that are stable and steady and reliable sources."

I share similar concerns with President Obama and I am pleased that yesterday he announced his administration's intent to increase domestic natural gas and oil production and to reduce America's dependence on foreign oil.

I agree that it is imperative that the U.S. reduce its imports of foreign oil over time. However, the Obama administration has failed to act. We need to immediately concentrate on replacing foreign oil from thugocrats like Hugo Chavez in Venezuela with reliable, stable allies like Canada. Doing so will ease U.S. energy concerns and provide economic stability while U.S. oil companies make greater use of their Federal leases both onshore and offshore to help increase domestic oil production.

What President Obama and his administration have failed to do is increase American security. By approving the Presidential Permit for the Keystone XL pipeline this administration could create tens of thousands of jobs to help boost the ailing economy, and secure an additional 500,000 barrels of oil per day into U.S. refineries in Oklahoma and Texas.

Delays in this approval process have cost the United States valuable jobs at a crucial time. For example, companies like MasTec in my home state of Florida have the potential to bring home economic benefits from the construction of the Keystone XL pipeline.

In recent weeks I have criticized the administration for their lack of policy not only in the Western Hemisphere but on a global scale. Instead of shoring-up important national security and energy resources from a close ally, our nation continues to rely on the likes of Hugo Chavez for approximately 10 percent of our oil and the price we pay is reliant on the actions of unreliable and corrupt dictators such as Libya's Qaddafi.

Furthermore, this oil dependency holds the State Department hostage when they should be calling out the Chavez regime for its vast human rights violations and support of terrorism.

The approval of the Keystone XL pipeline to transport Canadian oil to our southern refineries would add supply to the global markets while allowing our refineries to operate at full capacity. Further, U.S. energy companies will benefit by linking into the pipeline allowing the U.S. to increase its production of domestic oil, provide direct access for U.S. energy companies to Gulf refineries, and reduce congestion in Cushing, Oklahoma.

The result of the pipeline would increase productivity, but most importantly for me, it would force Hugo Chavez to realize that the United States is not beholden to fully funding his regime indefinitely. It must be made clear to leaders such as Hugo Chavez, who utilize state-owned oil companies to violate U.S. sanctions on Iran, that there are consequences for their actions.

While the influx of jobs and the arguments for increased energy security and national security speak for themselves, the environmental concerns of extracting and refining oil from the Canadian oil sands are fueling a well coordinated effort to politicize this vital progress.

Let me make a few points toward this end.

The Canadians have sovereign rights to the development of their oil sands, and any attempt by U.S. politicians and interest groups to impact their ability to extract this oil is like Canadians trying

to control when and where we extract our resources, and I might add, such efforts are a waste of U.S. time and taxpayer money. This oil will be extracted and sent to Asia if it is not allowed to support our southern refineries.

Lifecycle green house gas emissions related to the extraction and refining of the Canadian crude oil are less and better regulated than the emissions related to the oil imported from Venezuela, Saudi Arabia, Nigeria and Mexico, the United States' top suppliers outside of Canada.

While breaking the U.S. dependence on oil is critical, and an area where we should enhance our current partnerships with Canada and Brazil, a stable economy with energy and national security is imperative to allow the necessary research and development of green technology to propel the U.S. forward.

Securing the Keystone XL pipeline will provide us with that luxury and must not incur additional delays.

I would like to recognize Mr. Sires for 5 minutes for an opening statement.

Mr. SIRES. Thank you, Mr. Chairman. Thank you for holding this hearing today and thank the witnesses for your patience. I was here earlier and we had a vote.

We are in the midst of an energy crisis. We have a situation in the Middle East that really quite frightens me as we head into our venture in Libya. We have a situation where the price of oil, the price of gas is increasing in the United States. We have a situation where we can remedy some of this with this Keystone XL pipeline.

I was concerned, I must admit, at first about the environmental impact but, quite frankly, I am confident that this is something that is good for Canada and it is good for the United States. I think we are going to create in the process something like 118,000 jobs and bring in something like $20 billion into our economy. We certainly cannot pass that up.

Furthermore, I think that we can stop our dependency on foreign oil. Canada has been a friend. Canada will continue to be a friend and we will continue to work with Canada so I am looking forward to hear from you and I am looking forward to this project when it eventually gets done so we can reduce our reliance on foreign oil. Thank you very much for being here.

Thank you, Chairman, for holding this hearing.

Mr. MACK. Thank you, Mr. Sires.

I would like to recognize Ms. Schmidt for 2 minutes for an opening statement.

Ms. SCHMIDT. Thank you, Mr. Chairman. I could not agree more with both of your statements. As we look to the Middle East and the instability that continues to grow in the region and the fact that so much of our reliance on foreign oil comes from that part of the world, we really have to look to another part of the world for that oil.

As we all know, over 50 percent of what we use in this country today comes from a foreign source. Of that, when you look at the total pie of the foreign source, right now we are receiving about 23 percent from Canada. We need to grow that portion of the pie. It makes absolutely no sense to delay this Keystone pipeline, for a national security reason as well as an economic reason.

From a national security reason, it is because our friends are Canadians. It is always good to do business with friends. The second is, as we see a spike in gasoline prices at the pump, my fear is with more consumption in the summer that is only going to continue to grow, it is only going to weaken our economy, so getting the opportunity out there for another good supply of oil for our citizens in the United States makes sense.

I urge that we allow this to occur, get the permitting done quickly. Let us build the pipeline and let us move not just Canada forward, but the United States as well.

I yield back the balance of my time.

Mr. MACK. Thank you very much.

I would now like to recognize Mr. Payne for 2 minutes for an opening statement.

Mr. PAYNE. Thank you very much. Thank you, Mr. Chairman, for calling this very important hearing dealing with TransCanada and its pipeline. As we know, this is an issue that has two very clear sides; proponents of the Canadian oil, Keystone pipeline including Canadian agencies and petroleum industrial stakeholders to energy security, economic benefits such as job creations.

We have heard about that here not only in Canada but in the United States. Some contend that Keystone project secures growing Canadian oil supplies for the U.S. market, which would help offset imports from less dependable foreign sources. They claim that the oil output cannot flow into the United States infrastructure; it may get exported to Asia.

Of course, those opposed to the pipeline, primarily environmental groups, object to the project principally on the grounds that it support dirty Canada oil sand development and that it would pose an environmental risk to ground water and that it promotes continued U.S. dependence on fossil fuels. We have certainly two sides. I would like to hear both sides of the argument and hopefully we can come up with what is in the best interest of the majority.

Thank you. I will yield back.

Mr. MACK. Thank you, Mr. Payne.

I would now like to recognize for 2 minutes Mr. Rivera for opening statements.

Mr. RIVERA. Thank you very much, Mr. Chairman. Thank you to the witnesses for testifying before our committee today. Today the average price per gallon in Florida, my home state, stands at $3.61 a gallon. The ramifications are felt across the economy when you take into account the hidden costs associated with such a surge in fuel cost, especially when you consider it was $2.80 just 1 year ago.

Consumers see the affects of rising fuel costs in their daily lives from the increased price of transportation, the increased cost of moving goods from producers to store fronts and to market, the increased cost of utilities, the increased cost of literally feeding their families and so on.

My constituents are being squeezed by these increased costs and the administration does not seem to have a coherent plan to expand supplies and help ease price pressures. With additional supplies, the tight market conditions that have put pressure on our constituents are going to persist.

To address our current situation we need to increase capacity and explore for new domestic sources of oil and natural gas.

Since the Deepwater Horizon accident, production in the outer continental shelf has fallen by 270,000 barrels per day. Furthermore, the Energy Information Administration expects Gulf of Mexico production to fall by 250,000 barrels per day each year over the next 2 years.

I also understand that EIA has lowered their annual energy outlook because of, from their own report, "Expected delays in near-term projects in part as a result of the drilling moratorium." Canada is America's No. 1 supplier of petroleum.

In January of this year we imported over 2,100 barrels of oil a day from our neighbors to the north. Our Canadian friends are capable of providing us with much more petroleum resources but we currently lack the sufficient infrastructure to bring them to refineries for processing and eventually to market. I look forward to your testimony on this critical issue.

Thank you, Mr. Chairman.

Mr. MACK. Thank you, Mr. Rivera.

Now I would like to recognize the ranking member, Mr. Engel, who had some votes at another committee.

We appreciate you being here and you are recognized for 5 minutes.

Mr. ENGEL. Thank you. Thank you very much, Mr. Chairman. I appreciate your holding this for me. Thank you for calling this very timely hearing. Thank you also to our distinguished panel of witnesses. I look forward to hearing your testimony and I have no doubt that our question and answer session will be lively.

At this point it is not my intention to launch into a fierce monologue in support or opposing the Keystone XL project. On the contrary, I am certain there are some very sound and reasonable arguments in support of this project. However, I am equally sure there are cogent and convincing arguments opposed to Keystone XL. This is perfectly normal for such a large undertaking with significant ramifications.

We are speaking here about energy dependence, international commerce, jobs, and more. We are talking about oil, hostile regimes, foreign relations, and geopolitics. We are discussing greenhouse gases, groundwater pollution, and pipeline safety. We must consider all of these factors, not just some.

I have to confess my mind is not made up on this matter. On the one hand, I have no problem with energy imports from Canada. Canada is already our country's largest foreign source of energy including oil, natural gas, and electricity. However, I think that before this project can go forward some serious environmental safety and economic questions must be addressed.

As the ranking member of this subcommittee I believe we must elicit views from both sides, not only to inform and educate myself, but to aid my colleagues in the same endeavor. It has been nearly 1 year since the disastrous oil spill occurred in the Gulf of Mexico and we still have much further to go to recover from that catastrophe.

Of course, what happened in the Gulf is not what is being proposed here. However, there are a few key lessons we must draw.

Most importantly, we must ensure that the regulatory failure which contributed to the crisis in the Gulf does not reoccur on the Keystone XL review process.

We witnessed a tragic event of such massive consequences last April that we must ensure we are taking every reasonable safety precaution and examine this proposal from all angles to prevent a similar disaster in a different part of our country.

As the co-chair of the House Oil and National Security Caucus I have long believed that our dependence on oil is quickly ascending to unacceptable levels. It may perhaps already be there. As I look at the Keystone XL pipeline I wonder whether this pipeline actually increases our dependence in the long run.

Yet, I strongly agree with Chairman Mack that Hugo Chavez is a menace to the region. Any solution or strategy that lessens our dependence on Venezuelan oil, or even our dealings with that regime, is certainly an idea with merit and worthy of consideration as this project is.

I would like to voice one word of caution, though. I have heard it said that the State Department is the only thing holding up the Keystone XL pipeline and if they would only get out of the way, this project would move forward. Sometimes in our excitement about a specific idea or exuberance for one approach or another it is easy to overlook the serious legal obligations which we in Congress impose on our government agencies.

The State Department is in the process of reviewing the permit and drafting an environmental impact statement for the Keystone XL pipeline under the National Environmental Policy Act. This is important work with legal and procedural requirements which cannot be swept aside because one industry or another wants to move ahead in great haste.

I do not believe the State Department is acting in a obstructionist manner. States should not and must not simply act as a rubber stamp pressuring the State Department to unduly hasten its decision-making process in the face of such far-reaching consequences is not appropriate.

By no means do I mean to suggest a decision in opposition to the project is pre-ordained or even the right decision to make. However, as we see the potential benefits of greater energy inputs and additional pressure on Chavez, we also know that there are environmental pipeline safety and groundwater concerns.

I look forward to hearing from our witnesses about all of these points. I think that we need to look at energy policy. I think we need a balanced energy policy. I do not think we can automatically just say no to everything and then at the same time complain about importing oil.

I do think this is interesting. I, again, have expressed some of my concerns about it and I look forward to hearing all of our witnesses today. I thank the chairman for calling this hearing and, again, I thank the witnesses for their presence here today.

Mr. MACK. Thank you, Mr. Engel.

I would now like to introduce our witnesses.

Oh, I am sorry. Sorry, Mr. Poe.

I would like to recognize Mr. Poe for 2 minutes for an opening statement.

Mr. POE. Thank you, Mr. Chairman. Thank you for allowing me to participate in this hearing. It seems delay, delay, delay is the administration's energy plan. The Keystone XL project, which the President has had on his desk for over 2 years, is long overdue.

Two weeks ago I wrote a letter with other Members of Congress to the administration to approve the Keystone XL permit immediately. It will bring 700,000 barrels per day from stable Canada to the United States. Canada could be a reliable source of oil for years to come. Canada's 175 billion barrels of oil reserve is second only to Saudi Arabia. I would rather import oil from Canada than from the unstable Middle East.

The pipeline which would start in Alberta, Canada, would end up in my gulf coast district where thousands of my constituents already work in the energy industry. I probably represent more refineries than any other member of the United States Congress.

Gas prices are hitting $4 a gallon. Oil prices have hit $100 a barrel for the first time since October 2008. For every penny the gasoline price increases the cost to consumers is an additional $4 billion a day. By just signing a piece of paper to grant Keystone XL its permit the President could inject thousands of new jobs in our economy.

The President's delays of signing off on this permit is, in my opinion, because the State Department, the EPA, and out-of-towners are stonewalling the project. The EPA has environmental concerns and attacking a pipeline on these grounds is absurd in this case. Experts agree the pipelines are the most cost effective and most environmentally sound way to transport oil and natural gas.

We need to get oil to the refinery someway. We can import it through a safe reliable pipeline or we can use tankers from the Middle East. This should be an easy decision; reduce our reliance on oil from the Middle East, and increase our reliance from an ally, create thousands of jobs. The administration needs to approve the XL permit today. It is time to start laying pipe.

Thank you, Mr. Chairman.

Mr. MACK. Thank you, Mr. Poe.

Now I would like to introduce our witnesses.

First, the Honorable David Goldwyn. Mr. Goldwyn has served as the coordinator and special envoy for International Energy Affairs at the U.S. Department of State. Prior to serving as special envoy, Mr. Goldwyn was counselor to the Secretary of Energy.

Currently Mr. Goldwyn is the president and founder of Goldwyn Global Strategies, LLC.

Second, Mr. Pugliaresi has worked as a consultant on a wide range of domestic and international petroleum issues. Prior to being a consultant he served in the National Security Council, Department of State, Energy Interior, as well as the Environmental Protection Agency.

Currently he is the president of the Energy Policy Research Foundation, a nonprofit organization that studies energy economics.

Third, Dr. Paul Sullivan is a professor of economics at the National Defense University and an adjunct professor of security studies and of science, technology and international affairs at George-

town University, where he teaches classes on global energy and security. Mr. Sullivan has written on the economics of war and peace, the political economy of oil and gas and energy security.

Finally, Mr. Jeremy Symons is the senior vice president of the National Wildlife Federation's Conservation, Education, and Advocacy Programs. Mr. Symons leads a staff located at a network of National Wildlife Federation offices from Washington, DC, to Anchorage, Alaska.

Thank you all for being here.

Mr. Goldwyn, you are now recognize for 5 minutes for your testimony.

STATEMENT OF THE HONORABLE DAVID L. GOLDWYN, PRESIDENT, GOLDWYN GLOBAL STRATEGIES, LLC (FORMER U.S. DEPARTMENT OF STATE COORDINATOR AND SPECIAL ENVOY FOR INTERNATIONAL ENERGY AFFAIRS)

Mr. GOLDWYN. Thank you, Mr. Chairman. It is an honor to speak to the committee and to be on this distinguished panel to talk about the importance of Canadian oil for U.S. and global energy security.

You have my lengthy statement for the record so I think I will just speak to you really about the issues.

We heard the President say yesterday we live in tumultuous times and energy security is important. We heard the recognition from him and from each of you today that oil is and will remain a strategic commodity for our economy for decades to come.

We have taken some, I think, visionary steps led by the President on the demand side on fuel efficiency, on advanced fuels, on critical research and development which in time will take us to a world where we are less dependent on oil. But we are not in that world today and we won't be for the next couple of decades.

Even with increased production from the Bakken and from other areas and revived production in the Gulf of Mexico, we will be importing 8 million barrels a day.

The question is from where? Into this context comes the question of is it appropriate for the United States to permit this pipeline, Keystone XL, to the United States in light of the environmental impacts that it may have as required by the Congress for the United States to examine.

So let me take a step now and answer that question. I believe the answer is that after considering those impacts indeed it is very much in the United States' national interest to permit this pipeline but the environmental considerations are important and I think there is hope to be had there.

In terms of supply security, we have reason to be concerned. The world is going to consume a lot more energy. Mexican production has declined and while they are trying to revive it, it will be awhile. Venezuelan production has declined because of their own policies.

There is uncertainty in the Middle East. Even optimistic projections for the call on OPEC in 2035 for 52 percent of our oil supply assume that there will be increased production in Venezuela, in Libya, in Iran. These are precarious assumptions at best. We do

need to worry about whether there will be adequate investment in the world for oil supply. That leads us to Canada.

Canada not only is our number one supplier, 22 percent of oil right now, our number one trading partner, they have the largest reserves outside of OPEC in the world and are right next door.

So as we look at the question of whether permitting this pipeline is in our national security, I think we look at five considerations. First, permitting Keystone XL will enhance supply security somewhere between 590,000 and up to 900,000 barrels a day with compression if it is needed. It is close by, a very short distance.

Oil delivered by pipeline is not subject to either weather problems in the Gulf of Mexico, which can happen, or problems in sea lanes which my colleague, Paul Sullivan, I am sure will talk about. It can provide oil to the midwest and to the Gulf Coast. It is also an on-ramp for the Bakken. As we look at increasing domestic oil production, having a pipeline, or having access to route that oil to the Gulf Coast, is going to be critically important.

Second, Keystone XL can provide infrastructure security. It makes a difference when oil comes by pipe. The chance of a political disruption or interruption in Canada is pretty small, I think, these days. Infrastructure itself, diversity of terminals, diversity of ways we get oil in, diversity of places we refine it is why we are so secure.

Japan worries about whether it can get oil into the country. We have many refining centers, many import centers but a pipeline is part of that security. Having redundant pipelines, excess pipelines, or even pipelines which may not be full now but may be in a little while, is critically important.

Third, the money which we pay to Canadian suppliers is much more likely to be recycled and spent in the United States than in any other country that we would trade with because they are our number one trading partner. Employment impacts: I don't know what the numbers are exactly. There are many studies. It is intuitively obvious that a large infrastructural project largely sourced in this country will provide jobs. And there is the enhancement to national security because it does matter where the rent goes. It does matter where the money we pay for oil goes. We don't often get a chance to pick where our oil rents go, but in this case we do and we get to choose Canada.

The environmental impacts are important. As Representative Engel noted, we are required—the United States is required under NEPA to consider them. But there has been tremendous study and we have learned a lot from the pipeline process. In fact, the pipeline is safer because of the comments that we have received in the process, that the U.S. Department of State has received.

In fact, Canada has made transparent and accelerated its own plans to deal with the water and air and other impacts of the pipeline. These are things that Canada is doing at the national level and at the provincial level and also at the commercial level, but there is no doubt that the diplomacy that has been attended to this and the comments to the pipeline have helped accelerate that process and make it clear.

Last, I would just say these are serious issues and they are held by people of good will on all sides. The process that we have gone

through has worked. I think the State Department is being as deliberate as it can to make sure that when it comes to a conclusion it is beyond reproach.

In that process we have learned a lot about how to manage the environment and manage security. I think the national interests are clear. The last study that we have gotten from the Department of Energy shows that the environmental impacts will take place whether or not this pipeline is permitted.

Canada will produce the oil. It will ship the oil. It will be refined some place. I thank you for your attention to this issue and look forward to your questions.

[The prepared statement of Mr. Goldwyn follows:]

Testimony of David L. Goldwyn, President, Goldwyn Global Strategies LLC
before the House Foreign Affairs Subcommittee on the Western Hemisphere on
"Rising Oil Prices and Dependence on Hostile Regimes: The Urgent Case for Canadian Oil"

March 31, 2011

Canada's Role in U.S. Energy Security

Mr. Chairman and Members of the Subcommittee, it is an honor to speak with you today about the importance of Canadian oil for U.S. energy and national security. While the United States has taken essential steps in recent years to reduce the intensity of oil in our economy, and to propagate technologies than can reduce the role of oil in transportation on a global basis, oil remains a strategic commodity for the United States and the rest of the world. This will be true for decades to come, even if optimistic scenarios for growth in electric vehicles and advanced biofuels come to pass. As we see today from political developments in the Middle East, natural and nuclear disaster in Japan, and as we saw with Hurricanes Rita and Katrina not so long ago, disruptions of oil supply can negatively, and sometimes severely, impact the U.S. and the global economy. Energy security lies in the diversity of supply to the global market, the availability of spare productive capacity to replace disrupted supply, robust energy refining and transportation infrastructure that can supply U.S. consumers, and the existence of strategic reserves which nations can call on to supply the market on short notice.

Canada has played an essential role in U.S. energy security by providing large scale, long term, and nearby oil and gas supplies by pipeline to the United States, as well as providing clean electric power and uranium supply. Canada is the world's largest owner of oil reserves outside of OPEC, and was the supplier of 22% of our oil imports in 2010. As our other primary hemispheric oil suppliers decline or anticipate very limited short-term growth in their productive capacity, Canada can play a greater role in U.S. energy security, replacing supply from the Southern Cone and heavy crudes from the Middle East as well.

While oil sands production poses serious environmental challenges for Canada, robust analysis has demonstrated that the permitting of the Keystone XL pipeline, which could bring as much as 700,000 barrels per day (b/d) to U.S. Gulf Coast refineries, will have no significant impact on Canada's decision to produce that oil or the emissions associated with it. The associated environmental impacts of oil sands production are important. Canada is addressing these issues at the national, provincial and commercial level.

The United States Departments of State and Energy also engage Canada on these issues in multiple ways. But from a national and energy security perspective, the importance of Keystone XL to U.S. energy security is fundamental and irrefutable. Today I will detail the energy security vulnerabilities the U.S. faces at present, Canada's role in redressing those concerns, the importance of Keystone XL from a national and energy security perspective and environmental concerns raised by oil sands production and how these can be addressed.

I. Energy Security Today

For any country, energy security is the ability to access the energy resources it needs to maintain national power without political coercion, or economic harm. For the United States, blessed with abundant national resources, our primary source of energy insecurity has been oil dependence. We have been vulnerable to the price impacts of oil supply disruptions, and we have faced and continue to face foreign policy and security challenges from nations that suffer instability as a result of their misuse of their resource rents, or use oil as a weapon.

The U.S. has addressed oil security in multiple ways. Led by President Obama we have taken essential and often visionary steps to reduce the intensity of oil in our economy. We have passed new fuel efficiency standards across the transportation system. We have made research and development investments in step change technologies, such as advanced engines, batteries, advanced biofuels and electric vehicles. We have shared these technologies with the world's major oil consumers. We have invested in mass transit. We have used our diplomacy to help deploy these technologies, as well as energy efficiency measures to dozens of countries. Changing the transportation paradigm is our long-term energy security strategy. These are essential steps in which all Americans should be proud of investing.

But as a nation we have also addressed oil security by fostering security and diversity of supply. Transformation of the U.S. vehicle fleet, much less the world's, will take decades. The U.S. has fostered diversity of supply by an open market for trade in energy. We have facilitated that diversity by permitting infrastructure that allows us to import oil and gas supply from multiple suppliers, and to multiple entry points in the U.S. to serve our numerous demand centers in the East, West, Midwest and South and Southeast of the country. Just as spare commercial capacity and strategic reserves of oil supply allow us to address supply disruptions, robust, diverse and even redundant pipeline and terminal capacity allow us to ensure consumers are well supplied and that we can manage disruptions to our critical infrastructure. For many countries around the world (Japan is one current example), the risk of a physical disruption of supply is real. For the U.S. that risk is small, but only because we have such secure access to supply from domestic production, by pipeline from Canada, and from short distance suppliers like Mexico, and in recent years from Venezuela and Colombia. While we imported crude oil from 45 countries in 2010, 53% of our imports came from the Western Hemisphere, with 22% from Canada, 12% from Mexico, and 10% from Venezuela.

Supply security will be important for decades to come. The IEA expects world oil demand to grow from 84 million barrels per day (mb/d) in 2010 to 101 mb/d in 2035 in a base case scenario. Even the IEA's new policies scenario, which assumes the implementation of broad policy commitments and plans that have been announced by countries around the world, expects global oil demand to grow by 11% to 93 mb/d by 2035. U.S. oil demand will remain relatively flat as a share of total U.S. energy consumption according to the IEA. EIA projects that U.S. crude oil import dependence will fall from 12 mb/d in 2009 (51%) to 8mb/d by 2035 (45%) in its reference case.

We need to consider where these future imports will come from. Venezuelan oil production

declined from 2.8 mb/d in 2006 to 2.4 mb/d in 2010. Mexico is working to revive its oil sector, but its production has dropped by 6% from 3.2 mb/d in 2008 to 3 mb/d in 2010. Globally, the IEA predicts that OPEC's share of global oil supply will rise to 52% in 2035. Its projections assume growth in productive capacity in Venezuela from 2.4 mb/d in 2009 to 4 mb/d in 2035, in Iran from 4.3mb/d to 5.3 mb/d and even in Libya from 1.7 mb/d to 2.1 mb/d. These are precarious assumptions at best. The essential point is that the world will need significant new oil supply, and Canada could play an essential role in meeting it. According to a study released in May 2009 by the Cambridge Energy Research Associates, Canada could provide up to 40% of total U.S. oil imports by 2035.

II. Canada's Role in U.S. Energy Security

In a world where oil supply is constrained by limited access for external investors, declining production in the OECD, and rising dependence on OPEC supply, Canada plays an essential role in meeting U.S. energy security needs. Canada today is the top supplier of crude oil to the U.S., providing 22% of our imports in 2010. They are our top trading partner as well. Their oil reserves are the second largest in the world, at 175 billion barrels in place -- the largest outside OPEC. Canada already supplies the U.S. Midwest region with crude oil through the Enbridge, TCPL Keystone and Kinder Morgan Express/Platte pipelines. U.S. Midwest refineries have access to more supply than they can economically refine. Gulf Coast refineries cannot access this oil and are operating well below capacity. The gap between the price of Brent crude and WTI is wide, $10.75 on March 25, 2011, manifest this infrastructure gap; we do not have the infrastructure to move oil from the Mid West to undersupplied Gulf Coast refineries. This may temporarily benefit mid-west consumers but drives gasoline prices higher than they would otherwise be for the southeast and northeast consumers served by Gulf Coast refineries. Indeed the point of the Keystone XL pipeline is to provide the quality of crude oil that our Gulf Coast refineries are designed to refine – without impacting existing supply to the Midwest - so that products can then be available to supply the southwest and northeast of our country.

Adequate supply to Gulf Coast refineries helps moderate gasoline and other product prices. The U.S. Gulf Coast refineries are among the lowest cost and highest efficiency refineries in the world. Today they have approximately 8.635 m/bpd of refining capacity, yet they are operating well below maximum efficiency levels because they cannot access the crude supply they need to operate economically. These refineries are built to utilize heavy crudes. Investments under way now will expand this capacity to over 9.1 m/bpd by 2015. If the refiners on the U.S. Gulf Coast cannot get sufficient volumes of the heavy crude that they are designed to process, they will ultimately be forced to run less economic alternatives, such as higher priced, higher quality crudes from West Africa or the Middle East, or they will cut their runs back if the economics fall below the break even point. Keystone XL will help keep U.S. Gulf Coast refineries operating at higher rates. This will keep local supply of gasoline and diesel ample. The alternative is to import longer distance crude oil or import more petroleum products. Both those options will drive up gasoline prices and involve additional emissions for transporting that crude or product to the U.S. market.

III. The National Security Implications of Keystone XL

In 2008 TransCanada Corporation applied for a permit to build the Keystone XL pipeline that would transport up to 700,000 b/d of volume from Hardisty, Canada to the Gulf Coast via Cushing. In addition to supplying Canadian crude oil to the U.S. Gulf Coast, the pipeline could provide an on ramp from growing domestic oil production in the Bakken oil shale play in North Dakota, helping facilitate production that will reduce U.S. import dependency. The U.S. has over 8.3 mb/d of refining capacity in the Gulf Coast region. As Venezuelan and Mexican crude oil production declines, refiners will need crude oil to refine to supply the U.S. market. This will either come from heavier crude supplies in the Middle East and Africa, or from Canada.

The U.S. is required by law to determine whether construction of a cross border pipeline is in the national interest. I believe that permitting Keystone Xl is in the U.S. national interest for several reasons.

First, Keystone XL will enhance U.S. supply security. The pipeline will provide capacity for 591,000 m/bpd to 900,000 m/bpd (with additional pumping capacity if needed) to a U.S. market that will need to import that supply from somewhere. The proximity of Canadian fields to the U.S. market makes Canadian supply our swiftest source of import supply. The potential to transport Bakken supply to the U.S. market can reduce aggregate U.S. oil dependency.

Second, Keystone XL will provide infrastructure security. Pipeline access from Canada has none of the security risks of shipment through maritime chokepoints, or even the weather-related risks to Gulf Coast import terminals. The potential for a Canadian crude oil supply disruption due to political unrest is insignificant.

Third, economic rents from payments made by U.S. refiners to Canadian suppliers are likely to be recycled back to the U.S. through trade. As our largest trading partner, Canada is more likely to send those dollars to the U.S. than any other supplier country except Mexico.

Fourth, permitting Keystone XL will create significant employment, both from and through equipment purchases. Estimates of the potential jobs impact of Keystone XL range widely, but it is intuitively obvious that a large-scale infrastructure project significantly sourced in the United States will have important direct and indirect employment impacts.

Fifth, Keystone XL will enhance U.S. national security. While the oil market is global, and the U.S. could import needed supply from other countries, it does matter who enjoys the economic rents from our crude oil purchases. Many countries misuse their resource revenues, either by failing to invest them in their people, or by insulating themselves from political accountability, or even using their role as a supplier as a tool of political coercion. If we have a choice of where to pay these rents - and in this permit application we do - Canada is among the best choices we have.

IV. Environmental Impacts of Canadian Oil Sands Production

The National Environmental Protection Act requires the United States to assess the environmental impact of permitting a cross border pipeline. The Department of State has the regulatory responsibility for conducting this assessment as well as determining if permitting the application is in the national interest. This makes eminently good sense as the national interest implications of allowing cross border oil pipelines to the United States are inextricably linked to our foreign policy and national security interests. The State Department published its draft Environmental Impact Statement (EIS) on www.keystonepipeline-xl.state.gov and opened it for extensive public comment. It held multiple hearings on the draft EIS in Washington and along the pipeline route. Other U.S. agencies raised concerns and even commissioned studies on the impacts of the pipeline, if it were to be permitted. The Department announced on March 15, 2011 that it would issue a supplemental EIS, which will go out for public comment in April 2011.

The Department is acting in an abundance of caution, making certain that there is ample opportunity for public comment on potential environmental impacts of the line. It has committed to conclude this process by year-end and TransCanada has indicated that the project is still viable on this time line. When the process is concluded it should be incontestable that the NEPA process has been robustly complied with. In fact, the comment period on the draft EIS has been helpful in many ways. It has resulted in improvements in the safety of the pipeline itself. It has also made clear, from the studies procured by government agencies with serious concerns about the environmental impacts of Keystone XL, that the pipeline itself will have no serious impact on Canadian oil sands production, the greenhouse gases, or other environmental risks attendant to that production. The WORLD and DOE Energy Technologies Perspective (ETP) model analyses performed by Ensys Energy shows no significant change in total U.S. refining activity, total crude and product import volumes and costs, global refinery CO2 and total life-cycle GHG emissions whether Keystone XL is built or not.[1]

The reasons for this, while intuitively obvious, have now been validated. Canadian production will continue whether the pipeline is permitted or not. Production will be more correlated to GDP growth and demand for oil than infrastructure. Oil will move by rail or truck to the United States, through other pipelines or to Asia. In 2010, the number of inbound oil sands-focused transactions from Asia tripled, as countries like China, Japan, Thailand and South Korea actively sought to secure natural resources around the world and completed several major deals in Western Canada. In all, Asian investment accounted for U.S. $9.2 billion during 2010 compared to U.S. $5.9 billion in 2009 and virtually zero in 2008. One can look at these investments in the Canadian oil sector and make the fair assumption that these investments are not solely to support production for the U.S. market.

Nonetheless, Canada does face serious issues with respect to the environmental impact of oil sands production. Both Canada as the producer and the United States as a responsible consumer should address these. The primary issues are greenhouse gas emissions, impacts on water usage in the Athabasca region, impacts on wildlife from tailings ponds and health impacts. With

[1] EnSys Energy, *Keystone XL Assessment* (December 23, 2010).

respect to greenhouse gas emissions, many studies have been conducted which conclude that oil sands related production is 5-15% higher than the emissions produced from the average U.S. barrel [2 3 4] Canada's oil sands production comprise 5% of Canada's emissions. A life-cycle, or well-to-wheels, style analysis reveals that most emissions from crude oil consumption are consumed in the combustion process and are identical for any crude oil. Nonetheless, these emissions are serious and if Canada is to meet its professed greenhouse gas emission reduction targets, it has needed a more visible national strategy to explain how it will do so.

Canada has been focused on these issues, especially at the national and provincial level. At the national level, Canada's strategy for meeting its GHG targets on a national basis has become clearer. In additional to raising fuel efficiency standards across the vehicle fleet, increasing the use of biofuels, and closing coal fired power plants in Ontario, Canada plans sector specific GHG targets for electricity and transportation, including aviation, marine and rail transit modes. Canada plans performance standards for other sectors of the economy. The province of Alberta imposes a modest $15 per ton carbon cap on emissions and dedicates the fines to a clean energy technology fund. The provincial government funds Alberta Innovates and the CANMET laboratory to develop methods for reducing energy use in the extraction process. It has funded over $2 billion in commercial scale carbon capture and storage and the region's regulator is imposing performance standards to reduce the fine tailings produced in the mining process, which pose risks to wildlife and exacerbate demands on the Athabasca water system. The Regional Aquatic Monitoring program examines aggregate impacts of water use in a multi-stakeholder process. Industry is cooperating thorough the Oil Sands Oil Sand Leadership Program (OSLI), working on: GHG reduction technologies, such as those using solvents to reduce the need to steam the bitumen; down hole technologies to liquefy the bitumen under ground, a process for underground combustion rather than steam; and the use of electricity to warm the bitumen underground. This kind of investment in technology has reduced the intensity of GHG emissions from the development process by 39% over the past twenty years. These new technologies need to be accelerated so they can be deployed in a time scale that will mitigate the aggregate impact of increased oil sands development.

Two major studies, one conducted by the province of Alberta and the other by the Royal Society of Canada, looked at reports of water contamination impacts on local health. The provincial study concluded that some contaminants from Alberta's oil sands are leaking into the local watershed and recommended more comprehensive monitoring and scientific analysis for the oil sands industry. The Royal Society's report found population evidence that residents of the Regional Municipality of Wood Buffalo (RMWB) have below provincial average health indicators, consistent with "boom town" impacts and community infrastructure deficits.[5] However, contaminants in the oil-sands region have been found to be low, in fact well below existing health guidelines.

Both reports confirmed that environmental regulatory capacity of the Alberta and Canadian

---

[2] EnSys Energy *Keystone XL Assessment* (December 23, 2010).
[3] IHS Cambridge Research Associates, *Growth in the Canadian Oil Sands: Finding the New Balance (2009)*
[4] Council of Foreign Relations (CFR), *The Canadian Oil Sands: Energy Security vs. Climate Change (May 2009).*
[5] The Royal Society of Canada, *Environmental and Health Impacts of Canada's Oil Sands Industry (December 2010).*

governments have not kept pace with the rapid growth of the oil sands industry over the past decade. Alberta Environment Minister Rob Renner recently said the panel's report would be used to redesign how the province monitors the oil sands industry's impact on land and water. Additionally, on March 24th of this year, federal Environment Minister Peter Kent announced that Federal and provincial environmental regulators would immediately begin new water-quality testing in Alberta's oil sands region as part of the first phase of a monitoring plan recommended by scientists. The next phase will focus on air quality and biodiversity.

The regional regulator, the Energy Resources Board of Canada, is a highly competent body. It has utilized its authority to impose performance retargets on operating companies, with a robust staff of including over 160 field officers. Directive 074 requires the reduction of "tailings," or waste from oil sands extraction processes, by 50 % starting 2012 onward.

There is no question that Canada has more work to do to address local, regional and national GHG impacts of oil sands production. But, Canada is focused on these issues and they will remain issues of concern for its own citizens, whether the U.S. permits Keystone XL or not.

The United States engages Canada on these issues in multiple ways. The U.S.-Canada Clean Energy Dialogue commits both nations to work on technologies that support clean energy and reduce GHG across the energy spectrum. Canada participates in the Major Economies Forum that promotes cooperation on clean energy technology. Our nations address energy policy through the annual U.S.-Canada Energy Consultative Mechanism led by the U.S. Departments of State and Energy with Natural Resources Canada and the Canadian Ministry of Foreign Affairs. This catalogue is as robust a set of environmental engagements as we have with any nation, and far more than we have with any of our suppliers, bar none.

V. Conclusion

Mr. Chairman these questions of balancing energy and climate concerns are serious and views are held strongly by people of good will on all sides of the debate. In my view, U.S. national interests in permitting this pipeline are powerful and growing. Our government is deliberating on this permit carefully. The process has strengthened the case for permitting the application and helpfully rebutted concerns that by agreeing to the pipeline, the U.S. would be the cause of adverse environmental consequences that would not occur but for our consent. It is an important issue to discuss and as a citizen I thank the committee for its leadership on this critical issue.

Mr. MACK. Thank you very much.

Next Mr. Pugliaresi is recognized for 5 minutes.

STATEMENT OF MR. LUCIAN PUGLIARESI, PRESIDENT, ENERGY POLICY RESEARCH FOUNDATION, INC. (FORMER NATIONAL SECURITY COUNCIL MEMBER)

Mr. PUGLIARESI. Chairman Mack, Ranking Member Engel, thank you so much for this opportunity to give testimony on this very, very important issue. I will just summarize my remarks not to be repetitive to——

Mr. MACK. Can you push the button on the mic there?

Mr. PUGLIARESI. It is on.

Mr. MACK. Okay. Pull it a little closer.

Mr. PUGLIARESI. Maybe what I can do is sort of add a little bit to Mr. Goldwyn's comments here so we are not too repetitive.

I think, first, it is absolutely important to understand that this is North American energy. To the extent that we expand Canadian oil production into the United States, it is nearly the same as expanding it within the United States. These two markets are so integrated, with a very long history of safe transportation of Canadian crude into the United States going back to the 1950s.

Since the 1960s, oil sands has been a growing proportion of that production in shipment into the United States. In fact, Enbridge itself, one of TransCanada's competitors, moves 70 percent of the crude oil production of the United States from Canada already.

Another aspect of this issue that is very important to understand is that the American refining sector is facing a very extensive competitive environment worldwide and it deepens upon matching the crude types in the world to the complexity of its operations. It is the blended bitumen from Canada, the heavier crudes, for which American refining is most efficient.

To the extent that more Canadian crude can flow into the United States market, that, as David said, we can make our transportation of crude supply more efficient, we can improve the production potential for our own producers, particularly in the Bakken. But we can also make sure that our domestic refining sector is a much more sound competitive basis going forward.

This is very, very important because the loss of Venezuelan and Canadian crude production over time has squeezed the differential between light and heavy crudes and made our domestic refining sector less competitive. This will change those terms.

Now, another issue is we wanted to look at what is the potential over time, so we asked Turner Mason and Company, a very respected petroleum and refining consultant from out of Dallas, to look at our numbers as well and they gave their perspective on the issue.

According to Turner Mason, they expect total Canadian crude production will increase by 400,000 barrels a day in the next 5 years and almost 1.1 million barrels a day in the next 10 years. But more importantly Turner Mason's assessment of economically recoverable unconventional oil shows that Canada can now exceed the reserves of Saudi Arabia. It is crucial that we take the steps to encourage the Canadians to develop this resource. It is good for Canada and it is good for us.

What I want to do is just take a moment to give you what I think is the most important point. In world oil markets prices are determined not only what is happening now, but also expectations that buyers and sellers have about future production, including future American energy policy.

We are often told that quickly moving forward on Keystone, opening up Alaska, permitting drilling in the Arctic, expending oil and gas leases on new properties in the United States, and even deepwater drilling in the Gulf of Mexico plays too far in the future to have any affect on prices now. But this is just off the case.

Putting aside that we say this every time there is a crisis, if we open up more North American resources for development, we may very well shift long-run expectations on domestic supply and receive the benefits of lower prices even before this production comes to market. This what happened in '73/'74 and 1979.

We did not lose that much oil from the Arab oil embargo. It was expectations on future growth came way down that prices went up in the current period. We want to reverse that. We want to change expectations abut what we are going to do in terms of our policy and future production.

I want to leave you with a statistic worth thinking about. If we can alter the long-term price of crude oil by $20 a barrel over any base-case period, say $80 instead of $100, the present value savings in our import bill alone is $1 trillion. For the national economy it is probably twice that.

This means the jobs, the return on capital, corporate and personal income taxes, government revenue for bonus bids, royalties all grow substantially. It is a no-brainer for us.

With that, I will conclude my testimony.

[The prepared statement of Mr. Pugliaresi follows:]

Testimony

before

U.S. House of Representatives Committee on Foreign Affairs
Subcommittee on the Western Hemisphere

Hearing on Rising Oil Prices and Dependence on Hostile Regimes:
The Urgent Case for Canadian Oil

March 31, 2011
2 pm
Rayburn House Office Building
Washington, DC

Submitted by:

Lucian Pugliaresi
President, Energy Policy Research Foundation, Inc (EPRINC)
Washington, D.C.
www.eprinc.org

Chairman Mack, Ranking Member Engel, and members of the subcommittee on the Western Hemisphere, on behalf of myself and EPRINC we welcome this opportunity to testify on this important topic to American energy security. The Energy Policy Research Foundation, Inc. (EPRINC) is a not-for-profit organization that studies energy economics, specializing in petroleum and downstream product markets. EPRINC has been researching and publishing reports on all aspects of the petroleum industry since 1944. Our reports are posted online and made available free of charge. We are known internationally for our objective analysis on energy issues. We recently published a research report on the Keystone XL pipeline and the value of Canadian oil sands to the United States.

My testimony today will explain the economic and energy security benefits of additional supplies of Canadian oil sands imports from Canada to the U.S. Immediate approval of TransCanada's Keystone Expansion pipeline is of increasing importance given the declining production in Venezuela and Mexico, extensive volatility in the Middle East, rising oil prices, and growing constraints in efficiently moving crude oil to major refining centers in the mid-continent and on the Gulf Coast.

The United States and Canada maintain ties in security, border cooperation, trade, and investment. The signing of NAFTA (North American Free Trade Agreement) in 1994 only strengthened the economic ties between the two nations, resulting in a near six percent increase in trade each year since the treaty signing and a two-way merchandise trade growth of 265 percent. U.S. companies have made substantial investments in Canadian mining and smelting industries, petroleum, chemicals, machinery, transport equipment, manufacturing, and finance. Additionally, Canada is the number one supplier of oil to the Unites States and provides 90 percent of U.S. natural gas imports (15 percent of U.S. consumption), significant volumes of uranium, and almost all imported electricity. Any increase in petroleum imports from Canada is inherently stable and contributes directly to U.S. energy security also makeing important and substantial contributions to sustainable employment growth in the United States. The North American energy market is highly integrated.

The pipeline extension would permit the shipment of an additional 509,000 b/d (barrels per day) of Canadian oil to U.S. refining centers. Most of the expanded import volume would be in the form of blended bitumen which is similar to heavy crude oil. Because of production declines in Mexico and Venezuela, U.S. refiners are receiving reduced shipments of heavy crudes. Higher volumes of heavy crudes from Canada offer considerable potential to improve operating margins for U.S. refiners, many of whom long ago made expensive upgrades in complex facilities that favor heavy oil. Additionally, TransCanada is expanding Keystone XL's capability by offering Bakken oil producers, located in North Dakota and Montana, a chance to link into the pipeline and send their crude to Gulf Coast refineries for the first time. By increasing transport efficiency and allowing Bakken producers to tap into new Gulf Coast refinery markets, the Keystone XL project will have the added benefit of improving wellhead values for oil production from the Bakken formation. EPRINC estimates that the Keystone expansion would provide net economic benefits from improved efficiencies in both the transportation and processing of crude oil of as much as $600 million annually, in addition to an immediate boost in construction employment.

Critics of Canadian oil sands production have recommended that the U.S. restrict Canadian imports and seek to replace these imports with alternative fuels and conservation. This strategy is a false choice--alternative fuels can reduce net imports of crude oil and petroleum products, but these alternatives (biofuels, electric vehicles, natural gas vehicles, new auto fuel standards) offer limited opportunity to substantially lower oil imports in the near to medium term. Denying oil sand supplies to US refiners will not prohibit the production of Canadian oil sands. Eventually bitumen would flow to alternative markets, displacing crude supplies which would eventually find their way to the U.S.

Additional imports of Canadian oil sands will provide substantial and long-term operating efficiencies for the U.S. refining sector, an industry characterized by declining margins and growing competition from foreign refining centers in recent years. Many U.S. refineries are complex and designed for processing heavy crudes to produce the transportation fuels needed for the U.S. economy.

A major factor driving historic investment in heavy processing capacity was the expectation that heavy crude oil supplies would remain abundant and that the price differential between heavier and lighter crudes would continue to justify the large domestic investments in complex refining capacity. Mexico and Venezuela have historically been two of the largest suppliers of heavy crude oil to the U.S. Yet each country has experienced drastic production declines over the past few years, removing significant volumes of expected heavy crude oil from the market, and creating at least one important driver of the tightened spread.

We asked Turner Mason and Company, a highly respected petroleum and refining consulting firm out of Dallas, to give us their perspective on this issue as well. Turner Mason estimates that total Canadian crude production will increase by over 400,000 thousand barrels/day (or 17%) in the next five years and by almost 1.1 million barrels/day (or 42%) in the next 10 years. This increase alone represents almost 50% of our expected Venezuelan crude imports in five years and 100% in the next 10 years. In addition, Turner Mason's assessment of economically recoverable unconventional oil shows Canada exceeding the reserves of Saudi Arabia.

The surge in Canadian imports does not mean we would not import Venezuelan crude oil, as it will remain well matched to U.S. refining configurations. But Canadian imports will certainly reduce Venezuelan leverage over the U.S. refining sector. In anticipation of the increase in Canadian production, U.S. refineries will continue to invest billions of dollars to convert their refineries away from the lighter crude types produced in areas such as Libya, Algeria, UAE, and Nigeria to the type of crude that is produced in Canada.

This leads me to my final and most important point. In world oil markets prices are determined by not only what is happening now but also the expectations that buyers and sellers have about future production. We are often told that quickly moving forward on Keystone, opening up Alaska, permitting drilling in arctic waters, expanding oil and gas leasing in new provinces, and even deepwater drilling in the Gulf of Mexico will bring new supplies into the market too far into the future to help us with the current crisis – or that the supplies will be too small to make a difference. Putting aside that we say this every time there is a crisis in

world oil markets, this is a much too simplified view of the oil market. If we open up more North American resources for development, we may very well shift long-term expectations on domestic supply and receive the benefits of lower prices even before the supplies come to market. We may even get some pleasant surprises such as we recently experienced with the shale gas revolution. I will leave you with a statistic worth thinking about, if we can alter the long-term price of crude oil by $20/bb, over any base forecast price (say $80/bbl instead of $100/bbl), the present value savings in our import bill alone would be $1 trillion and it would easily be twice that for the national economy. This meansjobs, return on capital, corporate and personal income taxes, and government revenues from bonus bids and royalties would grow substantially.

This concludes my testimony and I look forward to your questions.

Mr. MACK. Thank you very much.

Mr. Sullivan, you are recognized for 5 minutes.

STATEMENT OF PAUL SULLIVAN, PH.D., PROFESSOR OF ECONOMICS, NATIONAL DEFENSE UNIVERSITY, ADJUNCT PROFESSOR OF SECURITY STUDIES AND OF SCIENCE, TECHNOLOGY, AND INTERNATIONAL AFFAIRS, GEORGETOWN UNIVERSITY

Mr. SULLIVAN. Thank you, Chairman Mack, Ranking Member Engel, and members of the subcommittee for giving me the opportunity to testify today on this issue.

I also need to make the usual caveat that these are my opinions alone and do not represent those of the National Defense University, Georgetown, or any other organization I may be associated with.

It is indeed an honor to be part of this important discussion about Canadian oil. The most important energy security challenge we face in this country is oil and, most particularly, imported oil which represents most of our needs.

Oil represents 37 percent of all of our energy use. Two-thirds of the oil is used for transportation and two-thirds of that is used for gasoline. Ninety-one percent of our transport is based on oil. Importantly, when it comes to transportation our military is almost entirely vulnerable to oil markets.

We are facing increasing instability in the Middle East and North Africa, an area where over 70 percent of proved reserves of conventional oil are known to be. We saw the splitting of Sudan into two countries. Sudan is an oil producer. We saw the revolution in Tunisia which rocked the region and spurred on other uprisings and revolutions.

Tunisia is not a large energy producer but its revolution has made a huge difference to the stability in the region. We have seen a revolution in Egypt where the important energy transport nodes of the Suez Canal and the Sumed pipeline are found.

Again, Egypt is a net oil importer but it is the most important country in the region with regard to cultural change and political impetus. We are now seeing a bloody revolution and civil war in Libya, a country that used to export 1.5 million barrels a day. Its exports have been cut drastically.

Now, Algeria could be next in line. They export 1.8 million barrels a day. Bahrain is not a large oil exporter or producer, but has become a focal point for rebellion via the Sunni-Shia split. He is in the most important region for oil production and export in the world. Iran is clearly behind many of the troubles in Bahrain.

Most of the populations above the major Saudi oil fields including the Ghawar field, which is the size of Pennsylvania, 300 meters deep, are Shia. Iran is likely stirring up trouble in that part of Saudi Arabia. Saudi Arabia is the world's biggest exporter of oil and has the largest conventional reserves of oil accounting for 25 percent.

Iran could be facing instability. It exports 2.5 million barrels a day. Syria is becoming more violent by the day and it is connected in with the issues in Lebanon, the peace process, and Iran. Yemen

could be one of the most complicated places right across from Somalia.

On the coast, to the southwest and the west of Yemen there is the Bab-Al Mandab where 4 million barrels a day goes through and 10 percent of the world container traffic transits. Yemen could split into multiple failed states and this could happen sooner than we can think.

Iraq exports about 1.7 million barrels a day but 95 percent of its exports go through two geographically tiny, but strategically gigantic, facilities, the Al Basra Oil Terminal, and the Khawr Al Amaya Oil Terminal right near it. Syria, Yemen, and Iraq all have Sunni-Shia tensions.

Then we have the Ab Qaiq facility in Saudi Arabia where six to seven million barrels a day goes through for sweetening and processing. Al-Qaeda got in the first fence in 2006.

Well over one-fourth of all the oil exported in a single day comes out of the Middle East and North Africa and this is an area of increasing turmoil. Importantly, almost all of the excess capacity in the entire world is found in the GCC and 80 percent of that is in Saudi Arabia.

Under certain scenarios, we could be looking at $200 to $300 a barrel of oil if all goes south. Hopefully that won't happen.

Our number one source of imported oil is quiet, stable, safe, and friendly Canada. It is our closest military cooperation. Our largest and closest trade relations are with the Canadians. Our most important energy trading relations are also with the Canadians. They have over 175 billion barrels of reserves.

We are also facing peak oil at the same time and need to go to unconventional oil. Fifty-two percent of the unconventional oil not owned by nationalized oil companies can be found in Canada.

It would be great if we could quickly lightweight our transport vehicles, make the drive trains and other parts of the engines, etc., for efficiency. Focus much more on flexible fuel options is a good idea for our policy option to consider. Or more toward electric plug-in cars, more hybrids, CNG and so forth, but that could take a very long time.

We need energy security now and for the medium term to help us as a nation move beyond oil within the next 50 years or so and go toward these alternatives that we have all been discussing.

Mr. Mack, you mentioned that, and this is the bridge we need. This is the security we need. Thank you very much.

[The prepared statement of Mr. Sullivan follows:]

Written Testimony in Support of the Oral Testimony of Professor Paul Sullivan, National Defense University and Georgetown University for the Western Hemisphere Subcommittee of the Foreign Affairs Committee, US House of Representatives Regarding the Need for Canadian Oil As We Face Increasing Turmoil in the Middle East, Increasing Competition for Energy Resources, Peak Conventional Oil, and an Increasingly Complex Geostrategic Environment[1].

Before the Western Hemisphere Subcommittee of the Foreign Affairs Committee, U.S. House of Representatives, March 31, 2011, Room 2172, Rayburn House Office Building, beginning at 200 pm.

This is not the perfect answer, but a step toward better energy security for the country:

Canadian tar sands and this pipeline system are not comprehensive and perfect answers to some of our energy security needs. However, sometimes the perfect is the enemy of the good especially when we face increasing competition for resources, have to deal with oil exporting countries which don't like us, have to prop up some regimes we would rather not in order to get their oil, and have to face the whims of oil prices and their effects on our people without doing much about it. We are facing increasing turmoil in the Middle East, where most of the conventional oil reserves are found[2]. We are

[1] All opinions expressed are Dr. Sullivan's alone and do not represent those of the National Defense University, Georgetown University or any other entity he may be associated with. Professor Sullivan reserves the right to update this testimony prior to the hearing and for 5 days after the hearing as he understands the window of testimony submission to be given changing circumstances and events.
[2] http://www.cia.doc.gov/international/reserves.html,
http://www.opec.org/opec_web/en/data_graphs/330.htm,

facing down the peaking of *conventional* oil resources. We are potentially facing increasing economic turmoil and energy market turmoil globally.

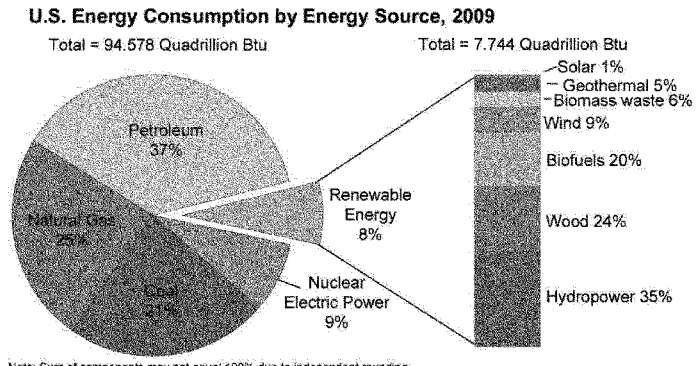
One thing to understand right off is that oil markets are global markets and events that occur in even what seem to be remote corners of the world can affect oil prices and even oil supply and transport. Also, non-oil energy, minerals and other markets outside of oil are intertwined with oil markets in many ways as both substitutes and complements to oil use. Furthermore, energy systems are really systems within systems, not just one energy source after another. Oil systems are connected with electricity systems that can be connected with gas, nuclear, renewable energy and other systems. And these energy systems are in turn connected with transportation, water, industrial, residential, commercial, and other systems. We really cannot look at one energy source independently of the others. We cannot fully understand the effects of energy market and energy policy changes without looking at the totality of the systems within systems connected to energy systems.

It would be best to have a full, comprehensive energy security policy, but this is unlikely to happen any time soon, so it seems we will need to settle for ad hoc improvements in the diversification of supplies and other ad hoc policy measures until the real shocks hit us in waves upon waves upon waves of economic and energy security woe --- and we finally wake up to the severity of the situations we might be facing. We need to be far more diversified in our energy sources and our means and ways of using those energy sources, but all of that will take considerable time to accomplish. Anyone who thinks that we can move away from oil any time soon does not understand the complexity of the intertwined nature of energy systems within systems, and also the energy compactness that will be needed to

replace oil. We would also have to change our transportation and industrial systems simultaneously with the change in the energy systems.

Our major energy security threat is from imported oil:

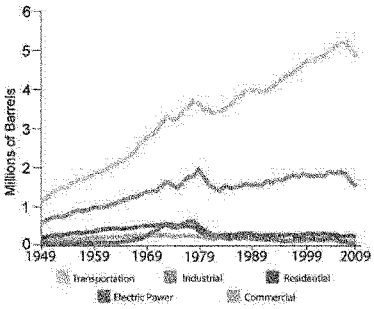
But let's cut right to the matters of today. Our major energy security threat is from imported oil. 37 percent of our energy consumption is oil. The major use for oil in the US is for transport. Over 91 percent of our transport fuels are oil based. Some of the rest of the fuels used for transport, like biofuels and "other", rely on oil for their production and other aspects of their logistical networks. Our sea, rail, and air transport systems are also very much dependent on oil. Our agricultural systems are based on oil. Some of our industries are oil-intensive. About 8% of our households still heat with oil. Oil represents 37% of our energy needs and it is the largest source of energy, yet we import most of it. Please see the following charts[3]:



[3] See also: http://www.eia.doe.gov/cneaf/alternate/page/renew_energy_consump/table1.html and http://www.eia.doe.gov/aer/txt/ptb0103.html for an historical perspective. The sources for the following charts are: http://www.eia.doe.gov/energy_in_brief/major_energy_sources_and_users.cfm . http://www.eia.gov/forecasts/aeo/early_fuel.cfm, http://www.eia.gov/energyexplained/index.cfm?page=us_energy_transportation#tab2,

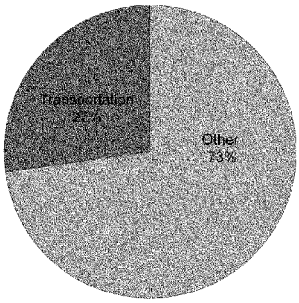
Please note the fastest overall growth in petroleum use since 1949 has been by far in transport.

Petroleum Consumption by Sector, 1949-2009



Source: U.S. Energy Information Administration, *Annual Energy Review 2009*, Tables 5.13a, 5.13b, 5.13c, and 5.13d (August 2010).

Share of Total U.S. Energy Used for Transportation, 2009



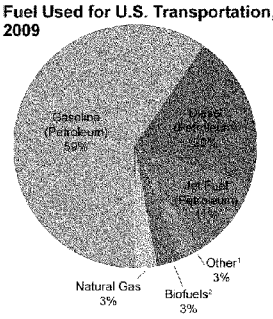
Source: U.S. Energy Information Administration, *Annual Energy Review 2009* (August 2010).

---

http://www.eia.gov/energyexplained/index.cfm?page=us_energy_homes#tab1, http://www.eia.gov/energyexplained/index.cfm?page=us_energy_industry#tab2, http://www.eia.gov/energyexplained/index.cfm?page=us_energy_commercial#tab2, http://www.eia.doe.gov/energyexplained/index.cfm?page=oil_imports, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/company_level_imports/current/import.html, http://www.eia.doe.gov/energy_in_brief/world_oil_market.cfm, http://www.eia.doe.gov/energy_in_brief/foreign_oil_dependence.cfm,

As we can see from these charts transportation is 27 percent of our energy use, and over 91 percent of that is from refined oil products. Some of the "other" fuels here are the results of oil refining.

Fuel Used for U.S. Transportation, 2009

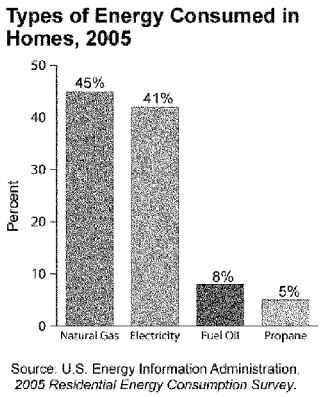


[1]Electricity, LPG, Lubricants, Residual Fuel Oil
[2]Ethanol added to gasoline and biodiesel

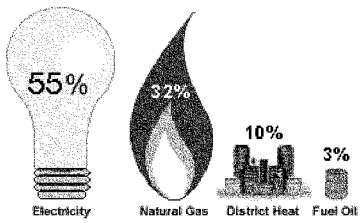
Note: Due to rounding, data may not sum to exactly 100%.

Source: U.S. Energy Information Administration, *Monthly Energy Review*, Tables 2.5 and 3.7c (September 2010).

Residential use of oil has declined since the earlier days when a much higher percentage of homes were heated with oil. There has been a vast supplanting of oil heating systems with natural gas heating systems, especially since the oil shocks of the 1970s. .



Commercial buildings have also moved away from the use of oil and have moved into the much greater use of natural gas. Electricity generation in this country relies very little on oil.[4] This is partly a result of the oil shocks of the 1970s and the policies that went after them.

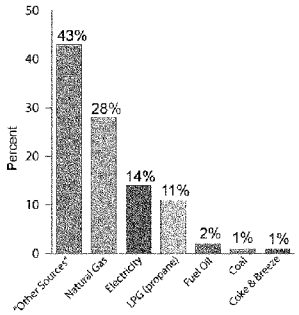


Industry also has successfully moved from oil and relies little on oil for most of its sectors. Transport remains the outlier in all of this. As our industries

[4] http://www.eia.doe.gov/cneaf/electricity/epa/epa_sum.html

have grown in output their use of oil per unit of output has dropped considerably.

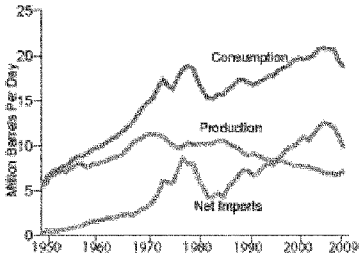
Sources of Energy Used for Industry and Manufacturing



Source: Energy Information Administration, *Manufacturing Energy Consumption Survey*, Table 3.2 (July 2009).

One of the key graphs is that showing how our *conventional* oil production has declined since the 1970s on average.

Consumption, Production, and Import Trends (1949-2009)



Source: U.S. Energy Information Administration, *Annual Energy Review 2009*, Table 5.1 (August 2010).

Unconventional oil resources, such as out of the Bakken and other oil shale resources, could be significant potential energy sources of the future and

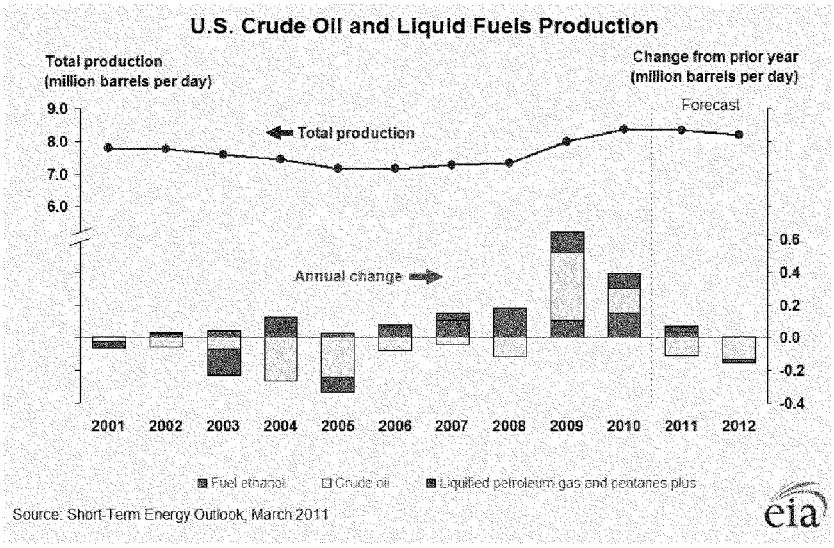
considerable investments are pouring into these areas.[5] These unconventional resources have added some to the increase in oil production of oil in 2009 to date[6]. However, oil leases that were allowed in the past also have come to fruition recently. Greater restrictions on oil production and leasing will likely lead to a decline in oil production in the future. The development of oil field leases often take many years and huge investments to make them work properly. Increasing restrictions on offshore drilling may lead to an even greater need for Canadian oil[7].

---

[5] http://www.ft.com/cms/s/0/8698ae80-4503-11e0-80e7-00144feab49a.html#axzz1f011Vhds, http://www.eia.doe.gov/oil_gas/petroleum/data_publications/petroleum_supply_monthly/psm.html, http://www.eia.gov/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/wpsr.html, http://www.eia.doe.gov/steo/#Global_Crude_Oil_And_Liquid_Fuels,

[6] http://www.eia.doe.gov/steo/gifs/Fig13.gif, http://www.eia.doe.gov/state/state-energy-profiles-analysis.cfm?sid=MT, http://www.eia.doe.gov/state/state-energy-profiles-analysis.cfm?sid=ND, http://www.eia.doe.gov/state/state-energy-profiles-analysis.cfm?sid=WY, http://coalgeology.com/2010-domestic-oil-production-up-20-year-over-year-newfield-exploration-company-nyse-nfx/13928/, http://money.cnn.com/2011/03/04/news/economy/oil_shale_bakken/, http://www.api.org/aboutoilgas/oilshale/upload/Oil_Shale_Factsheet_1.pdf, http://www.kiplinger.com/businessresource/forecast/archive/gulf-cuts-bring-us-oil-output-down.html

[7] http://www.api.org/Newsroom/offshore-approvals.cfm, http://www.instituteforenergyresearch.org/2010/06/25/in-2009-u-s-led-the-rest-of-the-world-in-increases-of-oil-and-natural-gas-production-china-recorded-the-greatest-increase-in-energy-consumption-and-emissions/#,

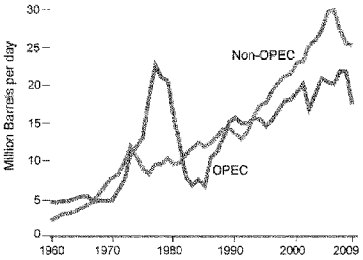


Except a few years of recession and the reactions to the oil shocks in the 1970s aside, our imports and consumption have been, on average, increasing. We have also been paying out hundreds of billions of dollars each year to import this oil[8].

The following chart is a very interesting one pointing out the importance of our imports from non-OPEC countries, such as Canada, Mexico, and Brazil.

[8] http://assets.opencrs.com/rpts/RL34686_20100212.pdf, http://assets.opencrs.com/rpts/RS22204_20100914.pdf,

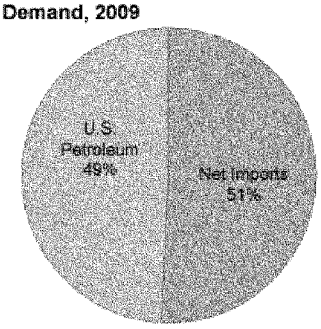
Petroleum Imports from OPEC Are Less than Imports from Non-OPEC Countries



Source: U.S. Energy Information Administration, *Annual Energy Review 2009* (August 2010)

Yet will still have to contend with very large imports of oil at very high price tags.

Net Imports and Domestic Petroleum as Shares of U.S. Demand, 2009

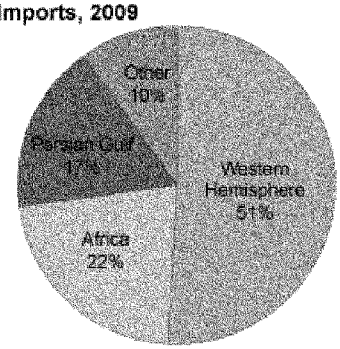


Source: U.S. Energy Information Administration, *Petroleum Supply Annual 2009* (July 2010).

Importantly, most of our oil imports are from the Western Hemisphere with Canada being the most important source at 23% of our imports. Venezuela is

about 10.7% of our imports. Saudi Arabia is about 10.4%. Mexico is about 9.2%. Nigeria is about 8.3%.

Sources of U.S. Net Petroleum Imports, 2009



Source: U.S. Energy Information Administration, *Petroleum Supply Annual 2009*.

The following charts show where we have recently been getting our oil from[9]:

[9] http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/company_level_imports/current/import.html. See also http://www.capp.ca/GetDoc.aspx?dt=PDF&docID=186104

Crude Oil Imports (Top 15 Countries)
(Thousand Barrels per Day)

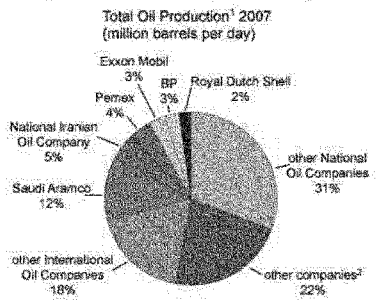
Country	Dec-10	Nov-10	YTD 2010	Dec-09	YTD 2009
CANADA	2,064	1,975	1,972	2,104	1,943
MEXICO	1,223	1,229	1,140	1,063	1,092
SAUDI ARABIA	1,076	1,119	1,080	870	980
NIGERIA	1,024	806	986	1,020	776
VENEZUELA	825	884	912	772	951
IRAQ	336	340	414	325	449
ANGOLA	307	263	380	266	448
BRAZIL	271	188	254	181	295
ALGERIA	262	379	325	336	281
COLOMBIA	220	489	338	179	251
ECUADOR	192	188	195	86	181
RUSSIA	158	85	252	168	230
KUWAIT	125	170	195	160	180
UNITED KINGDOM	124	80	120	67	103
ARGENTINA	85	35	29	33	53

Total Imports of Petroleum (Top 15 Countries)
(Thousand Barrels per Day)

Country	Dec-10	Nov-10	YTD 2010	Dec-09	YTD 2009
CANADA	2,713	2,510	2,532	2,710	2,479
MEXICO	1,365	1,363	1,280	1,204	1,210
SAUDI ARABIA	1,087	1,141	1,094	877	1,004
NIGERIA	1,070	860	1,025	1,029	809
VENEZUELA	917	942	987	849	1,063
RUSSIA	514	553	611	385	563
ALGERIA	484	572	507	544	493
IRAQ	336	340	414	325	450
ANGOLA	319	276	390	278	460
BRAZIL	295	198	271	184	309
UNITED KINGDOM	236	187	256	199	245
COLOMBIA	231	492	365	231	276
ECUADOR	192	194	197	86	185
VIRGIN ISLANDS	191	234	255	289	277
KUWAIT	125	170	197	160	182

It is also important to note that most of our oil imports from outside of Canada come *from national oil companies*, which may have their own specific policy and other goals in mind beyond simple market interests[10].

In 2007, roughly 78% of total world oil was produced by 50 companies, and of that production, about 70% was produced by national oil companies.



Source: Petroleum Intelligence Weekly, (Vol XLVII, No. 48), December 1, 2008

[1] Total oil production includes crude oil, natural gas liquids, and condensates.
[2] Includes smaller companies outside of the top 50 producers.

The national oil companies dominate not only the reserves of oil, but the production of it. Big oil is not Exxon. Big oil is Saudi Aramco. And of the *accessible reserves not controlled by the national oil companies 52 percent is to be found in Canada*[11].

We can see where our oil is coming from and where our demand for oil has been growing and it is mostly in transport.

It would be great if we could lightweight our cars, make them more efficient in their drive trains and more, and convert most if not all of our cars to

[10] http://www.capp.ca/GetDoc.aspx?dt=PDF&docID=186104, http://www.eia.doe.gov/energy_in_brief/world_oil_market.cfm , and http://www.rice.edu/energy/research/nationaloil/index.html .
[11] http://www.capp.ca/GetDoc.aspx?dt=PDF&docID=186104,

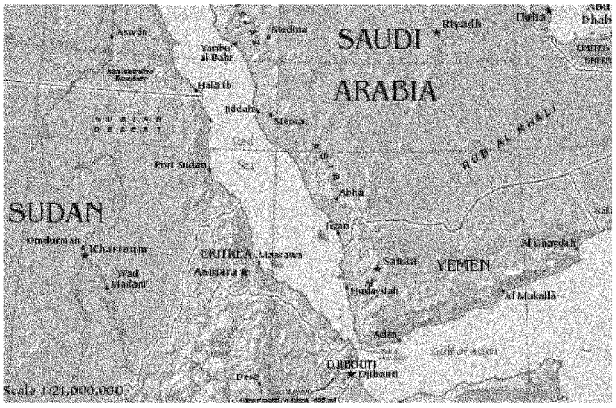
electric plug-ins, hybrid plug ins, CNG[12], hydrogen, methanol, and the like but that could take many years, if not decades. Another good idea, of course, is to have more of our transportation vehicles, aircraft, ships, etc. converted to flexible fuel engines in order to allow transport, other companies, the government, military, and consumers, to adjust their costs as different energy resources become more or less expensive or reliable than others. The simple mathematics of automobile vintages could indicate how long these changes could take. If we wanted to get around that then would also need to refit our transport vehicles as well as our transport infrastructure to these alternative fuels. Such things do not happen overnight. If these changes are pushed too fast and too hard then we could have significant economic and other disruptions in the US. There could also be vastly increased risk of severe instability in the oil producing nations that might dwarf even what is going on now. So we need to phase into the new energy futures over proper time periods and in proper, thoughtful and strategic manners. However, *we also need answers to our present and near term oil security issues now*. In the longer runs we need to change the way we do things, but these changes need to be done in a reasonable and reasoned fashion.

[12] Compressed Natural Gas

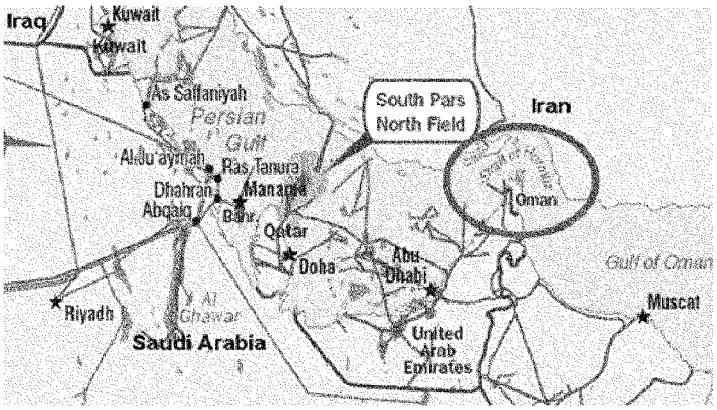
Instability in the Middle East, North Africa and other areas are driving a new calculation of our energy security situations:

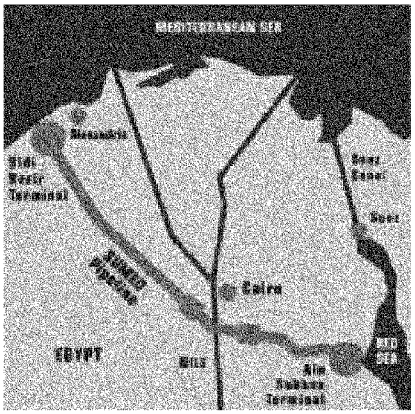
As the Middle East and North Africa are in turmoil, and with greater turmoil possible, it behooves us to focus on more diversified energy sources, and especially oil sources, closer to home or at the very least from places that are facing less instability and civil strife. *Canada is one of the most stable countries on the planet and will likely be so well into the future.*

The present and future instabilities in the Middle East and North Africa are not just a problem for oil production, but also of oil transport, such as around the Bab Al Mandab near Yemen, which carries about 3 million barrels of oil a day, the Suez Canal and Sumed pipeline, which carry 3-3.5 million barrels a day[13], The Straits of Hormuz, which carries between 12 and 15 million barrels a day, and more[14].



[13] As the Egyptian situation may get more complex see: http://www.eia.doe.gov/countries/cab.cfm?fips=EG
[14] http://www.eia.gov/cabs/world_oil_transit_chokepoints/background.html



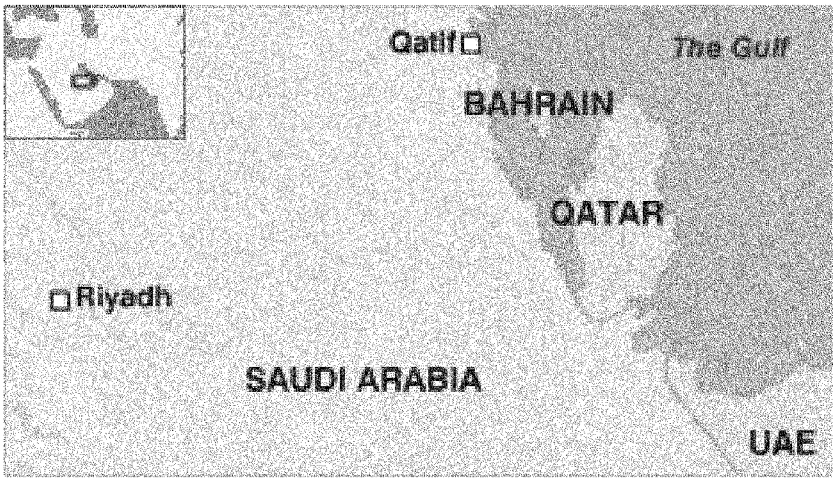


There are various pipelines and oil ports and offloading zones, such as the Al Basra Oil Terminal (ABOT) and Khor Al-Amaya Oil Terminal (KABOT) in Iraq, which send out about 1.5 million barrels a day on a good day, the Ab Qaiq Processing Facility in Saudi Arabia, and others that could be at extreme risk given certain circumstances[15]. Al Qaeda got very close to damaging Ab Qaiq in 2006, and this facility handles 6-7 million barrels of oil from various oil fields in the country[16]. That is 6-7 million barrels out of 82 million barrels a day that are used worldwide. There are numerous other

[15] See the Country Analysis Briefs on the countries in the region via: http://www.eia.doe.gov/cabs/
[16] http://www.washingtoninstitute.org/templateC05.php?CID=2446

facilities and pipelines that could be at risk given various scenarios that could face these countries in the future.

The situation in Libya is just one indication of the possibly bigger threats that are looming as the contagion of rebellion possibly spreads in the region and maybe even beyond[17]. The situation in Bahrain as its spread into Qatif, Saudi Arabia recently is also far from comforting[18].



There have been demonstrations in Iraq. Iran could be facing down increased instability. Oman has seen demonstrations. Algeria is a country that needs to be watched. Yemen is heading toward possible failed state status, or even been broken into many failed states. Jordan has had demonstrations, but I don't see that heading south as some other places have. Syria has had increasing violent reactions to demonstrations, especially in Dara'a in the south[19]. These demonstrations have recently spread to many

[17] http://www.iea.org/files/facts_libya.pdf, http://www.ogj.com/index/article-display/1323636114/articles/oil-gas-journal/general-interest-2/20100/march-2011/iea-sees_lengthy_reduction.html, http://online.wsj.com/article/SB10001424052748703300904576178151215604240.html, and http://www.iea.org/files/oil_market_libyan_supply_2mar11.pdfm.
[18] http://www.bbc.co.uk/news/world-middle-east-12708401
[19] http://www.nytimes.com/2011/03/26/world/middleeast/26syria.html and http://www.crisisgroup.org/en/publication-type/media-releases/2011/conflict-risk-alert-syria.aspx

areas in the country and have turned quite violent[20]. Syria is not a major oil producer, but its importance in the peace process, its relations with Iran, Lebanon, and other states in the region could make instability and change in this country more important to the overall situation in the region well beyond things weighted by oil production and population.

Then there is the constant, nagging conundrum of the Palestinian issue, which still reverberates in the region. Things have been heating up there as well. Kuwait has had demonstrations. The only two countries that have not seen any sense of instability or vocal discontent have been the UAE and Qatar, thankfully. They are also contributors to the efforts towards the no-fly zone in Libya[21].

However, if the Saudi situation gets more complex then even these lucky two may be facing significant stress. They share borders with Saudi Arabia[22]. So far there are no indications of troubles ahead for these two small nations in the midst of such actual and potential turmoil. Saudi Arabia also seems to have the situation in control. But the leadership of Saudi Arabia clearly sees the problems at hand and is trying to respond[23]. However, there are indications that Iran is trying to stir up trouble in the Shia communities in the region[24], including, possibly, the large Shia population the lives atop many of the major oil fields of Saudi Arabia. The problem is not just from Shia and Sunni political differences. The problem is also from Iran stirring up trouble and from political, economic and other tensions that have been translated into confessional stresses and resentments. Iran is trying to use the grievances of some of the Shia in the region for its own benefit.

---

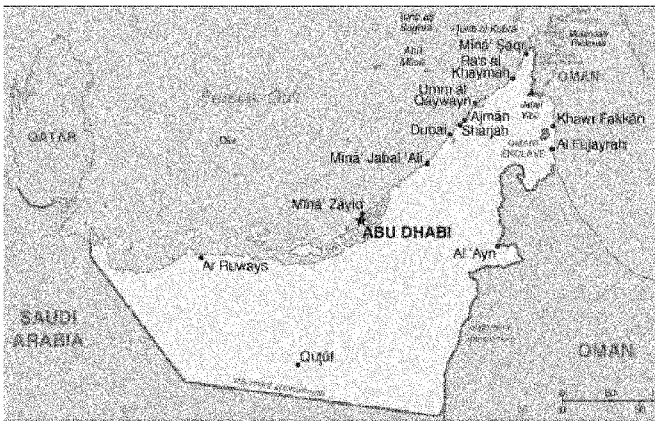
[20] http://www.rferl.org/content/feature_on_syria_changes/3540869.html, http://www.guardian.co.uk/world/2011/mar/29/syria-bashir-al-assad-protest,

[21] http://www.nytimes.com/2011/03/26/world/africa/26libya.html?partner=rss&emc=rss and http://www.bloomberg.com/news/2011-03-25/qaddafi-unites-arab-league-in-campaign-to-oust-libya-s-mad-dog-dictator.html

[22] http://www.cia.doc.gov/countries/cab.cfm?fips=TC

[23] http://www.eurasiareview.com/challenges-for-saudi-arabia-amidst-protests-in-the-gulf-analysis-25032011/, and http://online.wsj.com/article/SB10001424052748704608504576208764057863034.html,

[24] http://www.bloomberg.com/news/2011-03-25/qaddafi-unites-arab-league-in-campaign-to-oust-libya-s-mad-dog-dictator.html



To see the importance of these many Middle East and North African countries in the overall oil export picture please look at this chart from the EIA of the top 15 oil exporters in the world[25]:

"Country
Exports
1 Saudi Arabia
7,322
2 Russia
7,194
3 Iran
2,486
4 United Arab Emirates
2,303
5 Norway
2,132
6 Kuwait
2,124
7 Nigeria
1,939
8 Angola
1,878
9 Algeria
1,807

[25] http://www.eia.doe.gov/countries/

10 Iraq
1,764
11 Venezuela
1,748
12 Libya
1,525
13 Kazakhstan
1,299
14 Canada
1,144
15 Qatar
1,066"

But that is really not enough to explain how important these countries are. Most of the excess capacity in the oil markets can be found in the Arabian Gulf region, and 80 percent of that is found in Saudi Arabia. Spare capacity is the buffer against any oil shocks in the future. If something goes wrong outside of the region then that excess capacity can be used. If it happens in the region where the excess capacity is found then we have real problems[26].

Sometimes it is not that we import oil, but from whom we import the oil:

As we saw above, the US's largest trading partner, tightest foreign relations, and strongest energy relations are with our neighbors to the north, Canada. They are also our largest source of imported oil.

Our friends to the South, Mexico, are our second largest source of imports recently, but they are having extreme problems with declining oil production and have problematic management issues of their state oil company, PEMEX. There is also considerable underinvestment in PEMEX.

Next is Saudi Arabia, a country in an unstable area that may soon have some problems of it own. Hopefully, Saudi Arabia will remain the stable ally that it is today, but given the situation in the region and the fact that most of the people living near their largest oil fields are Shia, who have grievances and

[26] http://ftalphaville.ft.com/blog/2011/03/08/507161/, http://www.ft.com/cms/s/0/bb49dab2-4690-11e0-967a-00144feab49a.html#axzz1GsPpr9jt, and http://www.ft.com/cms/s/0/b56c7898-2331-11e0-b6a3-00144feab49a.html

may be stirred up by Iran, then we can't be sure of the future of even this stalwart source of oil. Saudi Arabia also has significant unemployment and underemployment problems.

King Abdullah has been sending tens of billions into the system lately to help alleviate some of the economic and other stresses in his country. He has also started the building of economic cities and education cities to help develop Saudi Arabia in a different and more sustainable way. One would hope that these efforts will move Saudi Arabia to a new future, but this is not fully certain.

Also, Chinese demands for Saudi oil have increased considerably over the last few years. The Chinese take more Saudi oil than we do[28].

Next down the list of our sources of imported oil is Nigeria, which is having severe internal problems with the MEND (The Movement to Emancipate the Niger Delta) and other groups. It also has had a very difficult past with regard to interethnic strife and other issues that could become even bigger in the future. Internal strife has led to declines in the production of oil in the country on many occasions[29].

Our next most important source of imported oil is Venezuela. Hugo Chavez is hardly an ally of the US. He publicly supports Mahmoud Ahmedinijad of Iran, Mouammar Ghaddafi of Libya, and other problematic figures and regimes on the world stage. Venezuela may also prove to be unstable in the near future. There seems to be a building resentment given unemployment, underemployment, corruption, oppression and more of the same factors that have led to uprisings and revolutions in the Middle East. China is also planning to take more oil from Venezuela in the future. [30] The widening and deepening of the Panama Canal could also have great effects on oil trade from Latin America to Asia.[31]

---

[28] http://www.nytimes.com/2010/03/20/business/energy-environment/20saudi.html and http://www.upi.com/Science_News/Resource-Wars/2011/03/24/China-taking-on-more-Saudi-crude/UPI-70551300969850/

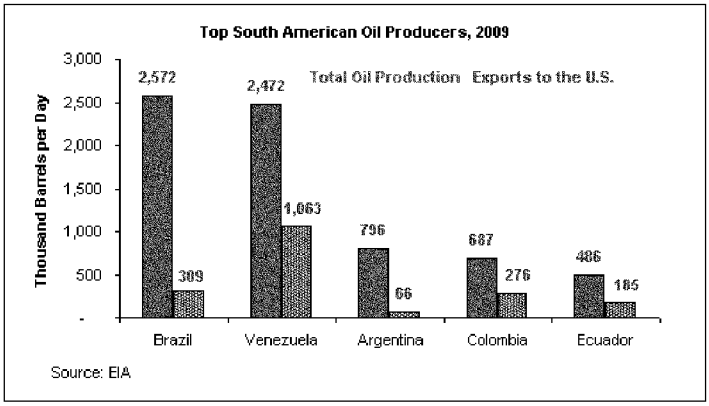
[29] http://www.ogj.com/index/article-display/5872317024/articles/oil-gas-journal/drilling-production-2/2010/11/exxonmobil-rig_attacked.html, http://www.bbc.co.uk/news/world-africa-11467394,

[30] http://www.businessweek.com/news/2010-04-18/china-lends-venezuela-20-billion-secures-oil-supply-update1-.html and http://online.wsj.com/article/SB10001424052748703512404576208642116371086.html

[31] http://www.theaustralian.com.au/business/news/china-eyes-panama-canal-expansion/story-e6frg90o-1225827691243, http://www.cosco.com/en/pic/forum/1762262637394863 6.pdf,

Then we have considerable imports from Iraq, not the sort of country that gives one a sense of long term stability, especially given the recent demonstrations and other actions on the ground. Also, almost all of its oil goes through one fairly small geographic speck, the Al Basra Oil Terminal, or ABOT and its sister oil port facility, Khor Al –Amaya Oil Terminal, or KABOT[32]. 95 percent of all Iraq's export revenues is from the oil exporting out of ABOT and KABOT[33]. The entire economy of Iraq relies on these set of wharves and pipelines at sea not far from Iran. We have our Operation Sea Dragon[34] protecting these facilities, but it may be only a matter of time before something happens there.

We do import oil from Brazil, Colombia, Ecuador, Trinidad and Tobago and oil refined products from many places in the Caribbean. Those are close by, and less problematic states than some of the others mentioned[35]. Our relations are not perfect and we have our differences, but these countries might be relied on more in the future for their oil as well, especially Brazil given their significant finds in subsalt regions offshore[36]. But these countries do not have the massive reserves that Canada has.



[32] http://www.eia.doe.gov/cabs/iraq/pdf.pdf
[33] http://www.iraq-businessnews.com/tag/al-basra-oil-terminal/, http://www.maritime-database.com/port.php?pid=1776, http://www.iraqoilreport.com/oil/production-exports/tour-of-a-lifeline-3973/, and http://www.cia.doe.gov/cabs/iraq/pdf.pdf
[34] http://military.discovery.com/videos/operation-sea-dragon-abot-part-1.html
[35] http://www.eia.gov/countries/cab.cfm?fips=EC, http://www.eia.doe.gov/cabs/Colombia/pdf.pdf,
[36] http://www.eia.doe.gov/cabs/brazil/pdf.pdf

When we consider our imports of refined products the important countries change, but not that much, and also they often remain in the potentially unstable areas and some are run by regimes that we could not exactly want to have a cup of tea with without gritting our teeth, such as that of Hugo Chavez of Venezuela.

We need to reasonably consider our oil and energy futures, including the environmental and other tradeoffs involved:

When we look at our top sources of imported oil one thing is clear-- we need to move closer to more stable areas and closer to our friends. Sure we can move from source to source as instabilities arise, but we also need to take care *to not get caught out and face energy shortages and economic problems when we have not properly prepared for our future*. We could also develop own offshore and onshore conventional and unconventional resources. Our onshore unconventional resources, such as shale oil, could be massive, but this will take time and will require a careful phasing in of production. Until these sources are up to speed we need a stabilizing influence.

The XL pipeline should be allowed to go forward for energy security, economic security, and national security reasons. Energy security is a vital part of national security, and it is a requirement for economic security.

There are environmental issues that need to be dealt with, and they can be and they must be, but there are vital national energy security interests involved. This is not to dismiss the environmental issues. But these are all issues that are controllable and the technologies and management practices are already available to deal with them *with the proper regulations and oversight.*

There is a $12 billion cost to consider in the building of the Keystone XL. That is about the cost of two medium sized nuclear power plants.

However, if the oil can get to Houston and our refineries in the south from Canada this may supplant many hundreds of thousands of barrels of imported crude from elsewhere, such as Venezuela. Or, when the need arises, this oil could replace oil from any other country on the lists where the types of oil in our refineries are close to those flowing in the XL pipeline. It could also be a way to stabilize our SPR over time in new ways.

Having such a pipeline may also make some oil countries pause the next time they would want to try to jack up the prices of oil, or try to follow through with oil boycott or slowdown threats for whatever reasons. The higher the price for conventional oils the more profitable it is to produce unconventional oils, and the more likely there will be more upstream and transportation investment in such unconventional oils.

Canada has about 175 billion barrels in proved reserves. Most of that is found in the tar sands of Alberta. This is oil in a neighboring and friendly state that does not go through dicey oil transport choke points[37]. The expectation is that oil sands will become an increasingly important part of oil production in Canada over the coming years[38].

The Chinese are also interested in obtaining these tar sands oils via a pipeline that might be built to the west coast of Canada. If this pipeline is built and the oil flows to the western ports of Canada and on to China before we can increase our capacity to import Canadian tar sands oil then we may lose out on a great opportunity to lock in future flows of Canadian oil to us, rather than to the Chinese[39].

Tar sands add just 5-15% over normal oil in CO2[40]. Most CO2 production for all oil types happens with the oil is burned in the autos, planes, ships, factories, etc. It is very important to look at the life-cycle CO2 emissions and not just at the increase in emissions from producing tar sands, other heavy oils and the lighter oils, many of these lighter oils already heading toward peak[41]. Also, the Province of Alberta has increasingly strict environmental, safety and other regulations being imposed on the tar sands industry[42]. There

---

[37] http://www.eia.gov/todayinenergy/detail.cfm?id=330

[38] http://www.capp.ca/GetDoc.aspx?DocId=173003

[39] http://www.guardian.co.uk/business/2010/feb/14/canada-china-investment-oil-sands, http://www.upi.com/Business_News/Security-Industry/2010/01/05/China-buys-into-Canadian-tar-sands-exploitation-project/UPI-22041262732184/, http://www.bloomberg.com/news/2011-03-08/sinopec-paying-attention-to-proposed-canada-west-pipeline-1-.html

[40] International Energy Agency, World Energy Outlook 2010, p. 156, IEA, Paris, 2010 and http://www.capp.ca/oilsands/Pages/default.aspx#CcTLw23HdNiq

[41] http://www.capp.ca/library/publications/crudeOilAndOilSands/pages/pubInfo.aspx?DocId=135721#G1cNc2Na14b3, www.cfr.org/content/publications/.../Oil_Sands_CSR47.pdf, *and* http://www2.ihscera.com/docs/Oil_Sands_Energy_Dialogue_0810.pdf

[42] http://www.environment.alberta.ca/documents/oil_sands_opportunity_balance.pdf , http://www.environment.alberta.ca/documents/CCC_Calgary_report.pdf,

will likely be increasing efforts by the industry to capture and sequester more CO2 in the future.

Again, the most production of CO2 by any oils is in the combustion of those oils in transport vehicles, electricity production, industry and any other activity that combusts the oils and then send the once stored CO2 into the atmosphere as part of that combustion.

Again, what we need to do is focus on more efficient cars, light weighting of cars, alternative fuels cars, the development of flexible fuel options for many, if not all uses of fuels in transport and more, etc. But this will take time.

In the meanwhile we need energy security that will support the transportation and other systems we have now, while at the same time focusing on changing those systems for even greater energy security.

Tar sands oil is more expensive to make than conventional oils and there are more steps to making it useable in refineries. However, as we explore in deeper water and in harsher climates and more difficult places to find conventional oil then the costs for extracting the conventional oil will most likely continue to rise. They have been rising for many years. The era of cheap to find and produce conventional oil is over. However, given the potential increases in costs of production of conventional oil globally, the potential increases in riskiness of that production and in the transport of that oil through dicey chokepoints, the extra costs for tar sands are outweighed by the energy security benefits this pipeline could bring us.

We also need to consider how important transport costs variability is to the overall cost of getting the oil. Oil tanker costs have had a very wild ride over the last few years. Oil tanker leasing costs are mostly found by the equilibrium of the markets and when there is surging demand for oil then the prices for the tankers spike as well. The lease rates for the very large tankers that normally bring crude over long distances spiked to close to $90,000 a day in 2008 from around $50,000 a day in 2006-2007. Now they are down to about $20,000 a day or so, but as the demand rises this will likely spike again as it also did from 2001 to 2004[43]. The price of transporting the oil

---

http://www.energy.alberta.ca/OilSands/583.asp, and
http://www.capp.ca/oilsands/Pages/OilSandsEnvironment.aspx#TxltnklUyGGs
[43] http://www.intertanko.com/templates/Page.aspx?id=18

from Canada would be set by FERC in the U.S. and would **not** have the same supply/demand features that cause these transport costs spikes for tankers[44]. The variability of transport costs for the pipeline would be kept in check by FERC and Canadian regulators.

The costs of sending oil by ship also increases for certain areas as political risk and physical and pirate risk to the shipping goes up, such as around the Bab Al Mandab in Yemen and the waters off Somalia, Yemen, Kenya, Oman, Tanzania, Nigeria, and other countries where some of the largest oil cargos transport. The examples of the hijacking of the 2 million barrel Sirius Star a couple of years ago, and the recent hijacking of a Greek supertanker should give us pause once again[45]. A Kuwaiti tanker headed to Singapore was hijacked very recently off of Oman.[46]

It will be a lot cheaper to send the oil by pipe from Canada than by ship from Saudi Arabia and Nigeria, especially during times of very high demand for shipping. As the demand for shipping drops during deep recessions then the prices of transport by ship decline and begin to approach those of the pipeline costs. However, for long distance oil journeys by sea there are other risks and cost vulnerabilities that pipelines do not have.

Peak conventional oil and the promise of unconventional oil:

Conventional oil already peaked worldwide according to the IEA[47]. It peaked in the US in 1973. It has been peaking and will peak in many non-OPEC countries over the years. Clearly, the world will be pushed to rely more and more on unconventional oil as time progresses and the conventional oil gets harder and more expensive to find.

Two of the biggest sources of available, in the shorter term, unconventional oil are the tar sands of Canada and the heavy oils of Venezuela. I would rather the US relies on our friends the Canadians -- and our own internal

---

[44] http://www.intertanko.com/templates/Page.aspx?id=18831, http://www.ferc.gov/industries/oil.asp, http://www.ferc.gov/industries/oil/gen-info/pipeline-index.asp, http://www.transcanada.com/5232.html, http://www.ferc.gov/docs-filing/etariff.asp, and http://www.ferc.gov/docs-filing/etariff.asp.
[45] http://www.guardian.co.uk/world/2008/nov/18/somalia-oil and http://www.reuters.com/article/2011/02/09/us-oman-supertanker-idUSTRE7182Q220110209
[46] http://af.reuters.com/article/topNews/idAFJOE72S01J20110329
[47] http://www.energybulletin.net/stories/2010-11-11/iea-acknowledges-peak-oil, http://www.worldenergyoutlook.org/docs/weo2009/WEO2009_es_english.pdf

sources of unconventional oil, such as shale oil—than on a possibly unreliable source of oil from what could prove to be a declining regime of Hugo Chavez. If the country changes its type of leadership and behavior toward the US then we could revisit this, but for now we get what we see – and it is not calming. We have potentially massive reserves of unconventional oil in our own country, but that could take some time to develop, and actually some of these places could be helped in their development with this pipeline system as a connector to other pipeline systems. The Bakken Formation comes to mind on this.

We also need to focus inward as we consider our energy futures:

There is also a need for us to also focus more on our own oil resources, including the huge offshore fields that are now so hard to get at off of the West and East Coasts and in Alaska. With the proper regulations and oversight this could go very well for us and help protect us from further shocks in a much more important way than our SPR does. The SPR is just 700 million barrels. We could have over 7 times our presently published proved reserves of 19.1 billion barrels, and our unconventional oil reserves could be just massive[48].

We also need to focus on new production technologies, including enhanced oil recovery techniques.

The average output of the average US well is just 10 b/d. 79 percent of our wells are stripper wells with less than 10 b/d. 86 percent are marginal wells at less than 15 b/d[49].

With developments of offshore fields, shale oil, and the like we could go a long way toward this medium term diversification that is required. Pushing more application of enhanced oil recovery techniques could also help our energy security situation[50].

---

[48] http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=04212e22-c1b3-41f2-b0ba-0da5eaead952 and http://fossil.energy.gov/programs/reserves/npr/publications/Unconventional_Oil.pdf

[49] http://www.eia.doe.gov/aer/txt/ptb0502.html, http://www.nswa.us/dyn/showpage.php?id=25, http://iogcc.myshopify.com/collections/frontpage/products/2009-marginal-well-report

[50] Alvarado, Vladimir, and Menrique, Eduardo, 'Enhanced Oil Recovery: An Update Review', *Energies,* Volume 3, 2020, pp. 1529-1575, http://www.mdpi.com/1996-1073/3/9/1529/pdf, Falcone, Gioia, etal, 'Can We Be More Efficient in Oil and Gas Exploitation?', *Journal of Physics and Natural Sciences,* Volume 1, Issue 2,

It would be a moment of energy security folly to not allow this project to go forward:

Putting all of this together we can see it would be a moment of energy security and national security folly to stop this pipeline from being built and operated[51]. ***The Canadians are the most important and most reliable source of imported oil we have.*** They supply large quantities of electricity to us and import electricity from us as well. They are the largest source of our imported natural gas, *and this is by pipeline*. We also have significant cross-border energy investments with the Canadians on hydrocarbon sources and technologies as well as in alternative energies. Our energy relations with the Canadians are very important[52]. The U.S. and Canada have an important clean energy dialogue as well[53].

Both countries realize the importance of efficiency gains, smart grids, alternative energy futures, flexible fuel use, new forms of transport and more. Some of our strongest intellectual cooperative efforts on energy futures can also be found with the Canadians. The US, along with partnerships and collaborations with Canada and others can move forward to the new energy future. But that future is **not** just around the corner.

---

http://www.scientificjournals.org/journals2007/articles/1319.pdf, Maugeri, Leonardo, 'Squeezing More Oil from the Ground', *Scientific American*, October 2010, http://www.scientificamerican.com/article.cfm?id=squeezing-more-oil-edit-this, Sandrea, Ivan and Sandrea, Rafael, 'Recovery Factors Leave EOR Plenty of Room for Growth', *Oil and Gas Journal*, 12 November 2007, Volume 105, no. 42.

[51] http://energy.nationaljournal.com/2010/08/should-obama-approve-oil-pipel.php#1614290

[52] http://www.eia.doe.gov/cabs/Canada/pdf.pdf

[53] http://events.energetics.com/USCanadaCleanEnergy2010/pdfs/US_Canada_Clean_Energy_Dialogue_2010_Conference_Summary_Report.pdf

The strongest and most reliable economic relations we have are with the Canadians. We have huge amounts of people, goods, services, electronic information, funds and energy sources flowing between our countries each day[54]. The deepest and most important defense relationship the US has is with Canada[55].

Our many important relations with Canada also link with our relations with other important allies, trading partners and others. The Canadians are our closest friends in the world on many issues.

We will be in need of oil from the Canadians for some time to come. Our oil, gas and electricity trade with the Canadians could prove to be one of the most important linkages for both of our countries as we both face new energy challenges. The US transition from oil and gas to a new energy future for the US will likely also include Canada in many ways.

It is important to see the problems with our dependence on oil. It is even more important to see the importance of reason and strategic planning to make sure that our energy supplies remain secure in the coming difficult transitions that we will face to a new energy and geopolitical future.
We need to be reasonable and think of the need for Canada's oil in the short to medium runs, ***but also we need to think down the line in the longer runs when both of our countries will need to find an energy future that could be very different from today.***

---

[54] Please see http://www.buyusa.gov/canada/en/traderelationsusacanada.html for even more indications of how important Canada is to the US economically and otherwise.

[55] Please see: http://www.forces.gc.ca/site/focus/canada-us-canada-cu/index-eng.asp.
One might also look at: http://www.state.gov/r/pa/ei/bgn/2089.htm

We need to be reasonable in our tradeoffs with a clear view of the problems we face ahead:

This pipeline is a step forward in the direction of better energy, economic and national security for the U.S. in the medium run. It is not the giant step toward a new energy future than some would like, but it could be part of reasoned and reasonable set of steps that could be used as a bridge to our new energy future. These steps could help secure our energy needs for today and for the medium term as the US and others begin the very complex quest to find sustainable and attainable energy security in the long run.

Respectfully Submitted,

Professor Paul Sullivan
National Defense University
Georgetown University
sullivanpj@ndu.edu
pjs57@georgetown.edu
202-685-4237 (office)
571-217-6009 (cell)

Mr. MACK. Thank you, Mr. Sullivan.

Mr. Symons is recognized for 5 minutes.

STATEMENT OF MR. JEREMY SYMONS, SENIOR VICE PRESIDENT, CONSERVATION AND EDUCATION, NATIONAL WILDLIFE FEDERATION

Mr. SYMONS. Chairman Mack, Ranking Member Engel, members of the subcommittee, thanks for having me here today. I have to say, Mr. Chairman, I am feeling a little outnumbered. I was hoping I might see 30 minutes for equal time but, alas, I will proceed.

My name is Jeremy Symons. I am with National Wildlife Federation. I am Senior Vice President for Conservation and Education. National Wildlife Federation is a nonpartisan, nonprofit organization with 4 million members and supporters and 47 state affiliates across the nation.

Events in North America and the Middle East, as you have already heard, and rising gas prices once again underscore our dangerous addiction to oil and the high price we pay due to the instability of global oil markets. America needs energy security, so the question is what is the best way of getting there.

As much as we may wish otherwise, there are no quick fixes by switching suppliers of our oil imports from one country to another and turning to extreme oil such as Canadian tar sands. There is only one way out. We need to get serious about the innovation and our transportation and fuel sectors that will create jobs here at home and provide Americans a healthier, cleaner, and more secure energy future.

One myth that I often hear is that Canada will find a responsible way to mind tar sands. Years of experience have proven otherwise. I have been there. I have seen the damage. I have listened to courageous people who have suffered as they have stood up to big oil and the oil companies up in Alberta.

Alberta tar sands operations are the most destructive source of oil on the planet. It can take five barrels of clean water and four tons of sand to squeeze out just one barrel of tar sludge. This tar sludge is so thick and heavy it must be diluted and pressurized to transport it through pipelines to refineries.

Last year I flew over the tar sands operations and I brought some of the pictures here today and they are up on the monitors here today that I took. As you can see what was what forest wilderness has been turned into barren strip mine waste land and lakes full of toxic waste that stretch as far as the eye can see, mine after mine after mine. The scale was shocking and difficult to imagine.

You can see here if you go to the next slide one of the movers, the sand movers. If you go to the next slide it takes you back to the original image. You can't even see those movers in there but they are out there from this distance. They are just tiny dots, tiny pixels to give a sense of the scale.

You can also see of the toxic waste lakes in this picture that are created. If you go to the next slide, you can see the goo here and the toxic sludge that kills thousands of birds that fly north from the United States as they migrate each year. Then the final slide you can see the advanced technology that people like to talk about that protect wildlife. That is a scarecrow. That is what they use.

Air pollution from tar sands production also causes three times more carbon emissions than conventional oil, escalating greenhouse gas emissions when we should be moving in the other direction.

In Alberta I met with First Nation communities and listened as they told the heartbreaking story of how cancer rates have increased as the tar sands operations have expanded.

One elder told me that they pull their kids indoors whenever the air gets too noxious.

Large volumes of toxic waste leaks into the Athabasca River every year contaminating the water supply and fish.

So this is what you expected me to say. You might not have known the extent of the damage but you knew there was an environmental price. The question really comes down to is it worth it. Is it a price that we have to pay?

I have to say, though, we are living in—we are really seeing Canadian oil as some sort of mirage for our energy security. The idea that expanding Canadian tar sands production provides energy security is really just an illusion. Let us look at what has happened in the past month since outbreak of violence in Libya. The price of Canadian oil has increased by $20 a barrel.

That is actually twice as much as the jump in the increase in global oil prices. Twice as much as what we have seen in Saudi Arabia. Nobody likes getting oil from the Middle East, but why is getting oil from Canada better when the oil companies who control it will take advantage of a crisis anytime there is one anywhere in the world to increase oil prices, and speculators will make us pay at the pump.

This isn't about Canada. This is about being loyal.

Every hour Americans are now spending $2 million more for Canadian oil than we did 1 month ago. Where is the economic security in that? Oil produced from Canadian tar sands is some of the most expensive oil to produce in the world. As we drive up global oil prices, countries that don't like us will profit whether we buy their oil directly or not. Where is the energy security in that?

We currently have surplus pipeline capacity to carry all the oil Canada can provide to America's midwest. So why do oil companies want to rush to build the Keystone pipeline? Because they want to access the deep water ports down in Texas so they can export the oil that we are bringing in.

We are actually exporting twice as much for fine oil products than we were just 5 years ago. Chairman Valero just said that the future of Iraq refining in the U.S. is in exports. Why do we want to move oil that is coming in from the midwest down to Texas so it can be exported to China or other places and want to call that energy security?

Those refineries in Texas, by the way, are owned by Venezuela and by Saudi Arabia.

The only certain impacts to the Keystone XL pipeline are that it will help oil companies manipulate gas prices in the midwest and that it puts to risk the Ogallala Aquifer in Nebraska which provides irrigation for much of America's bread basket and drinking water for over 2 million people.

In seeking the Canadian permit, TransCanada actually said to the Canadians, they said that they will increase gas prices by $4

billion a year on the U.S. That was the purpose, $4 billion for oil we are already getting and not another drop.

I know that I am running out of time, Mr. Chairman, so let me just say that there has also been a huge spill last year in the Kalazmazoo River in Michigan where we saw 800,000 gallons from a tar sands pipeline because tar sands are corrosive and we have not updated our pipeline regulations for tar sands as need to be before we build a new pipeline so we really appreciate that the State Department is taking a proper look at the safety of these pipelines and the environmental impacts before they rush forward. Thank you very much.

[The prepared statement of Mr. Symons follows:]

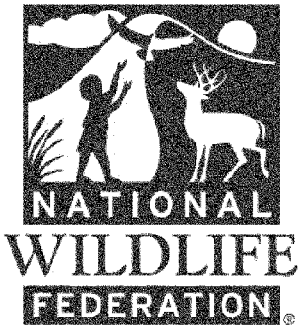
Testimony of

Jeremy Symons
Senior Vice President, Conservation and Education
National Wildlife Federation

Before the

House Committee on Foreign Affairs
Subcommittee on the Western Hemisphere

March 31, 2011



Chairman Mack, Ranking Member Engel, members of the subcommittee, thank you for the opportunity to be here today.

National Wildlife Federation is a non-partisan, non-profit organization. Our mission is to inspire Americans to protect wildlife for our children's future. National Wildlife Federation is supported by 47 state and territorial affiliates and 4 million members and supporters across the nation. Our members include hunters, anglers, backyard gardeners, birdwatchers and outdoor enthusiasts from all walks of life.

I have been personally working at the intersection between energy and environmental policies for the past twenty years. Last year, I travelled to the tar sands of Alberta to learn firsthand about the Canadian oil operations.

The Desperate Quest for Extreme Oil

Events in North Africa and the Middle East and rising gas prices once again underscore our dangerous addiction to oil and the high price we pay due to the instability of global oil markets. As our quest for oil has gotten more and more desperate, we are turning to more extreme oil supplies like ultra-deepwater drilling and Canadian tar sands.

The costs are now starting to register. We rushed into new frontiers of deepwater drilling without keeping pace with regulatory oversight, and we witnessed the toll in the BP disaster off our Gulf coast. In Alberta, oil companies are increasingly pursuing scorched earth mining operations that squeeze an oily sludge from dirt, laying waste to vast expanses of forests and rivers in the process.

Put simply, cheap oil is tapped out and the oil industry has us over a barrel. We need to start paying attention to the consequences as oil companies steer us toward extreme oil.

The answer to our oil addiction doesn't lie in chasing increasingly expensive and dangerous forms of oil. Energy choices that harm people's health and destroy the natural world that sustains us are a dead end. They provide neither a quick gas price fix, nor the longer term energy security and economic stability we need.

The answer to our oil addiction also doesn't lie in simply switching suppliers. America has a mounting energy deficit, and our economy is leaking oil money. We borrow more and more money from China as we spend a billion dollars every day on foreign oil. Almost anywhere that oil is drilled, we end up sending our money to the same big oil companies – the same companies that pocketed hundreds of billions in windfall profits when gas prices were last this high.

The best path to energy security is innovation in our transportation and fuels sectors that will create jobs and provide Americans a healthier, cleaner and more secure energy future.

Canadian Tar Sands: An Energy Security Mirage

Currently, about half of our oil imports from Canada are conventional oil and the other half are tar sands products. Most future growth in Canadian oil supplies will come from tar sands mining in Alberta (tar sands account for more than 90% of Canada's oil reserves).

Expanding our reliance on expensive Canadian oil offers nothing more than a mirage of energy security.

Admittedly, it's a tempting mirage. Spiking gas prices hurt families across the nation. And nobody likes paying more for oil from countries that don't like us.

But the reality of what oil companies have in store for us in Canada will eventually overwhelm the illusion being painted by Canada and oil companies today. We are getting a small taste right now. According to the U.S. Energy Information Administration, since violence first broke out in Libya last month, the price of Canadian oil has increased by more than $20 per barrel. That is double the price spike we have seen for oil from the rest of the world, including the Middle East.

Why do oil prices in Canada go up when there is conflict in North Africa? Because oil companies don't care about energy security or price stability. They care about profits. And if there is a crisis in one part of the world, you can bet they will gauge us with high oil prices everywhere.

Every hour, Americans are spending $2 million dollars more for Canadian oil than we did one month ago. That is not economic security.

The profiteering of Canadian oil companies in the wake of unrest in Libya and other nations reveals that our friendly relations with Canada matter little when the same oil companies are in charge of oil supplies and prices.

There is no viable scenario of increased Canadian oil production from tar sands that would stop our dependence on oil from other nations or significantly reduce the amount of money that nations such as Venezuela or Iran make from their oil sales.

We can try and pick and choose where we buy our oil, but the only thing we can do to reduce the flow of money to hostile nations is to reduce world oil prices. As the world's leading consumer of oil, we can reduce prices and the flow of money by cutting back our demand for oil.

Canadian oil takes us in the opposite direction. Expanding Canadian tar sands operations is an extraordinarily expensive proposition. New tar sands projects require high oil prices – estimates range from $65-$95 per barrel – to be profitable. If you want to lock in high global oil prices, then Canada is the place to turn.

Alberta's Tar Sands: The Most Destructive Source of Oil on the Planet

Alberta's scorched earth tar sands operations are the most destructive source of oil on the planet. It can take 5 barrels of clean water and four tons of sand to squeeze out one barrel of tar sludge. This tar sludge, called bitumen, is so thick and heavy that it must be heated or diluted and pressurized to transport it through a pipeline to refineries, where it is turned into diesel and gasoline. Because it is so heavy and dirty, it requires special refining operations. More of that refining is now happening in the United States, as Canada ships raw tar sludge to refineries in the Midwest.

Last year, I flew over the tar sands operations around Fort McMurray, a frontier town that serves as the hub of the tar sands expansion. As far as the eye could see, barren strip-mined wasteland and lakes full of toxic waste had replaced pristine forest that had been home to abundant wildlife. The scale was shocking and difficult to imagine.

The toxic lakes kill migratory birds and other wildlife that come in contact with it. Researchers from the Pembina Institute explained that conservative estimates for annual wildlife mortality are in the thousands. This includes migratory birds, particularly waterfowl that winter in the U.S. and are an important part of America's great outdoors. Pollution from tar sands production is equally alarming, causing three times more carbon emissions than conventional oil.

We also met with First Nation communities in the area. Their proud heritage, stretching back generation after generation, has reached a tragic crossroads. I listened as they told the heartbreaking story of how cancer rates have increased as the tar sands operations have expanded. One elder told me that parents close their kids indoors when the air pollution gets too noxious. Large volumes of toxic waste leaks into the Athabasca River every year, contaminating their water supply and fish. These communities once depended on fish and game for food. The fish are now too contaminated to risk eating. They have to drive dozens of miles to get past the mining and reach forest for hunting, but populations of Caribou and Moose have plummeted.

Aware of the implications these impacts have for business, the oil companies and the Alberta Government have worked together to downplay, discount, and silence concerns. They have also lobbied against U.S. federal and state policies to promote cleaner fuels, joining forces with the oil industry.

Keystone XL Pipeline: Higher Gas Prices and Canada's Export Gateway

The energy investments we make today will determine our energy future for decades. Oil companies now want to build a 2,000-mile pipeline to carry tar sludge from Alberta to Texas refineries. The price tag is $14 billion. They plan on operating the pipeline for at least 50 years.

Here is the question we must ask: Should we put our kids' energy, economic and environmental future in the hands of Canadian oil companies for decades to come?

Oil companies say yes. They are banking that our urgent thirst for oil right now will outweigh the environmental destruction that is underway in the boreal forests to our North. They are betting that our blind hopes for lower gas prices will cause us to turn a blind eye to the dangers of transporting corrosive tar sludge in pipelines that have a high risk of rupturing.

The Keystone XL Pipeline is a prime example of the need to look beyond the oil companies' propaganda and understand the real impact on prices and supplies. This pipeline has nothing to do with increasing energy supplies for America. According to their own documents, it is primarily a means for oil companies to better manipulate prices.

We currently have surplus pipeline capacity to carry all the oil Canada can provide to America's Midwest. We currently import about 1 million barrels per day (bpd) of tar sands products, and we have about 2.4 million bpd of pipeline capacity. Keystone XL would add 900,000 bpd to that capacity, increasing total pipeline capacity to 3.3 million bpd – three times current production levels. According to the Canadian petroleum industry, tar sands production can't achieve that production levels for at least 15 years.

So why the rush?

Recently uncovered documents have revealed the true motivations for this pipeline: price manipulation. In seeking their Canadian permit, Transcanada (the company building Keystone XL) argued that the pipeline would allow Canadian oil companies to increase prices for all the oil Canada is already selling the U.S. They submitted a market analysis that put a number on the windfall that the U.S. would hand over to Canadian oil companies: $4 billion annually. Every dime of this would be for oil and tar sludge the United States already receives from Canada.

With further digging, the company's documents and testimony indicate that seven shippers are pursuing a strategy to manipulate oil markets and increase profits. By limiting supply to Midwest refineries and re-routing this oil to Gulf Coast refineries, Transcanada estimated that Canadian heavy crude prices will increase by $6.55 per barrel in the Midwest and by $3 per barrel everywhere else as soon as the pipeline is complete.

In his recent Op Ed in the Minnesota StarTribune, oil market economist Philip Verleger explained how this would affect U.S. farmers and consumers:

> "U.S. farmers, who spent $12.4 billion on fuel in 2009, according to the U.S. Department of Agriculture, could see their expenses rise to $15 billion or higher in 2012 or 2013 if the pipeline goes through … In addition, millions of Americans will spend 10 to 20 cents more per gallon for gasoline and diesel fuel as a tribute to our "friendly" neighbor to the north."

Oil companies want Keystone XL built so they can access the deepwater ports of the Gulf Coast refineries. Earlier this month, the CEO of Valero Energy, one of the companies signed up to ship oil through Keystone XL, said that Valero believes "the future of refining in the U.S. is in exports." Piping Canadian oil across America does not make it American oil. In fact, a major expansion of refining capacity in Texas is being financed by Saudi Arabia's state-owned oil company, Saudi Aramco.

Increasingly, America is becoming the middle man in the global oil business. We import vast amounts of crude oil, but are exporting more and more refined oil products such as diesel and gasoline from our Gulf Coast refineries. Exports have doubled in the past five years, and our exports of refined oil products are currently larger than our total imports of Canadian tar sands oil and tar sludge combined.

The Keystone XL Pipeline: Dangerous and Risky

Before new tar sludge pipelines are built, America needs updated pipeline regulations that address the safety challenges of carrying corrosive and toxic tar sludge under the high pressures required. A tar sludge pipeline recently dumped 800,000 gallons into Michigan's Kalamazoo River. Benzene and other toxins triggered health problems for 58% of nearby residents. Alberta pipelines transporting tar sands sludge have 16 times the number of accidents as U.S. pipeline (as documented in the recent report *Tar Sands Pipeline Safety Risks*, published by NRDC, National Wildlife Federation, Pipeline Safety Trust, and Sierra Club).

Landowners along Keystone XL's proposed right-of-way are routinely bullied by Transcanada, who has threatened these landowners with eminent domain. These landowners are right to ask questions about the safety of the pipelines and demand better answers than the vague assurances and threats they are getting.

The proposed route of Keystone XL through the most sensitive area of the Ogallala Aquifer in Nebraska, which provides irrigation for much of America's breadbasket and drinking water for over 2 million people, is particular cause for concern. Nebraska Republican Senator Mike Johanns has said:

> "[There] could not be a worse route in the entire state of Nebraska ... Maybe couldn't be a worse route in the entire country."

National Wildlife Federation is encouraged that the State Department has decided to further investigate the environmental impacts of this pipeline. We should not put our water and lands at risk for a pipeline that is forced on landowners and will only increase our gas prices.

A Better Path for America's Energy Future

With American leadership in rapidly growing advanced transportation industries, we can replace a huge trade deficit in oil with domestic jobs and manufacturing exports.

Congress needs to act now to launch an aggressive plan that includes real solutions to slash our dependence on foreign oil. The centerpiece of any plan should be to stop wasting oil by giving Americans better transportation choices and more efficient technologies. New and proposed fuel economy standards would cut America's demand for gasoline by a third over the next 20 years. That is 4 times the oil that could be delivered by Keystone XL, without any need for the devastating environmental destruction that attends it. The combination of strong efficiency standards, and public and private investment in cutting-edge American manufacturing, is already providing exciting new choices that deeply cut household and business fuel bills, while retaining or enhancing vehicle performance.

Cities and states across the country should pursue innovative and effective high speed rail, transit, and freight projects that boost local and regional economic development and cut oil use and pollution. These projects also improve our quality of life, modernize our cities, and drive robust job growth in domestic manufacturing, infrastructure construction and operation. Just as the creation of the highway system reshaped America in the 20th century, we now need a 21st century American infrastructure necessary to cut our oil addiction.

Looking to the future, electric cars are an example of using new technologies and new thinking to move beyond oil. Electric cars now being sold can "fill up" for the equivalent of about 75 cents per gallon. The challenges are the initial cost and purchase price. As technology improves and manufacturers gain production experience, the costs of these new technologies will fall while performance increases. It will take a sustained commitment to cleaner fuels, cleaner cars, and clean electricity (such as offshore wind production) to make this vision a reality.

Conclusion

Canada is an important supplier of oil for the United States. Expanding our dependence on Canadian oil further, however, won't help improve our energy security. Instead, it will lock in high gas prices, weaken our economy, lead to significant destruction of important North

American wildlife habitat, increase greenhouse gas emissions, and put some of the United States' most important water supplies at risk.

When our kids grow up, they should be benefiting from American clean energy, not hooked on expensive and destructive tar sludge from Canada.

Mr. MACK. Thank you very much.

Again, I want to thank all of you for your opening statements and your testimony. We will now go into questions. I recognize myself for 5 minutes.

Mr. MACK. Mr. Pugliaresi, could you talk a little bit about how buying or having this oil from Canada will reduce the leverage over hostile regimes like Venezuela and Libya? I think you mentioned that in your statement and I like to, if you would for the committee, talk about that.

Mr. PUGLIARESI. The price of oil is determined on the world market. It is a highly fungible product. However, some oils are better matched to certain refinery configurations than others and the United States has a very complex structure of refining. That means that we can take advantage of the relatively lower price of heavy crude oils.

This gives the Venezuelans a slightly greater leverage when they market the crude oil. People will bid it up because they will want to use it in the more complex refineries. As we add more heavy crude oil to the market, we will probably continue to import Venezuelan oil, but the leverage will decline dramatically because now refiners have alternative suppliers. They have the Canadian oil, blended bitumen.

Mr. MACK. Mr. Sullivan, would you like to respond to that as well because I think you might have an interesting insight on that as well.

Mr. SULLIVAN. Well, actually, yes. I think the comment that the refineries in Texas are owned by the Venezuelans and the Saudis does not recognize that Exxon, Chevron, Shell, and others have refineries down there as well, if I may comment on that.

Also, if you have 175 billion barrels of oil in a friendly state right beside you, that will keep certain other countries in check if they want to cut back on their production for whatever reason. Canada is not a member of OPEC. It could be a counter to OPEC's power in many ways.

Also, Venezuelan oil, you mentioned that many times, Mr. Mack. If you take a look at the unconventional resources proven in the world, there are two major producers potentially in the short run and medium run, Venezuela and Canada. If we turn to our friends, the Canadians, we put the Venezuelans in partial check but not full check because we would still probably need to import some, which means that we would probably need to produce more internally.

I have proposed in the past, and I will propose here, a phase-in, phase-out process for offshore oil and onshore unconventional, as well over the next 25 to 50 years. We have a pile of reserves out there and yet we leave ourselves vulnerable to the world markets. I know it is a fungible commodity and the price is actually defined sometimes by things that happen in places halfway across the world. Still, the more we have available close by, the more power we are going to have in this situation.

Mr. SYMONS. Mr. Chairman, can I add something——

Mr. MACK. Yes.

Mr. SYMONS [continuing]. On the refining issue. Shell is down there but the refining expansion that Shell is doing is being paid

for by Saudi Aramco, the Saudi national oil company. The need to get heavy crude down to Texas because Venezuelan crude is going away, that is so we can get it down to the Citgo refineries owned by Venezuela. There is no——

Mr. MACK. Let me ask you this. Do you think, though—would you rather be in business with Hugo Chavez or with the Canadians?

Mr. SYMONS. Well, if it was a choice to be in business with the Canadians, I would take the Canadians, but the oil——

Mr. MACK. Well, it is a choice.

Mr. SYMONS. The oil companies are the same.

Mr. MACK. It is a choice and this is precisely why we are having this hearing. I would suggest to you—I don't know if you followed some of Hugo Chavez' actions and statements but his support for terrorist organizations, support for narco traffickers, destruction of human rights, confiscating of industries, rigging elections, destroying democracy and freedom in his own country and exporting that around the world.

I don't know how—look, I understand the place you are coming from. You don't want the oil. You don't want any of it because of the environmental concerns with it, but we have a choice to make and if we continue to buy from Hugo Chavez, we continue to support a dictator that is intent on destroying our way of life and why wouldn't we want to support our friends in Canada who are allies and friends.

They are going to sell this oil anyway. As I think you heard earlier, it is a heavy crude, the same type of heavy crude that comes from Venezuela. There is not very many places around the world that can take that heavy crude. If we stop buying it, it will have a significant impact on Hugo Chavez.

Mr. SYMONS. It is not that we don't want oil. It is that we don't want to make a 50-year bet like a $12 billion pipeline that is putting our kids' future in the hands of oil companies for another 50 years. That is the problem. If you want to keep——

Mr. MACK. Don't you agree, though—I mean, we are not going to be able to flip the switch tomorrow and stop so this is part of a long-term plan.

If I could, I wanted to move on real quick. Can someone quickly—actually, I see my time has expired so I will come back to this in a minute.

Next I would like to recognize Mr. Engel for 5 minutes.

Mr. ENGEL. Thank you very much, Mr. Chairman. Let me ask first an environmental question to a gentleman who our supporters of it. I am told that the Keystone XL pipeline would cross over one of the largest fresh water reserves in the world, that being the Ogallala, I hope I pronounced that right, aquifer which is mostly in Nebraska but which spans eight states providing drinking water for 2 million people and supports $20 billion in agriculture.

Current Republican Senator and former Secretary of Agriculture Mike Yohannes has said, "There could not be a worse route in the entire State of Nebraska" for the proposed pipeline. Then he said, "There maybe couldn't be a worse route in the entire country." That is a quote.

My question is, is it wise, particularly after the havoc which occurred in the Gulf last year, to build a pipeline in such close proximity to this key source of fresh water, particularly as its builders have requested safety-related waivers regarding the materials with which the pipeline would be built?

Are these waiver requests prudent or irresponsible given that the proposed pipeline would track through a seismic zone that produced a 4.3 magnitude earthquake as recently as 2002? I suppose Mr. Symons would agree with everything I have read. I would like you gentlemen to refute it if you can.

Mr. Goldwyn.

Mr. GOLDWYN. If I could comment on that briefly. It is true that the pipeline crosses the Ogallala for 250 miles. I think there are already something like 21,000 miles of pipeline which already cross the Ogallala and 3,000 miles of those are also hazardous materials pipelines so this is not new to Nebraska.

I think one of the benefits that has come out of the NEPA process is that TransCanada has changed the specifications on the pipeline so it will be some of the highest specifications of any pipeline crossing the United States in any place.

The other thing I think is worth noting is that gas pipelines in a sense are different than oil pipelines in terms of both their tendency to leak and also the damage that they can incur. I think the Federal authorities have looked at this very carefully and Nebraska has faced this question many times before so it doesn't seem to be unique and the safety issue seems to have been very fully addressed by our PIMSA authority in the Department of Transportation.

Mr. MACK. Yes, Dr. Sullivan.

Mr. SULLIVAN. Well, just briefly to add what David said. The farmers in the areas have also been pouring pesticides and herbicides and fertilizer into that aquifer for years. Does that mean we should stop farming in Nebraska? There are certain tradeoffs that we have to make.

One of the most important tradeoffs is, yes, environmental issues are important. About the waivers, I am not so sure about that. I have mixed feelings on that one. We need to protect the environment but we also need to protect the economy and our energy security. These are very difficult tradeoffs—extremely difficult tradeoffs.

Mr. ENGEL. Let me ask you this, Dr. Sullivan. I would like you to talk about the distinction between energy independence and oil independence and I will tell you why. I often hear calls for energy independence to reduce our reliance on our adversaries in the Middle East and elsewhere. I hear pronouncements about the need for more solar, wind, clean coal, and nuclear power.

It seems to me that no amount of new electrical power will make us anymore independent. The U.S. already gets nearly 100 percent of our electricity from our domestically produced coal, natural gas, nuclear, hydroelectric, wind, and solar. Do you agree that the problem is not energy independence, it is oil dependence?

Before you answer that, I want to tell you why. It seems to me that the reason we are not all independent is because of our trans-

portation sector. Virtually every car, truck, bus, train, ship, and plane manufactured and sold in the U.S. runs on oil.

The transportation sector is by far the biggest reason why we send $600 billion per year to hostile nations in the Middle East and to Venezuela. I believe we need a game-changing way to alter this dynamic and I believe that we need to break oil's monopoly over our transportation sector. I would like you to comment on that.

Let me just finally add I have introduced before, and will introduce again, the Open Fuel Standard Act, an open fuel standard ensuring that every car sold in America is flex-fuel capable. Flex fuel enables cars to run on any blend of gasoline and alcohol such as ethanol and methanol. I believe this is the cheapest and the most effective way to break oil's monopoly over our transportation sector.

I urge my colleagues to take a close look at this legislation in the weeks and months ahead. I know I have read a lot but I wanted your comments on what I have said.

Mr. SULLIVAN. I would certainly agree with your idea about flexible fuels. I think that is a very important thing that fits in with my earlier statement, and actually with my written statement.

What we need is a bridge to change in that direction. We can't change it that quickly without serious disruptions in the economy and the overall energy situation. Yes, it is oil security. That is the key here.

We have enough coal. We certainly have enough natural gas considering the unconventional gas that is now being discovered day by day. Uranium is another issue. Actually about 10 percent of the lights coming into this room right now probably come from ex-Soviet missiles. We import a lot of uranium so maybe there is an issue there but we certainly have the capacity here to produce that.

Also, rare earths, an issue I am sure you are all interested in, is also a major part of our energy security situation. We need rare earths for refining oil but also for the new technologies that you are talking about.

We can move forward with new types of cars. There are thousands of technologies out there, but there are also simple answers to that, including light weighting cars and making them out of carbon fiber and actually a safer car. F1 racers are made out of carbon fiber.

There are also ways of making more efficient drive trains. CNG? We have that natural gas certainly. That is an alternative. Clearly these things can be part of our energy future and our energy security future but they are going to take time. They are going to take a lot of time.

Mr. MACK. Thank you, Mr. Sullivan.

I now would like to recognize for 5 minutes Mr. Rivera from Miami.

Mr. RIVERA. Thank you, Mr. Chair. Thank all of you for being here today. I want to focus in a little bit on this issue of the Keystone pipeline because from everything that I have read, everything I have seen and from a lot of what I have heard, this seems to me to be a no-brainer.

From what I have seen here this would increase the supply of safe, secure, reliable oil from Canada, our friendly neighbor. I think we would all agree on that point. Spur $15 to $20 billion in new

private sector investment in the United States economy. Create somewhere between 15,000 and 20,000 high-quality jobs during the pipeline's construction phase.

Generate $6.5 billion in new personal income for U.S. workers and their families. Stimulate more than $585 million in new state and local taxes in states along the pipeline route. $5.2 billion in property taxes over the lifespan of the pipeline. From $100 million to $600 million in economic impact to the Gulf Coast and the midwest.

Now, we have seen particularly the economic strain that has gone in the Gulf Coast, particularly recently. The economic strain on our entire nation is undergoing. The situation with job creation in this country and infrastructure and personal income, unemployment.

I wonder why is it that anyone would try to hesitate or place obstacles or in any way try to impede this pipeline which would immediately help increase the domestic oil supply which is a key goal announced by President Obama just recently. What am I missing in terms of why this administration or others would try to impede development.

I will go with Mr. Goldwyn, Mr. Pugliaresi.

Mr. GOLDWYN. Thank you, Congressman. First, I think it's important to note that the Congress requires that for a cross-border pipeline that the Department of State assess the environmental impacts of that, open it for public comment, take those comments, evaluate them, and then issue a final environmental impact statement.

This is the process which the Congress has required and that is what the State Department is going through right now. Subsequent to that assessment they make a national interest determination about whether considering environmental and other concerns whether this has been done appropriately. They went through this process with the Alberta Clipper pipeline and others and it is always the subject of controversy. It is always the subject of litigation.

The Department is being, I think, extremely careful to make sure that everyone has an opportunity to be heard and that new issues that were raised in the environmental impact process are fairly considered and now described and disclosed to the public so they have an opportunity to comment.

It is not obstruction. It is an abundance of caution. I would say we have learned important things in the draft EIS process. One was that there were comments on ways to improve the safety of the pipeline. Those comments were taken and the design of the pipeline was changed.

The other is that the Department of Energy commissioned a study because they believed that these environmental impacts of the pipeline would not take place if we didn't permit this pipeline so, therefore, we would be at fault. It would be our responsibility that if we would only not permit this pipeline, then perhaps these emissions would not take place. They commissioned an extremely thorough study by ENSYS.

What the result of that study came to is that the environmental impacts of oil sands production will take place whether or not we

permit this pipeline. While it is intuitively obvious, it has now been validated. That is because Canada will produce this oil whether we take it by pipeline or not. It will move by rail. It will move by truck.

Mr. RIVERA. Mr. Goldwyn, I only have 1 minute left of my time and I want to respect the time for my colleagues on the dias.

Mr. Pugliaresi, would you like to weigh in as well?

Mr. PUGLIARESI. I think we often present ourselves with a false choice. We think if we would just have electric cars, we wouldn't need this Canadian oil. But there is no study that suggest we will not be importing oil. At the margin we can address the true energy security problem with concentration of low-cost reserves in unstable parts of the world.

To the extent we can proliferate supplies outside those unstable places like Canada, we get direct benefits. Other producers will be unable to extract high rents from us because there will be more supply and the world will be less subject to volatility. We need to proliferate supplies from safe parts of the world and this is a great strategy to do it.

Finally, I would like to say is that although we saw those pictures of the open mining, Canadians are moving to an in situ process which is much less disturbing of the surface of the earth.

Mr. RIVERA. Thank you.

Mr. Chairman, I would suspect we should be expediting this process rather than putting any impediments but I yield back.

Mr. MACK. Thank you.

Now I would like to recognize Mr. Sires for 5 minutes for questions.

Mr. SIRES. Thank you, Mr. Chairman.

Mr. Symons, I would assume that you don't believe that Canada has enough environmental regulation to minimize the environmental impact of tar sands extraction.

Mr. SYMONS. That is true. Alberta has basically teamed up with the oil industry and is not listening to the communities in the area in enforcing environmental regulations. They are not reclaiming this land. It is hard to reclaim, frankly, a forest when you tear it up. You can't pull apart an ecosystem and put it back together.

Mr. SIRES. My concern is that if we don't move in, China is going to move in.

Mr. SYMONS. Yes.

Mr. SIRES. If we don't move into the Western Hemisphere, China moves in.

Mr. SYMONS. Right.

Mr. SIRES. I keep saying to people when I was in Columbia and the president of one of the most prestigious universities said to me that the second most studied language in Columbia today is Mandarin.

Mr. SYMONS. Right.

Mr. SIRES. So, you know, sometimes we have to make a difficult decision.

Mr. SYMONS. Sure. I understand that. This idea that Canada is sort of holding a gun to our head and saying, "If you don't take our pipeline, we'll take it somewhere else" is another one of the myths that the oil industry is perpetuating here.

We already have more than enough pipeline to take all the oil Canada can produce into the U.S., according to Canadian petroleum industry, and according to the Department of Energy all the way through 2025. We have the pipeline to bring it here. It's coming to the midwest and keeping gas prices down in the midwest. They want to get it to a port where they can export it.

Mr. SIRES. But it is not so much the pipeline. It is the extraction of this that you are concerned about.

Mr. SYMONS. Well, it is actually the pipeline because, unfortunately, the pipelines that were improved like the Alberta Clipper recently led to this huge spill in the Kalamazoo River that still has the river closed, that led to a lot of health problems and the pipeline rules have not been updated because this particular type of tar sands oil is corrosive and our pipeline laws——

Mr. SIRES. I just heard Mr. Goldwyn say there are 45 that go through Nevada? I am sorry. Who said that? Somebody said that before?

I am sorry. I can't hear you.

Mr. GOLDWYN. Yes, there are 3,000 miles of hazardous waste pipeline but overall there is something like 21,000 miles of pipeline crossing Nebraska all together and 3,000 of those are hazardous waste. There you go. You can see it is a pretty dense web there.

But there are also precautions to take with this particular pipeline to be able to isolate it. There are things underneath the surface and it is of a higher tensile strength than any pipeline, or as good as any pipeline built in the U.S.

Mr. SIRES. And I have a question regarding the refineries that Venezuela owns and that Saudi owns. Of the oil refined in those refineries, how much is consumed domestically?

Mr. PUGLIARESI. Well, we do export some product. A lot of product is exported to Canada but that's largely logistics. In other words, we actually——

Mr. SIRES. I am talking about the refineries down in Texas.

Mr. PUGLIARESI. The refineries in the Gulf Coast I think last year we exported almost 500,000 barrels a day of distillate.

Mr. SIRES. What percentage is that?

Mr. PUGLIARESI. It is a very small percentage.

Mr. SYMONS. We export from the Gulf Coast more oil than we import from Canada.

Mr. SIRES. That is not my question. My question is of the oil refined how much of that is consumed domestically and how much of that is exported?

Mr. PUGLIARESI. We are consuming well over 90 percent of the oil that we process in this country. Keep in mind the scare resource is not the refiners. The scare resource is the crude oil. That is the product we want to maximize production of.

Mr. SIRES. And there are not many places that Venezuelan oil can be refined. Is that my understanding?

Mr. PUGLIARESI. That is right. That is right.

Mr. SIRES. Because of the type of oil that it is.

Mr. PUGLIARESI. Exactly.

Mr. SIRES. Is this oil from Canada the same type of oil as Venezuela?

Mr. PUGLIARESI. It has similar characteristics.

Mr. SIRES. There are not that many refineries around that can refine this oil.

Mr. PUGLIARESI. Of course, people can build such refineries.

Mr. SIRES. Yes, but that would take years.

Mr. PUGLIARESI. It is finding new supplies of oil that is hard. Absolutely.

Mr. SYMONS. But it won't displace. I mean, the purpose of this oil is to fill the capacity that has already been vacated by Venezuela and other producers and to fill new capacity that is being built by Saudi Arabia and others. Valero is the company that has bought into this pipeline.

It was their CEO that said that week that they are moving to exports from those Texas refineries. That is the future. It is a massive growth that is happening there. It is hard to believe because we import so much crude but oil companies are global companies and they are just focused on profits. It doesn't matter where the oil is. It is their oil, not our oil.

Mr. SIRES. But if we refine it here and we consume it here.

Mr. SYMONS. Yes.

Mr. SIRES. You are saying we are not going to be doing that. You are saying we will refine it here and export it.

Mr. SYMONS. Absolutely. We will get a good portion of that oil because we will pay through the nose for it like we are now paying $2 million more than we did.

Mr. GOLDWYN. We have over 8 million barrels a day of refining capacity in the Gulf Coast going to about 9.3. We export a small fraction of that. Most of that is refined product which goes to the Gulf Coast and southeastern United States. That is where the gasoline comes from. We have some of the most highly efficient refineries in the world. Canadian oil is actually, because it is so heavily discounted, some of the cheapest oil.

If you back out Venezuelan crude, they go shopping around the world for other places but they are going to pay that transportation cost. The bottom line is the net back to Venezuela is smaller and the reliability of Canadian oil will enable Gulf Coast refiners to source that oil with Canada and those are the shipper commitments that are underlying the financing of the pipeline to begin with.

Mr. PUGLIARESI. We have to keep our eye on the ball here. The real issue is expanding crude oil production. The refiners are important in terms of efficiency of operations, but in terms of energy security what we need is more production from the United States and more from Canada. We will get a lot of value out of that.

Mr. SIRES. Thank you very much.

Mr. MACK. Thank you.

Mr. Payne, you are recognized for 5 minutes for questions.

Mr. PAYNE. Thank you very much.

The whole question of consumption of fuel is something that has been on the table for a long time. Let me just ask, Mr. Symons, 25 mayors addressed a letter to Secretary Clinton last week expressing their grave concern about the prospects of expanded imports of tar sand oil from canada.

The mayors indicate fears over increasing dependence on high-carbon fuel for decades to come at a time when local governments

are working hard to decrease dependence on oil. The mayors believe that expansion of high-carbon projects such as the proposed Keystone tar sands pipeline will undermine the work being done in the local communities across the country to fight climate change and reduce our dependence on oil.

Would you comment on how this pipeline would affect such efforts in your opinion and will the small communities be hampered in their efforts to build clean energy economies?

Mr. SYMONS. Well, thank you for the question. First of all, everybody has to do everything they can to reduce emissions and deal with the important threat of climate change. Mayors have been leading the way and should, regardless of what happens, continue to lead the way.

But buying into a 50-year pipeline for oil that is three times the greenhouse gas emissions of conventional oil makes a mockery of the efforts that we all are pursuing to reduce our own emissions, pursue clean energy here at home. Canada agreed internationally and signed an agreement to reduce their greenhouse gas emissions and they have completely ignored.

Not only will their emissions go up but Canada is undermining the value of global cooperation through technology and other pieces on addressing the important threat of climate threat, protecting our environment for our kids' future.

Mr. PAYNE. That leads me to my second question as you mention that. Most people recognize that tar sand oil production puts more greenhouse gases into the atmosphere than the extraction of conventional oil. Some contend, however, that the environmental impact of the means of producing Canadian oil is a Canadian issue.

Others say that the global warming recognizes no boundaries and if we are going to use oil, which is produced through a method which generates excessive carbon dioxide, we are responsible as the Canadians. With that argument do you agree and why?

Mr. SYMONS. I think you can apply a common sense test here in raising your own kids. Right? I mean, if your kid said, "Well, yeah. I participate in this but someone else actually is the one that did it. I encouraged them to do it," we wouldn't say, "Oh, that's okay then." We are part of this, too, and we have a say in this.

You get back to the fact that this pipeline is about profits. It is about raising gas prices in the midwest by 10 to 20 cents a gallon, particularly on midwest farmers. The National Farmers Union is stepping forward raising concerns about the pipeline safety. It is not just environmentalists that are interested in what happens to a water supply.

I am sure they will take exception to the fact we should build this pipeline just because farmers are out there farming. We need to look at the common sense test of whether or not this is a project that we should permit and say is in the national interest because once that happens, once the State Department issues that permit, then foreign energy companies come in and bully landowners with the threat of eminent domain.

In fact, TransCanada has documented stories and press reports throughout the country threatening landowners and otherwise bullying them on this. It is an important decision. The government has a responsibility to get it right.

Mr. PAYNE. We do hear this question of energy. We use nuclear and we say that it is safe today and, of course, Japan goes up. I asked the question a couple of weeks ago at a conference out of the country, "What are you going to do about spent fuel?" "Don't worry about it. Not a problem. Got it contained." Look at Japan.

We look at our good friends in Canada, and they are our greatest allies. However, I guess making a buck is making a buck. If the price of oil goes up coming from Saudi Arabia and Bahrain is up in flames and Libya, they say, "Hey, might as well jack up the price and stick it to our American friends because, hey, that's business."

You know, you have a fiduciary responsibility to your stockholders. You know, with friends like that, who needs enemies? I just think that this whole picture has to be looked at a little bit more carefully. Water is being destroyed. I don't have the answer. That is for sure.

One thing we have to talk about is conservation. We don't talk about the sacrifice. Everybody has—my time has expired, but especially down in Florida, the air conditioners are up very high in the summer. I mean, we have to learn how we are going to consume energy. With that, I will yield back.

Mr. MACK. Thank you, Mr. Payne. I invite you to come spend the month of August in Florida. If you would like, I will turn the air conditioning off and see how that goes.

If you all wouldn't mine, I think we have another round of questions. We appreciate your patience.

Mr. Goldwyn, I want to get to this issue a little bit about some of the environmental concerns. A couple times you have mentioned how because of input of this pipeline, how it has evolved in that the strength of this pipeline, I don't know if you would say is kind of leading the way or equal to the strongest or how you would say it but it is hard to believe that with all of the attention that has been put on this pipeline and the concerns that the environmentalists continue to have that somehow this pipeline is going to be built in such a way that it is going to have a negative impact on the environment.

Mr. GOLDWYN. Thank you, Mr. Chairman. In the process of permitting the pipeline the questions come up how much pressure will the pipeline hold and what will the materials be that it is made of. Comments came in that suggested that if you lowered the pressure, then the kind of steel that the pipeline is being built with would be safer.

It would be less subject to pressure or disruption. They took those comments. I think there are two issues. One is the quality of the steel, which I think has now been required to be at the highest level. The second is the pressure with which the pipeline will be operated. I think the lowering of the pressure is what has added to the safety.

Then you have our own responsibility in the United States, the Department of Transportation, to monitor and inspect. As we have learned in other places, our responsibility doesn't stop when the pipeline gets built. You have to watch it and so we will have that responsibility also. I think the extensive comment on this has significantly improved the design of the pipeline. It is among the best

that we have crossing—would it be permitted that we have crossing the U.S.

Mr. PUGLIARESI. Yes, Mr. Chairman. First, the pipeline owners have no desire to have that pipeline fail, I assure you. They have very, very detailed specifications on the sand content and the material content. They will not accept crude that does not meet those specifications. There is a long history of monitoring this quite closely.

Mr. MACK. Thank you. Then, if I could, we will start with you, Mr. Goldwyn. I want to get back to this issue because what bothers me about this discussion is somehow we are led to believe that it's not safe and I don't think that is the case. And that because of the environmental issues in Canada, we shouldn't bring that oil here into the United States and that somehow Chavez would benefit from that oil coming to the United States because of his refineries.

Maybe you could talk a little bit about that. Isn't this really a win for America and our security, both economic and national security, and not having to continue to prop up a thugocrat like Hugo Chavez?

Mr. GOLDWYN. I think on many levels, Mr. Chairman, the permitting of this pipeline dramatically enhances U.S. national and energy security. There is just no question about source of supply that close and the ability to displace oil from other places through a direct pipeline dramatically enhances our energy security. It is a global market but having the oil delivered makes a big difference.

We do have a responsibility as consumers and under the law to assess whether our decision to permit the pipeline will cause adverse environmental consequences, so careful study has been done on that. This is really, I think, the key point.

These emissions, however you consider them, will take place whether we permit this pipeline or not, so it is not a question that if we don't permit it, you are not going to have these consequences in Canada. I think that was an important question and that has been determined by the Department of Energy's ENSYS study. But Canadians also do care about these issues.

It is not just Americans. In my testimony I detail things, at the national and the provincial and also the commercial level, that are taking place and the level of regulation has stepped up. ERCB is a great regulator. They have a lot of people that feel they are good at what they do. They are on this and I think it is worth perhaps having those things in the record to understand that Canada is taking this seriously and not just because we care.

Mr. MACK. But do you think that—this is foreign affairs, Western Hemisphere. This should be pretty simple to answer, but do you think that it is in our best interest to buy this oil, this heavy crude, from Hugo Chavez or from Canada?

Mr. GOLDWYN. We have a choice where the rents go and I think if we have a choice to pay the rents to Canada where they will be recycled and traded with the government that is our close ally and partner, that is the place to put it.

Mr. MACK. Thank you.

I would now like to recognize Mr. Engel for 5 minutes for questions.

Mr. ENGEL. Thank you, Mr. Mack. That was a loaded question.

Two things before I ask the questions. First of all, I want to thank you for putting up my amendment before marking it up when I wasn't here. Secondly, I just wanted to comment given your pedigree, that today is the first day of baseball season and here we are sitting at this hearing so something is wrong with that. I don't know.

Anyway, gentlemen, will any of this oil go to the northeast? Find its way to the northeast?

Mr. PUGLIARESI. Well, what we want to do is have this oil moved through the system as efficiently as possible. This oil itself may not move to the northeast but it could displace the movement of other supplies to make greater access to northeast refiners. I don't think that is really that important an issue. The real important issue is how do we improve the whole distribution of feedstock throughout the American economy.

Mr. SYMONS. The real question there is where is the oil coming from. You are actually hearing, if you listen closely, people are kind of having it both ways, "Oh, we are going to get more oil from Canada," as in Canada is going to produce more oil. The fact is they are not. This oil is going to come from the pipelines where it is already going into the midwest, much closer, of course, to the northeast. It is going to go all the way down to Texas.

Then it has to work its way back up. Why would oil companies spend $12 billion to build a pipeline to take it further away to take it back up? Well, they are going to be able to charge more because once they get it out of the midwest to a deep water port, they can send it anywhere and charge higher prices.

Those higher prices are what are going to fill the coffers of Chavez at the end of the day because Canadian oil is one of the most expensive oils in the world to produce. If we bet on it for 50 years, we are betting on high oil prices and that is going to make Chavez rich.

Mr. GOLDWYN. Can I respond to your question? I have the statistics, actually on the exports. I was digging for them. I think the more relevant question is whether the products come to the northeast because the oil goes to the refining centers and those we know refine something like 8.1 million barrels a day.

Net exports of petroleum products in 2009, which are the figures that I have, were about 400,000 barrels a day. The oil comes to this huge refining center. They make gasoline and other products and those products go to the southeast. Some of those product pipelines go north.

The question of whether or not the actual gasoline that is made at a Gulf Coast refinery goes there has more to do with how much New Jersey is refining and providing and how much demand there is in New York. But the idea is that more product lowers gasoline prices for the country as a whole. Having our—they are the cheapest refineries, the most efficient refineries.

While Canadian oil is among the most expensive to produce, it is among the cheapest for refiners to acquire. Way cheaper than light sweet crudes from Saudi Arabia importing from Nigeria. If they don't refine that product either from Venezuela or from Canada, they are going to buy higher grades from other places so we are going to refine it. We are just going to pay more.

Mr. ENGEL. Mr. Goldwyn, let me ask you something in relation to a comment you made before. You said that TransCanada has changed the specifications for the pipeline and has made it safer and made it better. I am happy, obviously, about that. What does this say about the safety of existing pipelines from Canada, because obviously this route is going to be different. Should we worry about the existing pipelines? Do those need to be changed?

Mr. GOLDWYN. Well, the determination of what specifications need to be in the pipeline has to go with how big the pipe is, how much pressure it is, and where it is transiting. Essentially TransCanada was asked to raise the standards of the pipeline to an extent that the entire pipeline is treated as if all of it were in highly environmentally sensitive areas. It is sort of above standard but they agreed to do that.

I don't know a lot about the specifications for existing pipelines, but I think should we pay attention to the Department of Transportation's capacity and resources to inspect and monitor the pipeline system? Absolutely. Like building regulatory capacity every place else. It is something that Congress should support.

Mr. ENGEL. Thank you. Let me mention one of Mr. Mack's favorite people, Hugo Chavez. You mentioned him before, Mr. Symons. Chavez is a bad guy and we need to do everything we can to put pressure on Chavez and to reduce his oil revenues. Supporters of the Keystone XL pipeline contend that the oil it would carry would help push Venezuelan oil—I think you said that—from refineries in the Gulf Coast to the U.S. and that the Venezuelan oil would have nowhere else to be refined.

Can someone comment on whether you think construction of the Keystone Pipeline will actually push out Venezuelan oil? If Venezuelan oil would be displaced by oil from the Keystone pipeline, how much would actually be displaced and how fast would this happen? And are new refineries being built outside of the United States which could handle heavy Venezuelan crude?

Mr. SYMONS. Why would Chavez choose Canadian oil over his own oil if he didn't have other options? The point is the reason that TransCanada says it wants to go to the Gulf Coast is because they are increasing refining capacity because Saudi Arabia is expanding refining capacity. And because there has already been a decline that needs to be filled in Chavez' refineries. It is not about forcing them to do anything. It is about filling the backlog.

Mr. ENGEL. Dr. Sullivan, I know you had your hand up.

Mr. SULLIVAN. Yes. That would go back to Mr. Sires' question about China. China is actually building refineries to use Venezuelan oil and China is building 17 large super tankers to bring that oil through the Panama Canal which China is, part of, widening and deepening.

So things are changing in the east as we are talking about the west. China is also looking at a pipeline going from Alberta tar sands to the west coast of Canada to export the tar sands oil to China. There is a direct competition going on here.

Mr. ENGEL. Let me ask you this and I will make this my last question because I know I am really over here, involving China. Robert Jones, who was a TransCanada executive in charge of the Keystone project, said during a conference call on Tuesday that the

fate of the Keystone expansion will have, and I quote him, "no impact on oil sands production" because he contends that the U.S. blocks the flow of more oil sand south.

It will just go overseas to one of the pipelines proposed to bring oil to China and other Asian markets. Is this a statement of concern? How would increased exports of Canadian oil to China affect our country? Does China have the refining capacity to receive the heavy Canadian bitumen? And are they building additional refining?

Let me add: What is the marginal additional cost per barrel of shipping oil to China versus sending it by pipeline to the U.S.? What price per barrel does oil have to reach for exports of Canadian tar sand oil to China to make financial sense? It is all about China.

Dr. Sullivan.

Mr. SULLIVAN. If we could take a look at the transport charges, which brings up an important thing here also for us. If oil is being shipped by tanker it has to go through the market-based pricing of oil tankers which has been all over the map in the last 5 years. At the height of the price of oil and demand for oil in the world in 2008, third quarter, it was $90,000 a day to rent one of these super tankers.

Now it is down to about $25,000 a day. It is very unstable. The price of sending oil along a pipeline will be regulated by the Canadian regulators and our FERC, essentially locking it in for a while. Yes, the Chinese are building capacity to use this sort of oil. They need this kind of oil. They need oil from all over the world. They are growing at 7 to 9 percent.

Hu Jintao, when asked by our previous President George Bush what kept him up at night, his answer was 25 million jobs. They have to create 25 million jobs every single year. Now the question goes to, and this is rather complicated, do we want them to have the 25 million jobs? I think the answer is probably in the main part yes because we don't want instability in China and what that could bring to us.

Mr. ENGEL. Mr. Symons had his hand up.

Mr. SYMONS. Thank you. Let me just say the idea of the Canadian western route to get to China, the Canadian people are rejecting it because of the results. They know what is in the results of this report by Pipeline Safety Trust and others that Alberta pipeline spills are 16 times as common as spills down here because harsh sands oil is not like conventional crude and it is much more dangerous to transport by pipeline.

Think about the question you are asking before we all stand up and sing the Canadian national anthem. Canada is threatening and blackmailing us with that. Canadian oil companies are holding a gun to our head. Think about that before we make a 50-year bet that Canada is going to be our friend with oil.

Mr. PUGLIARESI. I think there is a more basic point that we shouldn't lose track of. We have a long experience with the Canadians. We have been importing oil from Canada for a long time. We export products to Canada.

If we deny this pipeline, we change all expectations on that relationship. The market, the buyers and sellers, the whole political es-

tablishment, expects a relationship with the U.S. and Canada to continue the way it has in the past because it is good for both sides.

One of the big benefits of approving this pipeline is that the existing relationship is now reaffirmed, that it is going to continue. Canada can safely produce more oil and that the American market will continue to be open to them. That is a central point that we shouldn't lose track of.

Mr. MACK. Thank you very much. I want to thank the panel for your testimony today. I thought it was a very good conversation. Even though you might have felt outnumbered, you held your own. I don't agree, as you can imagine.

I think when it comes to our national security and economic security, the simple question of should we be buying this heavy crude from Venezuela or should we be buying it from Canada, the answer is self evident. It doesn't take scholars to come up with the right answer.

Thank you all for being here and the meeting is now adjourned.

[Whereupon, at 4:38 p.m., the subcommittee was adjourned.]

APPENDIX

Material Submitted for the Hearing Record

HEARING NOTICE
SUBCOMMITTEE ON THE WESTERN HEMISPHERE
COMMITTEE ON FOREIGN AFFAIRS

U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C. 20515-0128

Connie Mack (R-FL), Chairman

March 24, 2011

You are respectfully requested to attend an OPEN hearing of the Committee on Foreign Affairs, Subcommittee on the Western Hemisphere, to be held in **Room 2172 of the Rayburn House Office Building (and available live, via the WEBCAST link on the Committee website at http://www.hcfa.house.gov):**

DATE: Thursday, March 31, 2011

TIME: 2:00 p.m.

SUBJECT: Rising Oil Prices and Dependence on Hostile Regimes: The Urgent Case for Canadian Oil

WITNESSES:

The Honorable David L. Goldwyn
President
Goldwyn Global Strategies, LLC
(Former U.S. Department of State Coordinator and Special Envoy for International Energy Affairs)

Mr. Lucian Pugliaresi
President
Energy Policy Research Foundation, Inc.
(Former National Security Council member)

Paul Sullivan, Ph.D.
Professor of Economics, National Defense University
Adjunct Professor of Security Studies and of Science, Technology, and International Affairs, Georgetown University

Mr. Jeremy Symons
Senior Vice President, Conservation and Education
National Wildlife Federation

By Direction of the Chairman

The Committee on Foreign Affairs seeks to make its facilities accessible to persons with disabilities. If you are in need of special accommodations, please call 202/225-5021 at least four business days in advance of the event, whenever practicable. Questions with regard to special accommodations in general (including availability of Committee materials in alternative formats and assistive listening devices) may be directed to the Committee.

COMMITTEE ON FOREIGN AFFAIRS

MINUTES OF SUBCOMMITTEE ON *the Western Hemisphere* HEARING

Day *Thursday* **Date** *3/31/11* **Room** *2172*

Starting Time *3:06 p.m.* **Ending Time** *4:38 p.m.*

Recesses [ ] (____to ____) (____to ____) (____to ____) (____to ____) (____to ____) (____to ____)

Presiding Member(s)

Connie Mack

Check all of the following that apply:

Open Session [✓]
Executive (closed) Session [ ]
Televised [✓]
Electronically Recorded (taped) [✓]
Stenographic Record [✓]

TITLE OF HEARING:

Rising Oil Prices and Dependence on Hostile Regimes: The Urgent Case for Canadian Oil

SUBCOMMITTEE MEMBERS PRESENT:

Connie Mack, Jean Schmidt, David Rivera, Christopher H. Smith, Albio Sires, Donald M. Payne

NON-SUBCOMMITTEE MEMBERS PRESENT: *(Mark with an * if they are not members of full committee.)*

Ted Poe

HEARING WITNESSES: Same as meeting notice attached? Yes [✓] **No** [ ]
(If "no", please list below and include title, agency, department, or organization.)

STATEMENTS FOR THE RECORD: *(List any statements submitted for the record.)*

Statements: Connie Mack
Extraneous Material: Connie Mack, Eliot L. Engel
Questions for the Record: Connie Mack

TIME SCHEDULED TO RECONVENE _____
or
TIME ADJOURNED *4:38 p.m.*

Subcommittee Staff Director

Subcommittee Members

☑ Mack, Connie

☐ McCaul, Michael T.

☑ Schmidt, Jean

☑ Rivera, David

☑ Smith, Christopher H.

☐ Gallegly, Elton

☐ Engel, Eliot L.

☑ Sires, Albio

☐ Faleomavaega, Eni F. H.

☑ Payne, Donald M.

Opening Statement
Chairman Connie Mack
Western Hemisphere Subcommittee
"Rising Oil Prices and Dependence on Hostile Regimes:
The Urgent Case for Canadian Oil"
March 31, 2011

Thank you all for being here today.

In light of recent events in Egypt, Tunisia, and Libya, the political unrest throughout Northern Africa and the Middle East has caused significant instability in world oil markets. In the last month, the price of oil has risen to $105.00 per barrel, a 29 month high, which led President Obama to consider tapping into U.S. oil reserves.

I was pleased to hear the President say yesterday in a speech at Georgetown, and I quote: Importing oil "will remain an important part of our energy portfolio for quite some time, until we've gotten alternative energy strategies fully in force. And when it comes to the oil we import from other nations, obviously we've got to look at neighbors like Canada and Mexico that are stable and steady and reliable sources."

I share similar concerns with President Obama and I am pleased that yesterday he announced his Administration's intent to increase domestic natural gas and oil production and to reduce America's dependence on foreign oil.

I agree that it is imperative that the U.S. reduce its imports of foreign oil over time, however the Obama Administration has failed to act. We need to immediately concentrate on replacing foreign oil from thugocrats like Hugo Chavez in Venezuela with reliable, stable allies like Canada. Doing so will ease U.S. energy concerns and provide economic stability while U.S. oil companies make greater use of their federal leases both onshore and offshore to help increase domestic oil production.

What President Obama and his Administration have failed to do is increase American security. By approving the Presidential Permit for the Keystone XL pipeline this Administration could create tens of thousands of jobs to help boost the ailing economy, and secure an additional 500,000 barrels of oil per day into U.S. refineries in Oklahoma and Texas. Delays in this approval process have cost the United States valuable jobs at a crucial time. For example, companies like MasTec in my home state of Florida have the potential to bring home economic benefits from the construction of the Keystone XL pipeline.

In recent weeks I have criticized the Administration for their lack of policy not only in the Western Hemisphere but on a global scale. Instead of shoring-up important national security and energy resources from a close ally, our nation continues to rely on the likes of Hugo Chavez for approximately 10% of our oil and the price we pay is reliant on the actions of unreliable and corrupt dictators such as Libya's Gaddafi. Furthermore, this oil dependency holds the State Department hostage when they should be calling out the Chavez regime for its vast human rights violations and support of terrorism.

The approval of the Keystone XL pipeline to transport Canadian oil to our southern refineries would add supply to the global markets while allowing our refineries to operate at full capacity. Further, U.S. energy companies will benefit by linking into the pipeline: allowing the U.S. to increase its production of domestic oil, provide direct access for U.S. energy companies to Gulf refineries, and reduce congestion in Cushing, Oklahoma.

The result of the pipeline would increase productivity, but most importantly for me, it would force Hugo Chavez to realize that the United States is not beholden to fully funding his regime indefinitely. It must be made clear to leaders such as Hugo Chavez, who utilize state owned oil companies to violate U.S. sanctions on Iran, that there are consequences for their actions.

While the influx of jobs and the arguments for increased energy security and national security speak for themselves, the environmental concerns of extracting and refining oil from the Canadian oil sands are fueling a well coordinated effort to politicize this vital progress.

Let me make a few points toward this end.

The Canadians have sovereign rights to the development of their oil sands, and any attempt by U.S. politicians and interest groups to impact their ability to extract this oil is like Canadians trying to control when and where we extract our resources, and I might add, such efforts are a waste of U.S. time and taxpayer money. This oil will be extracted and sent to Asia if it is not allowed to support our southern refineries.

Lifecycle green house gas emissions related to the extraction and refining of the Canadian crude oil are less and better regulated than the emissions related to the oil imported from Venezuela, Saudi Arabia, Nigeria and Mexico- the United States' top suppliers outside of Canada.

While breaking the U.S. dependence on oil is critical, and an area where we should enhance our current partnerships with Canada and Brazil, a stable economy with energy and national security is imperative to allow the necessary research and development of green technology to propel the U.S. forward.

Securing the Keystone XL pipeline will provide us with that luxury and must not incur additional delays.

MATERIAL SUBMITTED FOR THE RECORD BY THE HONORABLE CONNIE MACK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA, AND CHAIRMAN, SUBCOMMITTEE ON THE WESTERN HEMISPHERE

RISING OIL PRICES AND DEPENDENCE ON HOSTILE REGIMES: THE URGENT CASE FOR CANADIAN OIL

HEARING BEFORE THE SUBCOMMITTEE ON THE WESTERN HEMISPHERE, COMMITTEE ON FOREIGN AFFAIRS U.S. HOUSE OF REPRESENTATIVES MARCH 31, 2011

The Council of the Americas ("Council") appreciates the opportunity to provide a statement for the record concerning Canadian oil. The Council is a business organization representing some 190 member companies invested in and doing business throughout the Western Hemisphere. Since our founding in 1965, the Council has been dedicated to the promotion of open markets, social and economic development, democracy, and the rule of law, and we are widely recognized for our policy and commercial leadership throughout the Americas.

Canada is a neighbor, long-time ally, and stable supplier of oil to the United States. The Council strongly supports U.S. imports of Canadian oil as well as the construction of the appropriate infrastructure to facilitate the U.S.-Canada oil trade, which will ensure even more stable access to Canadian oil for the United States.

The Council believes that a key to U.S. energy security is diversification, of both sources of energy and of suppliers, domestic and international. In partnership with others, we need to reduce our greenhouse gas emissions, and we must continue to pursue the technologies that will allow us to transition to cleaner sources of energy, both by adopting greater use of renewables and by decreasing the environmental footprint of traditional fossil fuels. But cutting emissions from energy production and use is a process, not something that will happen overnight. According to U.S. Energy Information Administration projections, U.S. oil demand will remain fairly stable as a portion of overall energy use through 2035. At about one-third of overall energy use, the United States will be dependent on oil for a large part of its energy consumption for the foreseeable future.

Currently, the United States requires more oil than we produce ourselves and relies on imports to meet about half of our supply needs. Canada, second only to Saudi Arabia in global oil reserves, is the number one supplier of oil to the United States. As the unrest and uncertainty in the Middle East show, global oil markets are unpredictable and any disruption in supply, even the threat of disruption in supply, impacts prices. This only underscores the importance to the United States of stable sources of oil imports.

U.S.-Canada Relations

Canada and the United States are long-time allies, not only in energy, but also in economic, security, and environmental issues, among others. For example, Canada is the United States' largest export market, and two-way trade in 2010 alone was over $645 billion. In addition, Canada has been a partner in the fight against terrorism, as a crucial ally in Afghanistan as well in protecting the 5,500 mile U.S.-Canadian border. Canada works with the United States in the Energy and Climate Partnership of the Americas, and the United States and Canada are collaborating in a Clean Energy Dialogue to help speed the transition to greater use of clean energy sources in both countries.

Canada is not only the number one supplier of oil to the United States, but the number one supplier of all types of energy to the United States. In fact, the U.S.-Canada energy relationship is a relationship of interdependence. Natural gas pipelines crisscross the U.S.-Canada border, sending natural gas back and forth between the two countries. The United States sends coal to Canada, and electricity goes from Canada to the United States and back.

Environmental Issues

According to Cambridge Energy Research Associates, oil sands generate about 5 to 15 percent more carbon emissions per barrel than the average mix of oil used in the United States. This means that oil sands are higher in carbon intensity than many, but not all, of the types of oil the United States uses.

These emissions figures are based on a "well-to-wheels" analysis, which factors in the entire life cycle of oil, from extraction all the way to the use of refined fuels. In fact, only 20 to 30 percent of carbon from oil is released before the fuel arrives at the gas station. Driving results in the emission of the remaining 70 to 80 percent of carbon from oil, and carbon emissions from driving are the same regardless of the source of the oil. Additionally, if Americans don't use Canadian oil, others, such as China, which has less stringent environmental regulations than the United States, will.

Benefits to the U.S. Economy

The emissions profile of the Canadian oil sands should not be overlooked but considered in a larger context. Because the economies of Canada and the United States are so closely linked, Canadian oil production supports jobs not only in Canada but also in the United States. According to the Canadian Association of Petroleum Producers, more than 900 companies in 48 U.S. states supply goods and services to the oils sands industry in Canada.

Bottom Line: The United States Benefits from Canadian Oil

Canada is the number one single provider of oil to the United States, and, perhaps more important, a stable and reliable supplier. The bottom line is that the United States benefits from Canadian oil. For the Council, the choice is clear: advance the U.S.-Canada oil

relationship by supporting U.S. imports of Canadian oil and the construction of the appropriate infrastructure to facilitate the U.S.-Canada oil trade.

For further information, please contact:

Council of the Americas
1615 L Street NW, Suite 250
Washington, DC 20036
202.659.8989
www.as-coa.org

MATERIAL SUBMITTED FOR THE RECORD BY THE HONORABLE ELIOT L. ENGEL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mayor of Des Moines * Mayor of Burlington * Mayor of Grand Rapids
Mayor of Santa Fe * Mayor of San Bernadino * Mayor of Racine
Mayor of Eugene * Mayor of Gainesville * Mayor of Salt Lake City
Mayor of Tallahassee * Mayor of North Little Rock * Mayor of Scranton
Mayor of Pleasanton * Mayor of Durham * Mayor of New Haven
Mayor of Richmond * Mayor of Berkeley Mayor of Madison * Mayor of West Sacramento
Mayor of Dubuque * Mayor of Fairfield * Mayor of Park City
Former Mayor of Seattle * Former Mayor of Gainesville * Former Mayor of Athens

March 24, 2011

The Honorable Hillary Clinton
Secretary of State
Department of State
Washington, D.C. 20500

Dear Madame Secretary,

We write you today as local government leaders who are gravely concerned about the prospect of expanded imports of tar sands oil from Canada. Specifically, we are concerned about the impacts of the proposed Keystone XL pipeline that would transport tar sands oil from Alberta to Texas, increasing our dependence on this high carbon fuel for decades to come at a time when we as local governments are working hard to decrease our dependence on oil. We are concerned that expansion of high carbon projects such as the proposed Keystone XL tar sands pipeline will undermine the good work being done in local communities across the country to fight climate change and reduce our dependence on oil. We ask that the State Department issue a thorough and detailed supplemental environmental impact statement for the proposed Keystone XL tar sands pipeline that evaluates the need and impacts of this pipeline, including on local community efforts to build clean energy economies.

In 2008, the United States Conference of Mayors adopted a High Carbon Fuels Resolution calling for measures that discourage the use of tar sands fuel. We were concerned with the high toll that tar sands oil has on the environment – in the United States, in Canada and globally.

We understand that the State Department will make a decision in the coming weeks concerning review of the proposed Keystone XL tar sands pipeline. We strongly encourage you to carefully evaluate the pipeline's impacts and protect resources vital to our economic prosperity. It is important to carefully evaluate the pipeline risks and the risks of expansion of tar sands oil extraction, especially as the Keystone XL pipeline is being proposed at a time of pipeline overcapacity and is not necessary to meet current fuel needs.

In light of our concerns, we ask the State Department to prepare a thorough and detailed supplemental environmental impact statement (SEIS) for the proposed Keystone XL tar sands pipeline and provide the public an opportunity for review and comment. We are aware that the Environmental Protection Agency, numerous members of Congress and citizens alike have made similar requests, and we trust that you are considering them carefully.

Increasing our dependence on environmentally destructive, high-carbon fuels such as tar sands oil sends the wrong message to our communities and citizens who work hard to lessen our dependence on oil, using innovative conservation, efficiency and other measures. We remain committed to creating solid and lasting energy and economic security, and believe this is best accomplished by lessening our dependence on oil. We look forward to continued partnership with you and the Administration in improving our nation's security through a clean energy future.

Sincerely,

T.M. Franklin Cownie
Mayor, Des Moines, IA
675 Harwood Drive
Des Moines, IA 50312

Bob Kiss
Mayor, Burlington, VT
Room 34 City Hall
Burlington, VT 05401

John Dickert
Mayor, Racine, WI
City Hall
730 Washington Ave.
Racine, WI 53403

Craig Lowe
Mayor, Gainesville, FL
City Hall
200 University Ave.
Gainesville, FL 32601-0490

John Marks
Mayor, Tallahassee, FL
300 South Adams Street
Tallahassee, FL 32301

Christopher A. Doherty
Mayor, Scranton, PA
Municipal Building
340 North Washington Ave.
Scranton, PA 18503

William V. "Bill" Bell
Mayor, Durham, NC
Office of the Mayor
101 City Hall Plaza
Durham, NC 27701

George Heartwell
Mayor, Grand Rapids, MI
City Hall
300 Monroe Ave. NW
Grand Rapids, MI 49503

David Coss
Mayor, Santa Fe, NM
200 Lincoln Avenue
Santa Fe, NM 87504

Patrick J. Morris
Mayor, San Bernardino, CA
300 North "D" Street
6th Floor
San Bernardino, CA 92318

Kitty Piercy
Mayor, Eugene, OR
777 Pearl Street, Room 105
Eugene, Oregon 97401

Ralph Becker
Mayor, Salt Lake City, UT
PO Box 145474
Salt Lake City, UT 84114-5474

Patrick Henry Hays
Mayor, North Little Rock, AR
City Hall - 300 Main Street
P.O. Box 5757
North Little Rock, AR 72119-5757

Jennifer Hosterman
Mayor, Pleasanton, CA
P.O. Box 520
Pleasanton, CA 94566

John DeStefano, Jr.
Mayor, New Haven, CT
165 Church Street
New Haven, CT 06510

Gayle McLaughlin
Mayor, Richmond, CA
450 Civic Center Plaza
Richmond, CA 94804

Tom Bates
Mayor, Berkeley, CA
2180 Milvia Street
Berkeley, CA 94704

Dave Cieslewicz
Mayor, Madison, WI
210 MLK, Jr., Blvd., Room 403
City-County Building
Madison, WI 53703

Christopher Cabaldon
Mayor, West Sacramento, CA
1110 West Capital Ave.
West Sacramento, CA 95691

Roy D. Buol
Mayor, Dubuque, IA
City Clerk's Office
50 West 13th Street
Dubuque, IA 52001

Ed Malloy
Mayor, Fairfield, IA
P.O. Box 850
118 South Main Street
Fairfield, IA 52556

Dana Williams
Mayor, Park City, UT
Park City Municipal Corporation
P O Box 1480
Park City UT 84060

Heidi Davison
Former Mayor, Athens, GA
235 Wells Drive
Athens, GA 30606
Mayor, Athens, GA 2003-2011

Pegeen Hanrahan
Former Mayor, Gainesville, FL
Principal, Community and Conservation
Solutions, LLC
1938 NW 7th Lane, Gainesville FL 32603

Greg Nickels
Former Mayor, Seattle, WA
1910 47th Avenue Southwest
Seattle, Washington 98116

LiUNA!
Feel the Power

October 22, 2010

Honorable Hillary Rodham Clinton
Secretary of State
U.S. Department of State
2201 C Street, N.W.
Washington, DC 20520

Dear Secretary Clinton:

We respectfully request that the State Department complete its environmental assessment of the impact of the Keystone XL Pipeline so that the National Determination review period might commence and a Presidential Permit might be approved. Each week that goes by in the State Department's permitting process of the Keystone XL, a process that has gone on for more than two years, is lost ground for thousands of workers who are sitting on the sidelines of our ailing national economy.

All four of our International Unions - the United Association of Plumbers and Pipefitters, the International Union of Operating Engineers, the International Brotherhood of Teamsters and the Laborers' International Union of North America - have executed a project labor agreement to build the Keystone XL Pipeline. We are committed to making Keystone XL a reality for our nation and we are prepared to begin work as soon as the Presidential Permit for the $7 billion privately funded Keystone XL pipeline is approved.

By facilitating this project, you have the power to pave a path to better days and raise the standard of living for working men and women in the construction, manufacturing and transportation industries. According to the Center for American Progress, 2.1 million construction workers are out of a job. Early this year, unemployment in the construction industry actually jumped to 25 percent. The ripple effect is bleak; segments of the manufacturing industry which produces building materials are currently operating at half their production capacity as a result of the steep declines in the construction industry. According to a recent Federal Reserve projection, the U.S. economy has been losing momentum since the end of last year.

Approving the Keystone XL Pipeline project will ignite segments of our ever weak economy. An independent review of the Keystone XL's potential economic impact finds that during the construction period the pipeline will stimulate $20 billion in new spending for the U.S. economy, spur the creation of 118,000 jobs and generate more than $585 million in state and local taxes for the states along the pipeline route. When Keystone XL is operational, the states along the pipeline route are expected to receive an additional $5.2 billion in property taxes during the operating life of the pipeline, according to the analysis. That kind of renewed, tangible prosperity is the kind of change the American worker can believe in.

We are aware of the arguments put forward by the opponents of Keystone XL. Generally, their criticism centers on the belief that further development of Canada's oil sands puts in jeopardy U.S. efforts aimed at capping carbon emissions and greenhouse gas. While we clearly understand that our Federal government is seeking to develop a balanced policy to address our nation's energy and environmental needs and challenges, efforts to block Keystone XL would undermine rather than further this goal. Comprehensive energy and environmental policy should strive to address climate concerns while simultaneously ensuring adequate supplies of reliable energy and promoting energy independence and national security. Alternative energy sources are generally still in developmental stages; therefore it is likely that the U.S. consumer will remain substantially dependant on carbon fuels for the next several decades. The Keystone Project, which will greatly promote U.S. energy independence, will provide secure access to reliable energy for years to come and strengthen relations with Canada, which is one of the U.S.'s strongest, strategic allies.

Secretary Clinton, we call on you to approve a Presidential Permit for Keystone XL so that the American worker can get back to the task of strengthening their families and the communities they live in.

Sincerely,

William P. Hite
General President
United Association of Journeymen and Apprentices of the
Plumbing and Pipefitting Industry of the U.S. & Canada, AFL-CIO

Vincent J. Giblin
General President
International Union of Operating Engineers

Terence M. O'Sullivan
General President
Laborers' International Union of North America

James P. Hoffa
General President
International Brotherhood of Teamsters

cc

Congresswoman Nancy Pelosi, Speaker of the House
Congressman Steny Hoyer, House Majority Leader
Senator Harry Reid, Senate Majority Leader
Senator Richard Durbin, Senate Majority Whip
Cheryl Mills, Counselor and Chief of Staff to the Secretary of State
James Steinberg, Deputy Secretary of State
Robert Hormats, Under Secretary of State for Economic, Energy & Agricultural Affairs
David Goldwyn, Coordinator, International Energy, State Department
Peter Rouse, White House Chief of Staff
Thomas E. Donilon, National Security Advisor
Michael Froman, Deputy National Security Adviser for International Economic Affairs
Valerie Jarrett, Senior Advisor to the President
Jim Messina, White House Deputy Chief of Staff
Carol Browner, Assistant to the President for Energy and Climate Change
Nancy Sutley, Chair, White House Council on Environmental Quality
Heather Zichal, Deputy Assistant to the President, Office of Energy and Climate Change
Austan Goolsbee, Chair, White House Council of Economic Advisers
Patrick Gaspard, White House Political Director
Nate Tamarin, White House Associate Political Director

Questions for the Record of the Honorable Connie Mack
Committee on Foreign Affairs, U.S. House of Representatives
Answers Submitted by Mr. Lucian Pugliaresi
Hearing: "Rising Oil Prices and Dependence on Hostile Regimes: The Urgent Case for Canadian Oil"
March 31, 2011

Opponents of the Canadian oil sands have said that an increase in Canadian oil production will raise oil prices and enrich Venezuelan dictator, Hugo Chavez. It is also been said that most if not all Canadian oil will end up in Venezuelan owned southern refineries and Chavez will profit by exporting the refined products to countries other than the United States.

The energy security problem facing the United States is the direct result of a concentration of low cost reserves in an unstable part of the world, the Middle East. This concentration of resources permits a relatively few producers to constrain production and realize higher prices than would prevail in more competitive markets. The consequences of this energy insecurity are twofold; (1) producers can extract large wealth transfers from consuming countries, such as the United States and, (2) if there is a disruption in supplies the loss of crude from the world oil market spikes oil prices and disrupts the U.S. economy. One of the more effective counter-OPEC strategies is to proliferate the supplies of oil outside the Middle East. Canada's oil sand represents a vast source of new supply to the world oil market and because of location and historic trade relations the U.S. is a natural market. Approving the Keystone XL pipeline, or any other initiatives which make it profitable and acceptable for Canada to expand production, serves to improve U.S. energy security. The same can be said about expanding U.S. production.

Under U.S. law, Venezuela has access to all CITGO refineries with heavy oil production from Venezuelan fields. The scarce resource is not refining capacity, but the basic feedstock, crude oil. Whatever modest gains PDVSA may realize from higher margins at their U.S. refineries is more than compensated by opening up the spread between heavy and light crude oil throughout the entire U.S. refining complex. The scarce resource is crude oil and not refining capacity. For all outcomes the U.S. is better off and Hugo Chavez is worse off from a policy to expand shipments of Canadian oil sands to the United States.

Does an increase in Canadian oil sands production mean that oil prices will rise and will Venezuelan dictator Hugo Chavez benefit from greater access to Canadian oil?

Canadian oil sands shipments to the United States, particularly if policies to promote those shipments result in higher production volumes will act to reduce or constrain price increases. It will bring more competition to the heavy oil market in the Gulf Coast. Crude oil prices have discounted in some regional markets, such as Cushing, OK, but this is a function of inadequate infrastructure to move crude oil as the patterns of oil shipments shift in response to production from new producing centers -- more from North Dakota and Canada. Any regional

markets in the U.S. which are experiencing large discounts as compared to national prices are not sustainable as more efficient transportation solutions will emerge to address regional imbalances in crude prices. Once again, the best solution is to increase Canadian supplies.

How do you respond to the statement that the United States will not consume the refined Canadian oil and that the U.S. southern refineries are owned by Venezuela and will export the refined products to other countries, resulting in even greater profits for Chavez?

The U.S. is the natural market for nearly all refined products produced in the U.S. and most exports of refined products reflect market movements to adjust for transportation efficiencies. As a result, it may be more efficient to ship refined product out of the Gulf Coast and import refined products, or gasoline blending components, from Canada or Europe rather than ship those products to distant markets in other regions of the U.S. This is of particular importance to efficient operation of U.S. refineries as they produce relatively fixed joint products (i.e. they cannot alter the petroleum product mix radically in the short run), margins have historically been very small, and products move to markets where the value to the refiner is highest. On balance, however, exports of refined products are not a substantial profit center for U.S. refiners. Gasoline exports amount to approximately 2 percent of U.S. consumption. Distillate (diesel, jet fuel) are somewhat higher, but move up and down with market conditions. Once again the central point is that increasing feedstock (crude) competition represents an important competitive alternative to Venezuelan crude oil and this competitive advantage far outweighs any advantages that may accrue to CITGO refining operations.

Do you agree with the contention that the expansion of Canadian oil production providing energy security for the United States is just an illusion?

No it is not an illusion. There are two aspects of the decision to proceed with higher Canadian oil sands imports that are critical to the energy security position of the United States. The first is the direct addition of new supplies to the American market and the second is the expectations on the part of U.S. refiners and consumers and Canadian producers that the long term market in the U.S. will remain open for expanded production from Canada. The U.S. benefits from the near-term shipments of new supplies, but also from the expectation that the U.S. market will remain open. We want all Canadian shippers and producers to compete for and deliver higher volumes of conventional and unconventional crude supplies into the U.S. market.

○