Written by **William F. Jasper** on May 25, 2011

Unleashing Our Energy Resources

John Felmy is chief economist of the American Petroleum Institute (API), responsible for overseeing the organization's economic, statistical, and policy analysis. He has over 25 years' experience in energy, economic, and environmental analysis. He received bachelor's and master's degrees in economics from Pennsylvania State University and a Ph.D. in economics from the University of Maryland. John is a member of several professional associations, including the American Economics Association and the International Association for Energy Economics. He was interviewed at the 2011 Conservative Political Action Conference (CPAC) in Washington, D.C., by William F. Jasper, senior editor of The New American.

The New American: *API is here at CPAC as they have been in years past. America's energy picture is still a very big concern to the American people. Where do we stand right now in terms of America's total energy picture?*

Dr. John Felmy: Well, what we need to do is really make progress in energy policy. We need to first of all educate folks in what the reality of energy is because there is so much misinformation about where our energy comes from and how it's used. Once you understand that, we think that people will choose the proper course. Right now over 80 percent of our energy comes from fossil fuels. For example, over 94 percent of the fuel for transportation is oil. We have 250 million cars that don't run on electricity from solar or wind or other renewables; they run on oil. So, we need to lay those facts out and then make policy that helps the average American consumer.

TNA: *What percentage of U.S. oil consumption comes from within the United States and offshore United States, versus foreign sources?*

Dr. Felmy: Right now we're importing about 51 percent net of oil, down from 60 percent or higher a few years ago. Fortunately, we've been able to expand oil production in places like North Dakota. We've been able to expand offshore until this year. Those were promising areas. We've been able to expand our crude production, able to have some more energy efficiency, but we still import more oil from abroad than we produce here.

TNA: *On the encouraging side, we have in North Dakota and Montana the Bakken oil developments. Those are new deposits that are being developed because the economic and technological processes have reached a point where it's productive there; it's economical to produce it.*

Dr. Felmy: That's absolutely right. [Using] the new technology we have, which is primarily called hydraulic fracturing, we've been able to develop these vast resources. Now, North Dakota is the fourth largest state in oil production. The estimates are in the billions and billions of barrels, so they could

produce a lot more. In fact, it's wonderful for their economy. You're seeing new jobs, more revenue, a whole host of positive signs from that oil production. We would hope that we can see that in other parts of the country, too.

TNA: *This is not a small find, correct? This is large, a Saudi Arabia-sized find?*

Dr. Felmy: It could easily be. We really don't know how big it is. The preliminary estimates were only about four billion barrels, which is still a vast amount of oil. But it could be an order of magnitude more times that. What we've learned from other developments, once you start getting into producing, you get sometimes four, five, six times the amount that you thought you could.

TNA: *What other parts of the country have very promising or already developing deposits?*

Dr. Felmy: In terms of oil, the most important is offshore. But unfortunately with the moratorium we had last year and the restrictions on permits — we call it a permitorium — activity has slowed to a halt in terms of new development. There is a vast amount of oil out there, maybe 40-50 billion barrels of oil offshore. Alaska is another opportunity where you have tens of billions of barrels of oil either onshore or offshore. And then in terms of natural gas, it's really exciting what's happening with natural gas in places like Pennsylvania, Arkansas, Texas, and Louisiana.

TNA: *The BP spill played into people's concerns about the fouling of the Gulf of Mexico. Why is it wrong to extrapolate from that — one case — to the moratorium on all offshore drilling?*

Dr. Felmy: It was a tragedy. We think we've learned from it a lot. We've moved forward in terms of new policies, procedures, standards, practices, and so on. It was one [oil-rig] incident out of 42,000 [rigs] in the Gulf of Mexico in the last 60 years, so let's put it in perspective. Obviously something happened. Let's go forward. [Drilling] means tens of thousands of jobs for the Gulf area. It means billions of dollars in government revenue. While we are shut down, those things are not happening. We continue to import more oil, we have lower energy security, and our trade deficit is worse. Let's step back and … look at the positive aspects.

TNA: *On the offshore drilling, in addition to the federal moratorium, isn't there state opposition to development off California?*

Dr. Felmy: Well, there's opposition everywhere. The entire West Coast and federal areas are off-limits. That's about 10 billion barrels of oil. Again, it's an opportunity that's missed. They've been producing oil there for a long time. I was just out in the Santa Barbara area — what's interesting about producing oil in the Santa Barbara area, because of all the natural [oil] seeps that you have, when you produce oil you actually *reduce* the amount of oil on the beaches. You are reducing the pressure, and you are reducing the natural seeps. If you ask folks who have been there a long time, they'll tell you, "Yes, before oil production the beaches were a lot oilier." … The Gulf of Mexico has an estimated one million barrels a year of natural oil seeps.… It's clear on the West Coast that if you produce more oil it reduces the amount of oil that seeps out.

TNA: *What about some of the other developments — tar sands and oil shale? Has the technology gotten to the point where those areas are really feasible now?*

Dr. Felmy: Absolutely. If you look at the tar sands of Canada, they are producing a million and a half barrels a day, and it could be two to three times that. I just had an opportunity to visit there, and it's really incredible what they are doing. That's one of the reasons why Canada is our largest supplier of our oil.… We need to cooperate by allowing pipelines to the United States because that is a secure

source of energy. They are a good business partner. There are opportunities everywhere. The oil sands in the United States are not quite there yet, but this again is a vast resource — a trillion barrels of oil. They need to work on the technology.

TNA: *Now, when you say the oil sands are not quite there, is it because we have a different composition and concentration, or is it just the accessibility of it?*

Dr. Felmy: It's a little different in terms of composition, and so you need to focus on new technologies. You also have to deal with water issues because [American oil sands are] in such an arid part of the country. But it is something that is being looked at. Some of our companies have been making investments in that area for decades. I really do believe we'll be able to develop it. Thirty years ago they never believed the Canadian oil sands could be produced profitably, but now we know they can.

TNA: *For those kinds of developments to be economical, what price per barrel of oil is necessary?*

Dr. Felmy: Well, we really don't know until we get in there and have commercial production levels so that you have volumes that are more than experimental and so on. You have to first overcome the high cost of startup. But, I've seen estimates of $70 a barrel to produce it, which is less than today's price

TNA: *What are the surprise areas for gas and oil that most people would be unaware of that we might be seeing some development in in the near future?*

Dr. Felmy: The biggest surprise to me as a native Pennsylvanian is what's happening in Pennsylvania; developing the Marcellus Shale gas is such a wonderful opportunity for an area that desperately needs economic help. I grew up as a kid in north central Pennsylvania, and I remember the seismic trucks going up and down in the valleys there, and I wondered, what did they find. Now we know. They found this vast resource, and they just needed the technology to develop it. That area could be the Saudi Arabia of natural gas.

TNA: *In the last few years, a lot of new technology was developed in terms of drilling technology, and also in terms of discovery technology. Where are things going there?*

Dr. Felmy: It's really exciting. In terms of drilling technology, being able to drill in places that we drill in is acknowledged to be a tremendous technological advancement. And finding [deposits]. We never used to be able to use seismic technology below the salt layer in, say, the Gulf of Mexico or Brazil…. Now we do it with the new technological developments, new computer processes, so both finding and developing those resources have really improved dramatically. It's exciting. It's what we've been doing for 150 years in the oil industry.

TNA: *Along with that, what about any new developments in the processing and refining that help us get more out of the product and prevent more spillage and get more of it to market?*

Dr. Felmy: The new refining technology allows us to produce most of the barrels you couldn't before. It used to be you couldn't use the heavier stuff in the bottom of a barrel of oil. Now we can, so yields on gasoline, on diesel have gone up dramatically. We produced, for example, a record amount of gasoline last year. Technology continues to evolve with the catalysts, with the new equipment put in place to be able to produce more, cleaner-burning fuels than ever before.

TNA: *That brings us to refineries. We haven't had a new refinery here in the United States in, what, 30 years, something like that? Any hope of that? Isn't that a big stranglehold?*

Dr. Felmy: Well, there are a couple of new refinery sites, but the main thing is that we've been able to

expand the existing refineries to the equivalent of a new refinery every year. That's cheaper to do. You don't have site developments and permitting questions in some areas. We've been able to take the old refineries and upgrade them, expand them and so on. Our limitation is really not refinery capacity; it's can we produce more crude oil in this country to improve jobs, improve revenue, and improve the trade deficit.

TNA: *And also improve security?*

Dr. Felmy: Absolutely.

TNA: *Thank you very much, John.*