

Testimony
of
Lucian Pugliaresi
President
Energy Policy Research Foundation, Inc.

Before the

Subcommittee on Energy and Mineral Resources

Committee on Natural Resources

U.S. House of Representatives

Hearing on High Gasoline Prices

May 21, 2012

Washington, DC

Chairman Lamborn, Ranking Member Holt and members of the Subcommittee on Energy and Mineral Resources, thank you for the opportunity to testify on such an important topic. The rapid rise in gasoline prices has become a severe burden on U.S. consumers and is harming the economic recovery.

As in institution, we bring historical perspective on developments in petroleum markets. The Energy Policy Research Foundation, Inc. (EPRINC), formerly named PIRINC, was incorporated in 1944 and is a not-for-profit organization that studies energy economics with special emphasis on petroleum and the downstream product markets. EPRINC researches and publishes reports on all aspects of the petroleum industry which are made available free of charge to interested organizations and individuals. It is known internationally for providing objective analysis of energy issues.

My testimony today includes an assessment of why petroleum prices have risen so dramatically over the last year and how we might address this problem to benefit American consumers.

Long-term data from the U.S. Energy Information Administration show that approximately 85 percent of the cost of gasoline is determined by crude oil prices and fuel taxes. Yes, refiners can sometimes gain (and lose) margins from short term disruptions in product markets, or shifts in the availability and value of crude oils with high and low processing costs, but the relationship holds over time. If you want lower gasoline prices, you need lower crude oil prices.

So why are crude prices so high today? Despite recovery in Libyan production, the world oil market has lost over 700,000 barrels/day from turmoil in Sudan, Syria, and Yemen over the last 12 months. Nigeria is in a perpetual crisis. Iran is threatening to close the Strait of Hormuz and sanctions on Iranian crude oil may further reduce world oil supplies. Prices are rising as buyers and sellers in the market react not only to current conditions, but to expectations that future supplies might be curtailed.

On the demand side, we have had a brutally cold winter in Europe, which substantially increased fuel oil demand. Petroleum use in Japan is up 330,000 barrels/day over the last year to make up for 52 nuclear reactors that are now offline undergoing stress tests in response to Japanese public opposition to nuclear

power. World economic growth is showing some signs of life leading to expectations of rising demand for petroleum. Add all of this to a falling dollar, which makes U.S. imports more expensive, and you have a perfect storm for a spike in gasoline prices.

Populist calls that we can reduce gasoline prices by restricting or taxing exports of petroleum products will only drive fuel prices higher, U.S. domestic output of transportation fuels meets 92% of domestic demand with the remainder filled largely by imports of gasoline into the Northeast. Banning exports of all petroleum products or even restricting the ban to transportation fuels would only raise the cost of gasoline as products would have to move longer distances to reach consumers. Moreover, when refiners produce gasoline they also produce by-products, some of which only have value in foreign markets, such as high sulfur heavy fuel oil. If a U.S. ban on refined product exports prohibits refiners from selling their entire product slate, production will decline and prices will rise. This is hardly an effective strategy for lowering gasoline prices. Finally, even if we exclude Canadian sales to the U.S., we are fully integrated into the world oil market with net imports of petroleum at 5.5 million barrels/day.

So what about drilling our way out of this problem? Our organization has been evaluating the domestic potential for so-called unconventional domestic oil production through a study effort we call “*Building Blocks of the North American Petroleum Renaissance.*” Based on well performance, drilling permits, break-even costs, well completion rates, technology progression, and availability of drilling rigs in only four plays in North Dakota, Colorado and Texas, American drillers are now on track to lift U.S. onshore domestic crude oil and natural gas liquids production by more than 2 million barrels/day before 2017. These estimates are likely conservative. Raymond James, the investment firm, using a broader set of prospects sees U.S. production rising by 3 million barrels a day by the end of 2015. Both our estimate and those of Raymond James do not include newer onshore opportunities which are in the initial stages of evaluation. All of these opportunities are largely on private land and do not account for resources that might exist on public lands in the western U.S., Alaska, and throughout the U.S. offshore provinces, many of which remain off limits to petroleum development.

At the request of Secretary of Energy, David Chu, the National Petroleum Council (an outside advisory panel of industry, energy, and academic experts that report directly to the Secretary) concluded in late 2011 that with greater access to public lands, continued improvement in technology, and a reasonable regulatory regime, North American crude and natural gas liquids production could rise by 10-12 million barrels/day over the next 20 years.

Viewing this as a North American opportunity is critical. The growing supplies of U.S. low cost natural gas can help fuel the energy intensive requirements of Canadian oil sands production. Moreover, the large volumes of condensate (a liquid hydrocarbon) from North Dakota oil and gas production are well suited to blend with Canadian oil sands so the production can easily flow through a pipeline. The National Energy Board, an official Canadian government entity, which is not known for wild-eyed forecasts, has publicly stated that Canada can raise sustainable petroleum output by at least 3 million barrels/day in the next 20 years, if they can find a market for the output. The Canadian Association of Petroleum Producers is now forecasting production rising to 3.7 million barrels/day by 2025.

So here's a plan to drill our way out of this problem. Immediately approve the Keystone XL pipeline and send a signal to Canadian and U.S. producers that removes uncertainty over new transportation infrastructure to move both domestic and Canadian crude oil to coastal refiners – chokepoints in domestic crude transportation infrastructure is now threatening North American petroleum production. In addition, we should now announce an aggressive program to expand leasing for oil and gas on federal lands in the west, accelerate the offshore leasing program, and open up the vast opportunities in Alaska. At the same time, we should implement a genuine regulatory reform effort so we can expand oil and gas output and realize the vast value added opportunities brought to the U.S. by this new production. Some might consider this a radical approach, but it is fully in line with the President's own jobs council recommendations. Not only will this help push the world oil market to a long term lower price path, it is likely to provide relief for American consumers before the production comes online as markets routinely react to expectations on future production.

Finally, think for a moment about the vast opportunity in economic growth driven by a large array of new opportunities for high value added production. In 2009, a bad year for the American refining industry, the added value of all production of refined products alone exceeded \$250 billion according to Price Waterhouse Cooper. Add to this a world where growing output of domestic oil and gas is rapidly opening up new opportunities for the entire range of value added processing from refined products, to petrochemicals, to the transformation of natural gas to LNG, and large scale infrastructure for the transportation of petroleum production, and we can quickly move to the point where the U.S. is producing year in and year out well over \$500 billion in added economic value from a resource that was in decline just a few years ago. The opportunity is so great it can do much more than promote higher rates of economic growth; it can alter the strategic outlook for the United States.

Finally, a common argument for any program to accelerate domestic development is that it is too far in the future to us any good. But history tells a different story. In world oil markets, prices are determined not only by what is happening to current production, but also by the expectations that buyers and sellers have about future production. In the 1973-74 Arab oil embargo, for example, oil prices quadrupled overnight even though little oil was lost from the market. Instead, buyers and sellers expected that future growth in oil production in the region would be substantially curtailed as a result of the likely nationalization of Persian Gulf oil fields.

Crude oil prices shot up at the outset of the 1979 Iranian Revolution, and again when war broke out between Iran and Iraq the following year, although in neither case did the amount of oil supplied to the market decline by much. But buyers and sellers understood that expectations about the growth of new production from both Iran and Iraq were shifting downward. Unrest in Libya, combined with expectations of continued turmoil throughout the Middle East, is certainly contributing to the current run-up in oil prices.

Nevertheless, many analysts deny that quickly opening our borders to imports from Canadian oil sands, more access to the petroleum resources in Alaska, expanding oil and gas leasing in new offshore and onshore provinces on federally owned lands, and deepwater drilling in the Gulf of Mexico will make a

difference. The supplies will reach the market too far in the future to help us with prices today, or the amount will be too small to matter. This is too simplified a view of the oil market.

If the President sends a clear signal that he is prepared to embrace the North American petroleum renaissance and takes real measures to do so he will send a positive signal to the world oil market on future supply. To do so, he should immediately approve the Keystone XL pipeline, address the enormous regulatory risks facing expansion of upstream and downstream petroleum development, all of which are critical to shift long-term expectations on domestic supply. To date, decisions such as the failure to move ahead on the Keystone XL pipeline, the slow pace of leasing on federal lands, and an aggressive menu of new regulations are all sending the opposite signal – U.S. policy remains uncertain regarding expanding domestic supply.

Embracing the domestic petroleum renaissance may even yield some pleasant surprises, such as the recent experience with shale gas revolution. New discoveries of shale gas, and breakthroughs in the technology of extraction, have pushed down natural gas prices below \$3 per thousand cubic feet (mcf) in recent months. But even at prices between \$4-\$6/mcf American consumers have saved over \$50 billion a year, according to data from the federal Energy Information Agency.

I will leave you with a statistic: If we can alter the long-term price of crude oil by only \$20 a barrel—let's say to \$80 instead of \$100—the savings in our import bill alone would be \$100 billion per year. This would immediately foster economic growth. That means more jobs, a better return on capital, higher corporate and personal income for federal and state governments, and rising revenues to the U.S. Treasury from bonus bids and royalties from petroleum development.