

Congress of the United States
U.S. House of Representatives
Committee on Small Business
2361 Rayburn House Office Building
Washington, DC 20515-6515

Memorandum

To: Members, Committee on Small Business

From: Committee Staff

Date: June 15, 2015

Re: Hearing: "Crude Intentions: The Untold Story of the Ban, the Oil Industry, and America's Small Businesses"

On Wednesday, June 17, 2015 at 11:00 a.m. in Room 2360 of the Rayburn House Office Building, the Committee on Small Business will meet for a hearing titled, "Crude Intentions: The Untold Story of the Ban, the Oil Industry, and America's Small Businesses." The hearing will examine the possibility of lifting the crude oil export ban and the effect its removal will have on small businesses in the United States.

The Rise of Unconventional Oil Resources in the United States

Unconventional oil production in the United States is increasing at an unprecedented rate. This unanticipated supply of crude oil is having a significant impact on the prediction by many experts that the United States passed its peak for domestic oil and natural gas production.¹ The rapid advancement in technological capabilities and new trends in the petroleum market have made it economical to produce significant quantities of oil and natural gas from unconventional fields.² Additionally, proven domestic reserves – and their production potential – establish the United States energy position as one of abundance.³

According to recent estimates, after decades of persistent declines, domestic crude oil production, predominantly from unconventional fields, is expected to increase by an average rate of 234,000 barrels

¹ The production of hydrocarbons from geologic formations typically follows a curve during which production from a field reaches a peak and then begins to decline, often referred to as depletion. The theory of peak oil stipulates that the worldwide production of oil and gas will reach a peak before entering into a permanent period of decline. The timing of this potential production peak is the subject of much dispute and is dependent on a number of variables. Needless to say, oil and gas markets are not static, and the advent of new technologies and changes to market fundamentals alters the supply and consumption of oil and natural gas. DANIEL YERGIN, *THE QUEST: ENERGY, SECURITY, AND THE REMAKING OF THE MODERN WORLD* 235-37 (2011).

² UNIVERSITY OF TEXAS PETROLEUM EXTENSION SERVICES, *FUNDAMENTALS OF PETROLEUM* 244 (5th ed. 2011). Unconventional fields are generally those where the geological formations lack sufficient porosity or permeability to allow hydrocarbons to flow freely into the wellbore under natural pressures. Until recently, many unconventional resources have not been considered economically viable sources of hydrocarbons.

³ <http://csis.org/publication/molecule-laws-history-and-future-crude-export-ban>.

per day (bpd), reaching a production rate of 10.6 million bpd by 2020.⁴ Furthermore, crude oil and lease condensate⁵ proved reserves total 36.5 billion barrels.⁶ However, as will be discussed later in this memorandum, the increase in production has not been met with a concomitant increase in capacity to refine the oil obtained from unconventional fields.

Economic Impact of Petroleum Production on United States Small Businesses

The United States economy has seen widespread benefits from the increased production of unconventional crude oil. This new energy era for the United States has reduced the nation's current account trade deficit⁷ through reductions in imports of crude oil. United States net import share fell from 60 percent in 2005 to an estimated 26 percent in 2014 and by 2016 is expected to decline to its lowest level since 1969.⁸

The ongoing development of oil production benefits small businesses and creates more jobs both directly and indirectly. Direct jobs are defined as those activities related to the exploration, production, transportation and delivery of oil or activities that provide critical on-site equipment and services.⁹ Evidence suggests that the development of domestic conventional and unconventional oil and natural gas resources could create more than 550,000 jobs in the oil and gas sector by the year 2020.¹⁰ Another industry source estimates that the direct job creation of unconventional oil and gas alone will add nearly 1.75 million jobs by 2025.¹¹ A solid proportion of these jobs will be created in firms involved in crude oil and natural gas production classified as small by the Small Business Administration (SBA).¹²

⁴ UNITED STATES ENERGY INFORMATION AGENCY, ANNUAL ENERGY OUTLOOK 2013, at A-28 (2015), available at [http://www.eia.gov/forecasts/aeo/pdf/0383\(2015\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383(2015).pdf).

⁵ Lease condensates are light liquid hydrocarbons recovered from natural gas wells. They are mostly pentanes and heavier hydrocarbons. They normally enter the crude oil stream after production. <http://www.eia.gov/tools/glossary/index.cfm?id=Lease>.

⁶ UNITED STATES ENERGY INFORMATION AGENCY, U.S. CRUDE OIL, NATURAL GAS, AND NATURAL GAS LIQUIDS PROVED RESERVES, 2013, at 22 (2013), available at <http://www.eia.gov/naturalgas/crudeoilreserves/pdf/usreserves.pdf>. Proved reserves are defined as those quantities of hydrocarbons that are assumed to exist based on geologic knowledge and which can be economically produced with existing technology at current market prices. <http://www.eia.gov/tools/glossary/index.cfm?id=p>.

⁷ The export of domestically produced petroleum also would have a positive influence on the United States current account balance.

⁸ UNITED STATES ENERGY INFORMATION AGENCY, SHORT-TERM ENERGY OUTLOOK 7 (2015), available at http://www.eia.gov/forecasts/steo/pdf/steo_full.pdf.

⁹ 3 IHS INC., AMERICA'S NEW ENERGY FUTURE: THE UNCONVENTIONAL OIL AND GAS REVOLUTION AND THE U.S. ECONOMY: A MANUFACTURING RENAISSANCE 41 (2013) [hereinafter "State Economic Contributions Report"]. Upstream unconventional oil and gas activity, on average, demonstrates one of the larger employment multipliers as much of the knowledge, technologies, tools and services used in the industry are domestically derived. In addition, the larger an industry's multiplier, the more residual economic benefits, such as indirect and induced employment contributions, will be experienced across the economy. *Id.*

¹⁰ CITIGPS, ENERGY 2020, OUT OF AMERICA 10 (2014) [hereinafter "CitiGPS Report"], available at <https://ir.citi.com/rBWYa6YM4Scr4LsmpuQB8DZubx61JU8NqGw5jsCxMMfxMRxBp4u4gwbWrQgfNlfhZMSpx1Jv3qA%3D>.

¹¹ State Economic Contributions Report, *supra* note 9, at 27.

¹² UNITED STATES SMALL BUSINESS ADMINISTRATION, OFFICE OF ADVOCACY, U.S. STATIC DATA, U.S. DATA, STATISTICS OF U.S. BUSINESSES, FIRM SIZE DATA (2011), available at <http://www.sba.gov/advocacy/849/12162>. (NAICS Codes 211111, 211112). The SBA defines a small business in NAICS codes 211111 and 211112 as one with less than 500 employees.

However, these employment contributions represent only about 25 percent of the total number of potential jobs supported by unconventional oil and gas development.¹³ Indirect employment benefits are generally defined as those that accrue as the result of activities in outside industries that supply materials and services to the developers of unconventional oil and gas and to their suppliers.¹⁴ A majority of these indirect jobs supported by oil and gas development will be seen in construction, fabricated metal product manufacturing, primary metal manufacturing, professional, scientific, and technical services, and wholesale industries.¹⁵ For instance, IHS found that “one out of every eight United States jobs supported by unconventional oil and natural gas development will be in manufacturing.”¹⁶ Additionally, manufacturing employment contributions will have a more profound impact as unconventional oil development advances and will support over 500,000 jobs by 2025.¹⁷ Still, implications for small businesses’ expansion in the secondary and tertiary supply chain are heavily contingent upon United States producers’ ability to export crude because the majority of growth in demand for oil is occurring outside of the United States.¹⁸

The Crude Oil Export Ban

Background

Although restrictions on the ability to export crude oil from the United States are found in multiple statutes, §103 of the Energy Policy and Conservation Act (EPCA)¹⁹ the EPCA is of particular importance for the purposes of this hearing. That section provides in pertinent part that the “President may, by rule, under such terms and conditions as he determines to be appropriate and necessary to carry out the purpose of this Act [EPCA], restrict exports of...petroleum products, natural gas, or petrochemical feedstocks....” 15 U.S.C. § 6212(a)(1). Regulations implementing this authority can be found in the Export Administration Regulations, 15 C.F.R. §§ 754.2-.3.

Recently, United States crude oil has become significantly more attractive to export. In March of 2013, crude oil exports went from near zero in 2007 to approximately 100,000 bpd, and the United States is currently positioned as a leading gross exporter of refined oil products, such as gasoline and diesel.²⁰ In 2014, combined hydrocarbon exports, primarily consisting of refined oil products, totaled 4.5 million bpd. This made oil and its products the top United States export by category – surpassing all agricultural products, capital goods, and aircraft.²¹ The ability to export domestic unconventional oil resources has forced policymakers and analysts to reconsider the effects of the crude oil export ban. Notably, Secretary of Energy Ernest Moniz recently stated that “there are lots of issues in the energy space that deserve some new analysis and examination in the context of what is now an energy world that is no longer like the 1970s.”²²

¹³ State Economic Contributions Report, *supra* note 9, at 41.

¹⁴ *Id.* at 10.

¹⁵ *Id.* at 2.

¹⁶ *Id.* at 43.

¹⁷ *Id.*

¹⁸ MARK MILLS, MANHATTAN INSTITUTE FOR POLICY RESEARCH, WHERE THE JOBS ARE: SMALL BUSINESSES UNLEASH ENERGY EMPLOYMENT BOOM 13 (2014) [hereinafter “Mills”], available at http://www.manhattan-institute.org/pdf/pgi_04.pdf.

¹⁹ Pub. L. No. 94-163, 89 Stat. 874 (1975) (codified as amended at 43 U.S.C. §§ 6201-6422).

²⁰ <http://www.cfr.org/oil/case-allowing-us-crude-oil-exports/p31005>. Unlike crude oil, which is unprocessed, oil that has been refined can be exported freely under United States law. *Id.*

²¹ CitiGPS Report, *supra* note 10, at 4.

²² Clifford Krauss, *Energy Secretary Calls Oil Export Ban Dated*, N.Y. Times, Dec. 13, 2013, available at http://www.nytimes.com/2013/12/14/business/energy-environment/energy-secretary-voices-concern-over-dated-oil-export-restrictions.html?_r=1.

Production and Refining Capacity

The crude oil export ban has a negative impact on the United States oil industry. Small oil producers in North Dakota and Texas, for example, are hindered by the export ban because they are producing lease condensates and refiners are not equipped to process it.²³ Many domestic refineries are configured to process lower-quality crude oil; the refineries that are equipped to process lease condensates or other output from unconventional oil fields are located in areas of the United States that lack the necessary transportation infrastructure to receive it.²⁴ This results in a supply chain bottleneck that forces producers to reduce capacity because they have no refining market or the price they would receive from United States refineries is insufficient to cover production costs.²⁵ Thus, as economic theory teaches, lower prices or less demand will result in decreased output.²⁶

Implications of Lifting the Crude Oil Export Ban

According to a recent study by the American Petroleum Institute (API), domestic crude oil production from unconventional fields is expected to increase by an average rate of 110,000 to 500,000 bpd by 2020.²⁷ API also asserts that “in the long-run, any oversupply of unrefined crude may discourage more energy production here at home.”²⁸ Lifting the export ban would encourage greater domestic production, increase global supplies, and add to the stability of the world market.²⁹ United States crude oil exports also would diversify the market and, in turn, protect the price of oil from market fluctuations due to disruptions in supply around the world.³⁰

A recent study suggests that lifting the ban will reduce unemployment annually by 200,000 between 2015 and 2020.³¹ These jobs will be in addition to the 10 million Americans already employed directly and indirectly in the oil and gas industry.³²

The economic benefits of exporting United States crude oil are enormous. For instance, the API reports that lifting the crude oil export ban would narrow the United States trade deficit by \$22 billion in 2020, increase gross domestic product (GDP) by an average of \$15 to \$27 billion annually through 2035, and result in an estimated \$15-\$70 billion in additional investment in United States exploration, development, and crude oil between 2015 and 2020.³³

As already noted, some portion of that increase would redound to small production firms. Of course, the larger multiplier effect on the small businesses in the supply chain would be even more significant.

²³ <http://www.cfr.org/oil/case-allowing-us-crude-oil-exports/p31005>.

²⁴ *Id.*

²⁵ *Id.*

²⁶ See DOMESTIC ENERGY PRODUCERS ALLIANCE, CRUDE OIL EXPORT LEGISLATION NECESSARY TO RESOLVE U.S. REFINING SHORTAGE 28 (2015).

²⁷ AMERICAN PETROLEUM INSTITUTE, U.S. CRUDE OIL EXPORTS, BENEFITS FOR AMERICA’S ECONOMY AND CONSUMERS 3 (2015) [hereinafter “API Crude Benefits”], available at <http://www.api.org/~media/files/policy/exports/crude-oil-exports-primer/us-crude-oil-exports-low-res.pdf>.

²⁸ *Id.* at 3.

²⁹ *Id.*

³⁰ *Id.*

³¹ <http://www.brookings.edu/research/reports/2014/09/09-8-facts-about-us-crude-oil-production>

³² Mills, *supra* note 18, at 6.

³³ API Crude Benefits, *supra* note 27, at 5. The reported estimates are subject to change due to fluctuation in the global oil market.

Legislative Actions

Chairman Michael McCaul of the House Homeland Security Committee, Rep. Joe Barton of Texas, and Rep. Mike Conway of Texas all have introduced legislation in the 114th Congress repeal §103 of the ECPA.³⁴ Senator Heidi Heitkamp also introduced legislation to eliminate the ban.³⁵

Conclusion

Over the last year, the United States oil production has expanded by 1.6 million bpd, according to BP Plc's Statistical Review of World Energy³⁶ and America has undoubtedly entered a new energy era. The United States is now the world's single largest producer of oil and gas – an impressive achievement considering the nation's recent need to import petroleum.

The potential long-term economic benefits of lifting the crude oil export ban are exceedingly significant for small businesses and the United States economy due to the resulting increase in oil production. Allowing oil producers to export their product will continue to encourage production of conventional and unconventional oil resources, reduce the national deficit, strengthen GDP of the United States, and present greater economic opportunities for small businesses.

³⁴ H.R. 156, H.R. 702, H.R. 2369 respectively.

³⁵ S. 1372, 114th Cong., 1st Sess. (2015).

³⁶ BP, STATISTICAL REVIEW OF WORLD ENERGY JUNE 2015, at 3 (2015), *available at* <http://www.bp.com/content/dam/bp/pdf/Energy-economics/statistical-review-2015/bp-statistical-review-of-world-energy-2015-full-report.pdf>.