

ONE HUNDRED FOURTEENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**  
COMMITTEE ON ENERGY AND COMMERCE  
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**MEMORANDUM**

**September 8, 2015**

**To: Subcommittee on Energy and Power Democratic Members and Staff**

**Fr: Committee on Energy and Commerce Democratic Staff**

**Re: Markup of H.R. 702, a bill “To Adapt to Changing Crude Oil Market Conditions”**

On Thursday, September 10, 2015, at 10:00 a.m. in room 2123 of the Rayburn House Office Building, the Subcommittee on Energy and Power will hold a markup of H.R. 702, a bill “to adapt to changing crude oil market conditions.” Representative Barton (R-TX) introduced the bill on February 4, 2015, in light of the growing interest in lifting the current prohibition on the export of crude oil from the United States, due to growing domestic supply and declining prices for producers.

The Subcommittee held a legislative hearing on H.R. 702 on July 9, 2015. For further background information on the bill and issues related to easing restrictions on crude oil exports, please see the hearing memos from the [July 9th hearing](#), [March 3rd hearing](#), and the [December 11, 2014 hearing](#).

**I. BACKGROUND**

The Energy Policy and Conservation Act of 1975 (EPCA) -- enacted in the wake of the 1973 oil embargo -- is the primary statute restricting the export of domestically produced crude oil. EPCA includes several provisions intended to mitigate impacts from disruptions in U.S. petroleum product supplies. The law directs the President to prohibit the export of crude oil and natural gas produced in the United States, unless doing so is determined to be in the national interest and consistent with the purposes of EPCA.<sup>1</sup>

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<sup>1</sup> Congressional Research Service, *The Strategic Petroleum Reserve: Authorization, Operation, and Drawdown Policy* (Aug. 27, 2013) (R42460) (online at [www.crs.gov/pdfloader/R42460](http://www.crs.gov/pdfloader/R42460)).

The Department of Commerce's Bureau of Industry and Security (BIS) is responsible for regulating crude oil exports by issuing licenses to interested companies.<sup>2</sup> In accordance with EPCA's general prohibition on crude oil exports, BIS will only approve export licenses for a limited subset of transactions.<sup>3</sup>

Over the past several years, the number of approved applications and the level of crude oil exports have steadily increased. In the first five months of 2015, crude exports have averaged 491,000 b/d, going primarily to Canada.<sup>4</sup>

On August 14, 2015, the Obama Administration approved several applications for the exchange of U.S. crude oil for similar quantities of oil from Mexico. The approval of these crude oil "swaps" was widely interpreted to signal another step by the Administration toward liberalizing U.S. policy regarding exports of domestic crude oil.<sup>5</sup> The Administration's action was generally met by support from Members of both parties, including Ranking Member Pallone who, at the July 9<sup>th</sup> hearing, had proposed expanding exports to Mexico and regionally as part of a more incremental approach to reassessing the export ban.

#### **A. Trends In U.S. Crude Oil Production, Consumption, And Prices**

Nearly all of the recent growth in U.S.-produced crude is in light sweet crude oils from tight oil formations.<sup>6</sup> In the past, the oil and natural gas industry considered resources locked in tight, impermeable formations, such as shale either technically impossible or uneconomical to produce. Higher oil prices and advances in horizontal drilling and hydraulic fracturing made these resources commercially viable over the past decade. However, the recent precipitous drop

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<sup>2</sup> Congressional Research Service, *U.S. Oil Imports and Exports* (Apr. 4, 2012) (R42465) (online at [www.crs.gov/pdfloader/R42465](http://www.crs.gov/pdfloader/R42465)).

<sup>3</sup> 15 C.F.R. § 754.2(b) (1).

<sup>4</sup> U.S. Energy Information Administration, *Effects of Removing Restrictions on U.S. Crude Oil Exports* (Sept. 2, 2015) (online at [www.eia.gov/analysis/requests/crude-exports/pdf/fullreport.pdf](http://www.eia.gov/analysis/requests/crude-exports/pdf/fullreport.pdf)); U.S. Energy Information Administration, *Exports by Destination* (online at [www.eia.gov/dnav/pet/PET\\_MOVE\\_EXPC\\_A\\_EPC0\\_EEX\\_MBBLPD\\_M.htm](http://www.eia.gov/dnav/pet/PET_MOVE_EXPC_A_EPC0_EEX_MBBLPD_M.htm)).

<sup>5</sup> See, e.g., "U.S. approves landmark crude oil export swaps with Mexico, Reuters (August 14, 2015). (online at <http://www.reuters.com/article/2015/08/14/us-usa-oil-exports-exclusive-idUSKCN0QJ1RI20150814>).

<sup>6</sup> Crude oils categorized as "light" have a relatively low density, while higher density crude oils are known as "heavy." Low sulfur content crudes are known as "sweet," while crude oils with higher sulfur content are known as "sour." See U.S. Energy Information Administration, *Effects of Removing Restrictions on U.S. Crude Oil Exports* (Sept. 2, 2015) (online at [www.eia.gov/analysis/requests/crude-exports/pdf/fullreport.pdf](http://www.eia.gov/analysis/requests/crude-exports/pdf/fullreport.pdf)).

in oil prices has called into question the long-term economic feasibility of continued growth in light sweet crude oil production.<sup>7</sup>

According to the U.S. Energy Information Administration (EIA), domestic crude oil production averaged an estimated 9.5 million b/d in the first half of 2015.<sup>8</sup> EIA currently projects crude oil production to average 9.4 million b/d in 2015, and then drop to 9.0 million b/d in 2016.<sup>9</sup> EIA projections suggest that the recent gains in tight oil production may be temporary, and that “after 2020, tight oil production declines, as drilling moves into less productive areas.”<sup>10</sup>

Despite increased production, the U.S. remains heavily dependent on imports of crude oil. In June 2015, the U.S. imported an average of 6.9 million b/d of crude oil.<sup>11</sup> In 2014 U.S. imports declined to an estimated 26% of the petroleum it consumed.<sup>12</sup> This is the result of a variety of factors, including a rise in domestic oil production and a decreased demand for petroleum products –due to increased alternative fuel use, higher fuel efficiency standards and the overall economic downturn. Nearly the entire recent decline in crude oil imports has occurred in light sweet crude which fell roughly 85% between 2010 and June 2015.<sup>13</sup> Imports of light sweet crude to the U.S. Gulf Coast have been virtually eliminated.<sup>14</sup>

Starting in the second half of 2014 the price of a barrel of oil fell rapidly. The price of futures contracts for West Texas Intermediate crude oil (WTI), the main U.S. benchmark oil price, fell from approximately \$100 per barrel in July 2014, to the current price of around \$41

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<sup>7</sup> See, e.g., *Oil rig losses pass 1,000 as bankruptcies mount*, EnergyWire (Jun. 22, 2015); *U.S. shale production on the decline as OPEC keeps pumping*, EnergyWire (Jun. 10, 2015).

<sup>8</sup> U.S. Energy Information Administration, *Short-Term Energy Outlook August 2015* (Aug., 2015) (online at [www.eia.gov/forecasts/steo/pdf/steo\\_full.pdf](http://www.eia.gov/forecasts/steo/pdf/steo_full.pdf)).

<sup>9</sup> *Id.*

<sup>10</sup> U.S. Energy Information Administration, *U.S. Crude Oil Production Forecast-Analysis of Crude Types* (May 29, 2014) (online at [www.eia.gov/analysis/petroleum/crudetypes/pdf/crudetypes.pdf](http://www.eia.gov/analysis/petroleum/crudetypes/pdf/crudetypes.pdf)).

<sup>11</sup> U.S. Energy Information Administration, *U.S. Net Imports of Crude Oil* (Aug. 31, 2015) (online at [www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRNTUS2&f=M](http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRNTUS2&f=M)).

<sup>12</sup> U.S. Energy Information Administration, *Monthly Energy Review August 2015* (Aug. 25, 2015) (online at [www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf](http://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf)); In 2005, U.S. imports made up 60% of consumption.

<sup>13</sup> U.S. Energy Information Administration, *Crude Imports, Imports of lights sweet from World to Total U.S.* (accessed Sept. 8, 2015) (online at [www.eia.gov/beta/petroleum/imports/browser/#/?chartindexed=1&e=201504&f=m&g=g&s=201001&v=1&vs=PET\\_IMPORTS.WORLD-US-G.M](http://www.eia.gov/beta/petroleum/imports/browser/#/?chartindexed=1&e=201504&f=m&g=g&s=201001&v=1&vs=PET_IMPORTS.WORLD-US-G.M)).

<sup>14</sup> U.S. Energy Information Administration, *EIA tracking tool shows light-sweet crude oil imports to Gulf Coast virtually eliminated* (Feb. 10, 2015) (online at [www.eia.gov/todayinenergy/detail.cfm?id=19931](http://www.eia.gov/todayinenergy/detail.cfm?id=19931)).

per barrel.<sup>15</sup> Analysts have identified several factors contributing to the recent fall in global oil prices, including: decreased demand in Europe and Asia; significantly increased production by the world's major oil producers; and OPEC's decision to maintain current production levels in order to secure their share of the global market.<sup>16</sup>

## **II. ANALYSIS OF H.R. 702, A BILL “TO ADAPT TO CHANGING CRUDE OIL MARKET CONDITIONS”**

### **A. Summary**

H.R. 702 lifts the ban on crude exports by repealing the Presidential authority to restrict exports of coal, petroleum products, natural gas, or petrochemical feedstocks under section 103 of EPCA.<sup>17</sup> Section 3 of the bill also establishes a national policy on oil export restriction, preventing any official of the federal government from imposing or enforcing any restriction on the export of crude oil.<sup>18</sup>

Finally, section 4 requires the Secretary of Energy to conduct a study and develop recommendations on the “appropriate size, composition, and purpose of the Strategic Petroleum Reserve.” The study and its accompanying recommendations would be due to the House Committee on Energy and Commerce and Senate Committee on Energy and Natural Resources within 120 days of enactment.<sup>19</sup>

### **B. Issues Raised by the Bill**

The boom in domestic crude oil production and anticipation of continued growth has led to increased calls to lift the limitations on crude oil exports. As described in a recent analysis by the Center for American Progress, “the economic, national security, and environmental impacts of changing long-standing U.S. crude oil policy are neither well-documented nor well-understood.”<sup>20</sup> A number of Democratic Members have said a repeal of the export ban should be

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<sup>15</sup> U.S. Energy Information Administration, *Cushing, OK Crude Oil Future Contract 1* (Jul. 6, 2015) (online at [www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=rclcl&f=d](http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=rclcl&f=d)).

<sup>16</sup> Congressional Research Service, *Lower Oil Prices 2015* (Jan. 6, 2015); *A Simple Guide to the Sudden Collapse in Oil Prices*, Washington Post (Dec. 1, 2014) (online at [www.washingtonpost.com/blogs/wonkblog/wp/2014/11/28/a-simple-guide-to-the-sudden-collapse-in-oil-prices/](http://www.washingtonpost.com/blogs/wonkblog/wp/2014/11/28/a-simple-guide-to-the-sudden-collapse-in-oil-prices/)).

<sup>17</sup> H.R. 702, a bill to adapt to changing crude oil market conditions § 2; Pub. L. No. 94-163 (1975).

<sup>18</sup> H.R. 702 § 3.

<sup>19</sup> *Id.* at § 4.

<sup>20</sup> Center for American Progress, *The Environmental Impacts of Exporting More American Crude Oil* (Aug. 21, 2015) (online at [www.americanprogress.org/issues/green/news/2015/08/21/119756/the-environmental-impacts-of-exporting-more-american-crude-oil/](http://www.americanprogress.org/issues/green/news/2015/08/21/119756/the-environmental-impacts-of-exporting-more-american-crude-oil/)).

considered in the context of a greater reform of our oil policies and cautioned against a rush to legislatively repeal the ban absent other policy changes.

## 1. Economic Impacts

The economic impact of lifting the crude export ban is an area of considerable uncertainty and disagreement.<sup>21</sup> Proponents of lifting the current export restrictions, including major oil producers, have argued that significant increases in production for purposes of export would result in lower oil and gasoline prices.<sup>22</sup> But according to a recent EIA study, the anticipated price of oil and gasoline would be virtually unchanged by an easing of export restrictions: “[w]hile removing restrictions on U.S. crude oil exports either leaves global prices unchanged or lowers them modestly, global price drivers unrelated to U.S. crude oil export policy will affect growth in U.S. crude oil production and exports of crude oil and products whether or not current export restrictions are removed.”<sup>23</sup>

Another argument commonly used in favor of lifting export restrictions is that an oversupply of light crude in the U.S. has emerged due to a mismatch between the light sweet oil being produced and configurations of the U.S. refining capacity, much of which is optimized to run heavy sour crude. Opponents of lifting crude export restrictions, including many independent refiners, have challenged this premise of U.S. market and refining system oversaturation. During the March 3, 2015 hearing, a representative of the domestic refining industry noted that “U.S. refiners have plenty of room to accommodate new, domestic supplies of light crude oil, with additional capacity to further grow U.S. production. The refining industry is constantly shifting crude slates to maximize efficiency and to meet consumer demand.”<sup>24</sup>

The primary beneficiary of a shift in crude export policy would likely be domestic oil producers. EIA notes that the easing of crude export restrictions would likely result in a \$29.7

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<sup>21</sup> U.S. Energy Information Administration, *What Drives U.S. Gasoline Prices?* (Oct. 30, 2014) (online at [www.eia.gov/analysis/studies/gasoline/pdf/gasolinepricestudy.pdf](http://www.eia.gov/analysis/studies/gasoline/pdf/gasolinepricestudy.pdf)).

<sup>22</sup> According to two commonly cited studies by IHS and ICF International, reductions in oil prices would be anywhere from \$0.25 to \$5 per barrel (Brent prices), and lower gasoline prices would range from \$0.014 to \$0.12 per gallon. See IHS, *U.S. Crude Oil Export Decision: Assessing the Impact of the Export Ban and Free Trade on the U.S. Economy* (May 29, 2014); ICF International, for the American Petroleum Institute, *The Impacts of U.S. Crude Oil Exports on Domestic Crude Production, GDP, Employment, Trade, and Consumer Costs* (Mar. 31, 2014).

<sup>23</sup> U.S. Energy Information Administration, *Effects of Removing Restrictions on U.S. Crude Oil Exports*, at x (Sept. 2, 2015) (online at [www.eia.gov/analysis/requests/crude-exports/pdf/fullreport.pdf](http://www.eia.gov/analysis/requests/crude-exports/pdf/fullreport.pdf)). See CBO, *Energy Security in the United States* (May 9, 2012) (online at [www.cbo.gov/sites/default/files/05-09-EnergySecurity.pdf](http://www.cbo.gov/sites/default/files/05-09-EnergySecurity.pdf)).

<sup>24</sup> House Committee on Energy and commerce, Subcommittee on Energy and Power, Testimony of Charles Drevna, President of the American Fuel & Petrochemical Manufacturers, *Hearing on 21st Century Energy Markets: How the Changing Dynamics of World Energy Markets Impact our Economy and Energy Security*, 114th Cong. (Mar. 3, 2015).

billion increase in gross revenue for oil producers in 2025.<sup>25</sup> Further, “allowing more crude oil exports could result in \$8.7 billion less investment in U.S. refining capacity over the next 10 years.”<sup>26</sup> CBO estimates that if the restrictions on crude oil exports are lifted, “the prices of domestic light crude oils seen by some U.S. crude oil producers and petroleum refiners would rise.”<sup>27</sup> These price increases would be seen primarily by refineries already configured for processing light sweet crude, like those on the east coast.<sup>28</sup>

## 2. Climate and Environmental Impacts

Maximizing U.S. oil production would exacerbate climate change and increase the risks to the land, water and air. According to a recent study, approximately one third of the world’s remaining oil reserves and half of the remaining gas reserves should remain untouched over the next 40 years in order to prevent the global average temperature from rising more than 2°C.<sup>29</sup> An increase in oil production, consistent with unrestricted crude exports, would run counter to U.S. and global efforts to limit greenhouse gas emissions and prevent catastrophic climate change.

Further, the drilling boom has outpaced the building of infrastructure necessary to control methane leaks from oil and gas wells leading to increased emissions of this potent greenhouse gas. The energy sector—including sources like natural gas and petroleum systems—is the largest source of U.S. methane emissions, accounting for 263.5 million metric tons of CO<sub>2</sub> equivalent in 2013.<sup>30</sup> The lack of infrastructure to capture the co-produced methane, combined with low natural gas prices, often makes it cheaper for industry to burn the gas rather than

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<sup>25</sup> U.S. Energy Information Administration, *Effects of Removing Restrictions on U.S. Crude Oil Exports*, at 23 (Sept. 2, 2015) (online at [www.eia.gov/analysis/requests/crude-exports/pdf/fullreport.pdf](http://www.eia.gov/analysis/requests/crude-exports/pdf/fullreport.pdf)).

<sup>26</sup> Center for American Progress, *The Environmental Impacts of Exporting More American Crude Oil* (Aug. 21, 2015) (online at [www.americanprogress.org/issues/green/news/2015/08/21/119756/the-environmental-impacts-of-exporting-more-american-crude-oil/](http://www.americanprogress.org/issues/green/news/2015/08/21/119756/the-environmental-impacts-of-exporting-more-american-crude-oil/)).

<sup>27</sup> Congressional Budget Office, *The Economic and Budgetary Effects of Producing Oil and Natural Gas From Shale* (Dec. 7, 2014) (online at [www.cbo.gov/sites/default/files/cbofiles/attachments/49815-Effects\\_of\\_Shale\\_Production.pdf](http://www.cbo.gov/sites/default/files/cbofiles/attachments/49815-Effects_of_Shale_Production.pdf)).

<sup>28</sup> U.S. Energy Information Administration, *This Week in Petroleum: Regional refinery trends continue to evolve* (Jan. 7, 2015) (online at [www.eia.gov/petroleum/weekly/archive/2015/150107/includes/analysis\\_print.cfm](http://www.eia.gov/petroleum/weekly/archive/2015/150107/includes/analysis_print.cfm)).

<sup>29</sup> *The geographical distribution of fossil fuels unused when limiting global warming to 2°C*, Nature (Jan. 7, 2015) (online at [www.nature.com/nature/journal/v517/n7533/full/nature14016.html](http://www.nature.com/nature/journal/v517/n7533/full/nature14016.html)).

<sup>30</sup> U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2013 (April 2015)* (online at <http://epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Chapter-3-Energy.pdf>).

capture and process it.<sup>31</sup> So an increase in oil production—for purposes of exportation—would likely result in significant increases in uncontrolled greenhouse gas emissions.

### 3. National Security Impacts

Lifting the ban on crude exports would dramatically alter decades of U.S. policies put in place to encourage energy independence and security. Given that section 3 of the bill would prevent any future restriction on the export of crude oil, removal of the export ban should be very carefully considered. As noted above, imports of crude oil still represent over a quarter of the nation's annual oil consumption.<sup>32</sup> Even with continued production and decreased demand, EIA estimates that total imports will only drop to 17% in 2040 with current regulations in place.<sup>33</sup> Lifting the ban on crude exports would more than likely hinder the predicted decline in imports and leave the U.S. dependent on foreign countries for more than a quarter of its oil for decades.

Critics of the ban on crude oil exports contend that access to U.S. crude would decrease Europe's reliance on Russian oil and free them from "coercive energy supply policies".<sup>34</sup> This scenario is far from guaranteed. According to CRS, "the decision to export crude oil will be based on commercial and economic considerations, not directed and controlled by the federal government," therefore, "predicting and quantifying physical crude oil flows to a particular region in the world under a non-restricted export scenario is difficult and is subject to several assumptions that may or may not be realized."<sup>35</sup> European refineries are currently configured to process Russia's medium sour crude and would need significant time and capital to handle American light sweet crude.<sup>36</sup> East Asian markets are the most likely beneficiaries of American crude oil exports, with China being positioned to become the top purchaser of these exports.<sup>37</sup>

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<sup>31</sup> *Gas flaring permits surge in Texas*, Fuelfix.com (Apr. 9, 2012) (online at [fuelfix.com/blog/2012/04/09/gas-flaring-permits-surge-in-texas/](http://fuelfix.com/blog/2012/04/09/gas-flaring-permits-surge-in-texas/)).

<sup>32</sup> U.S. Energy Information Administration, *Monthly Energy Review August 2015* (Aug. 25, 2015) (online at [www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf](http://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf)).

<sup>33</sup> U.S. Energy Information Administration, *Annual Energy Outlook 2015*, at ES-4 (Apr. 2015) (online at [www.eia.gov/forecasts/aeo/pdf/0383\(2015\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383(2015).pdf)).

<sup>34</sup> *Senate Oil Export Hearing Panelists Debate National Security And Limited Refinery Capacity*, Breaking Energy (Mar. 30, 2015) (online at [breakingenergy.com/2015/03/30/senate-oil-export-hearing-panelists-debate-national-security-and-limited-refinery-capacity/](http://breakingenergy.com/2015/03/30/senate-oil-export-hearing-panelists-debate-national-security-and-limited-refinery-capacity/)).

<sup>35</sup> Congressional Research Service, *Potential Market Effects of Removing Crude Oil Export Restrictions: Eastern Europe* (May 29, 2015).

<sup>36</sup> Senate Committee on Foreign Relations, *Hearing on American Energy Exports: Opportunities For U.S. Allies and U.S. National Security*, 114th Cong. (Jun. 23, 2015).

<sup>37</sup> *Id.*