

**THE ENERGY AND NATURAL RESOURCES
ACT:
UPDATING THE U.S. ENERGY STRATEGY
FOR THE NEW AGE OF LNG**

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I. INTRODUCTION

*Progress is impossible without change, and those who cannot change their minds cannot change anything.*¹

As the United States transitions in the post-Obama era, so too will the country look to revamp its outdated energy policies.² With a country that seems divided by partisan lines, it appears that the term “energy” when mentioned also brings with it a dividing line among American citizens, U.S. businesses, and elected officials. Since the passage of the Energy Policy Act of 2005,³ the United States has progressed from fearing oil and gas shortages to becoming a world leading producer of both fuel sources.⁴ The use of wind and solar power is increasing its market share as they become less expensive than fossil-fuels in some parts of the country.⁵ President Obama’s environmental

1. GEORGE BERNARD SHAW, *EVERYBODY’S POLITICAL WHAT’S WHAT?* 330 (1945).

2. Press Release, H. Energy & Commerce Comm., E&C Members Selected to Help Lead House Effort to Finalize Comprehensive Energy Bill with Senate, (May 26, 2016) (Statement of Rep. Fred Upton, Chairman, H. Energy & Commerce Comm.) [hereinafter Energy & Commerce Press Release] (“The script has been flipped on our energy abundance, and it’s about time our policies caught up”), <https://energycommerce.house.gov/news-center/press-releases/ec-members-selected-help-lead-house-effort-finalize-comprehensive-0>.

3. Energy Policy Act of 2005, H.R. 6, 109th Cong. (2005).

4. U.S. Energy Info. Administration, *United States Remains Largest Producer of Petroleum and Natural Gas Hydrocarbons* (May 23, 2016), <https://www.eia.gov/todayinenergy/detail.php?id=26352#>.

5. Diane Cardwell, *Solar and Wind Energy Start to Win on Price vs. Conventional Fuels*, N.Y. TIMES (Nov. 23, 2014), <https://www.nytimes.com/2014/11/24/business/energy-environment/solar-and-wind-energy-start-to-win-on-price-vs-conventional-fuels.html>; Coral Davenport, *Senate Passes Legislation Tailored to a Modern Energy Landscape*, N.Y. TIMES (Apr. 20, 2016), <https://www.nytimes.com/2016/04/21/us/politics/senate-passes->

regulations reformed energy usage as electric utility companies have closed coal-fired power plants and supplanted them with alternative sources, such as natural gas, but the nation's energy infrastructure has not kept pace with those changes.⁶ With the abundance of shale gas in the U.S. and the possibly lucrative nature of exporting liquefied natural gas (LNG), it is imperative that the U.S. modernize its energy policies in order to both optimize its potential and bridge the partisan divide through the Energy and Natural Resources Act (ENRA).⁷

On April 20, 2016, the Senate passed by a vote of 85-12 a bipartisan, broad-based energy bill, the Energy Policy Modernization Act (EPMA).⁸ The EPMA focused on numerous forms of energy production and policies, including new rules intended to expedite the electric transmission infrastructure and both speed up and streamline the permit process for LNG terminals.⁹ Just prior to the Senate bill, in December of 2015, the House of Representatives passed the North American Energy Security and Infrastructure Act of 2015 (H.R. 8), by a highly partisan vote, a substantial energy policy bill.¹⁰ Both bills attempted to expedite the approval process for LNG export

[broad-bill-to-modernize-energy-infrastructure.html](#).

6. See Energy & Commerce Press Release *supra* note 2; see also Davenport, *supra* note 5; President Obama on Climate and the Environment, *A Historic Commitment to Protecting the Environment and Addressing the Impacts of Climate Change*, The Record, at 1-2, [\[s/achievements/theRecord_climate_0.pdf\]\(#\) \(noting that Obama's Clean Power plan, which would cut carbon pollution from plants and methane emissions, invests in cleaner forms of energy such as natural gas, and that by investing government resources toward this goal, power from heavy carbon emitters such as coal has been severely reduced\).](https://obamawhitehouse.archives.gov/sites/obamawhitehouse.archives.gov/files/</p></div><div data-bbox=)

7. See Energy and Natural Resources Act, S. 1460, 115th Cong. (2017) [hereinafter ENRA].

8. See Energy Policy Modernization Act, S. 2012, 114th Cong. (2016) (as passed by Senate, Apr. 20, 2016) [hereinafter EPMA]; and see Davenport, *supra* note 5.

9. See EPMA at 171, 193-94; Davenport, *supra* note 5.

10. North American Energy Security and Infrastructure Act of 2015, H.R. 8, 114th Cong. (2015); ; Michael Andrews, *House and Senate LNG Provisions Go to Conference*, ENERGY LAW EXCHANGE (June 3, 2016), <https://www.kslaw.com/blog-posts/house-senate-lng-provisions-go-conference>.

terminals.¹¹ However, the bills differ in many ways and the House bill was adversely split down partisan lines.¹² The two houses held caucuses between their respective energy committees to try and come to a resolution on the EPMA.¹³ Ultimately, the two houses could not come to a resolution and the EPMA was not passed before the 2016 presidential election. Conversely, on June 27, 2017, the Senate Energy and Natural Resources Committee introduced the EPMA's successor, the ENRA, for expedited consideration in the Senate.¹⁴ The new bill builds on the EPMA and adds additional considerations derived from previous progress within congress.¹⁵

This article explores the potential final product of the ENRA and its effects on the U.S. energy infrastructure, with a keen focus on the future of exporting LNG in the United States. Part II of this Article discusses the current state of the U.S. Shale gas and LNG markets and walks through the historical aspects of how the U.S. natural gas market has been shaped over the last few decades to arrive at the present state of the U.S. energy structure.

Part III will analyze the political challenges facing the ENRA and its final version by comparing and contrasting the act from the EPMA and the House bill, The North American Energy Security and Infrastructure Act (H.R. 8).¹⁶ This article will review an anticipated conference between the House and the Senate committees for the ENRA and what it will take for Congress to

11. Michael Andrews, *supra* note 10; H.R. Rules Committee Print. No. 114-55, at 17–19 (2016), <http://docs.house.gov/billsthisweek/20160523/CPRT-114-HPRT-RU00-S2012.pdf> (amending the Senate's EPMA bill and keeping the expedited language of the Senate's original EPMA bill).

12. Michael Andrews, *supra* note 10.

13. *Id.*

14. *Targeted News: Sen. Cantwell, Murkowski Introduce Bipartisan Energy, Natural Resources Bill*, BLOOMBERG LAW (July, 17, 2017 2:37 PM), <https://www.bloomberglaw.com/document/OT8ZQEAIH8N4?headlineOnly=false&highlight=LNG+and+%26quot%3BEnergy+Policy+Modernization%26quot%3B; see generally ENRA, supra note 7.>

15. See ENRA, *supra* note 7. See also *Targeted News, supra* note 14 (noting that the EPMA provided an excellent starting point for bipartisan efforts on the issue).

16. See North American Energy Security and Infrastructure Act of 2015, *supra* note 10.

come to a resolution.¹⁷ Part III will then analyze what awaits the final policy in the form of executive branch approval and how the new administration effects a final policy enactment.

Part IV addresses the streamline approval provisions in the ENRA for LNG exporting and evaluates what the provisions necessitate along with how it affects LNG trade markets currently and into the future. Part IV will also analyze what the ENRA should employ to insure a good working product that benefits the global energy market and the U.S. energy infrastructure as well as U.S. interest, including a review of existing and future trade agreements.

Lastly, Part V will review the obstacles awaiting the ENRA's deployment by reviewing its many impediments such as the U.S. pipeline infrastructure, the ENRA's effect on the environment and its possible lasting effect on oil and gas commodity prices in both local and global markets. Just as with every bill before it, the ENRA will have its proponents and its opponents, its pros and its cons. Part V will analyze these issues and give possible scenarios, outcomes, and ways the ENRA can rectify and, in some ways, avoid these obstacles.

At this point the ENRA is a living document, meaning it has not made its final approval rounds and stands to be ever-evolving.¹⁸ Compounded with the fact that the executive branch, led by the 45th president, Donald Trump, changed at the beginning of 2017, this article has to make assumptions and set control points, based on current forms of the bill, previous outcomes, and industry standards.¹⁹ This article takes a long term look at the effects of the ENRA as it relates to LNG and

17. See *Targeted News*, *supra* note 14 (inferring that the ENRA, like the EPMA before it, will have to go through the House for consideration and that it is anticipated that the House and Senate committees will need to reconvene in order to get the ENRA passed).

18. *Id.* (highlighting the proposed bill's diversity of topics and the challenges it faces going forward in Congress); See *generally* ENRA, *supra* note 7.

19. Karen Tumulty et al., *Donald Trump Wins the Presidency in Stunning Upset over Clinton*, WASH. POST (November 9, 2016), https://www.washingtonpost.com/politics/election-day-an-acrimonious-race-reaches-its-end-point/2016/11/08/32b96c72-a557-11e6-ba59-a7d93165c6d4_story.html?utm_term=.1200d37e0d49.

concludes with a view of the future that the ENRA can create in the industry.

II. HOW WE GOT HERE

The discovery of shale gas in the U.S. is arguably the reason for the necessary change in U.S. energy policies. Historically, the U.S. has been highly dependent on foreign oil and gas production in order to satisfy its vast infrastructure and energy consumption.²⁰ Shale discoveries have changed America's approach when it comes to maintaining its energy needs.²¹ Shale gas is natural gas that is found trapped within shale formations.²² Generally, this type of gas was economically insufficient to work within the gas marketplace, but with the introduction of hydraulic fracturing, shale gas has become a very lucrative source of gas.²³ Shale gas has become an increasingly important source of natural gas in the United States since the start of the century.²⁴ For instance, in the year 2000 shale gas accounted for only 1% of the U.S. natural gas production; however, by 2010 it accounted

20. See Taryn Luna, *W&J College Index Details U.S. Energy Consumption*, PITTSBURGH POST-GAZETTE (April 29, 2012), <http://www.post-gazette.com/nation/2012/04/30/W-J-College-index-details-U-S-energy-consumption/stories/201204300166> (noting that since the administration of President Harry Truman, the nation's dependence on foreign sources of energy has increased by 22 percent).

21. Gregory Zuckerman, *Breakthrough: The Accidental Discovery That Revolutionized American Energy*, ATLANTIC (November 6, 2013), <http://www.theatlantic.com/business/archive/2013/11/breakthrough-the-accidental-discovery-that-revolutionized-american-energy/281193/> ("The discovery of fracking transformed the U.S. to one of the world's leading producers of natural gas. With the introduction of fracking the U.S. is no longer dependent on foreign energy, The U.S. can now produce its own natural gas and oil energy domestically").

22. U.S. Energy Information Administration, *Where Our Natural Gas Comes From*, Natural Gas Explained, https://www.eia.gov/energy_in_brief/article/shale_in_the_united_states.cfm (specifying that shale is a fine-grained sedimentary rock that forms from the compaction of silt and clay-size mineral particles and is easily broken into thin, parallel layers).

23. *Id.* (explaining that the hydraulic fracturing technique started around the year 2000 and developed into a commercially viable method of producing shale gas the following decade).

24. *Id.*

for over 20%.²⁵ The U.S. government's Energy Information Administration (EIA) predicts that by 2035, 46% of the United States' natural gas supply will come from shale gas.²⁶ A byproduct of shale gas abundance is the push towards exporting the gas via LNG.²⁷ LNG is natural gas that has been cooled to approximately 161°C, at which point the gas condenses to its liquid form which allows it to be shipped by a LNG cargo tanker anywhere around the globe.²⁸ Since many natural gas reserves are usually not located near key demand markets, LNG offers a significant solution for the global gas markets by moving natural gas in its liquid form to markets where it is most needed.²⁹ The move to exporting LNG as opposed to importing LNG is a big shift in U.S. philosophy as it concerns oil and gas commodities, and is why the ENRA is of importance.³⁰

Only a few years ago, natural gas production in the United States was declining and prices were increasing, which led to the construction of terminals for the importing of LNG.³¹ However a paradigm shift has occurred in recent years with the discovery of shale gas reserves.³² U.S. natural gas prices have fallen drastically, which has caused an increased effort to export LNG from the United States to other demand countries.³³ Companies

25. Paul Stevens, *The Shale Gas Revolution: Developments and Changes*, Chatham House (August 2012), at 2, https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy%20Environment%20and%20Development/bp0812_stevens.pdf.

26. *Id.*

27. Susan L. Sakmar, *Global Gas Markets: The Role of LNG in the Golden Age of Gas and the Globalization of Lng Trade*, 35 HOUS. J. INT'L L. 655, 656–57 (2013) (“Along with the increased demand for natural gas comes corresponding increase in international trade in natural gas, with most of the increased trade expected to be in the form of liquefied natural gas (LNG)”).

28. *Id.* at 657.

29. *Id.* at 682.

30. *See id.* at 693 (Shifting from Importing to exporting is a dramatic shift for the U.S.).

31. *See id.* at 692–93 (Due to growing U.S. production the U.S. has become immune to global gas prices and decreasing U.S. gas imports. This has led U.S. businesses to move to exportation of natural gas via LNG).

32. *Id.* at 691–92.

33. *Id.* at 692; Monica Hwang, *Authorizations to Export Liquefied Natural Gas from the United States*, ENERGY LAW EXCHANGE (January 1, 2012),

such as Cheniere, who have traditionally imported LNG have now reversed course to exporting LNG.³⁴ This shift, of course, has its proponents and its opponents.³⁵ A compromise will be needed to usher in the new “golden age”³⁶ of shale gas and LNG exporting.

Other countries have adjusted their approach to their energy consumption needs.³⁷ The shift in approach is evident in countries such as Japan.³⁸ After the March 2011 nuclear crisis, Japan moved to more utilization of natural gas in its power generation needs.³⁹ China has also increased its natural gas demand as detailed in the country’s 12th Five-Year Plan.⁴⁰ Climate change has also played a role in the increased utilization of natural gas.⁴¹

<http://www.kslaw.com/library/newsletters/EnergyNewsletter/2012/January/article5.html>.

34. Neil Levy, *FERC Authorizes Sabine Pass LNG Export Project; Vacates Authorization for Jordan Cove LNG Import Project*, Energy Law Exchange (May 1, 2012), <https://www.kslaw.com/blog-posts/ferc-authorizes-sabine-pass-lng-export-project-vacates-authorization-jordan-cove-lng-import-project>.

35. North American Energy and Security Infrastructure Act of 2016, S. 2012, 114th Cong. (2016) (Even though the ENRA may be a bipartisan bill, there are both conservative and liberal congress members along with environmental groups that disagree with the bill. The conservative group, The Heritage Foundation, states that “[t]he provisions are simply a continuation of government meddling in the energy economy and would waste taxpayer resources, override consumer preference, direct money toward politically preferred technologies, and appease special interests.” Environmental groups such as the Sierra Club, believe that the bill “could cause detrimental effects to public health and our environment”).

36. See Sakmar, *supra* note 27 at 676.

37. Susan Sakmar, *Energy for the 21st Century: Opportunities and Challenges for Liquefied Natural Gas (LNG)* 22–23 [hereinafter *Energy for the 21st Century*] (As a part of the International Energy Agency (IEA) World Energy Outlook, countries such as China have adjusted their plans to incorporate more natural gas consumption through their 12-year plan).

38. *Id.* at 25–26 (Due to the nuclear power plant disaster in in Japan’s Fukushima Diichi, Japan has looked to LNG to replace its losses from their nuclear power generation).

39. *Id.*

40. *Id.* at 24.

41. *Id.* at 21 (Natural gas creates less CO₂ emissions than other common burning fuels such as coal and oil. In order maintain an average temperature rise of 2°C, countries will need to emit less CO₂ into the atmosphere, one way to achieve this is by utilizing more natural gas in the place of coal and oil, since it creates less CO₂).

At the UN climate change talks in Cancun in 2010, global leaders agreed to a target of limiting temperature increase to two degrees Celsius.⁴² To achieve this goal, global leaders had to look at the long-term use of greenhouse gases in the earth's atmosphere.⁴³ The IEA states that natural gas is the cleanest burning fossil fuel.⁴⁴ The benefit in natural gas emissions has resulted in an increased share in the global energy mix.⁴⁵

A. *The U.S. is becoming a Net Exporter.*

According to a report by Standard & Poors Global Platts, the U.S. is emerging as a net exporter.⁴⁶ This event was driven by higher exports and lower imports which also benefits the U.S. natural gas midstream and transmission infrastructure and could also drive an increase in drilling activity in the U.S.⁴⁷ U.S. natural gas exports totaled approximately 202 billion cubic feet (bcf) by the end of September 2016, which was 42% higher than the previous five-year average of approximately 142 bcf.⁴⁸ Conversely U.S. natural gas imports totaled 237 bcf which was 2% lower than the previous five-year average of approximately 242 bcf.⁴⁹ According to the Wall Street Journal, the U.S. has been exporting, on average in November 2016, 7.4 bcf of gas a day.⁵⁰

42. *Id.* at 28.

43. *Id.*

44. *Id.*; IEA WORLD ENERGY OUTLOOK 2011, Special Report, Are We Entering a Golden Age of Gas?, June 6, 2011, http://www.iea.org/weo/docs/weo2011/WEO2011_GoldenAgeofGasReport.pdf.

45. See *Energy for the 21st Century*, *supra* note 37 at 23 (Natural gas has seen the greatest demand growth in the global energy mix and could overtake coal by 2030, this is mainly due to the low cost of natural gas and the added benefit of emitting less CO₂ than coal).

46. *U.S. Emerges as Net Exporter of Natural Gas*, S&P GLOBAL PLATTS (November 15, 2016), <http://www.platts.com/latest-news/natural-gas/houston/U.S.-emerges-as-net-exporter-of-natural-gas-27710071>; Kurt Gallon, *How Energy Infrastructure Helped the U.S. Become a Net Gas Exporter*, MARKET REALIST (December 20, 2016, 7:24 PM), <http://marketrealist.com/2016/12/factors-driving-U.S.-natural-gas-exports/>.

47. See generally Gallon, *supra* note 46.

48. *Id.*

49. *Id.*

50. Stephanie Yang & Alison Sider, *New Milestone: The U.S. is Now a Net*

The EIA has forecasted that the natural gas production in the U.S. will be 73.5 bcf/d in 2017, which is a 1.2 bcf/d increase from 2016 and natural gas production in 2018 is forecast to be 3.9 Bcf/d above the 2017 level.⁵¹

The increase in U.S. natural gas exports is primarily due to higher LNG exports and pipeline exports to Mexico as well as the fact that U.S. natural gas imports from Canada have also declined recently.⁵² In September 2016, Average U.S. natural gas pipeline exports totaled 185 bcf.⁵³ This was 33.0% higher than the previous five-year average of 139 bcf.⁵⁴ Natural gas pipeline exports to Mexico totaled 123 bcf, which was 79.0% higher than the previous five-year average.⁵⁵ These new occurrences show the growing strength of the U.S. exportation ability and potential moving forward.⁵⁶

B. *Higher LNG Exports Drive U.S. Natural Gas Exports*

The increase in U.S. natural gas exports is primarily due to higher LNG exports.⁵⁷ Cheniere Energy began exporting LNG after the commissioning of their Train 1 at the Sabine Pass Liquefaction Facility (located in Cameron, Louisiana) in February 2016.⁵⁸ This made Cheniere the owner of the first U.S. LNG

Exporter of Natural Gas, WALL STREET J. (November 28, 2016, 11:14 AM), <https://www.wsj.com/articles/new-milestone-the-u-s-is-now-a-net-exporter-of-natural-gas-1480258801>.

51. U.S. Energy Information Administration, *Short Term Energy Outlook* (August 2017) https://www.eia.gov/outlooks/steo/pdf/steo_full.pdf.

52. See S&P GLOBAL PLATTS, *supra* note 46.

53. Kurt Gallon, *US Natural Gas Pipeline Exports Continue to Grow: Key Highlights*, MARKET REALIST (December 20, 2016, 7:24 PM) <http://marketrealist.com/2016/12/us-natural-gas-pipeline-exports-continue-grow-key-highlights/>.

54. *Id.*

55. *Id.*

56. *Id.*

57. Kurt Gallon, *Higher LNG Exports Drove US Natural Gas Exports: Key Highlights*, MARKET REALIST (December 20, 2016, 7:24 PM), <http://marketrealist.com/2016/12/higher-lng-exports-drove-us-natural-gas-exports-key-highlights/>.

58. *Id.*

export terminal in the Lower 48 states.⁵⁹ Cheniere also announced substantial completion of Train 2 on September 15, 2016.⁶⁰ Cheniere Energy has exported approximately 18 cargoes during the third quarter of 2016.⁶¹ Cheniere has exported 114 mmbtu (million British thermal units) of LNG as of September 30, 2016.⁶² Cheniere Energy is expected to construct and utilize seven train platforms, including five at Sabine Pass and two at its Corpus Christi, Texas location.⁶³

The U.S. Department of Energy has approved six LNG facilities to date.⁶⁴ Five of the approved facilities have begun construction.⁶⁵ The five LNG facilities include: two facilities (at Sabine Pass and Corpus Christi) by Cheniere Energy, Cameron LNG Terminal by Sempra Energy, the Freeport LNG Terminal, and the Dominion Midstream Partners' Cove Point Terminal.⁶⁶ The five LNG facilities currently under construction are expected to add 9.2 bcfd of LNG to the global market.⁶⁷ With the completion of these facilities, the United States will become the third-largest exporter of LNG after Australia and Qatar.⁶⁸ The global LNG market will continue to face an oversupply of LNG due to weak demand from established LNG-importing countries such as Japan and Korea.⁶⁹ However, the growth of LNG imports from emerging markets can likely offset the decline in the short

59. *Id.*

60. *Id.*

61. *Id.*

62. *Id.*

63. *Id.*

64. U.S. Dept. of Energy, Long Term Applications Received by DOE/FE to Export Domestically Produced LNG from the Lower-48 States (as of July 25, 2017), available at <https://energy.gov/sites/prod/files/2017/06/f34/Summary%20of%20LNG%20Export%20Applications.pdf> (To date count includes LNG terminals that have both FTA and non-FTA DOE approvals); See Gallon, *supra* note 57 (at the time of this article the DOE has approved a sixth LNG terminal Golden Pass LNG); see also *infra* note 84.

65. See Gallon, *supra* note 57.

66. *Id.*

67. *Id.*

68. *Id.*

69. *Id.*

term.⁷⁰ It remains to be seen if this decline is a temporary or a growing trend; nevertheless, EIA data and market indicators point to a growing market through 2035.⁷¹

III. POLITICAL OBSTACLES

Historically, the United States has hoarded its natural gas and crude oil product simply because there wasn't an adequate domestic supply to fulfill its own energy needs and sustain exporting the commodities worldwide.⁷² This fact has also shaped the way the United States structures its energy policies.⁷³ In 1975, the United States banned the export of crude oil products.⁷⁴ This lasted for nearly four decades until December 18, 2015, when

70. *Id.*

71. See Carolyn Davis, *Natural Gas, Renewables Growth Surging to 2035, Says BP*, NATURAL GAS INTELLIGENCE, January 25, 2017, <http://www.naturalgasintel.com/articles/109171-natural-gasrenewables-growthsurging-to-2035-saysbp> ("In China growth in gas consumption outstrips domestic production, so that by 2035 imported gas comprises nearly 40% of total consumption, up from 30% in 2015. In Europe, the share of imports rises from around 50% in 2015 to over 80% by 2035." Furthermore, the articles goes on to state that "LNG supplies should account for more than half of traded gas by 2035" with "around one-third of the growth is seen over the next four years as a series of projects underway come onstream."); see also GAS NATURAL FENOSA, LNG GLOBAL MARKET, Apr. 2016, http://www.igu.org/sites/default/files/LNG%20Global%20Market_Gas%20Natural%20Fenosa_Mariana%20Ortiz.pdf (indicating the demand of LNG as a percentage of natural gas demand will be gaining momentum as increased consumption is expected to grow considerable by the year 2020).

72. Capital Flows, *It Isn't 1975, So Why Are We Still Banning Oil Exports?*, FORBES, (Oct. 26, 2015, 3:25 PM), <https://www.forbes.com/sites/realspin/2015/10/26/it-isnt-1975-so-why-are-we-still-banning-oil-exports/#1ac0ac0b23d8> (discussing that the ban on exports was a result of national security interest, a mechanism to reduce reliance on imported crude oil from Persian Gulf states by hoarding oil in the event of another oil crisis instituted by OPEC members or global instability).

73. Michael Andrews, *House Votes to End 40-Year-Old Ban on the Exports of Domestic Crude Oil*, ENERGY LAW EXCHANGE (Nov. 6, 2015), <http://www.enrgylawexchange.com/house-votes-to-end-40-year-old-ban-on-the-export-of-domestic-crude-oil> (arguing that U.S. energy policy for the better half of four decades has been focused on reducing dependency on foreign oil as international instabilities disrupts domestic economic growth).

74. See Capital Flows, *supra* note 72.

Congress voted to lift the 40-year-old export ban as part of an omnibus budget bill.⁷⁵ Republicans advocated the proposal, and reluctant Democrats supported it.⁷⁶ The Democrats did so because in exchange they were able to negotiate an additional five years of tax credits for wind and solar power, for which Democrats advocated strongly.⁷⁷ The deal showed a spirit of compromise often absent on Capitol Hill.⁷⁸ The lift on the crude export ban was a precursor for what was to come in the form of energy policy reform.⁷⁹ The House and Senate formed energy committees and worked diligently to bring to life their respective bills, the EPMA being the Senate's original version which is now succeeded by the ENRA.⁸⁰

75. See Andrews, *supra* note 73.

76. Timothy Gardner, *U.S. on verge of lifting 40-year oil export ban in spending bill*, BUSINESS INSIDER (Dec. 15, 2015, 7:51 AM), <http://www.businessinsider.com/r-us-on-verge-of-lifting-40-year-oil-export-ban-in-spending-bill-2015-12> (explaining that Republicans and Democrats are opposing one another on economic and environmental issues raised by the bill, however, a drop in oil prices helped ease Democrats worries that the lifting of the ban would increase prices for consumers domestically).

77. Steve Mufson, *The Huge Political Horse Trade in the Budget That Will Change Where the U.S. Gets Its Energy*, WASH. POST (Dec. 16, 2015), https://www.washingtonpost.com/news/powerpost/wp/2015/12/16/democrats-give-up-fight-on-oil-export-ban-after-40-years/?utm_term=.a50ed330595d (noting that the five year extension of the investment tax for solar and extension of the production tax for wind could possibly lead to new private investment in the United States and subsequently decreasing greenhouse gas emission was the focal point of the Democrats negotiation in drafting the bill).

78. See *id.* (statement of Jason Bordoff) ("The spending bill is that rare example of bipartisan compromise that actually yields positive outcomes all around.")(statement of Heidi Heitkamp) ("This deal to lift the 40-year old ban on exporting oil is a huge win for North Dakota and it reinforces the importance of good-faith, bipartisan negotiations and legislating").

79. See *Major U.S. Senate Energy Bill Coming*, ROTOR DAILY (July 26, 2015), <https://www.rotor.org/Publications/ROTORAILY/tabid/843/articleType/ArticleId/7770/Major-US-Senate-Energy-Bill-Coming.aspx> (explaining that in addition to the EPMA, the Offshore Production and Energizing National Security Act and other bills look to expand offshoring drilling and revenue sharing for oil producing states that seek to expand development of oil facilities).

80. See Press Release, U.S. Senate Committee on Energy & Natural Resources, Sen. Murkowski: Alaska Will Greatly Benefit from Bipartisan Energy and Natural Resources Bill June 29, 2017,

Business and environmental groups alike back the Senate's previous EPMA and many supporters come from traditionally oil and gas friendly states, such as Texas, Oklahoma, Arkansas, and Alaska.⁸¹ The Chairman of the Senate committee, Lisa Murkowski (R-Alaska), first unveiled the new bipartisan EPMA along with Ranking Member Maria Cantwell (D-Washington) on July 22, 2015.⁸² It was a broad-ranging bill, touching various aspects of American energy security such as enhancing energy efficiency, promoting energy conservation, and increasing America's energy supply.⁸³ The largest portion of the bill, and arguably the most important, are its measures to improve energy infrastructure.⁸⁴ These measures include streamlining the U.S. LNG export approval process, enhancing cyber security safeguards, modernizing the U.S. electric grid, maintaining the Strategic Petroleum Reserves, and reauthorize certain conservation programs.⁸⁵ Passage of the Senate's bill was also supported by fossil fuel producers and transporters because it

<https://www.energy.senate.gov/public/index.cfm/2017/6/sen-murkowski-alaska-will-greatly-benefit-from>; see also Billy Lee, *Senate Energy Committee Advances Energy Bill—Bipartisan Bill a Hodgepodge of Energy Provisions*, ENVIRONMENTAL AND ENERGY STUDY INSTITUTE (July 31, 2015), <http://www.eesi.org/articles/view/senate-energy-committee-advances-energy-bill-bipartisan-bill-a-hodgepodge-o>.

81. See Alan Neuhauser, *Senate Panel Greenlights Oil Exports, Offshore Drilling*, U.S. NEWS (July 30, 2015, 1:45 PM), <https://www.usnews.com/news/articles/2015/07/30/senate-panel-greenlights-oil-exports-offshore-drilling-infrastructure-upgrades> ("Murkowski and some Democrats representing oil-heavy states have long sought to repeal the export ban, arguing it would add a powerful lever to American foreign policy as well as shore up domestic oil production and lower gasoline prices."); see Coral Davenport, *supra* note 5 (noting that the bill has drawn support from numerous of business and environmental groups across the nation).

82. See Press Release, U.S. Senate Committee on Energy & Natural Resources, S.2012—The Energy Policy Modernization Act (July 22, 2015), <https://www.energy.senate.gov/public/index.cfm?p=legislation&id=87D9E1CF-1B96-4815-9D05-387798EFAEA7>.

83. See *id.* (specifically noting that the key provisions of the bill include: 1) efficiency; 2) infrastructure; 3) supply; 4) accountability; and 5) conservation reauthorization, which aim to make energy more affordable and reliable by focusing on these key areas to reform the energy landscape in America).

84. *Id.*

85. *Id.*

accelerates the approval of permits to build terminals for shipping U.S. LNG.⁸⁶

The EPMA united Republicans and Democrats around traditionally combative issues of energy policy, by avoiding the contentious topics such as climate change and oil and gas exploration.⁸⁷ While the bill has drawn support from a wide range of businesses and environmental groups, the bill has drawn some detractors from other environmental groups.⁸⁸ The policy director, Jason Kowalski, for the environmental agency 350.org is one of those detractors.⁸⁹ Mr. Kowalski, who also led protests against the proposed Keystone XL oil pipeline between Canada and the United States, called the bill “V.H.S. tape of climate policy: tolerable in the ‘80s or ‘90s, but not in tune with the scientific realities of 2016”.⁹⁰ Mr. Kowalski went on to call on Congress to “to get with the times and stop writing bills that prop up the fossil fuel industry that’s wrecking our climate”.⁹¹ The Senate will be the first to admit that the bill is not perfect.⁹² Senator Murkowski acknowledged that the EPMA was not perfect stating that “almost no one is completely happy with the measure. To have a bill that everybody likes is not only unusual; it’s just not going to happen”.⁹³

The House’s energy policy bill, The North American Energy Security and Infrastructure Act (H.R. 8), passed at the end of 2015 with only nine Democrats voting in favor, showing just how partisan the bill is compared to the Senate’s bill.⁹⁴ The act was introduced into the House on September 16, 2015 by Rep. Fred

86. See Davenport, *supra* note 5.

87. *Id.*

88. *Id.*

89. *Id.*

90. *Id.*

91. *Id.*

92. *See id.*

93. *Id.*

94. See Andrews, *supra* note 10 (noting that Congressman Fred Upton, the Chairman of the House Energy and Commerce Committee, conceded that the bill is too partisan); see also Press Release, Committee on Energy & Commerce Democrats, Pallone Decries House GOP’s 19th Century Energy Bill (May 25, 2016), <https://democrats-energycommerce.house.gov/newsroom/press-releases/pallone-decries-house-gop-s-19th-century-energy-bill>.

Upton (R, MI).⁹⁵ The House's bill also is not as broad reaching as the Senate's.⁹⁶ The bill's creation was due to frustration with the lengthy process to consider and approve cross-border pipelines, such as the Keystone Pipeline which took nearly five years to approve.⁹⁷ The United States Chamber of Commerce released a statement that they "strongly support" the bill because it would "be an important step in reforming this country's broken federal regulatory process, in order to create jobs and strengthen the economy."⁹⁸ With the bill's partisan ties it would be very difficult to get this bill passed through the Senate.⁹⁹ Former President Obama said the bill "would impose an unreasonable deadline that would curtail the thorough consideration of the issues involved, which could result in serious security, safety, foreign policy, environmental, economic, and other ramifications."¹⁰⁰ Obama

95. See generally North American Energy Security and Infrastructure Act of 2015, *supra* note 10.

96. Matt Kraus, *Bipartisan Energy Bill Introduced in U.S. Senate*, ELECTRICAL CONTRACT (July 2017), <http://www.ecmag.com/section/your-business/bipartisan-energy-bill-introduced-us-senate> (outlining the eleven areas the ENRA aims to improve upon from previous legislation, going beyond authorization by including conversation, infrastructure, and natural hazard reforms); see also North American Energy Security and Infrastructure Act of 2015, *supra* note 10 (examining the bill, the provision limited to only authorization and review process for exportation and importation of natural gas).

97. Press Release, Congressman Fred Upton, House Approves Upton's Bipartisan Bill to Build North American Energy Projects, Delivering Jobs and Lower Prices (June 24, 2014), <https://upton.house.gov/news/documentsingle.aspx?DocumentID=385816> ("As demonstrated by the application for the Keystone XL pipeline, which has languished for nearly six years, the current process for approving cross-border energy projects is broken.").

98. Key Vote Letter Supporting H.R. 3301, the North American Energy Infrastructure Act, U.S. Chamber of Commerce (June 24, 2014), <https://www.uschamber.com/letter/key-vote-letter-supporting-hr-3301-north-american-energy-infrastructure-act>

99. Rich Heidorn, Jr., *House, Senate Conferees Begin Work to Narrow Differences on Energy Bill*, RTO INSIDER (Sept. 9, 2016), <https://www.rtoinsider.com/house-senate-conference-energy-bill-31402/> (explaining that getting to the finish line would require Congress to negotiate on the highly debated and contested provisions of the bill that were stalling a bipartisan agreements).

100. Timothy Cama, *WH Threatens Veto of House Oil Pipeline Bill*, THE

threatened to veto the bill altogether.¹⁰¹ However, with the completion of the 2016 election cycle, it is yet to be seen whether an energy bill will be approved by the newly-elected President Trump.¹⁰²

Both bills called for an expedited process for LNG export terminals.¹⁰³ As it currently stands, the Department of Energy (DOE), which governs the authorization process, does not have imposed deadlines for approving a permit for LNG export terminals.¹⁰⁴ The EPMA sets a 45-day time limit on approvals once a Federal Energy Regulatory Commission (FERC) environmental review is completed, while the House bill calls for a 30 day time limit for approvals.¹⁰⁵ Both the House and the Senate bills also required the applicants to report to the DOE the names of countries to which the LNG is being exported, and that information will then be made available to the public.¹⁰⁶ Both bills addressed the need for streamlining the permit approval process for the transmission, storage and distribution of natural gas in similar ways.¹⁰⁷ The Senate bill went a step further by granting the DOE wider discretion to sell crude oil from the Strategic Petroleum Reserve.¹⁰⁸ The bill required the DOE to conduct a study within one year after enactment of the state, regional and national implications of exporting LNG with respect to consumers and the economy.¹⁰⁹ The two bills make broad changes to the FERC and the Natural Gas Act (NGA). The Senate bill mandates that the FERC shall act as the lead agency for coordinating all federal authorizations for gas transmission facilities subject to

HILL (June 24, 2014, 11:06 AM), <http://thehill.com/policy/energy-environment/210352-white-house-threatens-to-veto-houses-pipeline-bill>.

101. *Id.*

102. Antoine Gara, *Republican Donald Trump Is Elected President of United States And Global Markets Plunge*, FORBES (Nov. 9, 2016, 2:55 AM), <https://www.forbes.com/sites/antoinegara/2016/11/09/global-markets-plunge-as-republican-donald-trump-gains-a-path-to-u-s-presidency/#37ef61f053e1>.

103. Andrews, *supra* note 10.

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.*

FERC's Natural Gas Act jurisdiction and for compliance with the National Environmental Policy Act (NEPA).¹¹⁰ Lastly, the EPMA instructs the Secretary of the Interior and the Bureau of Land Management to conduct a pilot program to identify and implement ways to streamline the review and approval of permits to drill for oil and gas.¹¹¹ Although the two bills have several similarities, they also have several differences.¹¹² The House and Senate's energy committees had several conferences to close out 2016 in order come to a resolution on the EPMA.¹¹³ Both Chairman Murkowski of the Senate and Chairman Upton of the House believed a compromise was possible, but nonetheless a resolution could not be obtained before the previous administration left office.¹¹⁴

Recently, Senator Murkowski and the Energy and Natural Resources Committee introduced the ENRA to the Senate floor for consideration.¹¹⁵ The ENRA is the successor to the EPMA and builds on the conference between the two energy committees by

110. *Id.*

111. *Id.*

112. *See id.* (discussing the areas in which the bills differ in authorization and review mechanisms).

113. *See* U.S. Senate Committee on Energy & Natural Resources, *supra* note 82. (explaining the entirety of the legislative history behind the bills, detailing what provisions were discussed on what days and the consideration given by Congress).

114. *See* Henry Terhune et al., *Compromise In Congress over Bipartisan Energy Reform*, LAW360 (April 27, 2016, 11:35 AM) <https://www.akingump.com/images/content/4/1/v2/41989/Compromise-In-Congress-Over-Bipartisan-Energy-Reform-2.pdf> ("Sen. Mu-

rkowski and Congressman Upton have expressed interest in moving the legislation to conference as soon as possible, with the goal of delivering a reconciled bill to the president's desk before Congress leaves in mid-July for the political conventions and an extended August congressional recess."); *see also* John Siciliano, *Ryan: Energy Bill officially dead*, EXAMINER (Dec. 7, 2016, 7:28 PM), <http://www.washingtonexaminer.com/ryan-energy-bill-officially-dead/article/2609126> (explaining that the election of Donald Trump slowed the process as House leaders would possibly get a better deal under a GOP administration).

115. Matt Kraus, *Bipartisan Energy Bill Introduced in U.S. Senate*, ELECTRICAL CONTRACT (July 2017), <http://www.ecmag.com/section/your-business/bipartisan-energy-bill-introduced-us-senate>.

maintaining the same measures as the original EPMA and adding six additional considerations that focus on facilitating better management of federal lands, better management of the natural park system, expansion of sportsman's opportunities on BLM lands, improving water infrastructure, minimize risks from natural hazards, and increased authority for Indian Energy.¹¹⁶ Although the bicameral conference with the House of Representatives at the end of last year failed, it was a good starting point to build on which is what the ENRA hopes to accomplish.¹¹⁷ Refining of the legislation will be underway with expedited consideration on the Senate floor before an anticipated conference with the House energy committee.¹¹⁸ If a bicameral agreement is made, the legislation will have to be signed into law by the newly elected administration led by the 45th president, Donald Trump.¹¹⁹

A. *The New Administration will play a Pivotal Role in Modernizing the U.S. Energy Policy*

As 2017 ushered in a new administration, led by President Trump, the outlook on the U.S. energy regulation is just as uncertain as it was at the close of 2016.¹²⁰ It would seem that this

116. Corina Rivera Linares, *Bill Introduced Focusing on "Wide Range of Energy and Natural Resources Opportunities and Challenges,"* TRANSMISSIONHUB (June 30, 2017), <http://www.transmissionhub.com/articles/2017/06/bill-introduced-focusing-on-wide-range-of-energy-and-natural-resources-opportunities-and-challenges.html>.

117. *Id.*

118. George Cahlink & Geof Kross, *Energy Bill Shakes up GOP Calendar*, E&E NEWS (June 30, 2017), <https://www.eenews.net/stories/1060056847> (noting how renewed negotiations and revisions have been handled by Senate Energy and Natural Resources Chairwoman Lisa Murkowski and House Natural Resource Chairman Bishop on the ENRA).

119. Dino Grandoni, *The Energy 202: Energy Bill Could Be Trump's First Big Win*, WASH. POST (July 31, 2017), https://www.washingtonpost.com/news/powerpost/paloma/the-energy-202/2017/07/31/the-energy-202-energy-bill-could-be-trump-s-first-big-win/597e709630fb045fdaef0ff4/?utm_term=.cf26eba2cea (arguing that if the bipartisan energy bill were to be passed by Congress, this would be the biggest piece of legislation to yet land on President Trump's desk).

120. *See Election 2016 and its impact on energy policy*, EY (Oct. 2016),

new administration is “energy friendly”, given the appointment of ExxonMobil’s former CEO, Rex Tillerson, as the Secretary of State the United States” top diplomat.¹²¹ While this may seem to be a peculiar nomination due to Tillerson’s lack of diplomatic experience, Tillerson’s ties to the energy sector and the world’s largest integrated oil company may signal to the U.S. and the new administration’s forming policies that benefit energy companies and the energy market.¹²² Tillerson also touts a strong relationship with Russia, a large energy supplier and LNG exporter.¹²³ Tillerson received Russia’s Order of Friendship award in 2013 during his tenure as ExxonMobil’s CEO.¹²⁴ The United States’ relationship with Russia had become strained in recent years, with sanctions being imposed by the previous administration; however, with a new administration it remains to be seen how the sanctions will be enforced moving forward.¹²⁵

[http://www.ey.com/Publication/vwLUAssets/EY-us-election-2016-and-its-impact-on-energy-policy/\\$FILE/EY-us-election-2016-and-its-impact-on-energy-policy.pdf](http://www.ey.com/Publication/vwLUAssets/EY-us-election-2016-and-its-impact-on-energy-policy/$FILE/EY-us-election-2016-and-its-impact-on-energy-policy.pdf) (discussing that many of those in the energy industry are asking what to expect in energy policy legislation and environmental regulations as the political climate changes).

121. Michael D. Shear & Maggie Haberman, *Trump Picks Rex Tillerson, Exxon C.E.O., as Secretary of State*, N.Y. TIMES (Dec. 12, 2016), https://www.nytimes.com/2016/12/12us/politics/rex-tillerson-secretary-of-state-trump.html?_r=0

122. *See id.* (explaining that Mr. Tillerson is known as a deal maker who has spent the past four decades cutting deals to expand projects throughout the global with relationships that raise concerns as having a conflict of interest as an oilman and his role as America’s leading diplomat).

123. David Filipov, *What is the Russian Order of Friendship, and Why Does Rex Tillerson Have One?*, WASH. POST (Dec. 13, 2016), https://www.washingtonpost.com/news/worldviews/wp/2016/12/13/what-is-the-russian-order-of-friendship-and-why-does-trumps-pick-for-secretary-of-state-have-one/?utm_term=.036b4e6d19da (noting that Exxon, under Tillerson’s management, signed a massive deal to partner with a state-owned Russian oil company for exploration of the oil areas of West Siberia and the deep waters of the Black Sea).

124. *See id.* (clarifying that Tillerson won the award after signing deals with the state-owned Russian oil company Rosneft, whose chief, Igor Sechin, is seen as Putin’s loyal lieutenant, and that the partnership had begun with a drilling program in the Arctic’s Kara Sea where Exxon agreed to explore shale oil areas of West Siberia and the deep waters of the Black Sea).

125. Evan Perez & Daniella Diaz, *White House Announces Retaliation Against Russia: Sanctions, Ejecting Diplomats*, CNN (Jan. 2, 2017, 10:14 PM),

Russia has an immense oil and gas market share, so an amicable relationship between the two countries could prove to be a benefit moving forward.¹²⁶

The new administration has also appointed a new secretary to head the DOE, former Texas Governor Rick Perry.¹²⁷ This appointment may also look like an odd selection as viewed by some, given the former Governor's minimal direct experience in the energy sector.¹²⁸ The new secretary also vowed to dismantle the DOE during his failed 2012 Presidential run in the Republican Party's primary race.¹²⁹ Others will point to the fact that Perry did govern the U.S.'s largest energy producing state, which has become the "gold standard" for energy production and transportation for the U.S. and the former governor sits on the board of two Texas-based energy companies.¹³⁰ From a natural gas export perspective, most of the newly approved LNG exporting plants are located in Texas or near the Texas coast.¹³¹

<http://www.cnn.com/2016/12/29/politics/russia-sanctions-announced-by-white-house/>.

126. See U.S. Energy Info. Administration, International Energy Outlook 2016 54 (May 2016), [https://www.eia.gov/outlooks/ieo/pdf/0484\(2016\).pdf](https://www.eia.gov/outlooks/ieo/pdf/0484(2016).pdf) ("Net exports of natural gas from Russia, the largest exporter in the world, represents the most significant factor in exports from non-OECD Europe and Eurasia").

127. Major Garrett, *Donald Trump chooses Rick Perry to Be Energy Secretary*, CBS NEWS (Dec. 12, 2016, 10:57 PM), <https://www.cbsnews.com/news/donald-trump-rick-perry-energy-secretary/>.

128. See *Once a Critic, Rick Perry Now a Defender of Energy Department*, DFW CBS (June 5, 2017), <http://dfw.cbslocal.com/2017/06/05/once-a-critic-rick-perry-now-a-defender-of-energy-department/> (noting that former Gov. Perry may never match the scientific expertise of the most recent Secretaries of Energy).

129. Kevin Hechtkopf, *Rick Perry fails to remember what agency he'd get rid of in GOP debate*, CBS NEWS (Nov. 10, 2011, 1:54 PM), <http://www.cbsnews.com/news/rick-perry-fails-to-remember-what-agency-hed-get-rid-of-in-gop-debate/>.

130. See, e.g., James Taylor, *Rick Perry Is The Perfect Choice for Energy Secretary*, FORBES (Dec. 14, 2016, 8:36 AM), <https://www.forbes.com/sites/jamestaylor/2016/12/14/rick-perry-is-the-perfect-choice-for-energy-secretary/#1584b25b5c26>; see also Garrett, *supra* note 127.

131. Matt Mandel, *Report: TX LNG Export Facilities Represent Billions of Dollars in Economic Benefit & 70,000+ State Jobs*, ENERGY IN DEPTH (May 1, 2017, 1:01 PM), <https://www.energyindepth.org/texas/report-tx-lng-export-facilities-represent-billions-of-dollars-in-economic-benefit-70000-state-jobs/> ("Currently, there are 24 LNG export facilities planned or under construction

This may prove to be a benefit for the U.S. LNG industry in the long run.¹³² The DOE will play a pivotal role in the implementation of the ENRA especially as it comes to the process of streamlining exportation approvals and reducing the approval timeframes.¹³³ The new Secretary has recently commented on the ENRA, stating that he is “looking forward to review”, so time will tell if this new secretary will be a detriment to the ENRA or a benefit to the proposed bill.¹³⁴

The new administration has also taken a very active approach to public policy in the form of executive orders that have been issued.¹³⁵ President Trump has issued 90 in his first 100 days in office.¹³⁶ Some have a direct impact to the U.S. energy policy while others could have an indirect impact on U.S. energy policies and the market.¹³⁷

One of the orders that will have a direct impact on U.S. energy policies is the order to approve the Dakota Access Pipeline

across the country, with seven located on the Texas Gulf Coast.”).

132. *See id.* (addressing that the economic impact of new LNG export facilities will not only be felt nationally, but specifically in states with new projects as they are projected to generate substantial state tax revenues, increase job salaries, and help reduce unemployment).

133. *See Andrews, supra* note 103 (analyzing the current permitting process and how legislation will alter the DOE’s crucial role in accelerating the permitting process for LNG export terminal applications).

134. Dino Grandoni, *The Energy 202: Four misleading claims made in his big “Energy Week” speech*, WASH. POST (June 30, 2017), https://www.washingtonpost.com/news/powerpost/paloma/the-energy-202/2017/06/30/the-energy-202-four-misleading-claims-trump-made-in-his-big-energy-weekspeech/59553373e9b69b7071abc98d/?utm_term=.30a3c01bcaec (noting that Rick Perry will be looking forward to review over the proposed legislation, however, no mention of whether the Energy Secretary has taken a stance on the proposed DOE approval process).

135. *What executive action has Trump taken?*, BBC NEWS, April 12, 2017 <http://www.bbc.com/news/world-us-canada-38695593> (noting that President Trump signed an order that reverses the Clean Power Plan, which required states to regulate power plants).

136. Rebecca Harrington, *Trump signed 90 executive actions in his first 100 days—here’s what each one does*, BUSINESS INSIDER (May 3, 2017, 11:07 AM), <http://www.businessinsider.com/trump-executive-orders-memorandum-proclamations-presidential-action-guide-2017-1>.

137. *See id.* (noting the Trump administration has focused on orders that would allow offshore energy development, which in turn includes offshore energy activities in the renewable sectors of energy production).

(DAPL).¹³⁸ The owner of DAPL is Energy Transfer,¹³⁹ a Texas based company of which the new U.S. Secretary of Energy (Rick Perry) was once a board member.¹⁴⁰ The crude oil pipeline is a newly-constructed crude pipeline that will transport 470,000 barrels of crude oil per day across four states, from North Dakota to a terminal in Illinois.¹⁴¹ The pipeline was placed on hold by FERC and the Army Corps of Engineers (Corps).¹⁴² The previous administration did not approve the construction of a portion of the pipeline in North Dakota where the proposed pipeline was to cross a waterway, of which is used by a nearby Native American tribe, the Standing Rock Sioux.¹⁴³ One of the new administration's executive orders was to order the Corps to review its policy for the DAPL's pipeline construction.¹⁴⁴ This order was also followed by a memorandum order by the administration to invite TransCanada to re-apply for the infamous

138. *Id.*

139. *See Energy Transfer Company Profile*, OWLER, <https://www.owler.com/iaApp/135190/energy-transfer-company-profile> (last visited Sept. 16, 2017) (providing that Energy Transfer Partners is a natural gas and propane company founded in 1995 and headquartered in Dallas, Texas).

140. *See* Garret, *supra* note 127; *see also* Patrick Svitek, *Rick Perry Resigns from Board of Dallas Company Building Dakota Access Pipeline*, TEXAS TRIBUNE (Jan. 5, 2017), <https://www.texastribune.org/2017/01/05/perry-tapped-energy-secretary-resigns-pipeline-com/>.

141. *Dakota Pipeline: What's Behind the Controversy?*, BBC NEWS, Feb. 7, 2017, <http://www.bbc.com/news/world-us-canada-37863955>.

142. *Id.* ("The US Army Corps of Engineers suspended the project last year, but in February 2017 said it planned to grant a final easement for the remaining section of the project."). *See* Steve Mufson, *U.S. Blocks Major Pipeline After 18 Leaks and a 2 Million Gallon Spill of Drilling Mud*, WASH. POST (May 10, 2017), https://www.washingtonpost.com/news/energy-environment/wp/2017/05/10/pipeline-shut-down-after-18-leaks-and-a-2-million-gallon-spill-of-drilling-materials/?utm_term=.0c6c91fc4754.

143. *See id.* (saying that the decisions not to approve the construction of the pipeline came after months of protest by the Standing Sioux Tribe, along with numerous of other tribes, complaining the project would contaminate drinking water and damage burial sites).

144. *Id.* ("Within days of taking office, he signed two presidential memoranda supporting both the Dakota and the Keystone XL pipelines—telling the army to review one, and inviting a private company to re-apply for the other.").

Keystone Pipeline XL.¹⁴⁵ Similar to the DAPL, the Keystone Pipeline, constructed by TransCanada,¹⁴⁶ will also transport crude oil from the Canada to U.S. refineries on the Gulf Coast.¹⁴⁷ The two orders may signal the administration's willingness to push forward with pipeline projects that will increase the pipeline infrastructure and could signal a positive outlook for the proposed streamlining proposals on the DOE approvals for LNG.¹⁴⁸

There are, however, orders and actions that could have an indirect impact on the energy sector. The new administration has had unique approach to foreign policy.¹⁴⁹ One such policy has been President Trump's promise to build a wall along the Mexican border in an attempt to curtail illegal immigration.¹⁵⁰ The administration has stated that Mexico will pay the cost for constructing and maintaining the wall either directly or

145. Peter Baker & Coral Davenport, *Trump Revives Keystone Pipeline Rejected by Obama*, N.Y. TIMES (Jan. 24, 2017), <https://www.nytimes.com/2017/01/24/us/politics/keystone-dakota-pipeline-trump.html> (explaining that President Trump resurrected the Keystone XL pipeline, reversing the stance the previous Administration took on the controversial pipeline).

146. See *Keystone XL pipeline: Why Is It So Disputed?*, BBC NEWS, Feb. 7, 2017, <http://www.bbc.com/news/world-us-canada-30103078> (noting that TransCanada Corporation is a major North American energy company, based in Calgary, Alberta, Canada, developing and operating energy infrastructure in North America).

147. See *id.* ("A planned 1,179-mile pipeline running from the oil sands of Alberta, Canada, to Steele City, Nebraska, where it would join an existing pipe. It could carry up to 830,000 barrels of oil each day.")

148. See *Trump order aims to speed pipeline reviews, approvals*, S&P GLOBAL PLATTS (Aug. 16, 2017), <https://www.platts.com/latest-news/natural-gas/washington/trump-order-aims-to-speed-pipeline-reviews-approvals-21658164> (discussing recent orders that are aimed at quickening the pace of environmental reviews and federal permitting for pipelines).

149. See Max Fisher, *What Is Donald Trump's Foreign Policy?*, N.Y. TIMES (Nov. 11, 2016), <https://www.nytimes.com/2016/11/12/world/what-is-donald-trumps-foreign-policy.html> (analyzing the president's approach to foreign policy as a zero sum game, with each segment of his policy viewed as a deal).

150. See Julie Hirschfeld et al., *Trump to Order Mexican Border Wall and Curtail Immigration*, N.Y. TIMES (Jan. 24, 2017), <https://www.nytimes.com/2017/01/24/us/politics/wall-border-trump.html> ("The border wall was a signature promise of Mr. Trump's campaign, during which he argued it is vital to gaining control over the illegal flow of immigrants into the United States.")

indirectly.¹⁵¹ The Mexican government responded, stating it will not cover the cost for constructing the administration's wall.¹⁵² The relationship between the U.S. and the Mexican government has been strained since President Trump took office.¹⁵³ Regardless of where one falls in the debate on this polarizing issue, the effects it could have on one of the U.S.'s largest trade partners could be detrimental as it pertains to U.S. natural gas imports.¹⁵⁴ The decreased price of natural gas is partly due to the increase in natural gas exports to Mexico.¹⁵⁵ If the U.S. is to remain a natural gas net exporter and have competitive pricing worldwide, natural gas exports to Mexico have to be maintained.¹⁵⁶ It is still early in the administration's four year term, but this issue could be a hindrance to the U.S. exporting of natural gas moving forward.¹⁵⁷

151. See *Trump orders wall to be built on Mexico border*, BBC NEWS, Jan. 26, 2017, <http://www.bbc.com/news/world-us-canada-38740717> (statement of President Trump) ("There will be payment. It will be in a form, perhaps a complicated form").

152. *Id.* (discussing that the Mexican government's opposition to the wall is unequivocal; neither at the time of building or at any point in the future will the government consider financing any portion of the wall).

153. *Id.* (explaining that Mexican citizens view the policy as being motivated by racist and xenophobic policy, straining the relationship between the United States and Mexico).

154. See Gallon, *supra* note 47. Losing a vital trade partner over the current immigration policy would harm natural gas producers in the United States as 80% of Mexico's natural gas imports was from the United States in 2015. *Id.*

155. *Id.* (noting that the current state of low prices is perpetuated by excessive supply and as a result of this, countries importing natural gases at abundance including Mexico are attracted to the competitive pricing outside of their domestic markets).

156. Jude Clemente, *The Importance of U.S. Oil and Natural Gas Exports*, FORBES (Mar. 19, 2017, 7:00 PM), <https://www.forbes.com/sites/judeclemente/2017/03/19/the-importance-of-u-s-oil-and-natural-gas-exports/2/#458133063ac7> (addressing the energy relationship between the United States and Mexico as its importance pertains to natural gas prices and production domestically).

157. Darius Dixon, *How Trump's wall will hurt U.S. energy companies*, POLITICO (July 11, 2016, 5:09 AM), <http://www.politico.com/story/2016/07/donald-trump-wall-mexico-energy-225345> (describing that Trump's policies towards trade, immigration, and NAFTA would hurt commercial ties between the United States and neighbors,

Lastly, the administration's view on trade with foreign countries has been a point of contention as we continue into 2017.¹⁵⁸ The administration has already withdrawn from the Trans-Pacific Partnership Agreement (TPP), which was developed during the previous administration and would have allowed reduced tariffs on foreign imports and exports.¹⁵⁹ The TPP would also boost trade growth with twelve countries that border the Pacific Ocean.¹⁶⁰ Some countries, such as Japan, are large LNG importers and the U.S. natural gas exports could have benefited from the TPP.¹⁶¹ The new administration has also proposed a "renegotiation" to the NAFTA deal.¹⁶²

upsetting the economic gains that have gradually precipitated in recent years in the natural gas industry).

158. Richard Wike, *U.S. Image Suffers as Publics Around World Question Trump's Leadership*, PEW RESEARCH CENTER (June 26, 2017), <http://www.pewglobal.org/2017/06/26/>

u-s-image-suffers-as-publics-around-world-question-trumps-leadership (displaying grap-

hically and numerically the widespread disapproval from foreign nations of the Trump administration policy towards withdrawing from major international trade agreements).

159. Elena Holodny, *Trump Signs Executive Order on TPP*, BUSINESS INSIDER (Jan. 23, 2017, 12:27 PM), <http://www.washingtontimes.com/news/2017/jan/23/trump-pull-out-trans-pacific-partnership/> (addressing the executive order that stated the United States intention to withdraw from the Trans-Pacific Partnership, in light of the fact that the trade deal would have lowered tariffs from twelve countries around the Pacific Rim).

160. *See TPP: What Is It and Why Does It Matter?*, BBC NEWS, (Jan. 23, 2017) <http://www.bbc.com/news/business-32498715>, (recognizing the 12 countries that were a part of the TPP are: U.S., Japan, Malaysia, Vietnam, Singapore, Brunei, Australia, New Zealand, Canada, Mexico, Chile and Peru).

161. *See* Susan Phillips, *How the Trans-Pacific Partnership could impact LNG exports*, STATEIMPACT PENN. (Oct. 5, 2015, 6:25 PM), <https://stateimpact.npr.org/pennsylvania/2015/10/05/how-the-trans-pacific-partnership-could-impact-lng-exports/> (noting that traditional sources of Japanese natural gas imports from countries such as Australia, Indonesia, and the Middle East have been traditionally linked to the price of oil and by purchasing U.S. natural gas under the TPP (which is not tied to oil prices), Japanese utilities would have saved money and U.S. exporters benefited from access to another large market).

162. *See* Yian Q. Mui, *Withdrawal from Trans-Pacific Partnership Shifts U.S. Role in World Economy*, WASH. POST (Jan. 23, 2017), <https://www.washingtonpost.com/business/economy/withdrawal-from-trans->

With regard to the impact of future trade decisions on LNG exports, it remains to be seen what the administration's approach to trade with Mexico and other large natural gas consuming and producing countries will be.¹⁶³ Since trade decisions with Mexico are uncertain, other markets are currently being explored for exporting, including countries that have Free Trade Agreements with the U.S. like Singapore and South Korea.¹⁶⁴ At this time, President Trump's energy policy remains a work in progress. While he has promised bold changes in the way the U.S. handles energy, questions still remain on major energy issues.¹⁶⁵

IV. WHAT THIS MEANS FOR LNG?

LNG exporting may be the most crucial piece of regulation in the final ENRA for various reasons. While exporting natural gas has a global presence, it is a relatively new enterprise for the U.S., and for that reason the traditional energy policies that the U.S. has in place are outdated when it comes to this new venture.¹⁶⁶ The DOE and FERC are the two federal agencies with primary responsibility for approving LNG exports.¹⁶⁷ In order to export

pacific-partnership-shifts-us-role-in-world-economy/2017/01/23/05720df6-e1a6-11e6-a453-19ec4b3d09ba_story.html?utm_term=.76b20f7c1ad3 (stating in addition to the TPP withdrawal, Trump vowed to renegotiate NAFTA, keeping in line with his policies to reassess economic ties with the global community).

163. See Kimberly Vanwyne, *United States: Net Exporter of Natural Gas, Why Strong Domestic Policy is Essential*, AMERICAN ACTION FORUM (Jan. 4, 2017), <https://www.americanactionforum.org/research/14610/> (discussing the persistent obstacles Congress and this administration faces as they set forth policies that would streamline the permitting process and in doing so, being the impetus behind U.S. world premiere LNG exporter status for the foreseeable future).

164. *Id.*

165. See Justin Worland, *President Trump's Energy Policy Remains a Work in Progress*, TIME (Feb. 14, 2017), <http://time.com/4662244/donald-trump-energy-policy-unclear/> (noting that the oil and gas industry is unclear of the administration's agenda towards tax policies, the possible level of support for renewable energy, and what approach will be taken on international trade).

166. See Yang et al., *supra* note 50 (explaining that the shipping out of natural gas marks a significant change in U.S. energy).

167. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-14-762 REPORT TO THE RANKING MEMBER, COMMITTEE ON ENERGY AND NATURAL RESOURCES, U.S.

LNG from the United States, an export authorization must be obtained from the DOE.¹⁶⁸ The DOE delegated the responsibility to approve or deny applications for the construction of LNG facilities to FERC.¹⁶⁹ The Natural Gas Act of 1938 (NGA), requires any person who wishes to import and/or export natural gas (including liquefied natural gas, compressed natural gas, compressed gas liquids, etc.) from or to a foreign country must first obtain an authorization from the DOE.¹⁷⁰ The authorizations that are needed for DOE approval are granted by the Office of Regulation and International Engagement, Division of Natural Gas Regulation.¹⁷¹ DOE is responsible for “reviewing LNG export applications and, for countries that do not have a Free Trade Agreement (FTA) with the United States, and for determining whether approval of such applications is consistent with the public interest”.¹⁷² According to the DOE, Section 3(a) of the NGA creates a “rebuttable presumption that a proposed export of natural gas is in the public interest, and the NGA places the burden on those opposing an application to demonstrate that an export is inconsistent with the public interest”.¹⁷³ The DOE is also authorized under the NGA to issue “terms and conditions that are necessary to protect the public interest”.¹⁷⁴ DOE evaluates public

SENATE, FEDERAL APPROVAL PROCESS FOR LIQUIFIED NATURAL GAS EXPORTS 1 (Sept. 2014), <http://www.gao.gov/assets/670/666177.pdf>.

168. *See id.* at 1 (specifying that Section 3 of the Natural Gas Act requires federal approval of natural gas exports); ; *accord id.* at note 1 (noting the Energy Policy and Conservation Act of 1975 directs the President to “promulgate a rule prohibiting the export of crude oil” produced in the United States).

169. *Id.* at 6 (explaining that in 1984 the Department of Energy delegated this responsibility to approve or deny applications for the LNG facilities to the FERC through DOE Delegation Order 0204-112, 49 Fed. Reg. 6684, 6690 (Feb. 22, 1984)).

170. *Id.* at 6.

171. *See* Office of Fossil Energy, Division of Natural Gas Regulation, <https://energy.gov/fe/services/natural-gas-regulation> (last visited Sept. 14, 2017).

172. *See* U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 167 at 1–2 (stating that in 1992, Congress amended the NGA to require DOE to treat applications to export LNG to FTA countries as consistent with the public interest, and, unless otherwise indicated, the DOE applications discussed in this report are non-FTA applications).

173. *Id.* at 6–7.

174. *Id.* at 7.

interest under Section 3, and can conduct studies or other reviews to support its public interest determination.¹⁷⁵

Long-term authorizations must be obtained when the exporter has a definite contract for the exportation of LNG for a term of longer than two years, but authorizations may be obtained in the absence of definite contracts.¹⁷⁶ Short-term authorizations, commonly known as “blanket” authorizations, can also be obtained with special considerations made in advance of filing for the permit.¹⁷⁷ Once the DOE authorization is given to an LNG exporter, the LNG facility must then obtain a FERC authorization to construct and operate the actual facility that produces the LNG for export.¹⁷⁸ FERC has this authorization power granted under the NGA.¹⁷⁹ On April 16, 2012, Cheniere became the first LNG facility in the lower 48 to be granted full authority to construct and operate facilities to export LNG at Sabine Pass LNG’s existing LNG import terminal in Cameron Parish, Louisiana.¹⁸⁰ The ENRA looks to streamline this process and make it more effective and less time consuming.¹⁸¹ As it stands, there is no time limit as to when the DOE will grant authorization to proceed when an exporter has a contract to send

175. *Id.*

176. See U.S. Dep’t of Energy, *How to Obtain Authorization to Import and/or Export Natural Gas and LNG*, http://www.fossil.energy.gov/programs/gasregulation/authorizations/How_to_Obtain_Authorizations.html (last visited Sept. 17, 2017) (explaining that a company should apply for long-term import or export authorization if it has a signed gas purchase and/or sales contract for a period of time longer than two years).

177. *Id.*

178. U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 167, at 2.

179. *Id.* at 1–2.

180. Neil Levy, *FERC Authorizes Sabine Pass LNG Export Project; Vacates Authorization for Jordan Cove LNG Import Project*, ENERGY LAW EXCHANGE (May 1, 2012) <http://www.energylawexchange.com/ferc-authorizes-sabine-pass-lng-export-project-vacates-authorization-jordan-cove-lng-import-project>.

181. See Energy and Natural Resources Act of 2017, *supra* note 7 (assessing that, with respect to the approval process, the act expedites the application time frame in Title II—Infrastructure, Subtitle C—Trade section 2201, by requiring the FERC to promulgate its decision no later than 45 days after concluding its review of the application for the exportation of natural gas under the Natural Gas Act).

LNG overseas.¹⁸² This can be a huge encumbrance on an LNG exporter when negotiating and finalizing contract agreements with shippers and potential customers.¹⁸³

Recently, the DOE approved Golden Pass LNG to export LNG to non-FTA countries.¹⁸⁴ Golden Pass is a joint venture between ExxonMobil and Qatar Petroleum.¹⁸⁵ The proposed facility will be located in the same general area as Sabine Pass.¹⁸⁶ The permitting for Golden Pass is a case study on the possible impediments in the current DOE approval process that the ENRA aims to change.¹⁸⁷ Golden Pass received its FERC environmental impact statement (EIS) on December 21, 2016; however, the DOE approval for transporting LNG to non-FTA countries was not obtained until April 25, 2017, approximately four months after EIS clearances were received.¹⁸⁸ Once FERC reviews the environmental impacts for the construction of an LNG it issues

182. Warren Cornall, *New Energy Bill Approved by U.S. Senate Looks Favorably on Research*, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (Apr. 20, 2016, 5:00 PM), <http://www.sciencemag.org/news/2016/04/new-energy-bill-approved-us-senate-looks-favorably-research>.

183. See U.S. Dep't of Energy, *supra* note 176 (specifying that long-term authorizations must be obtained when an exporter has a definite contract for the exportation of LNG, however, without a deadline in place for DOE approvals, negotiations become more difficult due to the uncertainty of when an LNG exporter will have approvals to begin exporting operations).

184. James Osborne, *U.S. Approves Golden Pass LNG Export Terminal*, HOUS. CHRON., April 28, 2017, <http://www.houstonchronicle.com/business/article/U-S-okays-Golden-Pass-LNG-export-terminal-11107828.php>.

185. *Id.*

186. *Id.*

187. See ENRA *supra* note 7; see also U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 167 at 13, 17–8 (noting the key provision in the ENRA that effects projects such as Golden Pass is the provision that expedites DOE approval by setting a deadline of 45 days for approvals post EIS or EA issuance from FERC's NEPA review).

188. 157 FERC 61,222 Docket Nos. CP14-517-000, CP14-518-000, at 9, <https://www.ferc.gov/CalendarFiles/20161221122720-CP14-517-000.pdf>. See James Osborne, *supra* note 184; see also U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 167 at 13, 17–8 (mentioning that the DOE will issue an order granting or denying an application on the condition of a satisfactory NEPA review by FERC which issues an EIS on any possible environmental impacts).

an EIS and may publish an Environmental Assessment (EA).¹⁸⁹ Once an EIS issues, the DOE then reviews the LNG transports for approval.¹⁹⁰ Under current regulations, the DOE does not have a set timeline to approve LNG exports once an EIS is issued and an EA is published by FERC, so effectively the DOE has an indefinite approval deadline.¹⁹¹ The ENRA's LNG provision for DOE approval sets a 45 day approval deadline for the DOE to approve LNG transports once the EIS and EA are issued.¹⁹² This would have made it mandatory for the DOE to approve the non-FTA transports for Golden Pass 45 days after the EIS was issued on December 21, 2016. Additionally, if the DOE does not approve the transports within 45 days, LNG exporters have an additional remedy.¹⁹³ Section 2201 of the ENRA states that if the Secretary of Energy fails to issue a final decision of an LNG export application, then federal judicial review in the United States Court of Appeals for the District of Columbia Circuit or the circuit in which the liquefied natural gas export facility is located is the civil remedy a LNG exporter could pursue.¹⁹⁴

V. THE IMPORTANCE OF UPDATING THE ENERGY POLICY WITH THE ENRA

One issue that both sides of the aisle can possibly agree on is that the U.S. national landscape has changed considerably since the last major energy bill was signed into law, more than a decade ago.¹⁹⁵ With change that has already taken shape within the borders of the U.S., it is imperative that the U.S. energy policies

189. See U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 167 at 17–18.

190. *Id.* at 13.

191. See *id.* at 6–7 (indicating that Section 3 of the NGA requires authorization from DOE for the import or export of LNG and the construction or expansion of LNG facilities; however, Section 3 does not place any limitations on the amount of time for the DOE to approve applications).

192. ENRA, *supra* note 7.

193. *Id.*

194. *Id.* (section 2201(c)(1)(2017) of the ENRA).

195. See E&C Members Selected to Help Lead House Effort to Finalize Comprehensive Energy Bill with Senate, *supra* note 2 (noting that the U.S. is no longer dependent on foreign oil and gas, so our policies that were written for a time when the U.S. was dependent need to be updated).

keep pace with these changes to ensure that the nation captures the full benefits of its new resource wealth as well as ensure that the country's environmental concerns are addressed.¹⁹⁶ There is a plethora of ways to view the need for reform. From an economic standpoint, the continuation of exporting LNG abroad can bring additional wealth into the country.¹⁹⁷ In viewing reform through an environmental lens, the outdated energy policies currently in place do not suffice when held up against the requirements placed by environmentally-conscious government officials and environmental protection groups.¹⁹⁸ If one is to view the need to reform as a chance for the nation to reduce its dependence on foreign oil and gas and to secure the nation's natural resources, then one would need to revamp the nation's current policies as well.¹⁹⁹ Put simply, by all accounts the energy policy is outdated given the current energy environment in the U.S., and all parties should agree that a change is needed.²⁰⁰

A. *The ENRA has the Potential to Increase Revenue for the U.S.*

Proponents maintain that LNG exports are consistent with U.S. free trade policies and will provide an economic benefit for the United States, which could result in increased employment.²⁰¹ In the first week of January 2017, the Henry Hub spot price for

196. *See id.*

197. *See* Vanwyhe, *supra* note 163 (stating that the Department of Energy (DOE)'s most recent price study concluded that greater LNG exports "result in higher levels of real gross domestic product (GDP)").

198. *See* North American Energy and Security Infrastructure Act of 2016, *supra* note 35 (discussing the opposing views of senators and environmental groups with respect to the public health and economic effects).

199. Jason Furman, *Reducing America's Dependence on Foreign Oil as a Strategy to Increase Economic Growth and Reduce Economic Vulnerability*, The White House President Barack Obama, August 29, 2013, <https://obamawhitehouse.archives.gov/blog/2013/08/29/reducing-america-s-dependence-foreign-oil-strategy-increase-economic-growth-and-redu>.

200. *See* E&C Members Selected to Help Lead House Effort to Finalize Comprehensive Energy Bill with Senate, *supra* note 2.

201. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 167 at 8 (stating that U.S. LNG exports will diversify international supply options and improve energy security for many allies and trading partners of the United States).

natural gas was \$3.468 per MMBtu.²⁰² Using this price as a basis, natural gas exports would amount to approximately \$26 million in earnings each day.²⁰³ A May 2016 EIA report forecasted that much of the growth in natural gas exports will occur before 2040, as domestic natural gas supply has increased satisfying new demand internationally with the development of LNG export capacity and growing demand for pipeline exports, and domestically, particularly in the industrial and electric power sectors.²⁰⁴ By connecting the dots one could see growth in the U.S. in the form of tax revenue and economic growth due to increase LNG infrastructure and job creations.²⁰⁵ Cheniere's Sabine pass project alone estimates to have a \$2.3 billion investment in American manufacturing for its construction of trains 1-4 alone, while only \$.5 billion in foreign manufacturing.²⁰⁶ This investment comes in the form of the different equipment and services utilized in the construction of the LNG trains.²⁰⁷ In addition to the manufacturing investment, the total construction manpower needed to build these facilities totals in \$1.3 billion dollars in wages through the fourth quarter of 2017, all to American workers.²⁰⁸ However, despite the U.S.'s new status as a net exporter, there are still many obstacles to overcome in order to see the benefits of the forecasted growth in natural gas exports.

Current U.S. policy does not allow exportation of natural gas without approval from the FERC and the DOE.²⁰⁹ The approval

202. See U.S. Energy Information Administration, Henry Hub Spot Price, <https://www.eia.gov/dnav/ng/hist/rngwhhdd.htm> (indicating the average for the first week of January).

203. Vanwyhe, *supra* note 163.

204. U.S. Energy Information Administration, International Energy Outlook 2016, [http://www.eia.gov/outlooks/ieo/pdf/0484\(2016\).pdf](http://www.eia.gov/outlooks/ieo/pdf/0484(2016).pdf) at 37.

205. See Jason French, LNG Exports: A Story of American Innovation and Opportunity, NGSL Energy Summit, August 19, 2015, <http://www.ncsl.org/documents/summit/summit2014/onlineresources/8JasonFrenchCheniere.pdf> at 16 (indicating that Cheniere shows 580 jobs created and an additional stimulation of 50,000 permanent jobs due to gas demand growth to provide additional revenue to the U.S. through income taxes).

206. *Id.* at 13.

207. *Id.* at 12.

208. *Id.*

209. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 167.

requirement stems from a law set in 1938 (Natural Gas Act) which requires these contracts to be deemed “in the public interest.”²¹⁰ The issue is that approval process is too ambiguous.²¹¹ The indefinite approval deadline for the DOE in the current process has led to challenges in getting energy projects, such as LNG facilities, approved in a timely manner.²¹² The Senate version of the ENRA has proposed policies that would instead accelerate the LNG export application process and lead to more opportunities for the U.S. to obtain the benefits of the growth in natural gas exports.²¹³ According to a report by the American Action Forum, all applications for the export of LNG must be approved by the FERC.²¹⁴ The ENRA could be a benefit to LNG exporters by setting limit of 45 days on the decision process for the DOE following environmental review and a year review limit for FERC approval.²¹⁵

Other federal and state agencies are consulted during the FERC review process.²¹⁶ Other federal and state agencies involved in the review process include: the U.S. Coast Guard, the Pipeline and Hazardous Materials Safety Administration (PHMSA) within the Department of Transportation (DOT), the

210. *Id.* at 1–2.

211. *See* VanWyhe, Kimberly U.S. LNG Going Global AAF, <https://www.americanactionforum.org/research/u-s-lng-going-global/> (referencing the fact that the ““ambiguous requirement [of] being evaluated regulators has led to an approval process which can take up to 4 years instead of 8 weeks””).

212. *See id.* (recognizing that the ambiguous deadline requirement can lead to project approvals taking up to 4 years).

213. *See generally* Energy and Natural Resources Act, *supra* note 7; U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 167 (referencing that since DOE approvals are contingent on long term export contracts, investors may be more inclined to invest if there is a set deadline on Non-FTA DOE exportation approvals).

214. VanWyhe, *supra* note 211.

215. ENRA, *supra* note 7, § 2201, at 188.

216. *See* U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 167, at 3 (noting that other federal and state agencies are involved in the approval process including the U.S. Coast Guard, the Pipeline and Hazardous Materials Safety Administration within the Department of Transportation, the U.S. Army Corps of Engineers, the Maryland Public Service Commission, the Louisiana Department of Environmental Quality, and the Texas Commission on Environmental Quality).

Corps, the Maryland Public Service Commission, the Louisiana Department of Environmental Quality, and the Texas Commission on Environmental Quality.²¹⁷ FERC's review of applications to construct LNG export facilities can take 2 to 3 years.²¹⁸ These reviews can be lengthy because of the complexity of the facilities described and the number of permits and reviews required.²¹⁹ For example, applicants must "model the effects of LNG spills on areas around the facility under a variety of scenarios".²²⁰ Creating the model is not only a time consuming endeavor, it can be even more of time consuming to review on the back end by FERC.²²¹ While FERC is a robust governmental agency with adequate expertise to review models and other portions of a FERC application, the time needed to properly review models takes enormous amounts of time.²²² A maximum limit of a year for FERC reviews is one of the main policies that would be implemented by the ENRA.²²³

An LNG project is an extensive and expensive undertaking.²²⁴ For instance, the total cost for Cheniere to engineer, procure, and construct Cheniere's Sabine Pass trains 1 and 2 alone is approximately four billion dollars.²²⁵ The cost needed to build these facilities is a major investment.²²⁶ Investments in these facilities depend directly on the approval of the DOE and FERC.²²⁷ Investors and LNG customers need to see that an LNG

217. *Id.*

218. *Id.* at 16.

219. *Id.*

220. *Id.*

221. *See id.* at 16–19 (noting that the number of variables involved in setting up one single scenario can take up to a week of computer processing, before the three-step process of FERC approval).

222. *See id.* at 16 (referencing that FERC's review could take two to three years or more, and that officials say they are so lengthy due to the complexities and number of permits involved).

223. ENRA, *supra* note 7, § 3306 at 342.

224. *See* French, *supra* note 205, at 8 (noting that the export facilities are worth \$10 billion).

225. *Id.* at 10.

226. *See id.* at 8. (noting that the export facilities are worth \$10 billion).

227. *See* U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 167, at 1 (referencing that the DOE and FERC are the primary federal agencies with the primary responsibility for approving LNG exports, which would be needed for

producer is capable of supplying the amounts of commodity they claim at the stated cost.²²⁸ Contracts are typically long term (approximately 20 years) and in a “take-or-pay” style commercial agreement.²²⁹ If a company such as Cheniere is looking at a possible two- to three-year timeframe for approvals under the current energy policies, it can not only cut revenues, but also the revenues the nation can receive in the form of taxes and jobs.²³⁰ With the ENRA’s suggested 45-day approval process for DOE review and a year review limit for FERC approval, the economic benefit can be more efficiently realized.²³¹

B. *Environmental Concerns are addressed in the Senate’s ENRA.*

Opponents of the previous EPMA feel the bill does not do enough to protect the environment.²³² Environmental concerns such as water quality and climate change have been at the forefront of energy and policy reform.²³³ Opponents have expressed numerous environmental concerns.²³⁴ For example

the export facilities to be functional).

228. *See id.* (referencing again the need for the export facility to approved to be functional).

229. Outtrim, Patricia NARUC LNG Working Group, November 8, 2015 at 25, <http://pubs.naruc.org/pub/4AA6CB35-2354-D714-51C0-8362FF72C5FC>.

230. *See* U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 167, at 15–16 (noting that “FERC staff are restricted by regulation from discussing the nature or timing of future Commission actions, and application estimates based on the duration of FERC’s completed and pending applications”).

231. Energy and Natural Resources Act, *supra* note 7 at 342.

232. *See generally* Chris Mooney, *The Senate just passed — overwhelmingly — an actually Bipartisan Energy Bill*, WASH. POST, https://www.washingtonpost.com/news/energy-environment/wp/2016/04/20/the-senate-just-passed-overwhelmingly-an-actually-bipartisan-energy-bill/?utm_term=.5205c1c31937; *see also* Davenport, *supra* note 86 (acknowledging the different environmental concerns that some opponents have regarding LNG and the bill).

233. *See generally* U.S. Department of the Interior, Interior Department Releases Report Underscoring Impacts of Climate Change on Western Water Resources, March 22, 2016, <https://www.doi.gov/pressreleases/interior-department-releases-report-underscoring-impacts-climate-change-western-water>.

234. U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 167, at 8.

opponents have expressed concern that exports will increase hydraulic fracturing and its associated environmental effects such as its potential for groundwater contamination.²³⁵ Opponents have identified numerous concerns related to increased greenhouse gas emissions from the production and consumption of natural gas.²³⁶

The crux of the environmental debate comes down to the public's opinion as it relates more to the extracting of the natural resource, and less to the exporting of the commodity.²³⁷ As the two pipelines are underway (Keystone and DAPL), some are concerned with the risk long term as it pertains to pipeline safety and the fear of pipeline ruptures over time that could have a negative impact on water quality and soil conditions.²³⁸ One of the larger overtones in the energy debate is the extraction of natural gas in unconventional wells by utilizing hydraulic fracturing.²³⁹

235. *Id.*

236. See *id.* (relying upon the concerns from opponents that LNG exports will increase “hydraulic fracturing and its associated environmental effects, as well as increase greenhouse gas emissions from the production and consumption of natural gas”).

237. See Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (Final Report) EPA, <https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990> (focusing on the public's concerns about potential impacts on their water supply from nearby oil and gas production wells, the EPA began studying the relationship between hydraulic fracturing and drinking water).

238. See EPA's Study of Hydraulic Fracturing and Its Potential Impact on Drinking Water Resources, https://www.epa.gov/sites/production/files/2015-07/documents/hf_es_er_d_jun2015.pdf (relying on the report that found that there are above and below ground mechanisms that are a part of hydraulic fracturing including; “water withdrawals in times of, or in areas with, low water availability; spills of fracturing fluids and produced waters; fracturing directly into underground drinking water resources; below ground migration of liquids and gases; and inadequate treatment and discharge of water”).

239. See Rich Miller, Asylyn Loder, & Jim Polson, *Americans Gaining Energy Independence*, SEATTLE TIMES (Feb. 7, 2012, 11:23 PM), <http://www.seattletimes.com/nation-world/us-gaining-energy-independence/> (explaining a provision inserted in the 1980 windfall oil profits tax bill encouraged drilling in unconventional ways, and that the fracking method was devised during this time which involved cracking the rocks underground, and propping open small seams that allowed natural gas trapped in tiny pores to

The recent surplus of natural gas in the U.S. has come from increased production of shale gas in unconventional wells.²⁴⁰ Many believe that if we consume more natural gas and are also exporting more gas we will need to utilize the controversial method of hydraulic fractionation more; however, this is beyond the scope of both the EPMA and ENRA.²⁴¹ Shale gas production is typically a state regulated process, usually left up to the state's public utility commission and environmental protection agency, such as Texas's Rail Road Commission (RRC) and Commission on Environmental Quality (TCEQ).²⁴² Since this is predominantly a state issue, the ENRA does not engage in regulation of shale gas production.²⁴³

The current review of impacts to the environment is governed by the DOE and executed by FERC.²⁴⁴ Once an LNG exporter receives a DOE approval, it is contingent on final approval by FERC.²⁴⁵ FERC is in charge of issuing an approval based on a satisfactory environmental review of the export facility.²⁴⁶ Current FERC reviews are considered a federal action and are subject to the NEPA.²⁴⁷ NEPA requires federal agencies "to

flow into the well and up to the surface).

240. *Id.*

241. *See generally The Halliburton Loophole*, N.Y. TIMES (Nov. 2, 2009), http://www.nytimes.com/2009/11/03/opinion/03tue3.html?_r=2& (" [t]he Energy Policy Act of 2005 was a bill passed by the United States Congress on July 29, 2005, and signed into law by President George W. Bush on August 8, 2005, at Sandia National Laboratories in Albuquerque, New Mexico. One of the provisions of the bill exempted fluids used in the natural gas extraction process of hydraulic fracturing (fracking) from protections under the Clean Air Act, Clean Water Act, Safe Drinking Water Act"); EPMA, *supra note 8*. (noting that the EPA does not mention hydraulic fracturing at all).

242. About Us, Rail Road Commission of Texas Oil & Gas Division <http://www.rrc.state.tx.us/oil-gas/>.

243. *See* David Spence, *Is It Time for Federal Regulation of Shale Gas Production?* ENERGY MANAGEMENT AND INNOVATION CENTER <https://www.mcombs.utexas.edu/~media/Files/MSB/Centers/EMIC/Briefs/Energy-Brief-Is-It-Time-for-Federal-Regulation-of-Shale-Gas-Production.pdf> (explaining that most of the regulatory development regarding this industry have been and will continue to be made at the state and local level),

244. *See* U.S. GOV'T ACCOUNTABILITY OFFICE, *supra note 167*, at 12.

245. *Id.* at 2.

246. *Id.*

247. *See id.* at 7 (noting that since it was enacted in 1970, the "NEPA has

assess the projected effects of major federal actions that can possibly have a significant affect the environment”.²⁴⁸ The outcome of this review is an environmental document, also called the NEPA document, which provides the commissioners with an assessment of the possible environmental impacts from facility construction and future operation.²⁴⁹ Some opponents claim that the one year limit of review could cut into the NEPA review time and cause direct and indirect environmental issues because of an inefficient review time.²⁵⁰ However, the streamline review deadline proposed by the ENRA starts after the environmental review is complete.²⁵¹ Furthermore, the FERC-NEPA document process is an exhaustive process.²⁵² FERC prepares either an environmental impact statement (EIS) or environmental assessment (EA) depending on the location of the proposed facility.²⁵³ After an EIS or EA is drafted, FERC solicits and receives comments from other federal agencies and the public.²⁵⁴ FERC reviews the comments and incorporates those into a final EIS or EA.²⁵⁵ The final EIS or EA will recommend any environmental and safety mitigation measures to be completed

as its purpose, among others, to promote efforts to prevent or eliminate damage to the environment. NEPA requires an agency to prepare a detailed statement on the environmental effects of any “major federal action” significantly affecting the environment. Regulations promulgated by the Council on Environmental Quality implementing NEPA generally require an agency to prepare either an environmental assessment (EA) or an environmental impact statement (EIS), depending on whether or not a proposed action could significantly affect the environment”).

248. *See id.* at 8 (citing the fact that NEPA requires FERC to assess how LNG export facilities may affect the environment and is responsible for granting approval to build and operate export facilities).

249. *Id.*

250. *Id.*

251. *See* ENRA, *supra* note 7, § 2201, 188–89 (outlining the 45-day period after the conclusion of review in which the Secretary of the Department of Energy has in which to make a final decision on the application).

252. *See generally* U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 167 (acknowledging the multi-step approval process of FERC's NEPA documents).

253. *Id.* at 7.

254. *Id.* at 8.

255. *See id.* at 12 (mentioning that the NGA authorizes DOE to attach terms and conditions modeled after public comments and applicant responses to protect the public interest).

during various stages of the project.²⁵⁶ FERC commissioners must consider the entire record of analysis, including the NEPA document, in order to determine whether the project should be approved.²⁵⁷

FERC also works with other agencies such as federal, state, and local agencies to develop the NEPA document.²⁵⁸ When it comes to complying with the Clean Water Act (CAA), FERC works with the Corps. Under section 404 of the CWA, operations that discharge dredged or fill material into U.S. waters are required to obtain a permit from the Corps.²⁵⁹ The Corps has regulatory authority to oversee construction activities within the navigable waters of the United States.²⁶⁰

The Corps permit review process ensures water quality for navigable waters only, however some proponents are more concerned about ground water contamination due to the increase hydraulic fracturing due to the increase in gas supply needs from shale plays in the U.S.²⁶¹ While LNG may not directly affect shale gas production, it may indirectly affect the production.²⁶² This is because the more exporters off load natural gas from the U.S. the more additional supply may be needed to maintain the exported commodity.²⁶³ The ENRA does not address this issue in the LNG streamlined review process.²⁶⁴ However, the Environmental Protection Agency (EPA), which is a part of the NEPA document review under the CAA, works with states and other key

256. *Id.* at 18–19.

257. *Id.* at 19.

258. *Id.*

259. *Id.* at 20.

260. *Id.* at 20–21.

261. *See id.* at 19 (focusing on section 404 of the Clean Water Act, which requires any and all operations that discharge dredged or fill material into U.S. waters to obtain a permit from the Corps who have regulatory authority to oversee construction activities in the U.S. navigable waters).

262. *Id.* (mentioning that as LNG exports increase it is likely that Shale gas production could increase a well to supply the needed gas to liquefy for exportation).

263. *Id.*

264. *See generally id.* (observing that the ENRA fails to include information related to ground contamination).

stakeholders to help ensure that natural gas extraction does not come at the expense of public health and the environment.²⁶⁵ The EPA states that “the Agency’s focus and obligations under the law are to provide oversight, guidance and, where appropriate, rulemaking that achieve the best possible protections for the air, water and land where Americans live, work and play.”²⁶⁶ Some states, such as North Carolina, have enacted their own Energy Modernization Act, which lifts the state’s moratorium on hydraulic fracturing, as an effort to increase the state’s attractiveness to extracting oil and gas.²⁶⁷

Although natural gas is the cleanest burning fossil fuel, it is still a fossil fuel and still admits CO₂ into the earth’s atmosphere.²⁶⁸ Some suggest the natural resource as a “bridge” fuel, or a connection from less clean sources of gas such as coal and oil to 100% renewables such as wind and solar energy.²⁶⁹ It is yet to be seen how much the EPA or other federal agencies will regulate fracking moving forward. Nonetheless, as it pertains to the direct environmental impacts, the processes in place and the streamlined approval process does not hinder the NEPA or current environmental review processes.²⁷⁰

C. *The U.S. has Ample Natural Gas Reserves and*

265. See *id.* (highlighting the numerous local and state ordinances that must be adhered to by applicants).

266. U.S. Environmental Protection Agency, Natural Gas Extraction—Hydraulic Fracturing, <https://www.epa.gov/hydraulicfracturing>.

267. Rachel Hampton, *Fracking North Carolina: The Energy Modernization Act*, MICH. J. ENVTL. & ADMIN. LAW (2015), <http://www.mjeal-online.org/fracking-north-carolina-the-energy-modernization-act/>.

268. See National Geographic Society, natural gas National Geographic Society (2012), <https://www.nationalgeographic.org/encyclopedia/natural-gas/> (acknowledging that while burning natural gas still emits greenhouse gases, it emits almost 30% less CO₂ than oil, and 45% less CO₂ than coal).

269. See Zeke Hausfather, *Is Natural Gas a Bridge Fuel*, YALE CLIMATE CHANGE, <http://www.Yaleclimateconnections.org/2016/08/is-natural-gas-a-bridge-fuel/> (concluding that if the coal reliance continues for at least 15 years it would be a good idea to replace the coal reliance with natural gases as it is more cost competitive than the renewable energy).

270. See generally U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 167 (pointing to the lack of fracking regulations as evidence that NEPA and current processes are unaffected so far).

Infrastructure to Supply for LNG Exporting.

The ENRA requires that within one year after enactment, DOE will conduct a study of the implications of exporting LNG with respect to U.S. consumers and the economy.²⁷¹ The bill also mandates that within one year of enactment, the Government Accountability Office (GAO) will conduct a review of domestic energy production and the effects, if any, of crude oil exports from the United States on consumers.²⁷²

Opponents have expressed numerous economic concerns about LNG exports.²⁷³ One concern is that exports will increase domestic natural gas prices, hurting the public and the growing industrial and manufacturing sectors that are sensitive to natural gas prices.²⁷⁴ In January 2012, Congressman Ed Markey sent a letter to Energy Secretary Steven Chu raising questions about plans to convert LNG import terminals into export facilities.²⁷⁵ Specifically, Congressman Markey noted that “I am worried that exporting America’s natural gas would raise energy costs for American consumers, reduce the global competitiveness of U.S. businesses make U.S. more dependent on foreign sources of energy.”²⁷⁶ However, with the abundance of reserves the U.S. currently possesses this point may be moot.

The abundance of reserves is an indication for the shift of the U.S. becoming a net natural gas exporter.²⁷⁷ According to recent

271. Andrews, *supra* note 10.

272. *Id.*

273. U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 167 at 8.

274. *Id.*

275. Nov. 22, 2011: Possible Whistleblower Retaliation, Unsafe Operations at Hanford Nuclear Waste Plant, Senator Ed Markey (2011), <https://www.markey.senate.gov/news/press-releases/nov-22-2011-possible-whistleblower-retaliation-unsafe-operations-at-hanford-nuclear-waste-plant>.

276. *Id.*

277. *See generally* U.S. Energy Information Administration (EIA), Independent Statistics and Analysis United States expected to become a net exporter of natural gas this year, <https://www.eia.gov/todayinenergy/detail.php?id=32412> (observing that the U.S. has been a net exporter for three of the last four months and is expected to continue exporting more natural gas than importing for 2017 and 2018, the abundant natural gas resources has created opportunities for U.S. natural gas exports).

data by the EIA, proved natural gas reserves in the U.S. fell to 324.3 Tcf (trillion cubic feet) in 2015 compared to 388.8 Tcf in 2014.²⁷⁸ Still, the U.S. has the fourth largest natural gas reserves after Russia, Iran, and Qatar, all of which are net exporters of natural gas.²⁷⁹ In order to be a strong exporting country, the U.S. needs an ample amount of gas reserves in which to pull from in which to supply internationally.²⁸⁰ Excess supply has actually resulted in lower prices for the U.S.²⁸¹ Countries that are importing natural gas in the form of LNG are attracted by lower natural gas prices in the U.S.²⁸² As the price of natural gas in the United States declined, prices in Europe and Asia remained steady and higher than in the U.S.²⁸³ In July 2014, FERC estimated that “prices of LNG imported to Europe and Asia would be approximately 100 and 250 percent higher than prices in the United States, respectively”.²⁸⁴ These price differences were motivations for U.S. companies to apply to export natural gas and the need for the ENRA to create a more efficient government approval process.²⁸⁵

D. *Benefit of Modern Energy Policies: The Ability to supply Energy to Global Markets*

The U.S. benefits from the huge coastline for exporting and

278. U.S. Energy Information Administration (EIA), U.S. Crude Oil and Natural Gas Proved Reserves, Year-end 2015, <https://www.eia.gov/naturalgas/crudeoilreserves/>.

279. Country Comparison: Natural Gas—Proved Reserves, CENTRAL INTELLIGENCE AGENCY, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2253rank.html>.

280. Jude Clemente, *World Benefits from U.S. Liquefied Natural Gas Exports*, FORBES (Jan. 10, 2016), <https://www.forbes.com/sites/judeclemente/2016/01/10/world-benefits-from-u-s-liquefied-natural-gas-exports/#1eecea7042e4>.

281. *See id.* (recognizing that “U.S. manufacturers are benefiting from huge amounts of low-cost domestic natural gas as feedstock” which has given the U.S. an edge over competitors in Europe and North-East Asia where gas prices are 2–3 times higher).

282. *Id.*

283. Clemente, *supra* note 280.

284. U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 167, at 5.

285. Capital Flows, *supra* note 72.

importing commodities.²⁸⁶ The U.S. recently completed a \$5.3 billion expansion of the Panama Canal, which resulted in a shorter voyage time for vessels to ship the commodity abroad.²⁸⁷ Combining the United States coastline benefits along with the countries midstream infrastructure has created new opportunities to the U.S.²⁸⁸ The Panama Canal expansion opened in spring 2016. The expanded Central American route will allow ports along the U.S. Gulf and Atlantic coasts to compete with other parts of the country and the world for vessel traffic.²⁸⁹ This expansion also allows for the U.S. to expand in LNG export capabilities to Asia.²⁹⁰ The expansion now allows a trip from the U.S. Gulf Coast to Asia to take only 11 days, which is essential for LNG exportation.²⁹¹

Asia Countries such as China, have projections for natural gas demand lowered through 2020, but the country is still on track for a demand of 10% of total energy supply through 2020 as compared to just 5% by 2013.²⁹² This is due to China's focus on cleaner gas to reduce the heavy city smog and pollution the country currently experiences.²⁹³ With this, China will have an increased need for global gas suppliers to meet its projected expectations.²⁹⁴

286. Sakmar, *supra* note 37.

287. Clemente, *supra* note 281.

288. *Id.*

289. Eric Atkins, *U.S. East Coast Ports Bank on Increased Traffic from Panama Canal Expansion*, GLOBE AND MAIL (Toronto) (Jan.1, 2016), <http://www.theglobeandmail.com/report-on-business/international-business/usbusiness/panama-canals-expansion-not-a-guarantee-for-growth-on-useast-coast/article27984493/>.

290. *Id.*

291. *Id.*

292. Clemente, *Jude World Benefits From U.S. Liquefied Natural Gas Exports*, FORBES, <https://www.forbes.com/sites/judeclemente/2016/01/10/world-benefits-from-u-s-liquefied-natural-gas-exports/#39f7778b42e4>.

293. Beth Gardiner, *China's Surprising Solutions to Clear Killer Air*, NAT'L GEOGRAPHIC, <http://news.nationalgeographic.com/2017/05/china-air-pollution-solutions-environment-tangshan/>.

294. See Xinhua, *Key Targets of China's 12th Five Year Plan*, March 5, 2011, http://www.chinadaily.com.cn/xinhua/2011_03/05/content_1938144.html *supra* note 293. (noting that the domestic natural gas consumption will double

The 2011 disaster at the Fukushima Daiichi nuclear plant in Japan was a key event that led to Japan becoming a large consumer of exported LNG.²⁹⁵ The lost nuclear power generation was replaced by gas fired power plants.²⁹⁶ Before the Fukushima nuclear disaster in 2011, dependence on fossil fuels in Japan was at about 60%.²⁹⁷ After Fukushima, 85% of electricity generated in Japan was from fossil fuels, with natural gas accounting for 44%.²⁹⁸ Japan imported record amounts of LNG. LNG imports were increased by 25% from 2010 to 2014.²⁹⁹

The overall scale of U.S. LNG exports will depend on competition from other existing suppliers around the world as a global gas market continues to take shape.³⁰⁰ LNG imports did decline in 2015, however, Japan still accounts for about one third of the global LNG imports, which is double both Korea and China.³⁰¹ The Japanese government projects that the share of LNG in energy generation is going to decrease from 43% (2013) to 27% (2030).³⁰² This is mainly due to the Japan's projects of an

over the 12th FYP).

295. See Vlado Vivoda, *Japan's Energy Security Predicament Post-Fukushima*, 46 ENERGY POL'Y 135-43, (2012), <http://web.mit.edu/12.000/www/m2018/pdfs/japan/japan.pdf> (citing the nuclear disaster in March of 2011 the uncertainty regarding nuclear power increased, which led to temporary and/or permanent closure of many nuclear power plants in Japan, which led to a loss of power that Japan had to replace and they are doing so by securing additional fossil fuels).

296. *Id.*

297. Tamika Stiles, *Demand for Liquefied Natural Gas in Japan After Fukushima*, LEADERS IN ENERGY, (Nov. 9, 2016), <https://lercpa.org/lng-japan/>.

298. *Id.*

299. International Gas Union, *World LNG Report – 2016 Edition*

300. See *id.* (stating the global demand is impacted by the competition). See generally *id.* (acknowledging global demand is impacted by the competition, specifically as a supply source for Europe, as the Pacific Basin is more balanced now than in the past).

301. See *id.* (noting that LNG imports in Japan declined to 85 million tons in 2015 from a record 88.5 million tons a year earlier and that Japan accounts for about one third of global LNG imports (34%), which is more than double that of South Korea (13%) and more than four times as that of China (8%)).

302. See Stiles, *supra* note 298 (analyzing the long-term supply and demand outlook (bill) published in June 2015, and finding the government projects that the share of LNG in energy generation is going to decrease from 43% (FYP2013) to 27% (FYP2030)).

increase and resurgence in nuclear energy and renewable energy.³⁰³ However, some experts believe that Japan's energy outlook will be difficult to achieve.³⁰⁴ One of the main reasons for this view is the lack of current nuclear power plants in Japan that can operate at the new standard established after the earthquake.³⁰⁵ After the earth quake a total of 11 nuclear plants were discontinued, with an additional 10 at high risk of being decommissioned due to their proximity to existing fault lines.³⁰⁶ Thus, some argue that this 2030 outlook mainly reflects political goals and aspirations, and not necessarily based on objective future market outlook.³⁰⁷

China has also increased its gas demand, driven by its 12th Five-Year plan (FYP).³⁰⁸ China announced its 12th FYP in 2011.³⁰⁹ The 12th FYP included a considerable amount of attention to energy and climate change and establishes a new targets and policies for 2011–2015.³¹⁰ Target for the energy mix in China as outlined in the 12th FYP had a strong focus on natural gas.³¹¹ China's 13th FYP once again contained a set of climate and energy related targets, including an energy consumption cap and a 15 percent goal for the share of non-fossil fuel based energy in the country's primary energy mix.³¹²

303. Stiles, *supra* note 298.

304. *Id.*

305. *Id.*

306. *Id.*

307. *Id.*

308. See Thomas Ho, A Spur to Action in Hong Kong, China's Green Revolution Energy, Environment and the 12th Five-Year Plan, 48–50. (noting that the plan relied on shifting power generation from carbon-intensive coal to nuclear power, with smaller increases in gas and renewable energy).

309. Joanna Lewis, *Energy and Climate Goals of China's 12th Five-Year Plan*, CENTER FOR CLIMATE AND ENERGY SOLUTIONS, (Mar. 2011), <https://www.c2es.org/international/key-country-policies/china/energy-climate-goals-twelfth-five-year-plan>.

310. *Id.*

311. Sakmar *supra* note 37, at 24.

312. See Ma Tianjie, *China's 5 Year Plan for Energy*, DIPLOMAT, (Aug. 6, 2016), <http://thediplomat.com/2016/08/chinas-5-year-plan-for-energy/> (noting China's 5-year plan for economic and social development (2016–2020) contains a climate and energy related target and includes an energy consumption cap and a 15 percent goal for the share of non fossil-based energy in the country's

Asia may appear less attractive today for U.S. LNG because gas prices around the world have fallen.³¹³ It's more apparent in Asia because prices are heavily linked to crude oil, and oil prices fell to 11-year lows to end 2015.³¹⁴ Nonetheless, as Asia becomes more dependent on gas to satisfy its policy needs, it will look for global suppliers, of which the U.S. can benefit from.³¹⁵ Contrary to the government's energy supply and demand outlook as well as current trends, LNG may continue to play a larger role in electricity generation in Japan and other Asian countries as demand for natural gas continues to increase in the 2020s. The U.S. energy infrastructure, including pipelines and LNG export terminals, has helped upstream producers in the U.S. to move their natural gas out of the U.S. Large midstream players such as Kinder Morgan and Energy Transfer Partners Energy have built energy infrastructure to assist with the exportation of natural gas.³¹⁶

VI. CONCLUSION

The energy structure in the U.S. has changed considerably over the last decade. The boom in shale production in the U.S. was a game changer and has created an energy territory that the U.S. has not had to embrace as an importer and consumer of natural gas. The policies in place may work well for the previous energy market, but the current structure needs a modern day fix. Shale gas and LNG presents a tremendous opportunity that the U.S. should take advantage of.

In order for a modern energy policy to become a reality, numerous legal, policy and environmental challenges must be addressed before the full potential of LNG can be realized. Policy makers play a key role in the implementation of this goal. Both sides of the aisle must agree on our energy future and execute a

primary energy mix).

313. Clemente, *supra* note 281.

314. *Id.* at 5.

315. Mikal Herberg, *Asia's Uncertain LNG Future: Conclusions and Implications for the United States and Asia*, National Bureau of Asian Research Special Report 44, Nov. 2013, <http://www.amymyersjaffe.com/content/pdf/sr44.pdf>.

316. Gallon, *supra* note 53.

detailed, cohesive, and inclusive plan. The Senate's ENRA could be that policy. The Senate's Energy and Natural Resources committee must work with the DOE, led by Perry, to accomplish the goal of implementing a modernized energy plan. The administration must also be clear on the progressive energy plan it wishes to implement and not rely on one-off executive actions. The administration should look to increase our energy infrastructure and create policies that back the goal. The administration should also look to reduce potential roadblocks and at the same time not create new encumbrances. Trade with international natural gas consumers such as Mexico and parts of East Asia will be critical. Efficient trade agreements can help with facilitating growth with LNG exports

The agencies in charge of approvals for LNG terminals will need a guided direction and a more efficient plan for issuing clearances. A streamlined approval process can create more stability to the LNG market. The DOE, FERC, Corps, and EPA play a crucial role in the implantation of any new policy that is produced. The new Secretary of Energy will also have to oversee the new energy policies of the U.S. and play an important role in shaping the future of U.S. energy. U.S. companies must also continue to look for ways to increase pipeline and LNG infrastructure. Without the private sector putting capital funds behind LNG and pipeline exporting infrastructure, any new policy implemented by policy makers would be rendered moot.

Although it was once thought impossible, the U.S has become a net exporter of natural gas. Coupled with the fact that most of the world is looking to lower their carbon emissions and reduce the atmospheric temperature, natural gas has emerged as an important resource. From a microeconomic point of view, LNG may be a way to contribute to the profitability of net exporters of natural gas like the U.S. Natural gas has higher energy efficiency than other fossil fuels and it may also serve as a bridge or a transition to a cleaner economy, as natural gas would help reduce the consumption of other fossil fuels, which would lead to lowering CO₂ emissions. This could bring the Country closer to its policy goals and maintain profitability of its natural resources.