

Let's Not Reinvent the Wheel: Harnessing the Current Domestic Regulatory Framework for the International Export of Liquefied Natural Gas

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Let's Not Reinvent the Wheel: Harnessing the Current Domestic Regulatory Framework for the International Export of Liquefied Natural Gas

Claudia A. Duncan[†]

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Introduction

Within the past few years, the United States has seen the growth of hydrofracking (“fracking”) technology, the exploration of shales, and the development of unconventional resources,¹ the combination of which has resulted in an overabundance of natural gas. Aside from having a large domestic reserve of natural gas, the United States also has the transportation infrastructure to ensure the steady supply of natural gas.² Furthermore, the United States continues to invest in technology to improve fracking capabilities, which ensures the productivity and sustainability of the current supply. In fact, the supply of natural gas within the United States appears to be rapidly increasing.³ Additionally, the United States has both the capital and physical resources to export liquefied natural gas (“LNG”). Not only does it already have several LNG import facilities that can be converted into export facilities, but it also has companies lined up to receive applications to build these facilities.⁴ Quite simply, the United States is ready to export LNG. Going a step further, many countries abroad need American LNG exports.⁵ Numerous Asian and European⁶ countries are seeing an increase in their needs for LNG imports. Not only are their energy needs increasing, but some of their traditional suppliers are also decreasing their output.⁷ As a result, many are seeking out American LNG exporters to ensure future LNG supplies.⁸

The current regulatory framework for the international export of LNG is governed by Section 3 of the Natural Gas Act, which allows companies to

1. See CHARLES EBINGER ET AL., BROOKINGS ENERGY SECURITY INITIATIVE, LIQUID MARKETS: ASSESSING THE CASE FOR U.S. EXPORTS OF LIQUEFIED NATURAL GAS vi, 1 (2012).

2. See *About U.S. Natural Gas Pipelines - Transporting Natural Gas*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/ng_pipeline/index.html (last visited Oct. 4, 2012); but see EBINGER ET AL., *supra* note 1, at 12 (stating that “[t]o maximize the economic potential of . . . U.S. shale gas . . . there will be a requirement for significant expansion in the nation’s continental natural gas pipeline network . . .”).

3. See *Abundant U.S. Natural Gas Supply Slakes Asian Demand*, FORBES (Sept. 23, 2011, 6:12 PM), <http://www.forbes.com/sites/greatspeculations/2011/09/23/abundant-u-s-natural-gas-supply-slakes-asian-demand/>.

4. *Applications Received by DOE/FE to Export Domestically Produced LNG from the Lower-48 States (as of Mar. 7, 2013)*, ENERGY.GOV, http://energy.gov/sites/prod/files/2013/05/f0/summary_lng_applications.pdf [hereinafter *Applications*].

5. See MICHAEL LEVI, THE HAMILTON PROJECT, A STRATEGY FOR U.S. NATURAL GAS EXPORTS 18 (2012), available at http://www.hamiltonproject.org/files/downloads_and_links/06_exports_levi.pdf.

6. See EBINGER, *supra* note 1, at 22, 25.

7. See *id.* at 21–22, 25; *Qatar Plans to Build LNG Plants in the United States*, EQUITIES.COM, <http://www.equities.com/news/headline-story?dt=2012-10-25&val=632892&cat=energy> (last visited Nov. 18, 2012).

8. See EQUITIES.COM, *supra* note 7; *Tepco Mulls Importing Up to 10 mil mt/year Lean LNG to Lower Costs*, PLATTS (Nov. 7, 2012, 4:36 AM), [http://www.platts.com/RSSFeed-DetailedNews/RSSFeed/Natural Gas/7234305](http://www.platts.com/RSSFeed-DetailedNews/RSSFeed/Natural%20Gas/7234305); Tony Daltorio, *Why Japan’s Desperately Seeking U.S. LNG*, MONEY MORNING (Mar. 25, 2013), <http://moneymorning.com/2013/03/25/why-japans-desperately-seeking-u-s-lng/>; Ángel González & Ben Lefebvre, *Qatar Petroleum-Exxon Venture Requests Permit to Export U.S. Natural Gas*, WSJ.COM (Aug. 17, 2012, 7:23 PM), 1–2, <http://online.wsj.com/article/SB10000872396390444375104577595760678718068.html>.

export freely to only those countries with free trade agreements.⁹ However, companies are only allowed to export to countries that lack free trade agreements if the Department of Energy (“DOE”) determines that it is in the public interest.¹⁰ Because the current standards used to determine whether such an export is in the “public interest” are somewhat ambiguous,¹¹ a more clear set of factors is needed. However, rather than create a new set of guidelines, the DOE should draw from the current domestic regulatory framework for the transportation and sale of natural gas.

In this Note, I will first describe the process by which shale gas is extracted and LNG is produced. I will then discuss the advantages in geology, technology, and infrastructure that the United States holds in unconventional resource production. Next, I will discuss growing international needs for United States LNG exports. After addressing international demand, I will then compare studies that point out the benefits and implications of LNG exports. In particular, I will focus on the definitive study conducted by the National Economic Research Associates (“NERA”) and its conclusion that LNG exports will yield a net economic benefit for the United States.¹²

Following the geopolitical discussion of LNG exports, I will then turn to the regulatory and legal aspects of this fledgling industry, focusing specifically on Section 3 of the Natural Gas Act. I will then discuss the Department of Energy’s Office of Fossil Energy’s (“DOE/FE”) refusal to grant export permits to countries with which the United States does not have free trade agreements.¹³ I will then analyze the DOE/FE’s Order 2961 and Order 3282—permits that have been granted for LNG exports—and extract the factors the DOE/FE finds relevant when determining whether or not a permit is in the public interest. Following this analysis, I will then provide a brief overview of the history of the regulation of domestic natural gas production, noting the mass deregulation that occurred alongside its development.

Next, I will argue that we should build upon the existing foundation when drafting a regulatory framework for LNG exports. While the domestic natural gas production system is largely unregulated, pipelines and local distribution companies face heavy regulation.¹⁴ The LNG export regulatory system should incorporate as much deregulation as possible, maintaining regulation in only the most important areas, specifically areas

9. 15 U.S.C.A. § 717b (West 2012).

10. *Id.*

11. See generally Sabine Pass Liquefaction, LLC, DOE/FE Order No. 2961 (May 20, 2011) [hereinafter DOE/FE Order 2961], available at http://www.fossil.energy.gov/programs/gasregulation/authorizations/Orders_Issued_2011/ord2961.pdf (providing the DOE’s reasoning in reaching its decision).

12. W. DAVID MONTGOMERY ET AL., NERA ECONOMIC CONSULTING, MACROECONOMIC IMPACTS OF LNG EXPORTS FROM THE UNITED STATES (2012), available at http://www.fossil.energy.gov/programs/gasregulation/reports/nera_lng_report.pdf.

13. See 15 U.S.C.A. § 717b (West 2012).

14. See *The Market Under Regulation*, 1, NATURALGAS.ORG, <http://www.naturalgas.org/regulation/market.asp> (last visited Nov. 12, 2012).

concerning monopolies and consumer protection, which have proved important in the development of the industry's regulation. In particular, I will argue that we should implement changes at both the structural and substantive levels.

Regarding changes at the structural level, I will argue that the LNG export regulatory system as it currently exists, through its failure to identify a clear set of rulemaking procedures or criteria to follow, is too intrusive, as the pipeline regulatory system has been superimposed on LNG exports. The nebulousness of the DOE/FE's rulings is what makes the system so invasive. The standard for obtaining permits, as it exists, is entirely too subjective, placing the entirety of the decision-making process in the hands of the DOE/FE, rather than allowing decisions to be made based on an objective set of standards or a list enunciating specific criteria companies must meet to protect the public interest. The lack of structural codification proves disturbing, as it endows the DOE/FE with autocratic authority governing LNG export permits. The DOE/FE should not be the sole arbiter of determining what constitutes the public interest at its leisure and discretion. A more democratic process must be instituted. Currently, the DOE/FE has authorized permits exporting LNG to both FTA and non-FTA countries, as companies have been able to provide more convincing arguments/statistical data to the DOE/FE. However, outdoing one's opponent should not serve as the mechanism for the authorization of permits. Instead, a clear, ordered set of standards must exist for companies to meet in order to protect domestic interests. After companies meet this objective set of criteria, once LNG exporters can meet certain floors guaranteeing that they will meet domestic needs for a certain number of years, they should then be allowed to operate within a structural framework devoid of any regulation governing the location or quantity of their exports.

Finally, when considering what domestic floor is appropriate, I will argue that three factors must be taken into account: (1) the prevention of monopoly and abuse by producers; (2) the protection of consumers from exploitation; and (3) the assurance of a reasonably priced supply of gas. I will argue that because these factors have proven to be foundational in the development of the industry's regulation, the regulatory industry should continue to take these factors into account when determining a domestic floor that should be met prior to allowing LNG exports. As evidenced, the codification of factors to determine the public interest need not be lengthy or complicated; it must, however, set forth a bright line standard that guarantees companies some measure of certainty. Once companies are able to meet this floor or set of factors, they should then move completely into the free-market arena, devoid of regulatory hindrances. This structure will ensure the protection of the domestic public interest, while allowing the nation to capitalize on the benefits yielded by the international export of LNG.

I. The Extraction of Shale Gas and the Production of Liquefied Natural Gas

The United States' newfound ability to export LNG results from the utilization of unconventional resources brought about by hydraulic fracturing.¹⁵ A recent study conducted by the Brookings Institute states that “[t]he case for U.S. LNG exports depends entirely on the continued development of unconventional gas. This development itself depends on the . . . continuation of the practice of fracking”¹⁶ Recent fracking technology has allowed exploration and production companies to tap into unconventional resources such as shale gas, coalbed methane, and tight sand gas, resulting in what some have called a “shale revolution.”¹⁷ Oil and gas companies' newfound ability to drill domestic shales has resulted in an overabundance of natural gas and a parallel decrease in domestic natural gas prices.¹⁸ So much natural gas currently exists in the United States that exporting LNG is really a “no-brainer.”¹⁹

Shale gas exists alongside coalbed methane and tight gas as one of the predominant types of unconventional gas resources and is unique primarily because of the methods used for its extraction.²⁰ To extract shale gas, exploration companies first drill deep wells and then insert metal casing and cement into each well to prevent any fracturing fluid or gas from leaking into the water table.²¹ After this process, they pump fracturing fluid, composed of salt, sand, water, and various chemical compounds, into the shale rock at a very high pressure. This causes the formation of the fissures in the rock, from which gas exits the rock and enters the well.²² Eventually, the gas flows out of the well along with the fracturing fluid and

15. See e.g., FRED BOSSELMAN ET AL., *ENERGY, ECONOMICS AND THE ENVIRONMENT* 458 (3d ed. 2010) (asserting that unconventional resources “are not ‘conventional,’ meaning that gas production from the reservoir does not readily flow into a well bore.”).

16. CHARLES EBINGER ET AL., *BROOKINGS ENERGY SECURITY INITIATIVE, EVALUATING THE PROSPECTS FOR INCREASED EXPORTS OF LIQUEFIED NATURAL GAS FROM THE UNITED STATES* 10 (2012), available at http://www.brookings.edu/-/media/research/files/papers/2012/1/natural%20gas%20ebinger/natural_gas_ebinger_2.pdf.

17. See KAMAKSHYA TRIVEDI ET AL., *GOLDMAN SACHS, THE SHALE REVOLUTION AND THE GLOBAL ECONOMY* 1-2 (2012), available at <http://schekman.files.wordpress.com/2012/12/gs-2012-12-05-global-economics-weekly-us-shale-oil.pdf>; *Shale Gas: Fracking Great*, *ECONOMIST* (June 2, 2012), <http://www.economist.com/node/21556249>.

18. See BOSSELMAN ET AL., *supra* note 15, at 457-58 (pointing out that U.S. natural gas production increased due to the introduction of unconventional resources, thus resulting in low gas prices in the “\$3.50 to \$4 MCF range that have stayed quite low through 2009” and that 61% of domestic onshore production in the lower forty-eight states came from unconventional resources in 2008); SHAWN REYNOLDS, VAN ECK GLOBAL, *THE UNCONVENTIONAL RESOURCE REVOLUTION: A GEOLOGIST'S PERSPECTIVE*, (2012), available at www.vaneck.com/WorkArea/DownloadAsset.aspx?id=2147489701.

19. *Solid Case for U.S. LNG . . . or Not?*, *NAT. GAS EUR.* (Mar. 4, 2013, 12:25 AM), <http://www.naturalgaseurope.com/us-lng-exports>.

20. See INT'L ENERGY AGENCY, *GOLDEN RULES FOR A GOLDEN AGE OF Gas: World Energy Outlook Special Report on Unconventional Gas* 18, 21 (2012), available at http://www.worldenergyoutlook.org/media/weowebiste/2012/goldenrules/weo2012_goldenrulesreport.pdf.

21. See *id.* at 22-23.

22. See *id.* at 25-26.

enters a gathering line, which collects all the gas from all of the different wells in the field.²³ Once the gathering of the gas is complete, the gas then flows through the pipes to gas separation/processing facilities, where the gas is separated from fluids and other particles.²⁴ Finally, the gas enters a compressor station, where the pressure of the gas is increased, allowing the gas to flow through transmission pipelines.²⁵

Transmission pipelines exist in an infrastructure similar to motor highways, as they span the entire United States.²⁶ The Federal Energy Regulatory Commission (“FERC”) regulates interstate pipes,²⁷ while the states regulate intrastate pipeline systems.²⁸ At this point, the gas can be sent via pipeline to local distribution companies or distributors that sell the gas to local businesses, power plants, and individuals.²⁹ The gas can also be sent to a liquefaction plant, where the gas undergoes an intensive cooling process and becomes a liquid.³⁰ The liquid is then stored in a tank where it can then be shipped to other locations.³¹ Once the LNG reaches its destination, it undergoes a process that converts it into natural gas and it enters local pipelines.³²

II. Domestic Leads in Shale Gas Resources

The United States contains extensive domestic natural gas resources. It holds enough to both support itself domestically and still export large quantities abroad. The United States Energy Information Agency estimates that approximately 2,203 trillion cubic feet (Tcf) of recoverable natural gas exists within the United States.³³ The United States consumes approximately 24 Tcf per year³⁴ and is estimated to have enough natural gas sup-

23. See BOSSELMAN ET AL., *supra* note 15, at 445.

24. See Golden Rules, *supra* note 20 at 27; *Processing Natural Gas*, NATURALGAS.ORG, http://www.naturalgas.org/naturalgas/processing_ng.asp (last visited Mar. 30, 2013).

25. See *The Transportation of Natural Gas*, NATURALGAS.ORG, <http://www.naturalgas.org/naturalgas/transport.asp> (last visited Mar. 30, 2013).

26. See *id.* at 1; see generally, *About U.S. Natural Gas Pipelines*, *supra* note 2 (providing a map of the U.S. natural gas pipeline network and general information regarding the network) (last visited Mar. 30, 2013).

27. See *The Market Under Regulation*, *supra* note 14, at 3; BOSSELMAN ET AL., *supra* note 15, at 445-46.

28. See *Intrastate Natural Gas Pipeline Segment*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/ngpipeline/intrastate.html (last visited Mar. 30, 2013); BOSSELMAN ET AL., *supra* note 15, at 446.

29. BOSSELMAN ET AL., *supra* note 15, at 446.

30. See *Overview*, CENTRE FOR ENERGY, <http://www.centreforenergy.com/AboutEnergy/ONG/LiquifiedNaturalGas/Overview.asp?page=1> (last visited Mar. 30, 2013).

31. See *id.*

32. See Daniel Yergin & Michael Stoppard, *The Next Prize*, 82 FOREIGN AFF. MAG. 103, 107 (2003).

33. *Frequently Asked Questions: How much natural gas does the United States have and how long will it last?*, U.S. ENERGY INFO. ADMIN. (Aug. 29, 2012), <http://www.eia.gov/tools/faqs/faq.cfm?id=58&t=8>.

34. *Id.*

ply to last the nation for approximately 100 years.³⁵ Domestic natural gas exists within approximately seventeen shales found in nineteen geographic basins throughout the continental United States.³⁶

Aside from having vast natural gas resources, the United States maintains an extensive natural gas infrastructure and invests in fracturing technology, which cements it as the international leader in the unconventional resource industry. The United States' monopoly on fracturing technology provides a significant advantage over the rest of the international community. Few countries have access to the drilling equipment and intellectual property that has made fracking so successful.³⁷

However, American fracking technology is still rapidly advancing, and as a result, the amount of natural gas extracted within the United States is increasing at an extremely rapid rate.³⁸ The rig count in the United States serves as a concrete indicator of the escalating productivity of fracking technology. For instance, from 2008 to 2010, the number of rigs dropped from approximately 1,600 to 800—a 50% overall decrease.³⁹ Nevertheless, the quantity of gas produced remained the same.⁴⁰ Essentially, “advanced extraction techniques in the US are so productive that if the natural gas rig count were allowed to rise to the levels that existed 4-5 years ago, we would be swimming in the stuff.”⁴¹

LNG export is thus fast becoming a practical necessity for which the United States clearly has the infrastructure to support. The United States contains an extensive transportation system, liquefaction facilities, a quality port system, and tankers necessary for the export of LNG. The American natural gas transportation system boasts 210 natural gas pipeline systems, 305,000 miles of interstate and intrastate transmission pipelines, over 1,400 compressor stations, and 400 underground natural gas storage facilities.⁴² In addition, the United States currently contains twelve

35. See *Editorial: Exporting Natural Gas Would Not Hurt U.S.*, USATODAY.COM (June 20, 2012, 7:26 PM), <http://usatoday30.usatoday.com/news/opinion/editorials/story/2012-06=20/export-liquefied-natural-gas/55722204/1>.

36. HALLIBURTON, U.S. SHALE GAS: AN UNCONVENTIONAL RESOURCE. UNCONVENTIONAL CHALLENGES 1, 3 (2008), available at http://www.halliburton.com/public/solutions/contents/shale/related_docs/H063771.pdf.

37. See Cory Renauer, *Driving Natural Gas Prices, Part 1: Exports*, SEEKING ALPHA (Oct. 2, 2012, 1:32 PM), <http://seekingalpha.com/article/900261-driving-natural-gas-prices-part-1-exports>; EBINGER ET AL., *supra* note 1, at 23, 26; Muqsit Ashraf & Hermes Alvarez, *The Shale Game-changer: An Interview with Amy Myers Jaffe of the Baker Institute*, SCHLUMBERGER BUS. CONSULTING, http://www.sbc.slb.com/Our_Ideas/Energy_Perspectives/Summer11_Content/Summer11_Interview_Amy.aspx (last visited Mar. 30, 2013).

38. See EBINGER ET AL., *supra* note 1, at 3-4 (stating that “from 2000 to 2006, shale gas production increased by an average annual rate of 17%; from 2006 to 2010 production increased by an annual average rate of 48% . . .” and U.S. shale gas production “reached 4.87 Tcf in 2010, or 23% of U.S. dry gas production. By 2035, it is estimated that [it] will account for 46% of total domestic natural gas production.”)

39. See Renauer, *supra* note 37, at 2 (presenting a map demonstrating the drop in rig count).

40. *Id.* at 1-2.

41. *Id.* at 2.

42. See *About Natural Gas Pipelines*, *supra* note 2, at 1.

import/export terminals scattered throughout the Gulf Coast and the East Coast.⁴³ Furthermore, six more import/export terminals have been approved for construction in the United States,⁴⁴ and fourteen more are pending approval.⁴⁵ All of these factors have resulted in an overabundance of American natural gas resources and a corresponding decrease in domestic natural gas prices, thus improving the United States' chances for domination in the international LNG market.⁴⁶

III. International LNG Export Needs

The United States' dominant position in the industry is further magnified by the growing international demand for LNG exports, as gas prices remain high in the rest of the world.⁴⁷ Because the United States contains such a large amount of domestic natural gas, prices are extremely low. To illustrate, while the price of U.S. natural gas costs roughly \$2 per thousand cubic feet in 2012, the same amount costs \$11 in Europe and even as high as \$15 in Asia.⁴⁸ Clearly, the opportunity for potential arbitrage exists.⁴⁹

A clear need exists for the export of American LNG to countries abroad, and as a result, countries in Europe, Asia, and South America are actively seeking American LNG exports.⁵⁰ For example, foreign governments and foreign production companies are pursuing projects with the U.S. to ensure the export of LNG to their respective countries. In particular, Tepco, a Japanese company, is currently negotiating with a "number of proposed projects in the [United States]" that are attempting to obtain the necessary authorization from the U.S. government.⁵¹ Additionally, Cheniere, one of the companies that has been granted a permit by the Department of Energy to export LNG, currently has LNG export contracts

43. *North American Existing LNG Import/Export Term*, FERC (Mar. 20, 2013), <http://ferc.gov/industries/gas/indus-act/lng/LNG-existing.pdf>.

44. *North American Approved LNG Import/Export Terminals*, FERC (Mar. 20, 2013), <http://www.ferc.gov/industries/gas/indus-act/lng/LNG-approved.pdf>.

45. *North American Proposed/Potential LNG Import/Export Terminals*, FERC (Mar. 20, 2013), <http://www.ferc.gov/industries/gas/indus-act/lng/LNG-proposed-potential.pdf>.

46. Eric Roston, *Shale Fracking Makes U.S. Natural Gas Superpower. Now What?*, BLOOMBERG (Sept. 25, 2012, 9:45 PM), <http://www.bloomberg.com/news/2012-09-26/shale-fracking-makes-u-s-natural-gas-superpower-now-what.html>; see Ashraf, *supra* note 37 at 1, 2.

47. See Roston, *supra* note 46, at 1, 2 (presenting a map showing price differences across the globe).

48. LEVI, *supra* note 5, at 5.

49. Kenneth B. Medlock III, *U.S. LNG Exports: Truth and Consequence*, JAMES A. BAKER III INST. FOR PUB. POL'Y 7 (2012), http://bakerinstitute.org/media/files/Research/da5493d4/US_LNG_Exports_-_Truth_and_Consequence_Final_Aug12-1.pdf.

50. See EBINGER ET AL., *supra* note 1, at 20-26; see also LEVI, *supra* note 5, at 18 (stating that "Korean imports are expected to rise from 4.1 billion feet a day . . . Chinese imports are expected to rise from a negligible amount to over nine billion cubic feet each day by the end of the decade, while Indian imports are expected to reach three billion cubic feet per day."); Tepco, *supra* note 8, at 1; González & Lefebvre, *supra* note 8, at 2.

51. See Tepco, *supra*, note 8, at 1.

with customers in England, Korea, India, and Spain.⁵²

Asian countries in particular—who are already some of the largest importers of LNG—are anticipating significant increases in their LNG imports.⁵³ For example, “[t]he Pacific Basin has historically been the cornerstone of the global LNG market. During the early and mid-1990s . . . Japan and South Korea accounted for approximately 70 percent [of the LNG export market].”⁵⁴ As the population in this region increases, the need for natural gas and LNG exports will skyrocket as well. For instance, “[f]rom 2010 to 2020, China’s gas consumption should move from the level of Japan to the EU and in 2020 China should be the third worldwide consumer after the US and EU.”⁵⁵ In fact, China and India are expected to see approximately seven percent increases per year in their gas demand through 2035.⁵⁶ Both India and China have invested heavily in constructing additional LNG import facilities to allow increases in imports.⁵⁷ Additionally, the March 2011 earthquake in Japan, which resulted in the Fukushima nuclear power plant meltdown and temporary closure of the majority of Japan’s nuclear reactors, has precipitated a turn away from its use of nuclear energy and towards reliance on LNG.⁵⁸ Experts predicted that Japan would need approximately 974 billion cubic feet (“Bcf”) of additional natural gas in 2012 to completely supply its energy needs.⁵⁹ The increase in Asia’s demand for natural gas is occurring alongside the decrease of both local and international resources.⁶⁰

The European market also has seen an increase in the need for natural gas and LNG. For example, “[i]n addition to Russian imports, Europe is likely to increase its LNG imports. Despite having excess regasification capacity . . . new regasification facilities are planned in a number of European countries.”⁶¹ Many countries like France and Bulgaria have simply prohibited hydraulic fracturing due to environmental concerns, thus increasing the need for American LNG exports.⁶² Furthermore, the depen-

52. See González & Lefebvre, *supra* note 8, at 2.

53. Katarzyna Klimasinska, *European Fracking Bans Open Market for U.S. Gas Exports*, BLOOMBERG (May. 23, 2012, 11:39 AM), <http://www.bloomberg.com/news/2012-05-23/european-fracking-bans-open-market-for-u-s-gas-exports-1.html>.

54. See EBINGER ET AL., *supra* note 1, at 21.

55. *Global LNG Market to Grow 4 pc a Year, Pivot to Asia*, BUS. RECORDER (Nov. 12, 2012, 3:52 PM), <http://www.brecorder.com/markets/energy/europe/90049-global-lng-market-to-grow-4pc-a-year-pivot-to-asia.html> (quoting Thierry Bros, energy analyst at French Bank Societe Generale from his 2012 book *After the Shale Gas Revolution*).

56. EBINGER ET AL., *supra* note 1, at 22.

57. *Id.*

58. EBINGER ET AL., *supra* note 1, at 22; *One Year Later, ‘Inside Japan’s Nuclear Meltdown’*, NPR (Feb. 28, 2012, 7:58 AM), <http://www.npr.org/2012/02/28/147559456/one-year-later-inside-japans-nuclear-meltdown>.

59. EBINGER ET AL., *supra* note 1, at 22.

60. *Id.* at 21–22.

61. *Id.* at 25.

62. Klimasinska, *supra* note 53, at 1; see also Brad Plumer, *Will the U.S. export fracking to the rest of the world?*, WASH. POST (July 21, 2012, 10:35 AM), <http://www.washingtonpost.com/blogs/ezra-klein/wp/2012/07/21/will-the-u-s-export-fracking-to-the-rest-of-the-world/> (mentioning the French legislature’s ban of hydraulic fracturing in 2010).

dence of Europe on Russia for a large portion of its natural gas places Europe in a precarious geopolitical position, as evidenced by Russia's withholding of gas from Europe in 2009.⁶³ Europe receives approximately 31% of its natural gas from Russia⁶⁴ and understands the difficulty that dependence on Russian natural gas poses, thus prompting efforts to obtain energy independence.⁶⁵

Although many other nations contain shale formations with significant natural gas deposits,⁶⁶ because they lack the technology and infrastructure to harvest these resources, they remain dependent upon other countries for their gas supplies.⁶⁷ For example, “[u]nconventional gas production will also require technical capacity and physical infrastructure, both of which are currently in short supply in both China and India . . . particularly as the pipeline networks in both China and India are inadequately developed and as the investment climate for foreign operators remains uncertain.”⁶⁸ Additionally, most of these nations will be unable to develop technology to the level of the United States due to social, economic, and physical factors. For instance, although China has shale formations with significant gas resources, because they have an “immature oil-service industry and pipeline structure”⁶⁹ and do not have access to sufficient water to complete production, they will remain dependent on LNG imports for the foreseeable future. Similarly, in Europe, lack of a structured pipeline system presents a significant hurdle⁷⁰ for the region's development of unconventional resources. Furthermore, like China, Europe holds vast shale gas resources, but “drilling a well in Poland costs about . . . three times as much as it costs to drill in Texas' Barnett shale, because the . . . industry is much less developed.”⁷¹

IV. The Benefits and Implications of LNG Exports

The export of LNG can bring a number of economic, social, and political benefits both to the United States and abroad. A number of studies not

63. See generally Andrew E. Kramer, *Russia Cuts Gas, and Europe Shivers*, N.Y. TIMES (Jan. 6, 2009), <http://www.nytimes.com/2009/01/07/world/europe/07gazprom.html?pagewanted=all> (describing the 2009 Russian gas cut).

64. See EBINGER ET AL., *supra* note 1, at 25.

65. Derek Brower, *Energy Independence for Europe?*, PROSPECT (Mar. 22, 2010), <http://www.prospectmagazine.co.uk/magazine/energy-independence-for-europe/>; *EU Seeking Energy Independence from Russia*, VOICE OF AM. (Nov. 2, 2009, 10:22 AM), <http://www.voanews.com/content/a-13-2009-05-08-voa36-68734627/409999.html>; Roman Olearchyk, *Ukraine, Wary of Russia, Seeks Energy Independence With \$1.5bn Gas Plant*, FIN. TIMES (June 6, 2011, 5:38 PM), <http://blogs.ft.com/beyond-brics/2011/07/06/ukraine-a-black-sea-1-5bn-lng-plant/#axzz2P9mUhOvr>; Klimasinska, *supra* note 53, at 4.

66. See Plumer, *supra* note 62, at 1-2.

67. See Klimasinska, *supra* note 53, at 2; Ashraf, *supra* note 37, at 2.

68. See EBINGER ET AL., *supra* note 1, at 23.

69. Matthew Brown, *Fracking is Flopping Overseas*, BLOOMBERG BUSINESSWEEK (May 3, 2012), <http://www.businessweek.com/articles/2012-05-03/fracking-is-flopping-over-seas>.

70. Klimasinska, *supra* note 53, at 2.

71. Plumer, *supra* note 62, at 2.

only confirm the benefits yielded by the export of LNG, but also strongly advocate that the United States begin to capitalize on the current export opportunity.⁷² For example, the Brookings Institution's Energy Security Initiative ("ESI") carried out a study entitled "Liquid Markets: Assessing the Case for U.S. Exports of Liquefied Natural Gas" analyzing the various impacts of exporting LNG.⁷³ The study found that not only are LNG exports "technically feasible,"⁷⁴ but they are in fact "likely to be competitive in global markets."⁷⁵ Another study carried out by Michael Levi, a Senior Fellow for Energy and the Environment, and the Director of the Program on Energy Security and Climate Change for the Council on Foreign Relations, came to a similar conclusion.⁷⁶ Levi advocated the approval of export applications and construction facility applications by the DOE and FERC,⁷⁷ stating that the "benefits (of allowing LNG exports) outweigh the costs of explicitly and directly constraining exports through government action."⁷⁸

First, regarding economic benefits, the export of American LNG will help produce liquidity in global LNG markets. The export of LNG to foreign countries will help open up foreign commodities market, as these nations will have access to additional natural gas resources.⁷⁹ For example, "[w]ithout exporting any natural gas, the U.S. shale 'revolution' has already had a positive impact on the liquidity of global LNG markets The increased availability of LNG cargoes has helped create a looser LNG market for other consumers"⁸⁰ The increase of liquidity in global LNG markets also produces greater geopolitical security for many nations who rely on the import of LNG for a significant portion of their energy supply.⁸¹ For instance, many European countries would benefit from an additional LNG source, as it would allow them to reduce their dependence on Russian natural gas.⁸²

The export of LNG will also produce significant domestic economic benefits and might even help to reduce the national deficit. Levi estimates that if the United States exports six Bcf per day of LNG, the yearly surplus will range from \$2.7 billion to \$3.2 billion.⁸³ He further estimates that the economic benefits could be even higher if American LNG export contracts

72. See, e.g., EBINGER ET AL., *supra* note 1; LEVI, *supra* note 5; MONTGOMERY ET AL., *supra* note 12.

73. See EBINGER ET AL., *supra*, note 1.

74. See *id.* at vi.

75. *Id.*

76. LEVI, *supra* note 5.

77. See *id.* at 2.

78. See *id.* at 6.

79. See EBINGER ET AL., *supra* note 1, at 38.

80. See *id.* at 38.

81. See *id.* at 43.

82. See EBINGER ET AL., *supra* note 1, at 41-43.

83. See LEVI, *supra* note 5, at 14 (stating that "the gains from selling gas overseas rather than at home would be approximately \$700 million to \$ 1 billion; and the losses from lower domestic consumption would be approximately \$300 million to \$500 million.").

were based on overseas prices.⁸⁴ If the United States exported six Bcf at the European price of \$12 per Tcf, the surplus would jump to a range of \$3.9 billion to \$4.1 billion.⁸⁵ At this rate, Levi estimates that total export revenues would add up to \$20 billion, make up roughly five percent of the current deficit, and help strengthen the dollar.⁸⁶

When assessing domestic economic benefits, it is also necessary to discuss the impact that LNG exports would have on domestic natural gas and electricity prices. However, the international export of LNG would not lead to a significant increase in domestic natural gas prices that would adversely impact the American populace.⁸⁷ For example, in the Brookings Institute study, the researchers confirmed that although LNG exports would result in “negative consequences”⁸⁸ for the power and industrial sectors, these effects would be, at most, “modest.”⁸⁹ The researchers even went as far as to assert that “the benefit of this trade will likely outweigh the cost to domestic consumers of the increase in the price of natural gas as most of the natural gas . . . will come from new natural gas production as opposed to displacing existing production from domestic consumers.”⁹⁰ Similarly, Levi confirmed in his study that “allowing natural gas exports could have small but regressive distributional consequences.”⁹¹

Serving as further proof that the export of LNG would not significantly impact domestic natural gas prices, two additional studies provide numerical data to support this argument.⁹² Deloitte conducted a study that found that from 2016 to 2035, the price of natural gas would increase by \$.12/MMBtu if the U.S. exported 6 Bcf per day internationally, resulting in a mere 1.7 percent increase to consumers.⁹³ The United States has more than enough natural gas reserves to export abroad; the issue is simply ensuring that American exploration and production companies also produce enough to meet domestic needs first. Going a step further, the Deloitte study confirmed that the effect of LNG exports on electricity prices would be “even smaller than the projected impact on gas prices.”⁹⁴ For instance, in the Midwest, electricity price increases are anticipated to

84. See *id.* at 14.

85. See *id.* (His model also sets forth that “surplus would increase by \$1.1 billion for every one-dollar increase in the overseas natural gas price.”)

86. See *id.* at 15.

87. See *id.* at 16.

88. See EBINGER ET AL., *supra* note 1, at 33.

89. See *id.*

90. See *id.* at 37.

91. See LEVI, *supra* note 5, at 16 (calculating an increase in natural gas bills to consumers of \$33).

92. DELOITTE, MADE IN AMERICA: THE ECONOMIC IMPACT OF LNG EXPORTS FROM THE UNITED STATES (2011), available at http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_MadeinAmerica_LNGPaper_122011.pdf; U.S. ENERGY INFO. ADMIN., EFFECTS OF INCREASED NATURAL GAS EXPORTS ON DOMESTIC ENERGY MARKETS (Jan. 2012), available at http://www.eia.gov/analysis/requests/fe/pdf/fe_lng.pdf.

93. See EBINGER ET AL., *supra* note 1, at 31; MADE IN AMERICA, *supra* note 92, at 8.

94. See MADE IN AMERICA, *supra* note 92, at 13.

be significantly less than one percent.⁹⁵ The other macroeconomic benefits yielded by LNG export clearly outweigh the small domestic price increases that would occur.

Despite all of the positive impacts that LNG exports might yield, a number of other studies point out some potential economic shortcomings that LNG exports might bring.⁹⁶ The U.S. Energy Information Administration (“EIA”) produced a study in January 2012 requested by the Department of Energy that specifically studied the effects of LNG exports on the U.S. domestic energy market.⁹⁷ Although it reached some of the same conclusions as the studies carried out by the Brookings Institute and Levi, it also presented some areas of economic concern. For example, the study confirmed that U.S. natural gas markets would simply increase natural gas production to meet the new demands of LNG export,⁹⁸ and that the total price increases in natural gas and electric bills would be minimal.⁹⁹ Nevertheless, it also pointed out that “[t]he current large disparity in natural gas prices across major world regions . . . is likely to narrow as natural gas markets become more globally integrated.”¹⁰⁰ Should the price disparity decrease between US natural gas prices and those in the European and Pacific basins, the United States’ arbitrage opportunity will evaporate along with the incentive to export LNG.

In a study conducted by Kenneth B. Medlock III, an energy economist at the James A. Baker III Institute for Public Policy at Rice University, Dr. Medlock examined the role of supply elasticity when determining whether the export of LNG would result in increased domestic natural gas prices.¹⁰¹ Similar to the EIA’s study, Dr. Medlock’s study also presents some positive aspects of LNG. His baseline assumption is that an elastic supply of natural gas would not result in increased domestic natural gas prices and an inelastic supply would result in a domestic price increase.¹⁰² He addresses the main concern of many policymakers—a scenario in which domestic supply would be completely inelastic, international supply would be very elastic, and domestic natural gas prices would skyrocket.¹⁰³ He first concludes that this is the “least likely outcome,”¹⁰⁴ because of the overabundant amount of natural gas yielded by the introduction of hydraulic fracking and the exploration of shale plays.¹⁰⁵ In fact, the introduction of these factors has caused elasticity to increase “five-fold,”¹⁰⁶ and “in the U.S. alone there is over 17 Bcf [per day] of export capacity . . . which repre-

95. *See id.*

96. *See* EFFECTS OF INCREASED NATURAL GAS, *supra* note 92; Medlock, *supra* note 49.

97. *See* EFFECTS OF INCREASED NATURAL GAS, *supra* note 92, at 1.

98. *See id.* at 6.

99. *See id.* at 15-16.

100. *See id.* at 4.

101. *See* Medlock, *supra* note 49, at 8.

102. *Id.* at 11.

103. *Id.* at 21.

104. *Id.* at 19-20.

105. *Id.* at 14.

106. *Id.* at 15.

sents over 50 percent of current traded volume.”¹⁰⁷ Additionally, he then asserts that “market responses”¹⁰⁸ will also not allow domestic prices to increase beyond reason.

Nevertheless, Medlock also points out some areas of economic concern and concludes that “the long-term volume of exports from the U.S. will not likely be very large given the expected market developments abroad.”¹⁰⁹ His study points out that natural gas exists in large quantities across the globe and that countries abroad simply need to harness the intellectual knowledge that American exploration and production companies hold in order to develop these unconventional resources.¹¹⁰ Medlock believes that the price of natural gas will drop in other countries, thus eliminating the need for American LNG international exports.¹¹¹ Based on this study, American LNG exports will prove lucrative only “in the very near term.”¹¹²

Despite the shortcomings pointed out by the studies above, the DOE released a study on December 5, 2012 conducted by NERA that not only addresses some of the weaknesses of the EIA and Medlock studies, but also definitively states that the export of LNG is in the United States’ best interests.¹¹³ This study serves as the most comprehensive study of the topic to date. The study wholeheartedly embraces the export of LNG and points out that unlimited exports will yield the greatest benefit to the U.S. economy. The study states:

The economic impacts of different limits on LNG exports were examined under each of the market scenarios. Across all these scenarios, the U.S. was projected to gain net economic benefits from allowing LNG exports. Moreover, for every one of the market scenarios examined, net economic benefits increased as the level of LNG exports increased. In particular, scenarios with unlimited exports always had higher net economic benefits than corresponding cases with limited exports.¹¹⁴

It first addresses the previous EIA study and points out that it was “limited to the relationship between export levels and domestic prices”¹¹⁵ and “did not evaluate macroeconomic impacts.”¹¹⁶ The study also addresses Medlock’s claim that foreign countries will develop their own shale resources, pointing out that both geopolitical and geographical factors make this unlikely.¹¹⁷ Moreover, the study found that the largest domestic price increase that could occur would range from approximately \$.22 to

107. See Medlock, *supra* note 49, at 19.

108. *Id.* at 34.

109. *Id.* at 5.

110. *Id.* at 21, 24; see also *id.* at 23 (arguing that “current arbitrage opportunity . . . cannot be expected to persist, and the development of new supplies from outside the U.S. will only . . . further erode regional price differentials . . .”).

111. *Id.* at 25.

112. *Id.* at 30.

113. See MONTGOMERY ET AL., *supra* note 12, at 1-2.

114. *Id.*

115. *Id.*

116. *Id.*

117. *Id.* at 17-18.

\$1.11 (2010\$/Mcf).¹¹⁸ It did note that some individuals in the economy would be negatively impacted by the export of LNG;¹¹⁹ however, ultimately, exporting LNG would yield the most benefits collectively for the U.S. economy.¹²⁰ At the end of the day everyone benefits, as “the net result is an increase in U.S. households’ real income and welfare.”¹²¹

Going a step further, the international LNG exports would yield considerable social and political benefits for the United States, both domestically and abroad. First, LNG exports would create an enormous number of domestic jobs for the U.S. economy. The natural gas industry itself would create roughly 25,000 jobs up-front,¹²² with an additional 40,000 created downstream from the gathering, processing and transportation of the gas, not to mention jobs produced from the steel and rig manufacturing industries.¹²³ An even more astounding figure comes from a December, 2011 study conducted by PricewaterhouseCoopers that estimates that as many as one million manufacturing jobs might result from the boom in shale plays.¹²⁴ However, many of these jobs would be temporary and would not result in significant permanent employment.¹²⁵

The international export of LNG would also bring about major foreign policy benefits, as the United States would gain greater influence in dictating energy dynamics abroad. The United States would be able to supply LNG to its allies abroad, specifically ones that are crippled by a dependence on natural gas from countries with interests contrary to those of the United States. For example, LNG exports would help American allies “in Europe who will gain strategic leverage from the increased competition to Russian gas.”¹²⁶ It would also help the United States exert a stronger force in international trade negotiations.¹²⁷

V. Department of Energy Regulatory Requirements for the Export of LNG

The DOE/FE oversees the import and export of natural gas under Section 3 of the Natural Gas Act, 15 U.S.C. § 717b, (“NGA”).¹²⁸ In order to build an LNG export facility or export LNG, an application must be filed

118. *Id.* at 2.

119. See MONTGOMERY ET AL., *supra* note 12, at 2.

120. *Id.* at 6.

121. *Id.*

122. See LEVI, *supra* note 5, at 6.

123. See *id.* at 6, 15.

124. See EBINGER ET AL., *supra* note 1, at 16-17.

125. See *id.* at 37; see also LEVI, *supra* note 5, at 15.

126. See *id.* at 47.

127. See LEVI, *supra* note 5, at 18 (stating that Japan “ha[s] noticed that the . . . U.S.-South Korea free-trade agreement will give South Korea special access to U.S. natural gas exports and have inquired as to whether Japanese participation in the Trans-Pacific Partnership . . . trade arrangement would give them similar privileges . . .”)

128. 15 U.S.C.A. § 717b (West 2012); *How to Obtain Authorization to Import and/or Export Natural Gas and LNG*, U.S. DEP’T OF ENERGY, http://www.fossil.energy.gov/programs/gasregulation/How_to_Obtain_Authorization_to_Import_an.html#LNG%20Exports (last visited Oct. 3, 2012).

with the DOE/FE in order to obtain authorization.¹²⁹ A company may either apply for a long-term or short-term authorization. Long-term authorization allows the export of LNG for a period exceeding two years.¹³⁰ To gain long-term authorization, in addition to providing a copy of the gas purchase and sale contract, the applicant must submit “the identity of the sellers of gas, the markets in which the gas is to be sold, and the terms of the sale agreement along with a start date.”¹³¹ For short-term authorization, which lasts for no more than two years, actual copies of the gas purchase and sale contracts are not even required, only submission of the start-date.¹³²

In addition to obtaining authorization from the DOE/FE to build an LNG export facility, a company must also file an application with FERC.¹³³ FERC allows a company to obtain a “blanket certificate” in order to cover a variety of activities that fall under a specific project.¹³⁴ A blanket certificate gives the company the opportunity to “undertake a restricted array of routine activities without the need to obtain a case-specific certificate for each individual project.”¹³⁵ It saves the company the time and effort of applying for a different permit each time it carries out a different project, and provides the freedom to carry out as many projects as it desires under the quantitative limit FERC sets. To obtain a blanket certificate, a company must first notify all landowners who will be impacted by the project.¹³⁶ Additionally, the company must also file prior public notice with FERC, which the regulatory body will publish in the Federal Register.¹³⁷ If within sixty days, no person has protested the planned project, then permission to carry out the project will be granted.¹³⁸ However, if a protest has been filed, the company has thirty days to resolve the issue, after which time, if not resolved, the application will be treated as a project-specific authorization.¹³⁹

Finally, the company’s proposed project will undergo significant environmental review. Following the guidelines of the National Environmental Policy Act, an analysis will be carried out to determine the project’s potential environmental impact.¹⁴⁰ Also, an Environmental Impact Statement will need to be issued; if the possible impact of the project is predicted to be minimal, an Environmental Assessment will be carried out to determine

129. See *How to Obtain Authorization to Important and/or Export Natural Gas and LNG*, *supra* note 128, at 1.

130. *Id.* at 2.

131. *Id.*

132. *Id.*

133. See EBINGER ET AL., *supra* note 1, at 13.

134. *Blanket Certificates*, FED. EN. REG. COMM’N (Feb. 16, 2012), <http://www.ferc.gov/industries/gas/indus-act/blank-cert.asp> (last updated Mar. 1 2013).

135. *Id.*

136. *Id.*

137. *Id.*

138. *Id.*

139. *Id.*

140. See EBINGER ET AL., *supra* note 1, at 13.

whether or not an Environmental Impact Statement must be issued.¹⁴¹ The project must also comply with the Coastal Zone Management Act of 1972, the Clean Air Act, and the Federal Water Pollution Control Act.¹⁴²

VI. Section 3 of the NGA: Determining What Constitutes the “Public Interest”

Section 3 of the NGA sets forth very clear standards for the DOE/FE’s determination of when a company may import or export LNG. It states that:

[N]o person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the Commission authorizing it to do so. The Commission shall issue such order upon application, unless, after opportunity for hearing, it finds that the proposed exportation or importation will not be consistent with the public interest.¹⁴³

Furthermore, Section 3(c) of the NGA mandates that the importation of LNG and the importation and exportation of LNG to a country with which the United States has a free trade agreement¹⁴⁴ must be “deemed consistent with the public interest . . . and granted without modification or delay.”¹⁴⁵ If a company applies for a permit to export LNG to a foreign country with which the United States has free trade agreements, it is “essentially automatic.”¹⁴⁶ However, applications involving countries with which the United States does not have free trade agreements do not fall under the public interest definition of Section 3(c) and will not be automatically granted.¹⁴⁷ It is significantly more difficult to obtain a permit to export to countries with which the United States does not have a free trade agreement.

This issue is compounded by the fact the United States does not have free trade agreements with many of the countries that actually need to import American LNG.¹⁴⁸ In fact, “projects looking for authorization to export LNG to countries without a free trade agreement account for roughly 96 percent of current global LNG demand.”¹⁴⁹ As of the composition of this Note FERC has granted authorization to only two companies, Sabine Pass Liquefaction LLC and a partnership comprised of Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC, to construct an LNG

141. *Id.*

142. 15 U.S.C.A. § 717b (West 2012).

143. *Id.*

144. See *Free Trade Agreements*, OFF. OF THE U.S. TRADE REPRESENTATIVE, <http://www.ustr.gov/trade-agreements/free-trade-agreements> (last visited Oct. 3, 2012).

145. § 717b.

146. See LEVI, *supra* note 5, at 10.

147. See Stephen Miles & Thomas Eastment, *US Debate on LNG Exports Centered at Energy Department*, OIL & GAS J. (Apr. 1, 2013), <http://www.ogj.com/articles/print/volume-111/issue-4/special-report-lng-update/us-debate-on-lng-exports-centered.html>.

148. See EBINGER ET AL., *supra* note 1, at 28.

149. *Id.*

Export Facility and to export LNG.¹⁵⁰ However, the DOE has stated that it will review the remaining applications for export to non-FTA countries within a span of approximately two years, with approximately eight weeks allocated to the review of each application.¹⁵¹ Thus, due to rising international need, the DOE/FE and FERC authorization process needs to be reexamined.

Currently, no statutes or legislation exist to define what falls within the “public interest.”¹⁵² Additionally, no current legal definition exists in order to provide guidance as to how permits should be issued.¹⁵³

Government officials have indicated that the “range”¹⁵⁴ of factors they will analyze include: domestic need, adequacy of domestic natural gas supply, U.S. energy security, impact on the U.S. economy, job creation, balance of trade, geopolitical considerations, environmental considerations, and other issues raised by commentators.¹⁵⁵ Furthermore, the DOE/FE has stated that it will take into consideration all public protests and the company’s responses thereto.¹⁵⁶

The first instance in which the DOE/FE issued authority to export LNG occurred under DOE/FE Order 2833, in which it allowed Sabine Pass Liquefaction (“Sabine Pass”) to export up to 16 million tons per annum (“mtpa”), or 2.2 Bcf per day, of LNG to countries that have free trade agreements.¹⁵⁷ The DOE/FE followed suit in Order 2961, in which it allowed Sabine Pass to export the same amount to countries that do not have free trade agreements.¹⁵⁸ Despite receiving several protests and motions to intervene, the DOE/FE concluded in Order 2961 that the protestors had not presented sufficient evidence to demonstrate that the authorization of the export of LNG would be contrary to the public interest.¹⁵⁹

In making this decision, the DOE/FE first took into consideration the applicant’s own public interest analysis.¹⁶⁰ First, Sabine Pass argued that allowing Sabine to export might improve the prospects for domestic LNG production through an increase in revenue, pointing to the increase of natural gas production and the corresponding drop in market prices in the U.S.¹⁶¹ Sabine Pass also asserted that allowing LNG exports to non-free

150. *Applications*, *supra* note 4, at 1.

151. Ayesha Rascoe, *Senators Urge U.S. to Speed LNG Review Process*, THE MARITIME EXECUTIVE (Jul. 11, 2013), <http://www.maritime-executive.com/article/Senators-Urge-US-to-Speed-LNG-Export-Review-Process-2013-07-11/>.

152. See EBINGER ET AL., *supra* note 1, at 28.

153. *Id.*

154. John Anderson, *Natural Gas Import/Export Regulation*, U.S. DEP’T OF ENERGY. (Dec. 6, 2011), http://www.usea.org/sites/default/files/event-file/511/Anderson_DOE_LNG_Exports.pdf.

155. *Id.*

156. *Id.*

157. Sabine Pass Liquefaction, LLC, DOE/FE Order No. 2833 (Sep. 7, 2010), 6, *available at* http://www.fossil.energy.gov/programs/gasregulation/authorizations/Orders_Issued_2010/ord28332.pdf.

158. DOE/FE Order 2961, *supra* note 11, at 42.

159. *Id.*

160. *Id.* at 5.

161. *Id.* at 6, 14–15.

trade countries would serve the public interest by (1) creating jobs; (2) decreasing American dependence on foreign oil; (3) bolstering the National Export Initiative (“NEI”) through furtherance of the United States balance of payments yielded by increasing U.S. exports; (4) ensuring domestic natural gas price stability; (5) helping liberalize and foster liquidity in the global gas market; (6) improving national security interests and assisting foreign trade partners by providing alternate sources of global natural gas supplies; and (7) improving ties with foreign nations.¹⁶² Another major factor that Sabine Pass focused on was the domestic natural gas market within the United States. It provided several studies demonstrating that the export of LNG to foreign countries would not encroach on domestic natural gas needs and would also allow for the generation of additional natural gas production.¹⁶³ Sabine Pass even asserted that:

[B]oth reports have concluded that the potential for future recovery of domestic gas production is ‘more robust’ than presented in EIA forecasts and both reports find that domestic natural gas resources are sufficient to meet all future demand scenarios under consideration, and, therefore, the exporting of up to 2 Bcf/d proposed in the application will not be inconsistent with the public interest.¹⁶⁴

Additionally, it noted that demand for natural gas within the United States was decreasing.¹⁶⁵

Next, the DOE/FE outlined three general factors that it considers when determining whether a project conflicts with the public interest. Following Policy Guidelines set forth in 1984, which seek to minimize federal regulations and allow market determination of prices, the DOE/FE sought to maintain a hands-off position.¹⁶⁶ It stated that the Guidelines established that:

[The market], not government should determine the price and other contract terms of imported [or exported] natural gas. The federal government’s primary responsibility in authorizing import [or exports] will be to evaluate the need for the gas and whether the arrangement will provide the gas on a competitively priced basis for the duration of the contract while minimizing the regulatory impediments to a freely operating market.¹⁶⁷

Next, seeking to maintain the tenets of a past Delegation Order, the DOE/FE emphasized its desire to focus on the domestic need for natural gas.¹⁶⁸ In sum, the DOE/FE stated that it would analyze the project’s impact on the public interest with regards to (1) domestic need for natural gas production; (2) the connection between exports and domestic natural gas supply security; (3) any other issue deemed to be appropriate; and (4)

162. *Id.* at 6-7.

163. *Id.* at 8.

164. *Id.* at 14.

165. *Id.* at 9.

166. *Id.* at 28.

167. *Id.*

168. *Id.* at 29.

environmental factors.¹⁶⁹

When analyzing Sabine Pass's specific case, the DOE/FE found that Sabine had provided enough studies and statistical data demonstrating its ability to meet both the domestic demand for natural gas and also the amount necessary for international export over the 20-year term of the requested authorization.¹⁷⁰ Furthermore, it accepted Sabine Pass's assertions regarding the ways the exportation of LNG would benefit the domestic market and create jobs.¹⁷¹ Since the opponents of Sabine Pass could not provide enough data to refute Sabine Pass's information, the DOE/FE refused to grant their petitions.¹⁷² The DOE/FE stated that:

[A]lthough the opponents of the requested authorization have alleged potential negative impacts from a grant of the requested authorization, their arguments are not supported by factual studies or analyses and the opponents have not demonstrated that any potential negative impacts associated with a grant of the requested authorization are likely to outweigh the overall benefits from such authorization¹⁷³

Nevertheless, the DOE/FE admitted that the data provided by Cheniere could not "prove completely accurate over the entire 20-year projected term of the requested authorization."¹⁷⁴ Different variables could produce different results and outcomes.¹⁷⁵ Nevertheless, the DOE/FE asserted its role in continuing to oversee the exports of LNG and the need to make sure that these exports would not result in a decrease of LNG sufficient to harm the public interest.¹⁷⁶ The DOE/FE stated that it could "take action as is necessary or appropriate should circumstances warrant it."¹⁷⁷ It reserved the right to decide whether to authorize future LNG exports.¹⁷⁸

The DOE/FE also analyzed some of the broader international effects of allowing exports and the domestic implications. It asserted that the organizations opposing Cheniere's LNG export application had failed to show that the proposed exports would result in domestic natural gas prices becoming linked to international gas prices.¹⁷⁹ The DOE/FE then confirmed that the LNG exports would not harm U.S. energy security as the U.S. maintains an adequate supply of domestic natural gas.¹⁸⁰ It also clarified that allowing exports would not result in further U.S. oil imports.¹⁸¹ The DOE/FE recognized further beneficial impacts exports would have in (1) creating new markets globally for gas; (2) helping other countries turn

169. *Id.*

170. *Id.*

171. *Id.* at 30.

172. *Id.* at 31.

173. *Id.* at 30.

174. *Id.* at 31.

175. *Id.*

176. *Id.* at 32-33.

177. *Id.* at 33.

178. *Id.*

179. *Id.* at 34.

180. *Id.* at 34-35.

181. *Id.* at 35.

away from oil and coal; (3) helping foreign countries to obtain alternate sources of natural gas (thus resulting in increased market liquidity/transparency); and (4) cutting the link between oil and natural gas in foreign markets.¹⁸²

Most recently, pursuant to Order 3282, the DOE/FE issued a permit to Freeport LNG Expansion L.P. and FLNG Liquefaction, LLC ("FLEX") conditionally granting long-term multi-contract authorization to export LNG by vessel from the Freeport LNG terminal on Quintana Island, Texas to non-free trade agreement nations. Although the DOE/FE granted the permit to export, as it did in Order 2961, the lack of clarity in deciphering exactly which factors the DOE/FE values and the order in which they value those factors proves somewhat disturbing. Basically, if a company is able to provide better statistics than the opposition in proving its case, the DOE/FE will grant the permit.

Similar to Order 2961, the DOE/FE first took into account the applicant's own public interest analysis. The applicant addressed the following seven factors: (1) the impact of the proposed exports on natural gas prices; (2) domestic natural gas supplies and resource base; (3) domestic natural gas demand; (4) benefits to the local, regional, and national economy; (5) balance of trade; (6) global environmental benefits; and (7) national security benefits.¹⁸³ Regarding the impact of the liquefaction project on natural gas prices, FLEX asserted that "the proposed exports will have minimal impact on U.S. natural gas prices."¹⁸⁴ It supported its assertion with statistical data provided in a report it independently commissioned along with data provided by the EIA.¹⁸⁵ Similarly, FLEX argued that the LNG exports would not "materially impact the availability of natural gas supply within the United States,"¹⁸⁶ pointing to technological advances in drilling and further statistics supporting its data.¹⁸⁷ Regarding domestic natural gas demands, FLEX believes that "natural gas produced and exported from the Liquefaction Project will not be needed to meet domestic demand for decades, if ever."¹⁸⁸ FLEX additionally pointed to the economic benefits that would be produced as a result of the exports at the local, regional, and national levels through job creation, the generation of tax revenues, and increased economic activity more generally.¹⁸⁹ FLEX last asserted that the Liquefaction Project would improve the U.S. balance of trade, assist in reducing greenhouse gas emissions, and support American energy security.¹⁹⁰

182. *Id.* at 37.

183. Sabine Pass Liquefaction, LLC, DOE/FE Order No. 3282 (May 17, 2013), 12 [hereinafter DOE/FE Order 3282], available at <http://energy.gov/sites/prod/files/2013/05/f0/ord3282.pdf>.

184. *Id.* at 13.

185. *Id.* at 13-14.

186. *Id.* at 15.

187. *Id.* at 15-17.

188. *Id.* at 18.

189. *Id.* at 19.

190. *Id.* at 19-21.

The DOE/FE next addressed the EIA and NERA studies previously discussed in Section V, detailing the scope and mechanics of both studies. Regarding the results of the EIA study, the DOE/FE pointed out that the “EIA generally found that LNG exports will lead to higher domestic natural gas prices, increased domestic natural gas production, reduced domestic natural gas consumption, and increased natural gas imports from Canada via pipeline.”¹⁹¹ Additionally, the DOE/FE mentioned the EIA’s finding that the largest natural gas price increases would arise in situations of low supply, whereas a situation of high supply would result in “the smallest price response.”¹⁹² The DOE/FE also pointed to the EIA’s finding that increased natural gas exports would result in consumers paying slightly higher natural gas and electricity bills, with the highest increases occurring in the industrial sector.¹⁹³ On the other hand, the DOE/FE also explained the NERA study, which included a macroeconomic energy-economy model, which the EIA study had failed to include.¹⁹⁴ The DOE/FE pointed out that it drew “on several of the scenarios that EIA had developed . . . adding global market scenarios developed through its GNGM model.”¹⁹⁵ The DOE/FE indicated that the NERA pointed to “net economic benefits across all scenarios” and that “the benefits that come from export expansion outweigh the losses from reduced capital and wage income to U.S. consumers.”¹⁹⁶

Furthermore, the DOE/FE pointed out that although the study indicated that LNG exports would result in higher U.S. natural gas prices, “the market limits how high U.S. natural gas prices can rise under pressure of LNG exports.”¹⁹⁷ Perhaps most encouraging was the DOE/FE’s espousal of the NERA’s finding that “[m]acroeconomic impacts of LNG exports are positive in all cases” and that “the United States would experience net economic benefits from increased LNG exports in all cases studied.”¹⁹⁸ Nevertheless, the DOE/FE did note NERA’s finding that “impacts will not be positive for all groups in the economy”¹⁹⁹ and that wage earners would not benefit from the LNG exports.²⁰⁰ The DOE/FE included a particularly important NERA finding, noting that energy-intensive industries would not be seriously impacted.²⁰¹ Finally, however, the DOE/FE pointed out that the report found that “even with unlimited exports, there would be net economic benefits to the United States.”²⁰²

191. *Id.* at 34-35.

192. *Id.* at 36.

193. *Id.* at 37-38.

194. *Id.*

195. *Id.*

196. *Id.*

197. *Id.* at 41.

198. *Id.* at 50.

199. *Id.* at 52.

200. *Id.*

201. *Id.* at 55.

202. *Id.*

The DOE/FE then conducted its analysis by explaining each of the challenges presented by opponents of LNG exports, presenting the DOE/FE's stance on the challenges presented, and pointing to relevant studies (either the EIA or NERA studies or other studies) to bolster its point. For instance, commenters first "challenge[d] the data used as inputs to the LNG Export Study"²⁰³ and argued that "the NERA study underestimated future demand for natural gas and . . . underestimated the likely increases to natural gas prices from LNG exports."²⁰⁴ The DOE/FE responded, however, that "[i]n an undertaking of this scope and magnitude" it was "perfectly reasonable" to use the paradigm the EIA/NERA employed to carry out their research.²⁰⁵ The DOE/FE then went on to address commenters' allegations that the NERA "study overstated the likely macroeconomic benefits from LNG exports" and conflated GDP growth with welfare growth.²⁰⁶ The DOE/FE, however, did not hesitate to point out that the NERA used separate statistical measures and did not conflate the two ideas.²⁰⁷

Additionally, commenters argued that the NERA model failed to adequately address industry-specific impacts,²⁰⁸ specifically the difficulties manufacturing industries will face with increased natural gas prices, and underestimated the value of manufactured finished goods for export rather than LNG exports.²⁰⁹ In response to the commenters' assertions, the DOE/FE concluded that "[t]here is no one-for-one trade-off between gas used in manufacturing and gas diverted for export" and that the study adequately captured the industry-specific impacts.²¹⁰ The DOE/FE pointed out that for manufacturing industries, "the overall impact . . . will be relatively muted, with no individual industry experiencing a dramatic negative impact."²¹¹ Regarding commenters' argument that households would be minimally benefitted,²¹² the DOE/FE said that the export studies indicated that despite this information, the net benefit to the whole economy made LNG exports a worthwhile endeavor.²¹³ The DOE/FE also addressed the concern of commenters that increased LNG export would result in "boom-and-bust" cycles damaging regional areas²¹⁴ and responded that the DOE/FE's case-by-case review would hedge against this damage.²¹⁵ Commenters also argued that the studies may have overestimated domestic natural gas supply, which the DOE/FE ensured it would continue to

203. *Id.* at 57.

204. *Id.*

205. *Id.* at 61.

206. *Id.* at 66.

207. *Id.* at 66-67.

208. *Id.* at 68.

209. *Id.* at 68-69.

210. *Id.* at 71.

211. *Id.* at 72.

212. *See id.* at 73-75.

213. *Id.* at 75.

214. *Id.* at 76.

215. *Id.* at 77.

monitor,²¹⁶ but the DOE/FE still did not think that “NERA employed overly optimistic projections of domestic gas supply.”²¹⁷

The DOE/FE analyzed further challenges posed by commenters, as it addressed their assertion that NERA did not employ the business model actually used by those exporting LNG exports²¹⁸ and also failed to account for foreign direct investment (which would result in royalties and income from LNG exports benefitting foreign parties).²¹⁹ Yet again, the DOE/FE emphasized the precision of the NERA study, stating that it “reflects an accurate understanding of the contractual terms and market environment affecting the fossil industry and . . . provides a plausible future scenario of international trade in LNG with U.S. exports.”²²⁰ The DOE/FE also addressed commenters’ concerns regarding natural gas price volatility, pointing out that if domestic wholesale prices rose “above the LNG netback price, LNG export demand is likely to diminish, if not disappear altogether.”²²¹ Additionally, the DOE/FE pointed out NERA’s assertion that a price differential would always exist between international LNG prices and U.S. domestic prices, thus affirming the profitability of LNG exports.²²²

Most importantly, commenters challenged the procedural methods implemented by the DOE/FE for determining the public interest standard. They argued that the DOE/FE needed to implement formal criteria for determining what constitutes the public interest.²²³ Additionally, they stated that the DOE/FE should “articulate, in the context of a separate rulemaking proceeding, the framework it will use in making its public interest determinations for individual export applications.”²²⁴ Moreover, some commenters argued that “citations to third-party studies in the record do not discharge DOE/FE’s responsibility to evaluate the public interest because the studies are based on undisclosed proprietary data and models with limited information regarding their development and age.”²²⁵ The answer that the DOE/FE provided for these concerns proved dissatisfying. The DOE/FE concluded that it had given the public sufficient opportunity to challenge the pending LNG proceedings.²²⁶ It did not address the commenters’ concerns on instituting a separate rulemaking proceeding or looking at information other than third-party studies. The DOE/FE merely stated that it retains “broad discretion to decide what procedures to use in fulfilling its statutory responsibilities under the NGA, and our view is that the record is sufficient to support the actions we are taking.”²²⁷

216. *Id.* at 78–80.

217. *Id.* at 82.

218. *Id.* at 86.

219. *Id.* at 86–87.

220. *Id.* at 89.

221. *Id.* at 99.

222. *Id.* at 191.

223. *Id.* at 106.

224. *Id.*

225. *Id.* at 107.

226. *Id.* at 108.

227. *Id.* at 109.

After this long analysis, the DOE/FE finally addressed the sufficiency of the data provided by FLEX. It first asserted that based on the lack of support provided by the opponent of the Flex application, APGA, it could grant the permit application.²²⁸ It stated that APGA's argument "was not supported by any significant analysis and . . . that material did not identify meaningful errors or omissions in the studies submitted by FLEX."²²⁹ Next, it stated that, based on the results of the EIA and NERA studies, the Freeport LNG permit would not conflict with the public interest.²³⁰ Nevertheless, aside from these factors, the DOE/FE then stated "[w]e have not limited our review to the contents of the LNG Export Study but have considered a wide range of other information."²³¹

The first factor that the DOE/FE turned to was the international ramifications of granting the LNG permit.²³² It also looked to the "economic impacts of higher natural gas prices and potential increases in gas price volatility."²³³ Perhaps most disturbing, however, were some of the DOE/FE's concluding remarks, as it reminded the company and individuals reading the order that it maintained sole discretion over granting permits.²³⁴ First, the DOE/FE stated that it would look to previous decisions and orders when reviewing future export permits.²³⁵ It then stated that it "will attach appropriate and necessary terms and conditions to authorizations,"²³⁶ and that "[o]ther conditions will be applied as necessary."²³⁷ When providing its reasoning for doing so, the DOE/FE stated that the EIA/NERA studies were not completely precise in their predictive accuracy, that the effects of LNG exports are uncertain, and that the market is ever-changing.²³⁸ The DOE/FE's rationale for attaching terms and conditions as it sees fit is "for protection of the public interest."²³⁹

VII. The History of American Natural Gas Regulation: Taking the Best from the Past

The regulatory framework for the international export of LNG should mirror the domestic regulatory framework already in place for natural gas and the transportation of interstate natural gas because (1) the U.S. already maintains an efficient regulatory system with a clear framework for determining the public's best interests; (2) the regulatory system utilizes a market-based approach to regulating the industry and eschews price regulation; and (3) the regulatory system protects consumers from produc-

228. *Id.* at 110.

229. *Id.*

230. *Id.*

231. *Id.* at 111.

232. *Id.*

233. *Id.*

234. *Id.* at 112-14.

235. *Id.* at 113.

236. *Id.*

237. *Id.*

238. *Id.*

239. *Id.*

ers' monopolistic actions while maintaining a free market system. To better understand exactly why the DOE/FE should follow the existing framework, it is necessary to look at the system's historical development in order to see which factors the federal government came to view as most vital to the maintenance of the public interest. The current success seen across the natural gas industry and the many benefits enjoyed by consumers can be attributed in large part to the "carefully constructed deregulatory program"²⁴⁰ carried out by FERC in the late 1980s and early 1990s. For instance:

Today, competitive forces are being relied upon more heavily to determine market structure and operation. However, this has not always been the case. Almost all aspects of the natural gas industry were regulated at one point – a situation which led to tremendous difficulties in the industry, including the natural gas shortages experienced in the 1970s.²⁴¹

In short, it is necessary to understand the path that federal regulators took to reach this point because their journey "provides insights that can be useful in identifying potential ways of attaining socially beneficial results in many analogous contexts."²⁴²

The production of natural gas first developed in an environment of regulation at the local level—municipalities regulated producers in order to prevent the formation of monopolies.²⁴³ However, as the industry grew, the regulatory framework similarly had to change in order to meet the challenges producers presented.²⁴⁴ For instance, as gas came to be transported through interstate pipelines, the government realized that no federal body existed to regulate this interstate transport, and, as a result, began to take a closer look at how it might monitor this arena.²⁴⁵ It saw that the "interstate transportation of gas was a natural monopoly function that required regulation by someone."²⁴⁶ For this reason, Congress commissioned the Federal Trade Commission ("FTC") to determine whether the interstate pipeline system constituted a natural monopoly that required regulation,²⁴⁷ and the FTC found that a monopoly existed.²⁴⁸ As a result, Congress passed the Natural Gas Act of 1938, which gave the Federal Power Commission ("FPC") authority to regulate interstate natural gas transportation and rates.²⁴⁹ Again, the reasoning behind this bill was to prevent "monopolistic tendencies of interstate pipelines [from] charg[ing] higher

240. See Richard J. Pierce, Jr., *The Evolution of Natural Gas Regulatory Policy*, 10 NAT. RESOURCES & ENV'T 53, 53 (1995).

241. *The History of Regulation*, NATURALGAS.ORG, <http://www.naturalgas.org/regulation/history.asp> (last visited Oct. 14, 2013).

242. See Pierce, *supra* note 240, at 53.

243. See *The History of Regulation*, *supra* note 241.

244. See *id.*.

245. See *id.*

246. See Pierce, *supra* note 240, at 53.

247. *Id.*

248. *Id.*

249. *Id.*

than competitive prices due to their market power.”²⁵⁰

Although severe regulation had already been imposed on the interstate transport of natural gas, the decision that really shook the industry was made in *Phillips Petroleum Co. v. Wisconsin*,²⁵¹ where the Supreme Court instituted price controls on natural gas producers at the wellhead.²⁵² Immediately, this task caused the FPC problems as it sought to establish a coherent system of price controls.²⁵³ Frankly, this system was doomed to failure, because “no agency [could] impose price controls on a structurally competitive market without creating a shortage of the regulated product or service.”²⁵⁴ The FPC set a series of price ceilings that rose to a price that was still “significantly less” than the price of natural gas sold in the open market.²⁵⁵

Unfortunately, the damage had been done. Sadly, “ignorance with respect to basic principles of microeconomics induced many legislators to believe that price controls benefited consumers.”²⁵⁶ But because the government had set the price of natural gas so artificially low, people consumed natural gas at an unsustainable rate.²⁵⁷ Also, in response to the low prices, producers stopped exploring for and producing natural gas—it was simply not profitable for them to do so.²⁵⁸ The combination of these two factors resulted in a shortage of natural gas across the nation with producing states having sufficient natural gas reserves but consuming states facing dire shortages.²⁵⁹

In response to this crisis, the government saw the need for change and began its slow crawl towards deregulation. In 1978, Congress passed the Natural Gas Policy Act with the aim of “[c]reating a single national natural gas market,” “[e]qualizing supply with demand,” and “[a]llowing market forces to establish the wellhead price of natural gas.”²⁶⁰ This act resulted in the transformation of the FPC into FERC while simultaneously setting price ceilings at a much higher rate, with some of the price ceilings gradually being eliminated.²⁶¹ Nevertheless, despite all of the government’s efforts, more problems began to arise.²⁶² As the prices of natural gas

250. *The History of Regulation*, *supra* note 241.

251. 347 U.S. 672 (1954).

252. *See id.* at 677 (finding “that Phillips is a ‘natural gas company’ within the meaning of that term as defined in the Natural Gas Act, and that its sales . . . are subject to the jurisdiction of and regulation by the [FPC].”) The wellhead is a pressure-controlling mechanism through which oil and natural gas exit the reservoir and enter the pipeline or other production equipment. *See Well Completion*, NATURALGAS.ORG, http://www.naturalgas.org/natural_gas/well_completion.asp (last visited Oct. 14, 2013).

253. *See The History of Regulation*, *supra* note 241.

254. *See Pierce*, *supra* note 240, at 54.

255. *See The History of Regulation*, *supra* note 241.

256. *See Pierce*, *supra* note 240, at 54.

257. *See The History of Regulation*, *supra* note 241.

258. *See id.*; *see also Pierce*, *supra* note 240, at 54.

259. *See id.*

260. *The History of Regulation*, *supra* note 241.

261. *See id.*

262. *See id.*; *see also Pierce*, *supra* note 240, at 55.

increased, market demand began to drop.²⁶³ This drop negatively impacted producers and other industry providers; it specifically hurt pipelines because many had committed themselves to “take-or-pay” contracts.²⁶⁴ There was too much natural gas being produced, coupled with low consumer demand, and even though the pipelines did not need gas from suppliers, they were still contractually obligated to pay for the receipt of gas.²⁶⁵

Although some deregulation had occurred under the Natural Gas Policy Act, during the 1980s, significant strides were taken towards complete deregulation. Under the Natural Gas Policy Act, price regulations on wellhead prices were gradually being eliminated.²⁶⁶ FERC then turned and focused its deregulation efforts on the pipelines. Previously, pipelines had sold natural gas and its transport to consumers together.²⁶⁷ However, FERC instituted a process of “unbundling” whereby consumers would pay separately for natural gas and its transport.²⁶⁸ Consumers would now have the option to choose a different producer and pipeline from which to purchase their gas. FERC had turned the pipelines into “open-access common carriers”²⁶⁹ and made them “transporters rather than merchants.”²⁷⁰ FERC Order No. 436 formalized this separation of the purchase of gas from its transportation as it “established a voluntary framework under which interstate pipelines could act solely as transporters of natural gas”²⁷¹ Because consumers would now voluntarily purchase their natural gas directly from producers rather than as part of a package deal from the pipeline, the system came to be called “open access.”²⁷²

Even more substantial deregulation of natural gas producers and natural gas prices occurred in 1989 when Congress eliminated all federal price regulations on wellhead sales with the passage of the Natural Gas Wellhead Decontrol Act.²⁷³ This act was followed shortly by FERC Order No. 636, also known as the “Final Restructuring Rule,”²⁷⁴ in which FERC mandated that all pipelines unbundle gas sales, transport, and storage;²⁷⁵ again, this ensured that consumers would have access to multiple options and could make their own decisions on what to purchase. This order was “seen as the culmination of all of the unbundling and deregulation that had taken place in the past [twenty] years.”²⁷⁶ Previously, unbundling had been voluntary under Order No. 436, but Order No. 636 now made it a mandatory

263. *See id.*

264. *See id.*

265. *The History of Regulation*, *supra* note 241.

266. *Id.*

267. *Id.*

268. *See id.*; *see also* Pierce, *supra* note 240, at 55.

269. *See* BOSSELMAN ET AL., *supra* note 15, at 507.

270. *The History of Regulation*, *supra* note 241.

271. *Id.*

272. *Id.*

273. *See id.*; *see also* Pierce, *supra* note 240, at 84.

274. *The History of Regulation*, *supra* note 241.

275. *See* Pierce, *supra* note 240, at 84.

276. *The History of Regulation*, *supra* note 241.

requirement.²⁷⁷

VIII. The Structural Framework for International LNG Export Regulation: Ensuring the Optimal Balance of Government Regulation and Involvement

While a certain degree of deregulation is needed within the natural gas sales and transportation system industry, complete deregulation is not a viable goal. There are certain aspects of the industry that must continue to be regulated because energy is the industry upon which all other industries depend. Without access to a steady supply of natural gas, inhabitants in different areas of the United States will, quite literally, freeze to death.²⁷⁸ For this reason, it is necessary that the United States ensure, regarding LNG exports, that domestic consumers have access to a steady supply of natural gas—enough to meet their basic needs. However, once LNG exporters demonstrate that they, or other market producers, are able to meet a baseline supply for domestic consumers for a set number of years extending into the future, the exporters must have unfettered access to international markets. The benefits that the United States will reap from allowing LNG export companies to export abroad far outweigh any potential negative implications. As the studies above have demonstrated, some hazards will likely arise as a result of exporting LNG. Nevertheless, the net advantages and profits that LNG exports might potentially yield make efforts to refine and illuminate the structural and substantive regulatory framework all the more urgent. A clear structural regulatory approach is necessary in order to facilitate the international export of LNG.

Thus, in order to implement a structural framework that promises a maximal amount of deregulation coupled with regulation in only the most important areas, one need only look to the current domestic regulatory system for natural gas production within the United States and the manner in which it has evolved. An analysis of the structural framework of the domestic natural gas regulatory system shows that although the government has tried to implement as much deregulation as possible, certain areas of the system—those that impact the lives of domestic consumers, including pipelines and local distribution companies—are still regulated.²⁷⁹ Throughout the history of the domestic natural gas regulatory system, an emphasis has always been placed on preventing the formation of monopolies.²⁸⁰ The federal government has worked diligently to prevent natural gas suppliers from using their positions to extract unfair rents from

277. See *id.*; see also Pierce, *supra* note 240, at 84.

278. See Marc Brown, *New England Ratepayers Need Greater Access to Natural Gas*, CTPOST.COM (Mar. 15, 2013, 6:09 PM), <http://www.ctpost.com/opinion/article/New-England-ratepayers-need-greater-access-to-4358568.php>.

279. See *The Market Under Regulation*, *supra* note 14.

280. See generally *The History of Regulation*, *supra* note 241 (providing an overview of the history of regulation and the reasons for the imposition of various regulatory measures and acts).

domestic consumers.²⁸¹ In fact, local municipalities who feared that natural gas producers were in a position to “charge overly-high prices” and abuse their market power were the driving force behind the development of a regulatory system.²⁸² Furthermore, the FPC—the predecessor of FERC—was created to monitor the interstate pipeline system which had been determined was in fact a natural monopoly.²⁸³ At every step of the development of the industry, the government has worked to ensure that consumers have access to a reliable and steady source of natural gas. Additionally, as a further measure to prevent natural gas producers and transporters from exploiting domestic consumers, the government went so far as to institute price controls.²⁸⁴ Price controls on wellhead sales in the United States lasted for a period of nearly forty years.²⁸⁵

Although government officials sought to protect consumers, they realized that such intrusive means of regulation and market-control was ultimately deleterious.²⁸⁶ Beginning with the passage of the Natural Gas Policy Act in 1978, the government slowly began to implement deregulation.²⁸⁷ Over the course of several decades, it steadily raised price ceilings, with the ultimate goal of allowing prices to be determined by the market.²⁸⁸ Nevertheless, the government still had to undo all “disastrous policy decisions that were made between 1938 and 1978.”²⁸⁹ Because many of government’s previous policies had disproportionately benefitted pipelines as they capitalized on the price regulations through the use of take-or-pay contracts, many pipelines sought to “stall the process of implementing the new market-based regulatory strategy” that exposed them to the risk of large losses.²⁹⁰ Still, the government continued down its path of deregulation, completing abolition of all wellhead price ceilings in 1989 and instituting the pipelines’ unbundling process in 1992.²⁹¹

The large amount of deregulation implemented throughout the late 80s and early 90s has produced many beneficial results; deregulation incentivized many industry members and producers to invest in more efficient and productive means of drilling and producing, and natural gas transportation systems have become more cohesive.²⁹² Furthermore, roughly five billion dollars’ worth of improvements occurred in various areas throughout the industry as a result of deregulation.²⁹³ When the deregulated natural gas market during the harsh winter of 1993-1994 is

281. See generally Pierce, *supra* note 240 (documenting the efforts of the government to protect consumers).

282. See *The History of Regulation*, *supra* note 241.

283. See Pierce, *supra* note 240, at 53.

284. *Id.* at 54.

285. *Id.* at 84.

286. *Id.* at 54.

287. *Id.*

288. *Id.* at 55, 84.

289. *Id.* at 55.

290. *Id.*

291. *Id.* at 84.

292. *Id.*

293. See BOSSELMAN ET AL., *supra* note 15, at 529.

compared to the regulated market during a similarly cold winter in 1976-1977, it is clear that the deregulated market in 1993-1994 performed significantly better.²⁹⁴ Ultimately, “FERC’s extraordinary success in subjecting the gas industry to the unmatched discipline of a competitive market should be a source of many lessons that can be valuable in efforts to restructure other industries whose performance has been disappointing.”²⁹⁵ The government achieved such a high level of deregulation that “the natural gas business [of today] would hardly be recognized by people who knew it in the 1970s.”²⁹⁶

Nevertheless, pipelines and local distribution companies remain regulated. The rationale for keeping these areas regulated is that “competition between pipelines . . . would not necessarily be in the public interest.”²⁹⁷ For example, interstate pipeline companies face regulation in the construction of their pipelines, the content of the gas in their pipelines, and the price imposed on clients.²⁹⁸ Similarly, state utility commissions monitor the activities of local distribution companies.²⁹⁹ As a result of the industry’s development, pipelines are considered common carriers—they do not sell natural gas and serve merely as transporters.³⁰⁰

FERC ensures that pipeline companies do not capitalize on their monopoly positions, and it emphasizes preventing harm to consumers.³⁰¹ Some of FERC’s specific goals include: “[p]reventing discriminatory or preferential service;” “[a]cting as a surrogate for competition where competition does not or cannot exist;” and “[p]rotecting customers and market participants through oversight of changing energy markets, including mitigating market power and ensuring fair and just market outcomes for all participants.”³⁰² At the end of the day, however, FERC “consider[s] all different points of view, and issue[s] a decision based on what *it* believes is the best course of action for the industry in general.”³⁰³

There are a number of problems with the current regulatory framework for the international export of LNG to companies who do not have a free trade agreement with the United States. First, the current regulatory framework lacks clarity. No precise formula exists as to how or why the DOE/FE will grant a permit to a non-FTA country. Basically, as long as a company can prove to the DOE/FE that its project is better than not, the DOE/FE will grant the permit. However, the DOE/FE’s process lacks a bright line rule or standard. No list of elements or the order of their importance exists for companies to help them determine objectively whether they

294. See Pierce, *supra* note 240, at 84.

295. *Id.* at 84-85.

296. See BOSSELMAN ET AL., *supra* note 15, at 507.

297. See *id.* at 509 (quoting Justice Scalia in *Maryland People’s Counsel v. FERC*, 761 F.2d 768 (D.C. Cir. 1985)).

298. See *The Market Under Regulation*, *supra* note 14.

299. *Id.*

300. *Id.*

301. See *The Market Under Regulation*, *supra* note 14.

302. *Id.*

303. *Id.* (emphasis added).

will qualify for a permit to export LNG. The granting of a permit essentially comes down to a battle of the statistics—whichever side can produce the best numbers wins or defeats the issuance of the permit. Furthermore, the process is transitory. Although the DOE/FE is presently allowing LNG permit exports, the language in Section 3 and Order 3282 indicates that the DOE/FE, in its sole discretion, may change its position. Similar to the regulatory framework currently in place for LNG exports, when the DOE/FE decides whether to allow pipeline expansion, it takes into account three factors: (1) the project's impact on the public interest, (2) the project's economic viability, and (3) environmental implications.³⁰⁴ Before a company embarks on constructing or extending a pipeline, it must first obtain a certificate of public convenience and necessity.³⁰⁵ To obtain a certificate, a pipeline company must demonstrate that the construction of the pipeline is in the public interest.³⁰⁶ However, in practice, the DOE/FE can issue or reject a pipeline application for any reason whatsoever at its sole discretion.³⁰⁷ For example, the Natural Gas Act states: "The Commission shall have the power to attach to the issuance of the certificate and to the exercise of the rights granted thereunder such reasonable terms and conditions as the public convenience and necessity may require."³⁰⁸

The structural regulatory framework for pipelines has essentially been transferred to international LNG exports. For example, the factors the DOE/FE considers are: (1) domestic need for natural gas production, (2) domestic security concerns, (3) *any other issue deemed to be appropriate*, and (4) environmental factors.³⁰⁹ However, regardless of the material an LNG exporter presents that their project may serve the public interest (or how convincing that material may be), ultimately, the DOE/FE may grant or reject an application to export to countries with which we do not have free trade agreements for *any reason whatsoever*.³¹⁰ In its most recent order, the DOE/FE stated that it has "broad discretion to decide what procedures to use in fulfilling its statutory responsibilities under the NGA . . ." ³¹¹ Going a step further, the DOE/FE was so bold as to say that it "will attach appropriate and necessary terms and conditions to authorizations"³¹² and that "[o]ther conditions will be applied as necessary."³¹³ This framework does not mirror the mix of the deregulated system of natural gas producers coupled with the regulated pipeline system. It simply superimposes the highly regulated pipeline system on the international LNG export regulatory framework. The DOE/FE has unfettered power over whether an LNG exporter is granted a permit to export to countries with

304. *See id.*

305. *See* Section 7 of the Natural Gas Act, 15 U.S.C.A. § 717f (West 2013).

306. *See id.*

307. *See id.*

308. *Id.* § 717f(e).

309. DOE/FE Order 2961, *supra* note 11, at 29 (emphasis added).

310. *See id.*

311. DOE/FE Order 3282, *supra* note 183, at 109.

312. *Id.* at 113.

313. *Id.*

which we do not have free trade agreements. There is no clear guidance as to what exactly an LNG producer must produce or present in order to obtain approval.³¹⁴ This lack of guidance only magnifies the regulatory power of the DOE/FE and impinges on the competitive market. Currently, the DOE/FE seems to support the international export of LNG, and, based on the two orders issued, the DOE/FE appears likely to grant future LNG export permit applications. At any point, however, the DOE/FE could unilaterally decide that LNG export is not in the public interest and completely reverse its stance. Allowing the DOE/FE this “broad discretion”³¹⁵ through its determination of “any other issue determined to be appropriate”³¹⁶ endows the DOE/FE with an inordinate amount of power. For this reason, some objective set of criteria or standards should exist for companies to reference in order to guarantee themselves some measure of security. Their ability to export LNG should not be governed by the whims of the DOE/FE, which may change at any given point.

Second, rather than superimpose the highly regulated structure of the pipeline system onto the international LNG export system, regulators should take a more fluid and less restrictive regulatory approach. The history of the natural gas regulatory system shows that a regulatory system comprised of marked regulation coupled with a market-based approach is highly beneficial.³¹⁷ The positive aspects of regulation should obviously be utilized, but deregulation should still remain the focus. Once the basic, underlying values of the current system can be met, the domestic natural gas regulatory framework should guide the regulatory framework for international LNG export. For example, the one maxim that has undergirded the natural gas regulatory system has been the prevention of monopolies.³¹⁸ This anti-monopoly function is the reason that the federal regulatory system was created in the first place.³¹⁹ Once natural gas exporters comply with basic regulations protecting domestic needs, they should then be allowed to operate in the structural framework of the natural gas production system, where no regulation or price ceilings exist. This arrangement ensures perpetuation of the system’s values, protection of the consumer, and stimulation of the economy.

Third, in order to minimize the structural regulatory framework for international LNG export, the DOE/FE must set clear standards for what is required to meet the public interest. It is only by demarcating exactly what information the DOE/FE requires that international LNG exporters will truly be free of regulatory constraints and able to participate in the international LNG market. In particular, the DOE/FE should: (1) collapse the “domestic security concerns” prong into the “domestic need for natural gas production” prong and focus solely on domestic need, (2) eliminate the

314. DOE/FE Order 2961, *supra* note 11, at 29.

315. DOE/FE Order 3282, *supra* note 183, at 109.

316. DOE/FE Order 2961, *supra* note 11, at 29.

317. See Pierce, *supra* note 240, at 54.

318. See *id.* at 53; see also *The History of Regulation*, *supra* note 241.

319. See *The History of Regulation*, *supra* note 241.

“any other issue deemed to be appropriate” prong, and (3) minimize the importance of the “environmental factors” prong.³²⁰

When issuing Order 2961 to Cheniere, the DOE/FE took into account multiple factors—for example, it recognized the potential of LNG exports in creating new global markets, helping other countries move away from coal, and increasing market liquidity, among numerous other domestic benefits.³²¹ It is not enough to say that a combination of these vague, unquantifiable factors satisfies the public interest requirement. Going a step further, in Order 3283, the DOE/FE ultimately based its decision on the results of the EIA/NERA studies.³²² Although it stated that the opposition’s comments were “not supported by any significant analysis and . . . that material did not identify meaningful errors or omissions in the studies submitted by FLEX,”³²³ the DOE/FE did not seem to focus on any hard data provided by FLEX. The DOE/FE appeared to take the stance that because the opposition had not made any truly challenging arguments, and because the EIA/NERA studies support LNG export, more generally, FLEX would be granted an export permit. And although the factors currently weigh in FLEX’s favor, this may not be the case for additional companies further down the road. By focusing on these external factors, the DOE/FE essentially takes the power out of the LNG producers’ and exporters’ hands—the process detracts from LNG producers’ and exporters’ ability to determine whether they qualify for a permit.

Additionally, the DOE/FE spent the majority of its analysis defending the studies against challenges brought by commenters.³²⁴ The DOE/FE’s decision whether to grant a company an LNG export permit should not be based so disproportionately on a third party’s research, but instead should be focused on data that the company itself provides, guaranteeing its ability to serve a set amount of LNG to the domestic market for a set number of years. The DOE/FE must set a numerical baseline for how much LNG exporters should be expected to provide domestically over the next twenty-five or fifty years. Once exporters meet that numerical floor, they should be free to export to any country in any quantity. Furthermore, if the domestic need for natural gas production has been met, whether any security concerns exist surrounding domestic supply is moot. Additionally, the “any other issue deemed to be appropriate” prong should be removed because it places the international LNG regulatory framework within the domestic pipeline regulatory framework. As it currently exists, this prong inhibits deregulation because it places too much power in the hands of the DOE/FE and does not allow the amount of deregulation found in the domestic natural gas regulatory system.

Finally, when evaluating environmental factors, unless the LNG export will cause immediate or potential catastrophic damage, the LNG

320. See DOE/FE Order 2961, *supra* note 11, at 29.

321. See *id.* at 35, 37.

322. See generally DOE/FE Order 3282, *supra* note 183.

323. *Id.* at 110.

324. See generally DOE/FE Order 3282, *supra* note 183.

export permit should be issued immediately. This is not to say that environmental factors should be completely disregarded. LNG export companies should still be expected to provide environmental assessment reports demonstrating that they will not significantly harm the environment.³²⁵ The point is simply that the importance of the third prong should be minimized.

IX. The Substantive Framework for International LNG Export Regulation: Three Factors the DOE/FE Should Consider When Determining the Public Interest

When determining whether a permit to export LNG is in the public interest, the DOE/FE should look to three factors: (1) the prevention of monopoly and abuse by producers, (2) the protection of consumers from exploitation, and (3) the assurance of a reasonably priced supply of gas. This trio will ensure that LNG exporters will be able to meet domestic demands before exporting LNG internationally. These factors underlie many of the FPC and FERC rulings on administrative issues related to natural gas production, transportation, and marketing. For example, as stated in *NAACP v. FPC*, “in order to give content and meaning to the words ‘public interest’ . . . it is necessary to look to the purposes for which the Acts were adopted.”³²⁶ Some of the older case law that helped form the development of the domestic regulatory system serves as an example of the factors that should be taken into consideration by the DOE/FE when conducting its analysis. Once the DOE/FE determines a number that meets all three of these criteria, that number should serve as the baseline for LNG exporters. After LNG exporters prove that they are able to meet that baseline of supplying domestic need, then they can enter the domestic natural gas structural framework, where they will be able to export as much LNG as they desire at whatever prices the market sets.

A. Prevention of Monopoly and Prevention of Abuse by Producers

The first developmental issue faced by the federal government in regulating the natural gas industry was the prevention of monopoly and abuse by producers. Several cases contain language that demonstrates the prevalence of this issue in shaping the industry. For example, in *Sunray Mid-Continent Oil Co. v. FPC*, the Supreme Court ruled on a case in which a company applied for a certificate of public convenience and necessity.³²⁷ The company wanted the certificate to be valid only for the duration of a gas sales contract that it had signed. Nevertheless, the Court held that the FPC had the ability to issue the certificate indefinitely and disregard the company’s request for a time limitation.³²⁸ When the Court looked at whether it should grant the company’s request, it considered a number of

325. *See id.* at 259.

326. *NAACP v. FPC*, 425 U.S. 662, 669 (1976).

327. *See Sunray Mid-Continent Oil Co. v. FPC*, 364 U.S. 137 (1960).

328. *See id.* at 156-58.

factors that point to the underlying goal of preventing the monopolistic tendency of producers.³²⁹ For example, the Court said that “though the primary practical problem that led to the passage of the Act was the great economic power of the pipeline companies as compared with that of communities seeking natural gas service[,]”³³⁰ “[t]his Court declared as early as the Hope Natural Gas case that the primary aim of the Natural Gas Act was ‘to protect consumers against exploitation at the hands of natural gas companies.’”³³¹ The Court then went on to state that this was the “backdrop” against which it would make its decision.³³²

The language from *Mississippi River Fuel Corp. v. FPC*³³³ demonstrates yet again the emphasis placed on preventing monopolies and abuse of consumers. This case points out that the federal regulatory system existed to prevent large producers from unfairly capitalizing on their position in the market.³³⁴ In this case, the court reviewed orders made by the FPC in which the FPC had prevented rate increases by the Mississippi River Fuel Corporation.³³⁵ The Mississippi River Fuel Corporation sought to increase prices to its consumers, but the court refused to allow the rate increase.³³⁶ The court reasoned that “[t]he regulation of the transporter and the large scale seller . . . was apparently the chief purpose of Congress in enacting the law.”³³⁷ The court pointed out that the policy value underlying this regulation was ultimately for the good of the consumer and not the utility.³³⁸

The federal government, concerned with preventing producer abuse, ensured that no area was left unsupervised. The government’s approach proved to be comprehensive, as it ensured that the FPC’s oversight be conducted in the most careful manner possible.³³⁹ For instance, in *Tennessee Gas Transmission Co. v. FPC*, the court held that a pipeline built by a natural gas transmission company did not meet the specifications of the certificate issued by the FPC, and thus, was an “unauthorized facility.”³⁴⁰ The court specified that “whenever natural gas is dedicated to interstate commerce it is the manifest duty of the Commission to scrutinize the transaction in all its facets to the end determination of the public convenience and necessity.”³⁴¹ Similarly, in *Panhandle Eastern Pipe Line Co. v. FPC*, when reasoning that the FPC’s jurisdiction extended to helium-bearing natural

329. See *id.* at 141-43.

330. *Id.* at 143.

331. *Id.* at 147 (quoting *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 610 (1944)).

332. *Id.*

333. 121 F.2d 159 (8th Cir. 1941).

334. See *id.* at 164.

335. See *id.* at 161.

336. See *id.* at 165.

337. *Id.* at 164.

338. See *id.*

339. See, e.g., *Tenn. Gas Transmission Co. v. FPC*, 340 F.2d 100 (10th Cir. 1964).

340. *Id.* at 101-02.

341. *Id.* at 102 (citing *Atl. Ref. Co. v. Pub. Serv. Comm’n of N.Y.*, 360 U.S. 378, 391-92 (1959)).

gas,³⁴² the court not only stated that “to hold otherwise would be to render the operation of the [NGA] less effective,”³⁴³ but also that “it would be an incongruous result if the statute was construed to obtain the opposite result.”³⁴⁴ Furthermore, the court also stated that although the NGA “was not intended to regulate the entire natural gas field to the limit of constitutional power, it is equally clear that Congress did not desire that an important aspect of this field be left unregulated.”³⁴⁵ Again, in the famed *Phillips Petroleum Co. v. Wisconsin* Case, part of the reasoning the Court provided for implementing price controls was that the congressional purpose for the FPC was “to plug the ‘gap’ in regulation of natural-gas companies resulting from judicial decisions prohibiting . . . state regulation of many of the interstate commerce aspects of the natural-gas business.”³⁴⁶ This regulation extended even to the local level. Although the federal government could not itself regulate every aspect of the natural gas industry, it delegated to the appropriate bodies the oversight of activities such as the production and gathering of natural gas³⁴⁷ that fell under the powers of the states.³⁴⁸ Nevertheless, the existence of local jurisdiction over FPC jurisdiction was to be “clearly shown” and “strictly construed.”³⁴⁹

B. Protection of Consumers from Exploitation

Aside from working to stymie monopolies and prevent producer abuse, federal government officials also sought to protect consumers from exploitation. In fact, the protection of consumers served as the underlying reason that the federal government proved so fastidious in its efforts to foil monopolies.³⁵⁰ A number of cases, beginning in 1941 with *Mississippi River Fuel Corp. v. FPC*, set forth that the NGA existed primarily for the protection of the consumer.³⁵¹ As a result, protecting consumers from exploitation by natural gas producers became the lifeblood of the FPC.³⁵² The court’s language surrounding the protection of consumers initially proved to be narrow, and frankly, quite lenient. For example, in the 1954 case of *Colorado Interstate Gas Co. v. FPC*,³⁵³ although the court undoubtedly emphasized consumer protection, it similarly alluded to the rights of the natural gas companies. As the court reviewed a petition of a natural

342. See *Panhandle E. Pipe Line Co. v. FPC*, 359 F.2d 675, 679 (8th Cir. 1966).

343. *Id.* at 680.

344. *Id.*

345. *Id.* at 683 (citation omitted). See *FPC v. Panhandle E. Pipe Line Co.*, 337 U.S. 498 (1949); see also *Panhandle E. Pipe Line Co. v. Pub. Serv. Comm’n of Ind.*, 332 U.S. 507 (1947).

346. *Phillips Petroleum Co. v. Wisconsin*, 347 U.S. 672, 682-83 (1954).

347. See *Interstate Natural Gas Co. v. FPC*, 331 U.S. 682, 691 (1947).

348. See *id.* at 690.

349. *Id.* at 690, 691.

350. See *FPC v. La. Power & Light Co.*, 406 U.S. 621, 631 (1972) (citing *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 610 (1944)).

351. See *Miss. River Fuel Corp. v. FPC*, 121 F.2d 159, 164 (8th Cir. 1941).

352. See *Cal. Gas Producers Ass’n v. FPC*, 421 F.2d 422, 428-29 (1970) (citing *Atl. Ref. Co. v. Pub. Serv. Comm’n of N.Y.*, 360 U.S. 378, 388 (1959)).

353. 209 F.2d 717 (10th Cir. 1953).

gas producer appealing the reduction of its rates by the FPC,³⁵⁴ it reasoned that “[t]he primary purpose of the Natural Gas Act was to protect the users of gas against exorbitant exactions at the hands of natural gas companies and on the other hand assure to them the *right of a fair return* from their operations.”³⁵⁵ The court went so far as to point out that it is the “statutory duty of the Commission to establish . . . rates [for natural gas] that are fair and just to the utility”³⁵⁶

However, as time passed, courts did not mention the aforementioned rights of natural gas companies, and they focused instead solely on protecting the consumer. In *FPC v. Louisiana Power & Light Co.*, the Supreme Court held that the FPC had the authority to regulate instances in which pipeline companies would restrict interstate natural gas sales; the only area the FPC could not regulate was sales directly to consumers.³⁵⁷ The Court reasoned that “[t]he Natural Gas Act of 1938 granted FPC broad powers ‘to protect consumers against exploitation at the hands of natural gas companies.’”³⁵⁸ Here the Court mandated that the FPC was only to take action in instances of *exploitation*. The Court then spoke to the creation by Congress of a “‘comprehensive and effective regulatory scheme’ of dual state and federal authority”³⁵⁹ so that there are “no ‘gaps’ for private interests to subvert the public welfare.”³⁶⁰ So important was consumer protection that the federal government ensured that every area of the industry had some sort of governmental oversight.

Towards the end of the 1970s, courts seemed to take an even more protective stance of consumers as they interpreted the NGA to protect consumers not just in instances of exploitation but also in their normal usage of natural gas. For instance, in *Clark v. Gulf Oil Corp.*, the petitioner tried to obtain damages from a natural gas producer for not meeting the terms of the FPC’s certificate of convenience and necessity.³⁶¹ In reaching its conclusion, the court reasoned that “the overall purpose of the Natural Gas Act is to protect the interest of consumers in an *adequate supply of gas and at reasonable rates*.”³⁶² This reasoning broadened the standards for which the NGA would protect ordinary consumers. Consumers were not only protected from abuse; they also were guaranteed dependable rates. The Fifth Circuit used the same language in its reasoning in *Florida Power & Light Co. v. FERC*, a case in which the court affirmed a FERC order preventing a company from meeting obligations to provide natural gas for use as boiler

354. See *id.* at 720–21.

355. *Id.* at 724 (emphasis added).

356. *Id.* at 727.

357. See *FPC v. La. Power & Light Co.*, 406 U.S. 621, 638 (1972).

358. *Id.* at 631 (quoting *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 610 (1944)); see also *FPC v. Transcon. Gas Pipe Line Corp.*, 365 U.S. 1, 19 (1961); *Sunray Mid-Continent Oil Co. v. FPC*, 364 U.S. 137, 147 (1960).

359. *Id.* at 631 (quoting *Panhandle E. Pipe Line Co. v. Pub. Serv. Comm’n of Ind.*, 332 U.S. 507, 520 (1947)).

360. *Id.* at 631.

361. See *Clark v. Gulf Oil Corp.*, 570 F.2d 1138, 1140–41 (3d Cir. 1977).

362. *Id.* at 1145–46 (emphasis added).

fuel because using boiler fuel for natural gas during times of shortage was contrary to the public interest.³⁶³ The court stated that this particular purpose of the NGA in ensuring an “adequate supply of gas and at reasonable rates”³⁶⁴ was already “well established.”³⁶⁵ It also stated that “courts have consistently recognized that the Act gives the Commission broad authority to limit or proscribe contractual arrangements”³⁶⁶

Regardless of the breadth of the approach taken by the court, the desire to protect the consumer was clearly the underlying value of the NGA and regulatory system. The desire of the court to protect the consumer could be seen through: (1) its meticulous attention to addressing consumers’ concerns, (2) its consideration of consumer’s interests not just in the present but also in the future, and (3) its commitment to meeting consumer needs even in times of hardship. *In re Permian Basin Area Rate Cases* demonstrates the validity of the first two points. Here, the Supreme Court held that the FPC maintained the power to institute area price regulations.³⁶⁷ Nevertheless, the Court held that the FPC, in its price analysis, had to “at each step . . . assess the requirements of the broad public interests”³⁶⁸ Furthermore, “the ‘end result’ of the Commission’s orders must be measured as much by the success with which they protect those interests as by the effectiveness with which they ‘maintain credit’”³⁶⁹ Aside from the Court’s emphasis on meticulously assessing consumer interests at each step, the Court also pointed to the exigency of protecting future consumer interests. It stated that “[t]he Commission’s responsibilities include the protection of future, as well as present, consumer interests.”³⁷⁰ Finally, in another case, the court demonstrated its dedication to protecting the consumer through its desire to provide supplies, even in emergency circumstances. In *Consolidated Edison Co. of New York, Inc., v. FPC*, the court sided with the FPC in deciding that the FPC “has residual emergency powers to impose an interim plan [for natural gas supply or its curtailment] where there is no adequate alternative.”³⁷¹ This decision came in response to litigation brought by customers attempting to prevent pipelines from cutting their gas supply.³⁷²

363. See *Fla. Power & Light Co. v. FERC*, 598 F.2d 370, 380–81 (5th Cir. 1979).

364. *Id.* at 379. See *California v. Southland Royalty Co.*, 436 U.S. 519, 523 (1978); see also *Sunray Mid-Continent Oil Co. v. FPC*, 364 U.S. 137, 147, 151–54 (1960); *Clark*, 570 F.2d at 1145.

365. *Id.*

366. *Id.* See, e.g., *In re Permian Basin Area Rate Cases*, 390 U.S. 747, 783–84 (1968); *United Gas Pipe Line Co. v. Mobile Gas Serv. Corp.*, 350 U.S. 332 (1956).

367. *In re Permian Basin*, 390 U.S. at 768, 770, 771, 772, 774.

368. *Id.* at 791.

369. *Id.* (citation omitted).

370. *Id.* at 798.

371. *Consol. Edison Co. of N.Y., Inc. v. FPC*, 511 F.2d 372, 382 (D.C. Cir. 1974).

372. See *id.* at 378, 381.

C. Assurance of a Reasonably Priced Supply of Gas

Aside from protecting consumers from exploitation by natural gas producers and transporters, the government sought to ensure that consumers would have access to a reasonably priced supply of gas. The government sought not just to prevent consumer abuse, but also to guarantee consumers a comfortable standard of living through reliance on affordable, dependable natural gas sources. This particular interpretation of this purpose of the NGA arose in 1959 in the case of *Atlantic Refining Co. v. Public Service Commission of New York*.³⁷³ In this case, the Supreme Court refused to back the issuance of unconditional permanent certificates at firm prices to natural gas producers.³⁷⁴ Part of the Court's reasoning was that the "purpose of the Natural Gas Act was to underwrite just and reasonable rates to the consumers of natural gas."³⁷⁵ Furthermore, the Court stated that the Act "was so framed as to afford consumers a complete, permanent and effective bond of protection from excessive rates and charges"³⁷⁶ and pointed out that congressional intent was to "give full protective coverage to the consumer as to price"³⁷⁷ The Court then made a similar move in *Atlantic Refining Co. v. FPC* when it held that the Commission was correct to issue a certificate of public convenience authorizing the reduction of the base price of natural gas sales.³⁷⁸ The Court reasoned that "natural gas shall be sold in interstate commerce for resale for ultimate public consumption for domestic, commercial, industrial, or any other use at the lowest possible reasonable rate consistent with the maintenance of adequate service in the public interest."³⁷⁹

However, as seen above, during the 1970s, the federal government took an increasingly protective stance of consumers.³⁸⁰ Rather than ensure only that rates would be reasonable, the government also wanted to make certain that consumers would have an adequate long-term supply of natural gas at low rates. For the sake of consumers, the government wanted to ensure that prices remained reasonable for the foreseeable future. For instance, in *Southern Louisiana Area Rate Cases v. FPC*, the court sustained an FPC order that established price ceilings for wellhead natural gas sales.³⁸¹ Part of its reasoning was that "[t]he purposes of the Act encompass not only reasonably low rates but *maintenance of adequate service* for the consumer"³⁸² The court even ordered the FPC to elaborate on future industry impacts that its orders would produce.³⁸³ It stated that "[p]redictions along this line are subject to obvious infirmities, but at

373. *Atl. Ref. Co. v. Pub. Serv. Comm'n of N.Y.*, 360 U.S. 378 (1959).

374. *See id.* at 382, 392.

375. *Id.* at 388.

376. *Id.*

377. *Id.* at 389.

378. *See Atl. Ref. Co. v. FPC*, 316 F.2d 677, 680-81 (D.C. Cir. 1963).

379. *Id.* at 678 (internal quotation marks omitted).

380. *See supra* Section X.B.

381. *S. La. Area Rate Cases v. FPC*, 428 F.2d 407, 415 (5th Cir. 1970).

382. *Id.* at 435 (emphasis added).

383. *See id.* at 443.

least the possibilities can be identified and probabilities assigned to them.”³⁸⁴ This reasoning was similarly echoed by the court in *Public Service Commission of Kentucky v. FERC*, where the court wanted to ensure that the policy goal of the entire nation having access to an adequate supply of natural gas was met.³⁸⁵ In this case, local users in Kentucky could demand natural gas from local producers under state law; nevertheless, the court held that FERC could request a certificate of public convenience and necessity prior to the state granting these local requests, in order to ensure that the needs of people in one area were being met not at the expense of the needs of others.³⁸⁶

So focused was the government on ensuring that individuals across the nation receive reasonable rates of natural gas for an extended period of time that in 1975, the Fifth Circuit gave the FPC permission to institute a national rate for wellhead sales.³⁸⁷ This level of authority to ensure the reasonable rates for an extended period nationwide only increased in 1987 in *Office of Consumers' Counsel, State of Ohio v. FERC*, when the court allowed FERC to step into the shoes of natural gas producers.³⁸⁸ For example, FERC could force the utility to use more expensive ways of providing energy to consumers if doing so would prevent consumers from bearing unnecessary expenses.³⁸⁹

Conclusion

Due to the shale revolution that has taken place in the United States, a large amount of natural gas currently exists within the nation's pipeline system.³⁹⁰ The United States contains such a large amount of domestic natural gas that the domestic price has dropped significantly and is much lower than prices in countries across the globe.³⁹¹ This overabundance of domestic natural gas, coupled with increasing international need for LNG exports abroad, has triggered a debate in the United States as to whether LNG exporters should be allowed to export to countries with which the United States does not have free trade agreements.³⁹² Although various studies indicate that LNG exports would yield both beneficial and negative results, the fact remains that the economic benefits of exporting LNG far

384. *Id.*

385. *See* *Pub. Serv. Comm'n. of Ky. v. FERC*, 610 F.2d 439, 442, 443, 445 (6th Cir. 1979).

386. *Id.* at 444.

387. *See* *Shell Oil Co. v. FPC*, 520 F.2d 1061, 1077, 1084 (5th Cir. 1975).

388. *See* *Office of Consumers' Counsel, State of Ohio v. FERC*, 808 F.2d 125, 131-33 (D.C.Cir. 1987).

389. *See id.*

390. *See* John Ydstie, *U.S. Has a Natural Gas Problem: Too Much of It*, NPR (Apr. 17, 2012, 3:00 AM), <http://www.npr.org/2012/04/17/150766635/u-s-has-a-natural-gas-problem-too-much-of-it>.

391. *See* LEVI, *supra* note 5, at 5.

392. *See* Arjun Sreekumar, *Debate Over U.S. LNG Exports Heats Up*, THE MOTLEY FOOL (Apr. 3, 2013), <http://www.fool.com/investing/general/2013/04/03/debate-over-us-lng-exports-heats-up.aspx>.

outweigh its costs.³⁹³

In order to prepare for the export of LNG, a clear, organized regulatory system must be in place to maximize the benefits that export will potentially yield. In particular, three factors that have proven important in the industry's development have been: (1) the prevention of monopoly and abuse by producers, (2) the protection of consumers from exploitation, and (3) the assurance of a reasonably priced supply of gas. These are the factors that should be used to decide whether an LNG export permit would harm the public interest. The DOE/FE must set a floor specifying a set amount of domestic gas that must be provided by LNG exporters prior to exporting LNG internationally. Once it is determined that this floor meets the above three criteria, LNG exporters should then be allowed to operate in the structural regulatory framework of the domestic natural gas production market where little regulation exists.

The DOE/FE should not provide ambiguous standards as to how it will judge whether an LNG export application is in the public interest. Rather, the regulatory system for LNG export should mirror the domestic regulatory system for natural gas production. The regulatory structure and factors used to determine whether a permit is in the public interest should be clear and definite in order to facilitate the process. Furthermore, as much deregulation as possible should be allowed; nevertheless, regulation should not be totally eschewed but should be focused on the areas that are most important to the industry. It is only in this way that we can maximize the benefits from LNG exports and harness those benefits to strengthen our domestic economy.

393. See MONTGOMERY ET AL., *supra* note 12, at 6.