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I. INTRODUCTION

The United States has been historically at the "end of the pipeline" for liquefied natural gas (LNG) and regular imports are needed in some regions to augment seasonal shortages in supply. Because the United States has become a more significant producer of natural gas (highest in the world),[1] regional markets here tend to no longer rely on LNG cargoes for gas supply. According to the Energy Information Administration (EIA), "LNG imports to the United States were generally not viewed as competitive with domestic supplies of natural gas and pipeline imports from Canada through the 1980s and 1990s."[2] In the early 2000s, however, domestic gas production began to decline—precipitating a rise in gas prices that made foreign LNG import (then still reliant on young, expensive technologies) affordable wholesale.[3]

In order to facilitate the utilization of an inexpensive new fuel option, Congress amended the Deepwater Port Act (DWPA) to cover

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1. BEYOND PETROLEUM, BP STATISTICAL REVIEW OF WORLD ENERGY 24 (2010), *available at* http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2008/STAGING/local_assets/2010_downloads/statistical_review_of_world_energy_full_report_2010.pdf.

2. *What Role Does Liquefied Natural Gas (LNG) Play as an Energy Source for the United States?* U.S. ENERGY INFO. ADMIN., http://www.eia.gov/energy_in_brief/liquefied_natural_gas_lng.cfm (last updated Dec. 11, 2009) [hereinafter *Role of LNG*].

3. *Id.*

LNG import facilities.[4] The DWPA, until then, had been a largely unused law, allowing for the licensing of ports located on the U.S.'s outer continental shelf where oil cargoes could be offloaded and funneled through pipelines to mainland refineries. In the 2002 amended DWPA, the joint-jurisdiction of the U.S. Coast Guard (USCG) and the Department of Transportation's sub-agency, the Maritime Administration (MARAD), was extended beyond deepwater oil ports to include LNG port applications, licensing, construction, operation, and decommissioning by virtue of the act's extension to natural gas.[5] Approval of onshore pipeline interconnections remained in the purview of the Federal Energy Regulatory Commission (FERC), and commodity import/export approval remained with the Department of Energy.[6] Along with a push to build deepwater LNG ports, interest in onshore LNG terminal construction and re-commissioning was also renewed.

Unfortunately, once deepwater LNG ports started coming online (beginning with the Gulf Gateway in the Gulf of Mexico), LNG imports almost immediately began to become unprofitable and unpredictable. There were "substantial changes in year-over-year imports as a result of suppliers' decisions to either bring spare cargos to the United States or to divert cargos to countries where prices may be higher."[7] In New England, a dearth of pipeline capacity acted as a bottleneck for interstate gas transmission, so the installation of three LNG import facilities—two offshore "deepwater ports" and one onshore terminal—remained economically viable. Because that region's gas prices are closer to the global market prices, LNG cargoes frequent those deepwater ports more than in the Gulf of Mexico.

LNG remains an expensive, foreign, spot-market-purchase commodity. Regardless of whether a region had the capacity to import LNG cargoes, abundant domestic supplies have made it too economically burdensome to purchase gas from foreign nations for consumer, residential, and industrial uses. In 2009, U.S. import capacity was only

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4. Maritime Transportation Security Act of 2002, Pub. L. 107-295, § 106, 116 Stat. 2064, 2086 (amending 33 U.S.C. §§ 1501-1524 (2006)).

5. *See* 33 U.S.C. § 1503(a)-(i) (2006).

6. *See Memorandum of Understanding Related to the Licensing of Deepwater Ports*, art. III (2003-2004), http://www.ferc.gov/legal/maj-ord-reg/mou/mou-23.pdf [hereinafter *Licensing MOU*] (granting FERC jurisdiction over "authorizing the construction and operation of interstate natural gas pipelines" and any deepwater port-associated "facilities to the landward side of the high water mark."); *see also* 15 U.S.C. § 717(b) (2006) (granting the Department of Energy authority over "the importation or exportation of natural gas in foreign commerce").

7. *Role of LNG*, *supra* note 2.

operating at eleven percent—meaning there could be a nine-fold increase in LNG cargoes to the United States before space would be limited.[8] In 2010, that number dropped to six percent.[9] With recent increases in domestic production from shale and conventional sources, "[n]atural gas prices have declined and imports of LNG have significantly declined."[10]

Nonetheless, the DWPA accomplished its goal. There are three deepwater LNG ports in operation today, albeit at low capacities, another three approved but not yet under construction, and a handful more in the application stage (or with pending and proposed applications).[11] Given the lack of a significant domestic market for imported LNG, the overcapacity of existing ports and land-based terminals, and an evolving natural gas outlook, the DWPA may not be invoked for another LNG port for a long while, but we still have active applications with significant safety and environmental concerns and a growing LNG exports market. In this article, Part I is a short introduction to LNG, Part II is a walkthrough of the most significant aspects of the DWPA and deepwater port management, Part III is a discussion of the public safety, environmental, and climate concerns arising from LNG trade, and Part IV is a discussion of the current LNG domestic marketplace and trends for the near-term future.

II. LIQUEFIED NATURAL GAS PRIMER

LNG is natural gas that has been cooled into a liquid for storage or transport.[12] LNG, over 600 times more compressed than gaseous-state

8. *See North American LNG Import Terminals: Existing*, OFFICE OF ENERGY PROJECTS, FED. ENERGY REGULATORY COMM'N [hereinafter *Existing LNG Facilities*], *available at* http://www.ferc.gov/industries/gas/ indus-act/ lng/LNG-existing.pdf; *see also U.S. Natural Gas Imports By Country*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/ dnav/ng/ng_move_impc_s1_a.htm (last visited Oct. 23, 2011) [hereinafter *U.S. Natural Gas Imports*].

9. *Existing LNG Facilities*, *supra* note 8.

10. *The Department of Energy's Role in Liquefied Natural Gas Export Applications: Hearing Before the S. Comm. on Energy and Natural Res.*, 112th Cong. 5 (2011) [hereinafter *DOE Testimony*] (statement of Christopher Smith, Deputy Assistant Secretary for Oil and Natural Gas Office of Fossil Energy, U.S. Department of Energy), *available at* http://energy.senate.gov/public/_files/SmithDOETestimony110811.pdf.

11. *Deepwater Port Licensing Program: Approved Applications and Operational Facilities*, U.S. DEPT. OF TRANSP. MAR. ADMIN., http://www.marad.dot.gov/ports_landing_page/deepwater_port_licensing/dwp_current_ports/dwp_current_ports.htm (last visited Oct. 1, 2011).

12. *Role of LNG*, *supra* note 2.

natural gas, must be cooled to almost -260ºF.[13] In its compressed, colorless, odorless, and liquid form, LNG can be pumped into tankers and shipped around the world.[14]

Since 1969, the United States has been a player in this market, exporting from 1999-2009 an average of over 57 billion cubic feet (Bcf) of LNG per year from a Kenai, Alaska port to Japan, at an average price of $5.39 per thousand cubic feet (tcf).[15] The United States has also been an importer of LNG, though at various intensities. In the mid- to late-1980s, the United States imported on average just under seventeen Bcf per year (at $3.54 per tcf), but those levels increased sharply in the 1990s to almost seventy-one Bcf per year (at a less expensive $2.58 per tcf).[16] This over-four-fold increase in LNG imports was exceeded by the import boom in the 2000s where the nation's imports rose to an average of 464 Bcf per year—an almost seven-fold increase over the 1990s levels.[17]

Overall, "world liquefaction capacity [is expected to increase] 2.4-fold, from about 8 trillion cubic feet in 2007 to 19 in 2035."[18] The number of liquefaction and regasification facilities worldwide is exploding, as is the number of vessels transporting LNG, and pipelines delivering gas to power plants and storage tanks. The manner in which the United States plays a role in this market and regulates, promotes, or prioritizes its coastal deepwater ports can make or break the U.S. marine environment.

III. FEDERAL OVERSIGHT AND REVIEW OF LNG FACILITIES

A. The Deepwater Port Act

The federal DWPA, as amended in 2002 by President Bush, is the principle law governing offshore port facilities for the importation and transport of oil or natural gas to or from the United States' Outer

13. *Id.*

14. *Liquefied Natural Gas*, U.S. DEP'T ENERGY OFFICE OF FOSSIL ENERGY, http://www.fossil.energy.gov/programs/oilgas/storage/index.html (last visited Oct. 1, 2011).

15. *See U.S. Natural Gas Exports by Point of Exit*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/dnav/ng/NG_MOVE_POE2_DCU_YENA-NJA_A.htm (last visited Oct. 1, 2011).

16. *See U.S. Natural Gas Imports*, *supra* note 8.

17. *See id.*

18. U.S. ENERGY INFO. ADMIN., INTERNATIONAL ENERGY OUTLOOK 2010 3 (2010), [hereinafter ENERGY OUTLOOK 2010], *available at* http://www.eia.gov/forecasts/archive/ieo10/pdf/0484(2010).pdf.

Continental Shelf (OCS).[19] The DWPA, in order to provide for the protection of the marine and coastal environment, while fostering the free movement of oil and gas, establishes a licensing program for oil and gas ports located in the OCS that is jointly run (at various stages) by the Maritime Administration and the USCG.[20] While the DWPA applies to oil and gas deepwater ports, the focus of this article is on the LNG facilities.

The DWPA was designed to "promote the construction and operation of deepwater ports as a safe and effective means of importing oil or natural gas into the United States . . . ."[21] In 2002, the DWPA was amended to support a growing need for LNG import facilities by requiring that, absent certain deficiencies in information, the licensing process only take 330 days once an application is deemed complete.[22] The 2002 amendment also provided that liquefied natural gas facilities will be given "top priority" for license processing "[t]o promote the energy security of the United States."[23] To date, the DWPA has only been invoked for a handful of completed and operational LNG facilities in the U.S.—one in the Gulf of Mexico and two near Boston.[24] Two other proposed ports for the Gulf of Mexico have been approved but are not yet under construction.[25]

B. Overlapping Jurisdictions

In the licensing procedures for deepwater LNG ports, from proposal to approval, three agencies play significant and overlapping roles. The lead agency for the ultimate port licensing decision is the MARAD Deepwater Port Licensing Program.[26] MARAD is responsible for final decisions concerning proposals, licenses, construction, operation, and

19. *See* 33 U.S.C. §§ 1501-1524 (2006).

20. *See id.* § 1503.

21. *Id.* § 1501(a)(5).

22. *Id.* § 1504.

23. *Id.* § 1503(i).

24. *Deepwater Port Licensing Program, Approved Applications and Operational Facilities*, U.S. DEP'T TRANSPORTATION MAR. ADMIN., www.marad.dot.gov/ports_landing_page/deepwater_port_licensing/dwp_current_ports/dwp_current_ports.htm (last visited Oct. 1, 2011) (Gulf Gateway Energy Bridge, Louisiana Offshore Oil Port, Neptune LNG, and Northeast Gateway).

25. *Id.* (Port Dolphin and Main Pass Energy Hub).

26. *See* 33 U.S.C. § 1503(b). MARAD has been delegated the Secretary of Transportation's authority under the DWPA. 68 Fed. Reg. 36496 (June 18, 2003) (to be codified at 49 C.F.R. pt. 1).

decommissioning.[27] The USCG is responsible for promulgating the regulations MARAD uses in its decision-making and is the lead agency responsible for all environmental decisions and studies under the National Environmental Policy Act (NEPA).[28]

FERC is the agency responsible for an entirely separate licensing process for all onshore facilities supporting the deepwater port (e.g., pipelines and hub interconnections), and all DWPA applicants must file a separate application to FERC for a certificate of public convenience and necessity for those supporting facilities.[29] FERC also acts as a liaison with the Department of Energy for the approval of any import or export permits.[30] In order to ensure that the entire port project (from the port to the mainline gas hubs) is environmentally reviewed as a whole, the USCG's NEPA determination covers both the offshore port and the FERC-jurisdiction onshore pipelines.[31]

C. Permit Issuance Conditions

The DWPA contains numerous specific conditions on the issuance of port licenses. Foremost among those conditions is that DWPA port licenses must "provide for the protection of the marine and coastal environment to prevent or minimize any adverse impact which might occur as a consequence of the development of such ports."[32] As such, the decision on whether to issue a license for a port requires a finding that a port proposal is consistent with national environmental quality objectives and has the best available technology in place to prevent or minimize adverse marine environment impacts.[33]

Beyond the environmental, there are other significant permit issuance conditions in the DWPA. First, MARAD must make a finding that the applicant is willing to, and financially capable of, complying

27. *Id.* § 1503(b), (e).

28. *See* 33 C.F.R. §§ 148-150.

29. 15 U.S.C. § 717f(c) (2006). FERC is also the lead permitting agency for onshore LNG facilities, of which there are many more than there are deepwater ports. *See id.* § 717b(e).

30. *Id.* § 717b(a).

31. 33 U.S.C. § 1504(f) ("[NEPA] compliance shall fulfill the requirement of all Federal agencies in carrying out their responsibilities under [NEPA] pursuant to" the chapter on deepwater ports). *See also* 76 Fed.Reg. 4417 (Jan. 25, 2011) (designating the USCG as the lead agency for NEPA review of the Liberty Natural Gas LNG port and FERC-jurisdiction pipeline connections).

32. 33 U.S.C. § 1501(a)(2).

33. *Id.* § 1503(c)(5).

"with applicable laws, regulations, and license conditions."[34] Second, the port must be deemed consistent with the national interest and national security (including energy security) goals.[35] Third, the port cannot burden commerce by unreasonably interfering with navigation, shipping lanes, or other uses, during construction, operation, and decommissioning.[36] Fourth, MARAD must consult with the Secretaries of the Army, State, and Defense, and must not have been told by the Administrator of the Environmental Protection Agency (EPA) that the port will violate the Clean Air, Clean Water, or Marine Protection, Research and Sanctuaries Acts.[37]

Finally, MARAD must check on two state-based conditions before issuing a permit. First, the state to which the port is directly connected (by pipeline or other facilities) must have, or be working toward, "an approved coastal zone management program pursuant to the Coastal Zone Management Act."[38] For the purposes of this coastal zone program requirement, the state must have or be working toward a program for the specific area in which the deepwater port will be located, not necessarily for the entire state.[39] Second, MARAD cannot approve a port without the consent or presumptive consent of the governor of the adjacent coastal state.[40]

D. NEPA and the Deepwater Port Act "Clock"

NEPA, a law fundamentally designed to inform the public and government decision-makers of the environmental impacts of proposed projects, is given a time-sensitive role in deepwater port licensing. This important aspect of environmental review, though, must be completed within a short timeframe.

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34. *Id.* § 1503(c)(1)-(2).

35. *Id.* § 1503(c)(3).

36. *Id.* § 1503(c)(4).

37. *Id.* § 1503(c)(6)-(7). The EPA Administrator is required to communicate whether the port as proposed will violate those acts within forty-five days of the last public hearing. *Id.* Consultations with the three named Secretaries do not have to reach any specificity–MARAD must only consult with them "to determine their views on the adequacy of the application, and its effect on programs within their respective jurisdictions." *Id.*

38. *Id.* § 1503(c)(9). Alaska withdrew its coastal zone management program as of July 1, 2011, making it the only coastal U.S. state with OCS water that cannot be given a deepwater port (though it can, and does, still have an onshore LNG terminal under the Natural Gas Act and FERC rules). *See* 76 Fed.Reg. 39857, 39858 (July 7, 2011).

39. *Id.* § 1508(c).

40. *Id.* § 1503(c)(8). *See also, infra* Part II(e).

NEPA requires, in part, that agencies consider alternatives to proposed projects (e.g., alternative routes, alternative designs, or alternative locations) and consider the long-term cumulative impacts of the project.[41] If a project is found to have a significant environmental impact, the permitting/licensing agency must prepare an Environmental Impact Statement (EIS) analyzing the project's expected impacts.[42] The EIS process involves several steps of public input, comment, and participation.[43] Because the NEPA process has the potential to delay port construction while costly environmental analyses are conducted and publicly reviewed, the DWPA requires that all NEPA compliance (and indeed all public hearings under the DWPA) be concluded within 240 days of an applications' official acceptance by MARAD.[44] This 240-day period is the middle phase of the DWPA "clock."

The DWPA "clock" is a three-step timeline statutorily imposed on deepwater port agencies designed to rapidly bring an application from submission to license approval. First, upon submission of an application, MARAD has 26 days to make and publish notice of a completeness determination.[45] An application is deemed complete when it meets a variety of standards found in the DWPA and implementing regulations that range from engineering designs to risk and hazard analyses.[46] In making this decision, MARAD consults with the USCG, FERC, and any other federal agencies that have expertise relevant to a port's environmental or economic impacts.[47]

Second, the USCG has 240 days to work through all the steps of NEPA and all the necessary public hearings for the port proposal.[48] Within this second phase, the USCG must also hold at least one hearing in each declared adjacent coastal state.[49] For NEPA compliance, scoping meetings and hearings for the draft and final versions of any environmental assessments or impact statements must also be held.[50] Any of the hearings for DWPA, NEPA, or any other statute requirements can "if not otherwise prohibited . . . be consolidated"—meaning that the final hearing for an EIS can count as one of the mandatory adjacent

41. *See* 42 U.S.C. § 4332(e) (2006).
42. 40 C.F.R. § 6207(a) (2010).
43. *Id.* § 6207(d).
44. 33 U.S.C. § 1504(g).
45. *Id.* § 1504(c)(1).
46. *See id.* § 1504(c)(2); *see also* 33 C.F.R. § 148.105 (2010).
47. *Licensing MOU*, *supra* note 6, art. IV(A)(2).
48. 33 U.S.C. § 1504(g).
49. *Id.* § 1504(g); *see also* 33 C.F.R. § 148.222(a).
50. *See* 40 C.F.R. § 6.203 (2010).

coastal state hearings for the USCG and the final MARAD hearing for the port itself.[51]

Third, 90 days are allotted for last-minute state and agency input and final MARAD decision making.[52] Governors of adjacent coastal states[53] are allowed one last opportunity to approve, approve with conditions, or disapprove of the application, but they must communicate their position no later than forty-five days after the last public hearing on the DWPA and NEPA processes.[54] For federal agencies, recommendations as to whether to accept or reject the port application and any other "comments . . . must be received by the [USCG] within forty-five days after the close of the public hearing period . . . ."[55] MARAD must make its final license determination and issue a record of decision within the ninety days (inclusive of the forty-five day deadline for agency and state comments) following the final public hearing.[56]

In practice, however, the applications do not see a regular 356-day turnaround. "The Coast Guard, in concurrence with MARAD, can suspend the ['clock'] if an applicant fails to provide timely information or requests additional time to comply with a request."[57] The USCG has the authority to request a wide variety of additional information, new analyses, or explanations as the Commandant sees fit.[58] For example, the application clock for Liberty Natural Gas's deepwater port (detailed below) was suspended 33 days into the NEPA review period (step two of the clock) so that the applicant could provide more financial information, ichthyoplankton assessments, and further NEPA analyses on alternatives and the needs of the port.[59]

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51. 33 C.F.R. § 148.222(a).

52. *See* 33 U.S.C. § 1504(i)(4).

53. *Id.* § 1508(a)(1) (defining adjacent coastal state as "any coastal State which (A) would be directly connected by pipeline to a deepwater port as proposed in an application, or (B) would be located within 15 miles of any such proposed deepwater port").

54. *Id.* § 1508(b)(1).

55. 33 C.F.R. § 148.277(b). *See also* 33 U.S.C. § 1504(e)(2).

56. *Id.* § 148.276(c).

57. *See id.* § 148.276(a).

58. *Id.* § 148.107(a).

59. Letter from M.A. Prescott, Chief, Deepwater Ports Standards Div. and H. Keith Lesnick, Assoc. Adm'r Intermodal Sys. Dev., to Jason Goldstin, CEO Liberty Natural Gas (Dec. 30, 2010), *available at* www.regulations.gov/#!documentDetail;D=USCG-2010-0993-003.

E. Adjacent Coastal States and the Governor Veto

Perhaps most importantly, the DWPA was built to "protect the interests of . . . adjacent coastal States" and the "rights and responsibilities of States and communities to regulate growth, determine land use, and otherwise protect the environment . . . ."[60] To that end, "[a] license may not be issued under the DWPA unless the governor of an adjacent coastal state approves the issuance of the license."[61]

i. Determining Adjacent Coastal States and *Atlantic Sea Island Group v. Connaughton*

Under the DWPA, an adjacent coastal state (ACS) is a state that is either directly connected to a proposed port by pipeline or other facility, or is within fifteen miles of the proposed location of the port.[62] The authority to declare a state to be an ACS lies with MARAD, though with the rigid definition set forth in the DWPA, there is not much room for interpretation–either a port is within fifteen miles of a state or connected by a pipeline or it is not.[63] Flexibility in determining whether a state is "adjacent" to a port proposal is located in another section of the DWPA that allows states not "designated" as adjacent by MARAD to apply for that status.[64] In those cases, MARAD can declare a state as "adjacent" if it "determines that there is a risk of damage to the coastal environment of such State equal to or greater than the risk posed to" an ACS that meets the rigid statutory test of connectivity or fifteen miles.[65] Requests to add adjacent coastal states, if a state has not been declared as such by MARAD, can only be made by a state (not by individuals or organizations) and must be done within the first two weeks after the port application is made public, with a final MARAD determination coming no later than forty-five days after receiving that request.[66]

In one of the only cases based on the DWPA, *Atlantic Sea Island Group v. Connaughton*, the timeline of a state's request to be granted ACS status, and the basis upon which MARAD can grant that request, were tested in court.[67] The Atlantic Sea Island Group (ASIG) LNG port,

60. 33 U.S.C. § 1501(a)(3)-(4).
61. *Id.* § 1503(c)(8); *id*. 1508 § (b)(1).
62. *Id.* § 1508(a)(1).
63. *See id.* § 1508(a)(1).
64. *Id.* § 1508(a)(2).
65. *Id*.
66. *Id.*
67. 592 F. Supp. 2d. 1 (D.D.C. 2008).

dubbed "Safe Harbor," was a proposed artificial island to be "located approximately 13.5 miles off the coast of New York and 19 miles off the coast of New Jersey."[68] Sited in a location where no island can be found, the proposal would have covered 116 acres of seafloor at the base of an entirely-filled-in island.[69]

With an application deemed complete on August 27, 2007, MARAD declared New York as an ACS and the official DWPA "clock" started to run.[70] The fourteen-day window for a state to apply to be considered as an ACS also began to run, within which the Governor of New Jersey timely submitted a letter asking for such on September 6, 2007.[71] After consultations with other federal agencies and the State of New Jersey, MARAD "designated New Jersey as an additional adjacent coastal state for the Safe Harbor Port" on November 2, 2007.[72] After objections by the applicant ASIG, the MARAD made a final decision in a letter dated February 8, 2008, affirming New Jersey's status as an ACS because New Jersey's risks of damage to the coastal environment was equal to or greater than that of New York.[73]

Based on the final MARAD decision to declare New Jersey an ACS, ASIG filed a motion to enjoin MARAD and the USCG from acting on the ACS determination.[74] ASIG's complaint, in part, was based on the theory that MARAD decision to make New Jersey an ACS came beyond the forty-five day statutory timeline.[75]

Before reaching the question of timeliness, the court had to first determine whether the letter approving New Jersey's request to become an ACS was a reviewable final agency action. According to the court, "[a]n agency action is a 'final agency action' reviewable under the APA if it 'mark[s] the consummation of the agency's decision making process' and it is an action 'by which rights or obligations have been determined, or from which legal consequences flow.'"[76] Under the DWPA, notes the court, legal consequences flow from an ACS

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68. *Id.* at 4.

69. ATL. SEA ISLAND GRP., SAFE HARBOR ENERGY PROJECT DEEPWATER PORT LICENSE APPLICATION VOL. THREE, PART ONE, TOPIC REPORT THREE, BIOLOGICAL RESOURCES, 3-50 (2007) [hereinafter SAFE HARBOR ENERGY, BIOLOGICAL REPORT].

70. Safe Harbor Energy Liquified Natural Gas Deepwater Port License Application, 72 Fed. Reg. 49,041, 49,041 (Aug. 27, 2007).

71. *Atlantic Sea Island Grp.*, 592 F. Supp. 2d at 4.

72. *Id*.

73. *Id*.; *see also* 33 U.S.C. § 1508(a)(2) (2006).

74. *Atlantic Sea Island Grp.*, 592 F. Supp. 2d at 4-5.

75. *Id*.

76. *Id*. at 8 (quoting Bennett v. Spear, 520 U.S. 154, 178 (1997)).

determination including in-state hearings, approval authority, and other rights.[77] Therefore, deciding in a letter submitted to the public docket that New Jersey is an ACS, is an action by which rights have been determined. The step "marks the consummation of the agency's decision making process with respect to the scope of New Jersey's role in the issuance of ASIG's license and is a decision which determines New Jersey's rights [and thus] . . . is a reviewable final agency action."[78]

Turning to the issue of whether this reviewable final agency action was made within the forty-five day timeline established in the DWPA, the court ruled that, absent a penalty for non-compliance, the timeline was merely directory. As noted above, the DWPA mandates that MARAD "shall make the [ACS] designation . . . not later than the forty-fifth day after the date he receives such a request from a state."[79] The project docket showed MARAD received the New Jersey request on September 10, 2007, and ASIG argued that, therefore, a decision should have been made by October 25, 2007.[80] Citing precedent, the ASIG court "concluded that statutory time limits for which there is no accompanying statutorily prescribed consequence should generally be viewed as 'directory,' rather than mandatory and an agency is not barred from acting outside the prescribed time period."[81] Given the lack of DWPA consequence for decisions reached after forty-five days, the court held that MARAD's ACS decision was legally valid.[82]

The second major theory in the ASIG complaint was that MARAD "did not apply the standard for designating an adjacent coastal state" found in the DWPA, and that "the factual record does not support the conclusion that New Jersey is an adjacent coastal state."[83] Under the DWPA, MARAD "can designate an additional adjacent coastal state, 'if [the agency] determines that there is a risk of damage to the coastal environment of such State equal to or greater than the risk posed to a State directly connected by pipeline to the proposed deepwater port."[84] "Coastal environment," under the DWPA "includes transitional and intertidal areas, bays, lagoons, salt marshes, estuaries, and beaches; the fish, wildlife and other living resources thereof; and the recreational and

77. *Id.* at 5-6.

78. *Id.* at 8.

79. 33 U.S.C. § 1508(a)(2) (2006).

80. *Atlantic Sea Island Grp.*, 592 F. Supp. 2d at 11-12.

81. *Id.* at 12. *See, e.g.*, Brock v. Pierce County, 476 U.S. 253, 260 (1986); Gottlieb v. Pena, 41 F.3d 730, 733-36 (D.C. Cir. 1994).

82. *Atlantic Sea Island Grp.*, 592 F. Supp. 2d at 15.

83. *Id.* at 4.

84. *Id.* at 14 (citing 33 U.S.C. § 1508(a)(2)).

scenic values of such lands, waters and resources."[85] Beyond this guidance, however, the DWPA is silent as to how MARAD "must arrive at [a] determination of the comparative risk posed to the coastal environments" of the ACS and ACS-designation requester.[86]

Without statutory guidance, MARAD used "'an equitable approach' that 'evaluates the totality of impacts.'"[87] The court determined that its role was simply to "determine whether [MARAD] considered the available evidence and reached a decision that is rationally related to the facts contained in the record."[88] Under this test, the court looked at MARAD's decision making process. Among many factors considered, MARAD looked at the shared environmental and economic concerns between New Jersey and New York (the existing ACS), ocean currents, aesthetics and viewsheds, construction and decommissioning staging areas, and the risk of explosion.[89] MARAD also considered statements by the state of New Jersey and environmental coalition Clean Ocean Action that "asserted that the proposed port's location would interfere with the Port of New Jersey and prime fishing areas."[90] Based on all of these factors noted on the record by MARAD, the court held that MARAD's conclusion (that New Jersey's coastal environment was at equal or greater risk than New York's) "was not arbitrary or capricious" and upheld the decision.[91]

From *Atlantic Sea Island Group* therefore, several lessons were learned about the DWPA and ACS determinations. First, because the act of declaring which state is an ACS carries with it legal significance, a letter declaring a state to be an ACS is a reviewable final agency action—even if the larger port application process is ongoing. Second, where the DWPA contains no penalties for acting outside of statutorily-defined timelines, those timelines should be deemed "directory." As the ASIG court notes, the appropriate remedy in most cases is not to remove jurisdiction, it is to compel action.[92] Third, and finally, when a state applies to be designated an ACS, MARAD's use of an "equitable approach" in examining comparative harm to coastal environments is valid. The evidence that MARAD should use in these examinations

85. 33 U.S.C. § 1502(5).
86. *Atlantic Sea Island Grp.*, 592 F. Supp. 2d at 14.
87. *Id.* at 14.
88. *Id.* at 15.
89. *Id.* at 14-15.
90. *Id.* at 15.
91. *Id.*
92. *Id.* at 12.

seems to be open-ended and can, or should, cover economic, aesthetic, and environmental impacts.

ii. Benefits, and Drawbacks, of ACS Status

Becoming a declared ACS provides a governor with significant leverage over a deepwater port proposal. The ACS has unfettered access to any port proposals: "not later than 10 days after the designation of [an ACS] . . . , the Secretary shall transmit a complete copy of the application to the Governor."[93] An ACS can "fix reasonable fees for the use of a deepwater port facility, and . . . land-based facilities directly related to a deepwater port facility," but such fees can only cover expenses borne by the state in dealing with those facilities.[94] At a minimum, at least one hearing on the port licensing must be held in each declared ACS.[95] Chief among the benefits, though, is the fact that MARAD cannot "issue a license without the approval of the Governor of each [ACS]."[96] Indeed, as noted above (Section III.D), the Governor of an ACS can deny an application at any point before the end of the forty-five day period following the last public hearing on a proposal.[97]

This ACS authority to approve or deny a proposed port is not without qualification or consequence. MARAD can overrule a disapproval which is based solely on environmental protection, coastal zone, or land and water use interests (if the application would have otherwise been approved by MARAD).[98] In such an instance, MARAD is mandated to "condition the license granted so as to make it consistent with" those concerns.[99]

For example, the Main Pass Energy Hub LNG port planned for the Gulf of Mexico ran into ACS opposition from the then-Governor of Louisiana Kathleen Blanco. In a letter dated May 5, 2006, Governor Blanco invoked the DWPA in issuing an official "disapproval" of the application.[100] The Governor's chief concern stemmed from the potentially harmful effects of the planned once-through cooling system,

93. 33 U.S.C. § 1508(b)(1) (2006).
94. *Id.* § 1504(h)(2).
95. *Id.* § 1504(g).
96. *Id.* § 1508(b)(1).
97. *Id.* § 1508(a)(1).
98. *Id.*
99. *Id.*
100. *See* Letter from Kathleen Babineaux Blanco, Governor of La., to Julie A. Nelson, Acting Deputy Mar. Admin. and Chief Counsel, U.S. Dept. of Transp. (May 5, 2006) (regarding USCG 2004-17696-321).

and she called for revenue-sharing.[101] In a reply dated May 18, 2006, just thirteen days later, MARAD overruled the disapproval by working with the applicant to make the project consistent with the once-through cooling concerns.[102] MARAD noted that the applicant was switching to closed-cycle cooling (which addressed the environmental protection concerns), and that revenue-sharing was outside the scope of the "reasonable fees" portion of the DWPA and was therefore an illegitimate basis for the disapproval.[103]

In practice, however, ACS disapprovals can be based on just environmental concerns and still be determinative. In the mid-2000s, a proposal to build an LNG port in California, called the Cabrillo Port, faced opposition from then-Governor Schwarzenegger. After going through several years of delays, including a two-year "clock" stoppage to fill data gaps, a final hearing (that doubled as a final EIS hearing) was held on the project on April 4, 2007.[104] Based on the port's environmental impacts, the Governor issued a letter disapproving the project.[105] In that letter, the Governor cited the air pollution impacts of the port (including 30 tons per year of NOx, 11 tons of particulate matter, and 39 tons of organic gases), and the impacts on marine life (temperature and ballast water impacts to the local ecosystem).[106] Despite the availability of its statutory override for disapprovals based solely on environmental concerns, MARAD decided, ultimately, to accept the Governor's disapproval and not condition the permit as they had done with the Main Pass LNG port in Louisiana in 2006.[107]

Finally, if a Governor fails to transmit a decision by the forty-fifth day after the last public hearing, either in favor of or against a project, "approval shall be conclusively presumed."[108] In Alabama, in 2010, the TORP port application was delayed, in the final stages of approval, by the BP *Deepwater Horizon* oil spill, and Governor Bob Riley's veto

101. *Id*.

102. *See* Letter from Julie A. Nelson, Acting Deputy Mar. Admin. and Chief Counsel, U.S. Dept. of Transp., to Kathleen Babineaux Blanco, Governor of La., (May 18, 2006) (regarding USCG 2004-17696-321).

103. *Id*.

104. Secretary's Decision on Deepwater Port License Application of BHP Billiton LNG International, Inc., U.S. Dept. of Transp. (June 5, 2007) [hereinafter Cabrillo Port] (regarding USCG-2004-16877-1265).

105. Letter from Arnold Schwarzenegger, Governor of Cal., to Sean T. Connaughton, Mar. Admin., U.S. Dept. of Transp. (May 18, 2007) (regarding USCG-2004-16877-1265).

106. *Id*.

107. Cabrillo Port, *supra* note 104.

108. 33 U.S.C. § 1508(b)(1) (2006).

authority was almost considered officially waived.[109] Under the original timeline for the application, the deadline for ACS governor intervention was May 17, 2010, but MARAD granted an extension of thirty days (through June 16, 2010), "in light of the recent catastrophic oil spill event."[110] According to MARAD, should they "not receive [the Governor's] decision by that date, [his] approval of the application will be presumed to have been granted."[111] A few days before the June 16 deadline, Governor Riley asked MARAD for an extension of 120 days.[112] MARAD, in turn, granted a ninety day extension, given that "no further extensions" would be allowed, after which, again approval would be conclusively presumed.[113] After the full ninety days, on September 14, 2010, Governor Riley officially approved the TORP Project—narrowly avoiding a waiver of his approval/disapproval right.[114]

IV. PUBLIC SAFETY, ENVIRONMENTAL, AND CLIMATE CONCERNS

In deciding whether to grant a license for a deepwater port, federal agencies review a host of impact analyses and operational plans. Chief among the concerns for environmental and public interest practitioners are the public safety, environmental, and lifecycle carbon footprint impacts that LNG ports can cause.

A. Protection of Public Safety

Due to the compressed, volatile nature of LNG, the siting of deepwater ports, justifiably, raises many public safety concerns. In a 2003 government report, the Congressional Research Service concluded that LNG is a hazardous fuel that "poses a serious hazard of explosion or fire."[115] If located near population centers, such an explosive hazard

109. Letter from David Matsuda, Acting Mar. Admin., U.S. Dept. of Transp., to Bob Riley, Governor of Ala. (May 17, 2010) (regarding USCG-2006-24644-0789).

110. *Id.*

111. *Id.*

112. Letter from Bob Riley, Governor of Ala., to David Matsuda, Acting Mar. Admin., U.S. Dept. of Transp. (June 13, 2010) (regarding USCG-2006-24644-0790).

113. Letter from David Matsuda, Acting Mar. Admin., U.S. Dept. of Transp., to Bob Riley, Governor of Ala. (June 16, 2010) (regarding USCG-2006-24644-0791).

114. Letter from Bob Riley, Governor of Ala., to David Matsuda, Acting Mar. Admin., U.S. Dept. of Transp. (Sept. 14, 2010) (regarding USCG-2006-24644-0794).

115. CONGRESSIONAL RESEARCH SERVICE, LIQUEFIED NATURAL GAS (LNG) INFRASTRUCTURE SECURITY: BACKGROUND AND ISSUES FOR CONGRESS, Library of Congress Order Code RL 32073, at 8 (Sept. 9, 2003), *available at* http://www.energy.ca.gov/lng/documents/CRS_RPT_LNG_INFRA_SECURITY.PDF.

"can be vulnerable to terrorist attack."[116] The primary source of this explosion concern is not a whole-tanker LNG eruption, but a "pool fire"—a fire that spreads over the water near a LNG tanker breach and burns "far more hotly and rapidly than oil or gasoline fires."[117] These fires are so intensely hot that "their thermal radiation may injure people and damage property a considerable distance from the fire itself."[118] Impacts from pool fires, "[i]n the worst-case scenario . . . could kill people half a mile away and cause second-degree burns at 1.6 miles," according to reports included in a Florida LNG deepwater port application.[119]

To protect against these and other risks, USCG regulations provide for the establishment of a series of zones around deepwater ports. "Safety zones, no anchoring areas, . . . and areas to be avoided . . . are established to promote safety of life and property, marine environmental protection, and navigational safety at deepwater ports and adjacent waters."[120] The only federally-regulated area, the "safety zone," is a concentric circle around a port where all vessels not associated with the port (LNG tankers or USCG ships) "are prohibited from entering into or moving within this safety zone."[121] "[B]y preventing or controlling specific activities," safety zones protect the living resources of the sea and nearby communities from harm.[122]

Other zones not directly regulated by the federal government must be established in the ocean around deepwater ports.[123] "No Anchoring Areas" (NAAs), as their name indicates, are areas where no anchoring is allowed.[124] The mapping and implementation of an NAA, which is "specifically established to protect vessels in transit and sub-surface deepwater port components," is mandatory.[125] The last official safety zone are the "Areas To Be Avoided" (ATBAs), "a recommendatory

116. *Id*.

117. *Id*.

118. *Id*.

119. David Fleshler, *Floating Gas Plant Proposal Off Fort Lauderdale 'Crazy Idea'*, SUN-SENTINEL (FLORIDA), May 17, 2008, http://articles.sun-sentinel.com/2008-05-17/news/0805160480_1_gas-plant-natural-gas-coast-guard.

120. 33 C.F.R. § 150.905(a) (2010).

121. Safety Zone; Gulf Gateway Deepwater Port, Gulf of Mexico, 70 Fed. Reg. 24707, 24708 (May 11, 2005).

122. 33 C.F.R. § 150.905(b).

123. "The NAAs and [Areas to be Avoided] are established via the International Maritime Organization (IMO)." *Id.* § 150.905(c).

124. Safety Zone; Gulf Gateway Deepwater Port, Gulf of Mexico, 70 Fed. Reg. at 24707.

125. 33 C.F.R. § 150.905(c).

routing measure" that does not restrict vessels from transiting the area.[126] Vessel operators, as the area's moniker implies, "are strongly urged to seek alternate routes outside the ATBA."[127] In addition to zones for LNG terminals, there are safety zones around LNG tankers that move with the tankers when they are in transit.

Safety zones, NAAs, and ATBAs have no specified size—the area is instead determined during the DWPA license application process by the USCG.[128] Under USCG's deepwater port regulations, "sizes of restricted areas will be the minimum size needed to ensure safety, while at the same time considering potential impacts on other activities, including recreational boating, fishing, and OCS activity."[129] Among the factors to be considered are: tanker size; vessel traffic, volume, direction, and flow; shipping lanes; proximity to fishing and oil and gas production areas; environmental and economic impacts of the zones; and any pre-existing local agreements, customs, or practices.[130]

The safety zones, NAAs, and ATBAs for each of the four approved and built deepwater ports are established in the USCG DWPA regulations.[131] For the three established LNG deepwater ports, Neptune (Massachusetts), Northeast Gateway (Massachusetts), and Gulf Gateway (Louisiana), the USCG has established circular safety zones with a 500 meter radius around each of the port's primary offloading components.[132] The two Massachusetts ports have 1,000 meter radius circular NAAs and very specifically designated rhomboidal ATBAs, whereas the Gulf Gateway port has a 1,500 meter radius NAA and a simple 2,000 meter radius ATBA.[133] The more constrained NAAs and ATBAs in the Massachusetts ports may be a result of the traditionally heavy vessel traffic and fishing in the vicinity of those ports—a larger exclusionary zone may have had too much potential to cause adverse economic impacts to existing marine uses.

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126. *Id*.

127. Safety Zone; Gulf Gateway Deepwater Port, Gulf of Mexico, 70 Fed. Reg. at 24707.

128. 33 C.F.R. § 150.915(a). For NAAs and ATBAs, the federal government, acting through the USCG, proposes the zones to the IMO for approval. *See id*. § 150.915(c).

129. *Id.* § 150.905(d).

130. *Id*. § 150.915(b).

131. *Id.* § 150.940(a)-(d).

132. *Id.* § 150.940 (b)(1), (c)(1); Regulated Navigation Areas, Safety Zones, Security Zones; Deepwater Ports in Boston Captain of the Port Zone, MA, 75 Fed. Reg. 51,374, 51,376-77 (Aug. 10, 2010) (to be codified at 33 C.F.R. § 150.940(d)(1)).

133. 33 C.F.R. § 150.940 (b)(1)(i)-(ii), (c)(2)-(3); Regulated Navigation Areas, Safety Zones, Security Zones; Deepwater Ports in Boston Captain of the Port Zone, MA, 75 Fed. Reg. at 51,376-77.

B. Environmental Review and Ecological Impacts

From impacts to marine mammals and fisheries to habitat destruction and water pollution, deepwater LNG ports can significantly affect the surrounding environment. As noted above, Congress requires that DWPA port licenses "provide for the protection of the marine and coastal environment to prevent or minimize any adverse impact which might occur as a consequence of the development of such ports."[134] To accomplish this protection, the USCG and MARAD must, for all applications, examine the effect of the port and its shoreside facilities on the environment for all aspects of the project from construction to decommissioning.[135] In reviewing the environmental impact of a deepwater port, agencies must analyze:

> (1) the effect on the environment, including but not limited to: (i) [i]mpacts on endangered species; (ii) [e]ssential fish habitat; (iii) [m]arine sanctuaries; (iv) [a]rchaeological, cultural and historic sites; (v) [w]ater and air; (vi) [c]oastal zone management; (vii) [c]oastal barrier resources; and (viii) [w]etlands and flood plains; (2) the effect on oceanographic currents and wave patterns; (3) the potential risks to a deepwater port from waves, winds, weather, and geological conditions, and the steps that can be taken to protect against or minimize these dangers; and (4) the effect on human health and welfare, including socioeconomic impacts, environmental justice and protection of children from environmental health and safety risks.[136]

Before MARAD can make a final decision to approve a deepwater port, an applicant must show that "the deepwater port will be fabricated, constructed, operated, and decommissioned using the best available technology to prevent or minimize adverse impacts" on these environmental factors.[137]

Among other requirements for deepwater port review, applicants must comply with local and state land and coastal zone use rules, minimize impacts on environmental justice communities, preserve wetlands, and avoid interfering with cultural or historic preservation initiatives.[138] Finally, there are over fifty environmental statutes and

134. 33 U.S.C. § 1501(a)(2).
135. 33 C.F.R. § 148.707(a)-(b).
136. *Id.* § 148.707(b)(1)-(4).
137. *Id.* § 148.710(a)(2).
138. *Id.* §§ 148.715(b), 148.730-148.735.

executive orders enumerated in the regulations that an application must comply with, ranging from the Abandoned Shipwreck Act[139] to the Wild and Scenic Rivers Act,[140] and everything in between.[141] In practice, the difference between preventing adverse environmental impacts and fulfilling a statutory duty to minimize such impacts is significant.

Off the Massachusetts coast, the Northeast Gateway LNG port was approved despite the conclusion in a final environmental impact review that port operations would harass 731 dolphins and whales per year.[142] The National Marine Fisheries Service northeast region found that this harassment "may adversely affect . . . the continued existence of the northern right, humpback, and fin whales."[143] Accordingly, mitigation measures (including observers and lookouts when tankers were in transit) were all that was required of the applicant to reach the statutory threshold for approval.[144]

Beyond harassment impacts to mammals, LNG port operations can affect fish and plankton and destroy habitat—ballast water discharge and uptake and cooling water used in regasification result in the impingement, entrainment, and thermal-shock of marine organisms. In the 2006 environmental review of the Northeast Gateway port, reviewers determined that these activities could cause the destruction of 10.4 trillion phytoplankton, 342 billion zooplankton, 27,000 lobster larvae, 2 million fish eggs, and 743,000 fish larvae each year.[145] In addition to these direct impacts, during construction and operation of LNG deepwater ports, biocides (such as chlorine) are used to prevent fouling of pipes and tanks by organisms.[146] These chemicals are designed to be toxic to marine life (to prevent the accrual of biota), and are regularly

139. 43 U.S.C. §§ 2102-2106 (2006).

140. 16 U.S.C. §§ 1271-1287 (2006).

141. 33 C.F.R. § 148.737.

142. Taking of Marine Mammals Incidental to Specified Activities; Operation of an LNG Facility in Massachusetts Bay, 73 Fed. Reg. 29,485, 29,489 (May 21, 2008).

143. *Id.* at 29,490.

144. *Id.* at 29, 241.

145. U.S. COAST GUARD, DEP'T OF TRANSP. DOCKET NO. 2005-22219, MEPA EDEA NO. 13473/13474, USCG FINAL ENVIRONMENTAL IMPACT STATEMENT AND MEPA FINAL ENVIRONMENTAL IMPACT REPORT FOR NORTHEAST GATEWAY ENERGY BRIDGE, L.L.C. LIQUEFIED NATURAL GAS DEEPWATER PORT LICENSE APPLICATION 4-33–4-35, 4-37 (2006).

146. *See* FED. ENERGY REGULATORY COMM'N, DEP'T OF ENERGY, FERC DOCKET NO. CP06-5400; CP06-5500, FINAL ENVIRONMENTAL IMPACT STATEMENT FOR BROADWATER LNG PROJECT 3-88 (2008).

discharged by vessels and ports causing indirect impacts to port ecosystems.[147]

For a recently proposed Liberty Natural Gas deepwater port in New Jersey, application materials submitted to the USCG and MARAD detail the variety of water quality impacts possible from an LNG port.[148] First, pipes and pipelines will be hydrostatically tested using ambient seawater chemically treated with biocides.[149] The pipeline testing process is anticipated to result in the discharge of almost 720,000 gallons of biocide-treated wastewater into near shore New Jersey state waters.[150] For another project proposed in New Jersey waters, the ASIG port, 37.6 million gallons of seawater was anticipated to be needed in the hydrostatic testing of pipelines, storage tanks, and start-up processes.[151] Second, each of the four Liberty Natural Gas regasification/offloading buoys will intake, treat with biocides, and discharge up to 8.2 million gallons per day of cooling water into the surrounding environment.[152] The Liberty Natural Gas applicant disclosed that the thermal differential of this cooling water (in relation to the ecosystem) is expected to be "in the range of approximately 5°C to 8°C (9°F to 14.4°F), with a maximum difference of 10°C (18°F)."[153] Third, the applicant expects to require 11.56 million gallons per day of uptake for ballast water purposes at its four-vessel-capacity port.[154] The ASIG project anticipated 7 to 27 million gallons per tanker per visit for ballast, for a potential total of over 2 billion gallons ballast water per year.[155]

Aside from direct fish and mammal impacts and water quality effects, LNG port operations can permanently alter seafloor habitat.[156] When LNG tankers arrive at a deepwater port and moor to the facility's pipeline connections, their anchor chains drag across the seafloor

147. *Id.* at 3-56.

148. *See* Liberty Natural Gas L.L.C., MARAD Docket #USCG-2010-0993-0005, Liberty Natural Gas Deepwater Port Application, Vol. I, app. C, (2010) [hereinafter Liberty Natural Gas, NPDES Permit Application].

149. *Id.* at 1-9.

150. *Id.* at 1-9, 1-11.

151. Safe Harbor Energy, Biological Resources Report, *supra* note 69, at 3-52.

152. Liberty Natural Gas, NPDES Permit Application, *supra* note 148, at 1-12.

153. *Id.*

154. *Id.* at 3-5.

155. Safe Harbor Energy, Biological Resources Report, *supra* note 69, at 3-52.

156. DEBORAH CRANSWICK, MINERALS MGMT. SERV., DEP'T OF THE INTERIOR, OCS REPORT MMS 2001-067, BRIEF OVERVIEW OF GULF OF MEXICO OCS OIL AND GAS PIPELINES: INSTALLATION, POTENTIAL IMPACTS, AND MITIGATION MEASURES 10 (2001), *available at* http://www.mms.gov/itd/pubs/2001/2001-067.pdf.

repeatedly.[157] At the Northeast Gateway LNG terminal, the USCG found that this "scouring" impacted an area up to thirty-eight acres per vessel, resulting in "long-term reduction to benthic productivity."[158] For many marine industries, anchor damage is a significant concern—it has been found to be "the greatest threat to live-bottom areas . . . [because it can result in] crushing and breaking of live/hard bottoms and associated communities."[159] "Accidental anchor impacts . . . could be extensive, with recovery taking longer than 20 years, and they could be permanent, depending on the severity of the impact."[160] In unprotected open ocean habitats, ocean swells and wave action can increase the acreage impacted by anchor scouring. For the ASIG project described above, the proposed artificial island would cover 116 acres of seafloor, thus destroying 116 acres of habitat,[161] and suspended sediments from the island-filling could coat hundreds more acres of seafloor.[162]

All told, the direct, indirect, and habitat-altering impacts from LNG deepwater ports can be significant. For the Northeast Gateway LNG port application, reviewing federal agencies concluded that "[o]peration of the Port and Pipeline Lateral will result in long-term effects on the marine environment, including alteration of seafloor conditions, continued disturbance of the seafloor, regular withdrawal of sea water, and regular generation of underwater noise."[163] Noise, light, and air pollution impacts also abound in the construction, operation, and decommissioning stages of the port and connecting pipelines. Aesthetically, deepwater ports with tankers moored can, depending on distance at sea, be seen from beaches and coastal properties, potentially affecting land values. Under the DWPA, however, as long as these effects are minimized, environmental concerns will not derail an LNG port project. Indeed, as noted above, if environmental concerns are the only substantive impediments to licensure or the sole basis for an ACS

157. Taking of Marine Mammals Incidental to Specified Activities; Operation of an LNG Facility in Massachusetts Bay, 73 Fed. Reg. 29,485, 29,489 (May 21, 2008).

158. *Id.*

159. CRANSWICK, *supra* note 156, at 10.

160. *Id.*

161. Safe Harbor Energy, Biological Resources Report, *supra* note 69, at 3-50, 3-51.

162. MICHAEL JOHNSON, ET AL., NAT'L OCEANIC & ATMOSPHERIC ADMIN., DEP'T OF COMMERCE, TECHNICAL MEMORANDUM NMFS-NE-209, IMPACTS TO MARINE FISHERIES HABITAT FROM NONFISHING ACTIVITIES IN THE NORTHEASTERN UNITED STATES 6 (2008), *available at* http://www.nefsc.noaa.gov/publications/tm/tm209/.

163. Taking of Marine Mammals Incidental to Specified Activities; Operation of an LNG Facility in Massachusetts Bay, 73 Fed. Reg. 29, 485, 29, 489 (May 21, 2008).

governor veto, MARAD can condition licenses and permits to address these concerns and approve the port application.

C. Lifecycle Carbon Footprint of LNG Imports

As liquefaction and transport of LNG involves compressing natural gas to over 600 times its normal volume—and maintaining it in that state—there are many downsides to its use as a commodity. "The energy content of a single standard LNG tanker [generally, one hundred twenty-five thousand cubic meters] is equivalent to seven-tenths of a megaton of TNT, or about fifty-five Hiroshima bombs."[164] When an LNG tanker arrives at a port, it is heated back to gaseous state to be transported via pipeline to a gas hub. Thereafter, the gas is functionally the same as domestic natural gas, used for heating, industrial uses, and electricity.

The energy expended to compress gas into liquefied form, the cooling water operations required to re-heat the LNG, and the costs of operating tankers and LNG deepwater ports are a full-lifecycle set of significant environmental impacts. "[T]he range of life-cycle GHG [greenhouse gas] emissions of electricity generated with LNG is significantly closer to the range of emissions from coal than the life-cycle emissions of natural gas produced in North America."[165] In a study by Carnegie Mellon researchers, the lifecycle from natural gas plants fueled by LNG can actually result in similar CO_2 emissions than that of the lifecycle from coal plants.[166] Indeed, the process of liquefaction of natural gas into LNG alone produces more CO_2 emissions than the whole lifecycle of coal prior to combustion, including production, processing, and transport.[167] Between domestic natural gas and imported LNG, research by Greenpeace for a California LNG DWPA proposal demonstrates that "[t]he combined impact of venting carbon dioxide during processing and the energy penalty of the LNG supply chain would increase carbon dioxide emissions by roughly 20 to 40 percent over California's current emissions from domestic sources of natural gas."[168]

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164. AMORY LOVINS & L. HUNTER LOVINS, BRITTLE POWER 88 (1982).

165. Paulina Jaramillo, W. Michael Griffin, & H. Scott Matthews, *Comparative Life-Cycle Air Emissions of Coal, Domestic Natural Gas, LNG, and SNG for Electricity Generation*, 41 ENVTL. SCI. & TECH. 6,290, 6,293 (2007).

166. *Id.*

167. *Id.* at 6,295 fig. 3.

168. JOHN COEQUYT & KATIE ALBRECHT, GREENPEACE, LIQUID NATURAL GAS: A ROADBLOCK TO A CLEAN ENERGY FUTURE 3 (2007), *available at* http://www.greenpeace.org/usa/Global/usa/report/2007/7/liquid-natural-gas-a-roadbloc.pdf.

V. LNG—PAST, PRESENT, AND FUTURE POLICY ISSUES

In the early years of the last decade, LNG imports were rapidly becoming major players in the U.S.'s domestic market to the point that the DWPA was amended to further incentivize and provide for import capacity. Locally, LNG made sense in the domestic market farthest from any production centers—New England. Gradually, however, the domestic market warmed up to shale gas development, import capacity grew too fast and outstripped demand, and the global market for LNG shipments intensified. With our currently changing understanding of shale gas, the burgeoning globalization of LNG cargoes, and an abundance of coastal import capacity, decisions on what is in the "national energy interest" for deepwater port licensing are not keeping up with shifting baselines.

A. Excessive (and Growing) Approved Import Capacity

As of the summer of 2011, the United States is experiencing a glut of LNG import capacity. Between offshore deepwater ports and onshore LNG terminals (including projects currently under construction), import capacity stands at 17.535 billion cubic feet per day (Bcf/d).[169] Of that capacity, the majority is at onshore terminals; deepwater ports represent only 1.7 Bcf/d of existing capacity.[170] Beyond this existing capacity, FERC and MARAD/USCG have approved 20.25 Bcf/d more capacity in new terminals, ports, and expansions to existing facilities.[171] This increase in capacity includes 3.6 Bcf/d of new deepwater port capacity at three approved sites in the Gulf of Mexico.[172] Finally, there are proposals for new facilities that have not yet been approved, including the Liberty Natural Gas proposal for coastal New Jersey that would have a 2.4 Bcf/d capacity (discussed above, Section IV.B).[173]

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169. *Existing LNG Facilities*, *supra* note 8.

170. *Id.*

171. OFFICE OF ENERGY PROJECTS, FED. ENERGY REGULATORY COMM'N, NORTH AMERICAN LNG IMPORT TERMINALS: APPROVED (2011), *available at* http://www.ferc.gov/ industries/gas/indus-act/lng/LNG-approved.pdf.

172. *Id.*

173. OFFICE OF ENERGY PROJECTS, FED. ENERGY REGULATORY COMM'N, NORTH AMERICAN LNG IMPORT TERMINALS: PROPOSED (2011), *available at* http://www.ferc.gov/industries/gas/indus-act/lng/LNG-proposed.pdf. New Jersey Governor Chris Christie, on February 8, 2011, sent a letter expressing his official "disapproval" of the Liberty LNG project under the DWPA's ACS governor powers, but MARAD subsequently made a determination that the letter had "no legal significance"

Despite all of this capacity, the market for LNG imports is falling, and the ports already built are seeing a dearth of customers. As of September 1, 2011, LNG monthly imports had fallen to their lowest point in more than eight years, down to 20.2 Bcf, or just 0.65 Bcf/d.[174] Put in perspective, this represents just a 3.7% utilization of existing capacity and would be just a 1.9% utilization level if all approved LNG import facilities and expansions not yet constructed were completed. "U.S. imports have been declining throughout 2011 as shippers send gas to higher-paying markets in Europe and Asia."[175] In June 2011, "imports fell 16 percent, May imports fell 12 percent."[176]

The most recent year-long dataset available shows that the nation imported just 431 million cubic feet of LNG in 2010, down from 631 Mcf in 2005.[177] This represents an annual import rate of 1.2 Bcf/d, or a six percent utilization rate of existing capacity. Short-term energy outlooks developed by the federal government project that "U.S. imports of liquefied natural gas [will] fall from 1.2 Bcf/d in 2010 to 1.0 Bcf/d in both 2011 and 2012."[178] Therefore, when all currently-under-construction capacity is concluded, the U.S. will have the capacity to import almost twenty times more LNG *per day* before import facilities are fully utilized. If the approved deepwater ports in the Gulf of Mexico are completed within this time frame, as expected, the nation will have even more daily capacity than needed. In 2008, before LNG import demand was in full-blown decline, energy experts projected that over the long-term, "capacity utilization at the U.S. LNG import facilities is expected to remain below 50 percent through 2030."[179]

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but that the application would not be further reviewed until the applicant could demonstrate to MARAD that the Governor's concerns were addressed. Letter from Chris Christie, Governor of N.J., to David T. Matsuda, Mar. Adm'r, Dep't of Transp. (Feb. 8, 2001) (MARAD Docket #USCG-2010-0993-0038) (conveying Governor Christie's disapproval of a license issuance for the Liberty Project); Letter from K. Denise Rucker Krepp, Chief Counsel, Dep't of Transp., to Frederick M. Lowther, Dickstein Shapiro L.L.P. (May 11, 2011) (MARAD Docket No. USCG-2010-0993-0110) (conveying the "no legal significance" determination).

174. Edward McAllister, *US LNG Imports Dive 44 Pct, Hit 8-1/2 Year Low-DOE*, REUTERS, Sept. 1, 2011, http://af.reuters.com/article/energyOilNews/idAFN1E7801VK20110901.

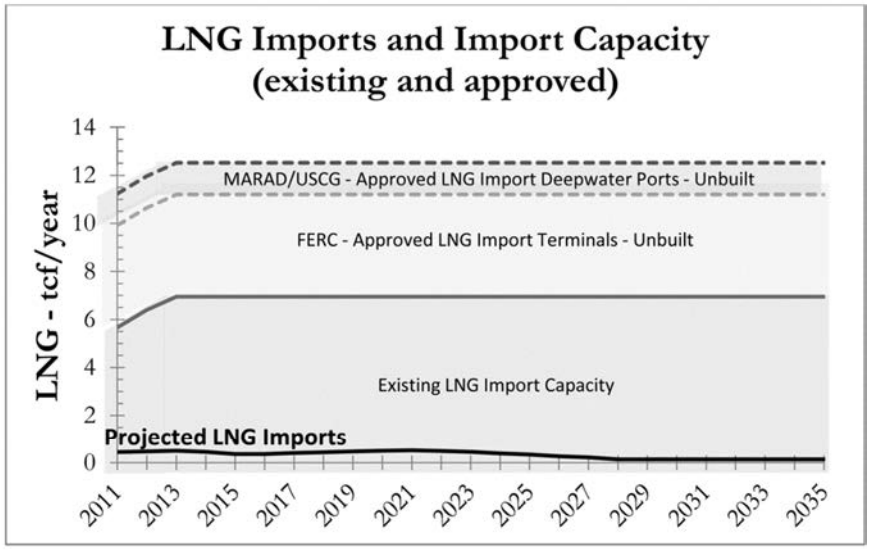
175. *Id.*

176. *Id.*

177. *U.S. Natural Gas Imports*, *supra* note 8.

178. U.S. ENERGY INFO. ADMIN., SHORT TERM ENERGY OUTLOOK (2011), *available at* http://www.eia.gov/emeu/steo/pub/steo_full.pdf.

179. *Revised Energy Outlook: Hearing Before H. Comm. On Energy and Natural Res*, 110th Cong. 11 (2008) (statement of Guy Caruso, Admin., U.S. Dep't of Energy, Energy



The rapid growth of shale gas production expected in the United States lessens the need for U.S. imports. The Energy Information Administration's (EIA) international energy outlook projects that the need for gas imports will decrease "from 16 percent of total supply in 2007 to 6 percent in 2035" as new domestic shale plays begin to come online.[180] While, as noted above, several new LNG import facilities and expansions to existing facilities are expected to come online soon, "[c]ompetition for supplies in the world market [will limit] the amount of LNG that reaches U.S. markets."[181]

In short, there is an overabundance of LNG import capacity and a declining need for the space as domestic natural gas production increases and global LNG prices soar. Fortunately, "recent declines in expectations of future U.S. demand for natural gas imports have led many to conclude that North America will be relatively self-sufficient in natural gas production for some time to come and will not need large volumes of imported LNG."[182]

Info. Admin.), *available at* http://www.gpo.gov/fdsys/pkg/CHRG-110shrg42513/pdf/CHRG-110shrg42513.pdf.

180. ENERGY OUTLOOK 2010, *supra* note 18, at 51.

181. *Id.*

182. *Id.* at 48.

B. Market Shifts and Energy Supply

Coupling increasing global LNG prices with significant unused idle domestic capacity, there is little economic need for new import facilities, either land-based or deepwater ports. After the 2011 Japanese earthquake "and subsequent nuclear generation outages, Japan's demand for LNG as a replacement fuel for electric power generation is expected to increase, contributing to higher global LNG prices."[183] This price change will make it even less profitable to bring LNG into the lower-priced U.S. market. In 2009, then-FERC Commissioner Jon Wellinghoff issued a dissenting opinion for a new LNG terminal in Maryland, finding that a new terminal was not economical or even " needed to serve the energy needs of the Mid-Atlantic [NJ, NY, PA] and South Atlantic regions," and that "future energy needs of these regions can be better met with alternative resources . . . ."[184]

Adding to the shifting market price of LNG (that leads to less likely utilization of U.S. import facilities) is an increasing international liquefaction capacity. "World natural gas liquefaction capacity [will increase] 2.4-fold, from about 8 trillion cubic feet in 2007 to 19 trillion cubic feet in 2035."[185] At these new export facilities, "high volumes (or high 'takes') are often used to ensure high utilization rates and acceptable returns on investments," meaning that the currently high prices for LNG cargoes will be locked in for the long-term.[186] If prices do change, they will likely become higher, not lower, as European production "declines [and] its import demand increases."[187] Similar demand (with no increase in local production) is expected in Asia, particularly China.[188]

In order to see economical imports into the United States, prices here "will need to move well above current $9-$10 per million Btu levels to interfere with this [LNG] trade as long as [Asian markets] are willing to

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183. *Weekly Oil & Gas Market Highlights: July 21, 2011*, DELOITTE.COM, http://www.deloitte.com/view/en_US/us/Industries/oil-gas/1669d533a9251310VgnVCM3000001c56f00aRCRD.htm (last visited Oct. 6, 2011).

184. FED. ENERGY REG. COMM'N, STATEMENT OF COMMISSIONER JON WELLINGHOFF ON AES SPARROWS POINT LNG TERMINAL & MID ATLANTIC EXPRESS PIPELINE (2009), *available at* http://www.ferc.gov/media/statements-speeches/wellinghoff/2009/01-15-09-wellinghoff-C-1.pdf.

185. ENERGY OUTLOOK 2010, *supra* note 18, at 42. Most of the increase in liquefaction capacity is in the Middle East and Australia. *Id.*

186. *Id*.

187. *Id*.

188. *Id*. *See also id.* at 44, 46.

pay upward of $14/MMBtu for spot supply."[189] At the end of 2010, U.S. natural gas traders were importing LNG at the average rate of $4.52 per thousand cubic feet.[190]

Significantly, in "[r]esponding to the changing market for liquefied natural gas (LNG) imports into the U.S. Gulf Coast," Excelerate Energy announced that it is retiring the Gulf Gateway deepwater port, closing the 0.5 Bcf/d of capacity that has not seen many cargoes in the past few years.[191] Decommissioning and closure for Gulf Gateway seemed to be the best economic decision given that Dominion Energy's Cove Point LNG import terminal was "forced to pay a dear price for an August cargo just to keep the terminal's empty tanks cold" when it bought a LNG shipment at $8 per million Btu when U.S. gas futures were only at $4.10 per million Btu.[192] Similarly adjusting their business model because of the economic realities of the natural gas market, the owners of the approved, but not built, Port Dolphin deepwater port are going to abandon plans to import gas from foreign sources and instead "bring gas to Florida from Louisiana and Texas"—bypassing the need for pipelines to connect western Gulf of Mexico production with Florida demand.[193]

C. Exports

Between 2005 and 2010, the outlook for imported LNG abruptly switched from a market that seemed to be on the verge of taking off to a situation where LNG import terminals have gone years without shipments. As noted above, between 2005 and 2010, import volume was reduced by thirty percent and market price fell by forty percent.[194] Part of the reason for this reduction in import is the explosion of domestic gas production—in the same five years through 2010, shale gas production

189. *Starting On Empty*, WORLD GAS INTELLIGENCE, Mar. 26, 2008, at 5.

190. *U.S. Natural Gas Imports*, *supra* note 8.

191. *See Excelerate Energy to Retire Its Gulf Gateway Deep Water Port*, EXCELERATE ENERGY (Apr. 13, 2011), http://www.excelerateenergy.com/2011/04/04-13-2011.html; *see also* Press Release, Excelerate Energy, Excelerate Energy to Retire its Gulf Gateway Deepwater Port, (Apr. 13, 2011), *available at* http://www.excelerateenergy.com/2011/04/04-13-2011.html; *Existing LNG Facilities*, *supra* note 8.

192. Edward McAllister, *Dominion Seeks to Re-export LNG From Idle Cove Point*, REUTERS, Aug. 12, 2011, http://www.reuters.com/article/2011/08/12/lng-dominion-reexport-idUKN1E77B0WE20110812.

193. Craig Pittman, *Natural Gas Pipeline Project in Gulf Forced to Adapt to Economic Reality*, ST. PETERSBURG TIMES, Aug. 23, 2011, http://www.tampabay.com/news/environment/article1187366.ece.

194. *See U.S. Natural Gas Imports*, *supra* note 8.

grew by an average of forty-eight percent per year.[195] According to Department of Energy testimony given at a recent Senate hearing on LNG exports, "domestic gross gas production from shale increased to 3.4 trillion cubic feet (Tcf) in 2009, compared to 2.3 Tcf in 2008."[196] Based on this increase in gas production, prices (per million Btu) are not expected to rise above the $5.00 mark until 2020.[197] Net gas imports are expected to fall from eleven percent of total supply (in 2009) to one percent (in 2035).[198] One energy expert, when discussing this market shift, stated that "[t]he problem is no longer whether the U.S. will run out of natural gas," "but rather what should we do with all the gas supply we now have."[199] In sum, deepwater ports for LNG imports have switched from worthwhile investments to costly boondoggles.

Given these changed circumstances, port and terminal owners are looking into a new way to make economical use of their facilities: exportation (domestic gas liquefied) and re-exportation (exporting previously-imported LNG). Exports and re-exports in the continental United States took off in 2010.[200] After years of only shipping LNG to Japan (from one facility in Alaska), and in small quantities to Mexico, 2010 saw over thirty million cubic feet of gas sent to Spain, South Korea, the United Kingdom, Brazil, and India.[201] The price of this exported and re-exported gas was regularly higher than the price of domestically-produced gas, the average price per thousand cubic feet of exported LNG in 2010 was $9.53,[202] compared to $4.16 for domestic wellhead prices.[203] Based on this market shift, the project manager for the Jordan Cove LNG terminal proposal (in Coos Bay, Oregon) went from saying that

195. U.S. ENERGY INFO. ADMIN., ANNUAL ENERGY OUTLOOK 2011 WITH PROJECTIONS TO 2035 37, (2011), [hereinafter ENERGY OUTLOOK 2011], *available at* http://www.eia.gov/forecasts/aeo/pdf/0383(2011).pdf.

196. *DOE Testimony*, *supra* note 10.

197. ENERGY OUTLOOK 2011, s*upra* note 195, at 78.

198. *Id.* at 80.

199. Pittman, *supra* note 193.

200. *See U.S. Natural Gas Exports by Country*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/dnav/ng/ng_move_expc_s1_m.htm (last visited Oct. 23, 2011).

201. *Id*.

202. *Id*.

203. *See Natural Gas Prices*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/dnav/ng/ng_pri_sum_dcu_nus_a.htm (last visited Sept. 29, 2011).

exporting LNG "doesn't make sense" in May of 2011,[204] to arguing "that exporting gas is an invigorating opportunity" in September of 2011.[205]

Under the Natural Gas Act (NGA), "no person shall export any natural gas from the United States to a foreign country . . . without first having secured an order of the [Secretary of Energy] authorizing it to do so."[206] In examining such applications, the Department of Energy (DOE) analysis is different depending on which country the LNG exports are destined for. If an application is seeking to export gas to a nation with which the United States does not have a free trade agreement, the Secretary of Energy "shall issue such order upon application, unless after opportunity for hearing, [he] finds that the proposed exportation or importation will not be consistent with the public interest."[207] This section, thus, creates a "rebuttable presumption that a proposed export of natural gas is in the public interest, and requires DOE to grant an export application unless DOE finds that the record in the proceeding of the application overcomes that presumption."[208]

In changes made to the NGA in the Energy Policy Act of 1992, the DOE's review of export applications was further limited with respect to public interest consistency determinations. The exportation of natural gas to nations that the United States has a free-trade agreement with, under the amended NGA, "shall be deemed to be consistent with the public interest, and applications for such importation or exportation shall be granted without modification or delay."[209] In the event of an application to export natural gas from the United States to one of these nations, the DOE "does not conduct a public interest analysis of those applications and cannot condition them by the insertion of terms which otherwise might be considered necessary or appropriate."[210]

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204. Gail Elber, *Export LNG? No, Says Jordan Cove*, THE WORLD (October 12, 2011, 11:00 am), http://theworldlink.com/news/local/article_c6798042-a186-5472-b8bb-c7bf7df57754.html.

205. The World Editorial Board, *Only Certainty on LNG is More Debate*, THE WORLD (October 12, 2011, 11:00 am), http://theworldlink.com/news/opinion/editorial/article_2676b588-2f08-5189-8539-74b93b39f250.html.

206. 15 U.S.C. § 717b(a) (2006).

207. *Id*.

208. *DOE Testimony*, *supra* note 10, at 2.

209. 15 U.S.C. § 717b(c). There are twenty nations with free-trade agreements or agreements that, for the purposes of LNG exports are considered to fall within this category: Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Singapore, and South Korea. *DOE Testimony*, *supra* note 10, at 3.

210. *DOE Testimony*, *supra* note 10, at 3.

Aside from the export license authority, there is a question as to whether or not exports can be allowed from deepwater ports (as opposed to onshore terminals). In the declaration of policy for the DWPA, Congress specifically states that the law is designed to "promote the construction and operation of deepwater ports as a safe and effective means of *importing* oil or natural gas into the United States . . . ."[211] Also, Congress specifically set up the DWPA to make deepwater ports the safe way to transport "natural gas *to the United States mainland*," not from it.[212] In contrast to these policy statements, under the DWPA definition of "deepwater port," aside from use as an import terminal, a port can be used for "transportation of oil or natural gas *from* the United States outer continental shelf."[213] The DWPA was first established "to promote the efficient transport of oil to the United States in a manner minimizing the environmental hazards associated with carriage of oil by sea."[214]

As the DWPA has evolved, it is difficult to say whether the act's purpose has become the *orderly import* of energy resources to the United States or the *proper siting* of energy-transfer facilities on the OCS. If the latter, then exports will likely be allowed through deepwater ports. As most of the actual DWPA processes revolve around construction, operation, and decommissioning aspects (which would not necessarily be different for deepwater ports with export capabilities), courts might likely read the export question as being outside the scope of the DWPA and/or the jurisdiction and expertise of MARAD and the USCG.

The economic advantage of exporting and re-exporting LNG comes from international demand for gas, the price of domestic gas, and the open capacity at most U.S. LNG ports and terminals. At the Freeport terminal in Texas, "one spot cargo was delivered . . . for $9.32 per million [Btu]" only to later re-export the same shipment to Brazil at $12.05 per million Btu.[215] Because there was an overabundance of unused storage space at the Freeport terminal, the owners of that space could afford to wait until someone on the gas-starved international market was willing to pay a high enough cost.

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211. 33 U.S.C. §1501(a)(5) (emphasis added).

212. *Id.* §1501(a)(6) (emphasis added).

213. *Id.* §1502(9)(A) (emphasis added).

214. Andrew W. Stephenson, *Legislative Developments: Deepwater Port Act of 1974*, 7 LAW & POL'Y INT'L BUS. 1271, 1271 (1975).

215. Edward McAllister, *US LNG Imports Dive 44 pct, Hit 8-1/2 Year Low*, REUTERS-AFRICA (Sept. 1, 2011, 9:10pm), http://af.reuters.com/article/energyOilNews/idAFN1E7801VK20110901.

Dominion Energy, operator of the Cove Point LNG terminal in Maryland, is applying to be a re-exporter of LNG to ensure that when they need to buy gas for tank cooling purposes, they can sell it internationally for a profit instead of domestically for a significant loss.[216] Dominion also recently announced it had submitted an application for the right to export domestically-produced gas.[217] If Dominion wins both of these approvals, it will join the Sabine Pass, Freeport, and Cameron terminals as a re-exporting and/or exporting site.[218]

The exportation of LNG from the United States is such a new idea that the Annual Energy Outlook by the Energy Information Administration, developed in early 2011, did not consider them in the long-term outlook. According to the EIA, "[a]lthough U.S. LNG export projects have been proposed, their economic viability remains uncertain . . . ." [219] Given that several terminals are getting into the business of exporting and re-exporting, global LNG prices are not projected to drop below U.S. domestic natural gas prices, and the United States has significant unused LNG capacity at its terminals and ports, our oceans and coasts could potentially be pressured by an uptick in LNG vessel traffic and terminal construction in the next decade.

Aside from the viability aspect of LNG exports, questions have been raised about the practices' potential impact on domestic energy prices—specifically, the potential for exportation to cause increases in local prices. In its application to export domestically-produced natural gas from Cove Point, Maryland, Dominion Energy claimed that, if the DOE were to grant the license, exports "would only modestly boost gas prices."[220] Dominion Energy disclosed that local Henry Hub (a natural gas market price metric) price of gas would reach $6.00 per million Btu in 2027, two years earlier than the Energy Information Administration

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216. Kwok Wan, *Dominion Applies for LNG Re-exports*, PETROLEUM ECONOMIST, Aug. 15, 2011, http://www.petroleum-economist.com/Article/2883817/Natural-Gas-and-LNG/Dominion-ap.

217. Meghan Russell, *Dominion Makes Plans to Export Regularly*, SOMDNEWS.COM Sept. 2, 2011, http://www.somdnews.com/article/20110902/NEWS/709029550/1074/1074/dominion-makes-plans-to-export-regularly.

218. *See* Wan, *supra* note 210; S*ee also* U.S. Dep't of Energy, *Energy Department Approves Gulf Coast Exports of Liquefied Natural Gas*, FOSSIL ENERGY TECHLINE, (May 20, 2011), http://www.fossil.energy.gov/news/techlines/2011/11023-DOE_Approves_LNG_Export_Applicatio.html.

219. ENERGY OUTLOOK 2011, *supra* note 195, at 80.

220. Kate Winston, Cove Point LNG exports to have limited price impact: company, WASHINGTON (PLATTS), (Oct. 5, 2011, 5:10 pm) http://www.platts.com/RSSFeedDetailedNews/RSSFeed/NaturalGas/6557991.

currently estimates that prices will reach that level.[221] As the Oregon Attorney General recently noted, if exports open domestic gas to a "world market, [local natural gas] price would equalize . . . [i]t would be more expensive here and less expensive there."[222]

Several days after the Oregon Attorney General raised these concerns, the DOE Assistant Secretary for Oil & Natural Gas, Christopher Smith, told the U.S. Association of Energy Economists that the Department "is weighing the cumulative price effect of exports, as more export applications are being filed."[223] After having already granted several applications for licenses to export domestic (and re-export imported) natural gas, this announcement by the DOE (that it is performing its "due diligence"[224]) seems disingenuous. At a November, 2011 hearing before the Senate Committee on Energy and Natural Resources on "[t]he Department of Energy's Role in Liquefied Natural Gas Export Applications," Mr. Smith testified that

> DOE presently has before it four long-term applications to export lower-48 domestically produced LNG to countries with which the United States does not have a free trade agreement that requires national treatment for trade in natural gas. The volumes of LNG that could be authorized for export in these non-free trade agreement applications, including the 2.2 Bcf/d authorized for export in Sabine Pass, would total 6.6 Bcf/d, which represents 10 percent of total current domestic natural gas daily consumption in the United States. Consistent with the Natural Gas Act, DOE already has granted authorization from these five facilities to export this same volume to free trade agreement countries.[225]

Only after having authorized 8.8 Bcf/d of exports and re-exports, and with another four applications pending, did the department, commission two studies "to address the potential cumulative impact of

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221. *Id*.

222. Jessie Higgins, *AG has concerns about LNG*, THE WORLD (Oct. 6, 2011, 11:00 am), http://theworldlink.com/news/local/article_f1a380f4-a2cf-53fd-952f-4276a3c27d2a.html.

223. Margaret Ryan, *USAEE Notebook: DOE Weighing LNG Export Price Effect*, AOL ENERGY (Oct. 10, 2011), http://energy.aol.com/2011/10/10/usaee-notebook-doe-weighing-lng-export-price-effect/.

224. *Id*.

225. *DOE Testimony*, *supra* note 10, at 8-9.

a grant of the pending applications."[226] These studies, taken together, "will address the impacts of additional natural gas exports on domestic energy consumption, production, and prices, as well as the cumulative impact on the U.S. economy."[227]

While the next batch of export applications are processed and the DOE weighs the effect exportation could have on domestic energy prices, the future of deepwater ports and onshore terminals appears to be a mix of spot imports and export capacity construction.

VI. CONCLUSIONS

Riding the short-lived need for natural gas import facilities on the U.S. OCS, several deepwater ports were licensed and built under the requirements of the DWPA. Several more have been approved but not yet been built, and several more are in development or are active applications. Coupled with numerous on-shore coastal LNG terminals, the United States rapidly developed a glut of LNG capacity, several times the capacity needed, to handle existing import demand. Once domestic natural gas production began to rise, these ports became less profitable and less utilized, and ports sat idle. One deepwater port has already initiated the decommissioning process, yet three more promise to start construction within the next few years. Given the overcapacity of the U.S. market and the past year's market shift to LNG exports and re-exports, the future of deepwater ports is clouded. Whether licensing agencies will continue to find that LNG import facilities are in the national interest when the facilities will either sit idle or be used to send domestically produced gas overseas is a question that remains unanswered. Given the rapid turnaround of export and re-export authorization requests and the pendency of several deepwater port construction projects and new applications, we will likely soon find out.

226. *Id*., at 9.
227. *Id*.