ARTICLES:

SIGNIFICANT ENVIRONMENTAL CHALLENGES TO THE DEVELOPMENT OF LNG TERMINALS IN THE UNITED STATES

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I. INTRODUCTION

The widespread perception in the United States that a national energy heart attack is either in progress or looming has focused attention throughout the country on getting more natural gas into the nation's arteries as quickly as the patient will allow. Liquefied natural gas (LNG) offers a compelling, though partial, remedy, since it can be imported from distant countries and either regasified for immediate use or stored for moments of greatest need.[1] As a result, the list of proposed new terminals for receiving LNG in the United States has quickly grown to encompass scores of projects sponsored by a variety of companies.[2] Yet in the tumult and rush to be the first (or second or third) to get a terminal permitted, built, and operating, quite a number of LNG projects have stumbled over—or even impaled themselves on—pointed environmental obstacles thrown up in unexpected places. This article explores some of the more innovative or threatening environmental obstacles. The intent is not to provide a comprehensive review of the many ways in which the development of LNG terminals has been impeded, but rather to provide an early account and classification of important examples to date.

II. BACKGROUND ON LNG

A quick review of LNG's physical properties and an introduction to the current LNG debates provide a useful foundation for the analysis to follow.

A. What is LNG?

"Natural gas" is predominantly methane, so it packs a lot of energy, about 1,000 Btu[3] of heating value per cubic foot.[4] Moreover, it can be combusted almost completely, which means that relatively little soot or other pollution results from the conversion of the fuel to thermal energy—hence its reputation as a "clean" fuel. A frustrating characteristic of natural gas, however, is its volume, which is so great that either of two methods is routinely applied to reduce the fuel to manageable dimen-

1. *See generally* Phyllis Martin, U.S. Energy Info. Admin., Remarks at the 2006 Energy Information Administration Energy Outlook and Modeling Conference: EIA's Current View on LNG Imports Into the United States (March 27, 2006).

2. *Id.*

3. One British thermal unit (Btu) is the amount of heat required to raise the temperature of a pound of water by one degree Fahrenheit. WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE, UNABRIDGED, 279 (Philip B. Gove ed., 1981).

4. *See generally* U.S. Dep't of Energy, Liquefied Natural Gas: Understanding the Basic Facts (August 2005), http://fossil.energy.gov/programs/oilgas/publications/lng/LNG_primerupd.pdf (explaining the basics of natural gas production, and issues with LNG development especially in the US).

sions: compression or cooling. It is important to remember that the two methods are alternatives, and that they impart different characteristics to the material.

Liquefied natural gas is natural gas that has been converted to a liquid state *by cooling*, not by significant compression.[5] All gases condense into liquids at some point on the temperature scale. In the case of natural gas, it happens at roughly minus 160 degrees Fahrenheit, a temperature that requires sophisticated cryogenic technology to create and maintain. Liquefied natural gas occupies about one six-hundredth of the space the same material would occupy in a gaseous state under normal conditions. The result is that an enormous amount of latent thermal energy can be transported and stored in comparatively compact tanks of liquefied natural gas. As expensive as liquefaction is, and as expensive as it is to maintain the temperatures necessary to ship and store LNG at cryogenic temperatures, the price of natural gas in the United States has risen sufficiently to make the importation of LNG into the United States economical.[6]

B. The Great LNG Race

The newly favorable economics has spurred an intensely competitive race among energy companies to develop LNG terminals in the United States, both onshore and offshore. The original four LNG terminals,[7] which came into operation between 1970 and 1981, have by now been joined by:

- one new operating terminal in the Gulf of Mexico,
- two new offshore terminals licensed by the Coast Guard and MARAD in the Gulf of Mexico,

5. Compressed natural gas (CNG), which is widely used in buses and other vehicles, is pressurized and can explode. In contrast, LNG—having been cooled, not compressed—will not explode or even ignite. *See* Letter from J. Mark Robinson, Director of FERC's Office for Energy Projects, to Abbe Raven, President & CEO of the A&E Network (July 28, 2006) (on file with author).

6. In late 2005, the LNG import cost was about $11 per thousand cubic feet (tcf), whereas the residential price for natural gas in the same period was around $15 per tcf. DEPT. OF ENERGY, ENERGY INFO. ADMIN., DOE/EIA-0130, NAT. GAS MONTHLY 17 tbl.5 (2006), *available at* http://www.eia.doe.gov/pub/oil_gas/natural_gas/data_publications/natural_gas_monthly/current/pdf/ngm_all.pdf. A liquefaction plant costs billions of dollars to construct, and a domestic terminal for receiving, storing, and regasifying LNG may cost between $400 million and $1 billion to construct. Vessels for shipping LNG are specialized and cost a few hundred million dollars to build, depending upon the size and the design. A useful review of the LNG market is found in the LNG Subgroup Report (prepared under the direction of John Hritcko, Jr., of Shell NA LNG, Inc.), which appears in volume 5 of the 2003 report prepared by the National Petroleum Council at the request of Secretary Spencer Abraham. NAT'L PETROLEUM COUNCIL, TRANSMISSION AND DISTRIBUTION TASK GROUP REPORT AND LNG SUBGROUP REPORT (2003) *available at* http://npc.org (follow "Natural Gas" hyperlink; then follow "view/download printed volume" hyperlink under "Volume 5").

7. Namely, the terminals at Everett, Massachusetts; Cove Point, Maryland; Elba Island, Georgia; and Lake Charles, Louisiana. NAT'L PETROLEUM COUNCIL, *supra* note 5, at L-2.

- fifteen new or expanded terminals licensed by FERC,
- twenty-two new or expanded terminals proposed to FERC or to MARAD and the Coast Guard, and
- eleven announced new terminal projects for which federal applications are not yet pending.[8]

No one expects fifty-five LNG terminals to operate in the United States in the next twenty years. One reason is the extraordinary difficulty of securing long-term contracts for the huge amount of natural gas required to support the LNG supply chain, in which a terminal is merely the last link. While estimates vary, conventional wisdom suggests that only a half dozen new terminals will commence operation. The competition is fierce.

III. SIGNIFICANT ENVIRONMENTAL CHALLENGES TO LNG TERMINAL PROJECTS

As it turns out, market pressures are not the only powers at work to challenge the development of new LNG terminals. Environmental and social concerns have proven fatal to several projects that had already cleared important market hurdles.[9] While environmental challenges are nothing new to infrastructure developers, the intensity and creativity of these challenges in the context of LNG terminals warrant special attention. The discussion that follows draws upon the recent experiences of the authors and attempts to distill some lessons from them.

We proceed first with a discussion of the Deepwater Port Act, under which all offshore LNG terminals are licensed by the federal government. Key challenges under this little-used statute have related to the meaning of "best available technology" and the application of the governor's veto. Next we turn to important challenges under the National Environmental Policy Act (NEPA), particularly with respect to the scope of cumulative-impacts analysis when an agency is considering one among several proposed LNG projects competing in the same geographic area. Then we consider the panoply of inventive state and local challenges that have been brought—ranging from new legislation to ancient theories of land ownership—before offering some observations about the special difficulties that arise from internecine battles among federal agencies with jurisdiction over a project. We conclude with a synthesis of our observations and some lessons that they suggest.

8. These numbers are in flux. For an up-to-date count, see FERC: Liquefied Natural Gas in the US, http://www.ferc.gov/industries/lng.asp.

9. *E.g.*, the Freeport-McMoRan LNG import terminal project, *infra* part A.2.

A. Permitting Under the Deepwater Port Act

As discussed above, a number of companies are currently considering constructing and operating LNG import terminals offshore. Offshore terminals, while still subject to the usual suite of environmental laws, are also subject to the requirements of the Deepwater Port Act (DPA).[10] Per the DPA, entities seeking to own, construct, or operate an offshore LNG terminal must first obtain a license from the administrator of the United States Maritime Administration (MARAD).[11] Applicants must clear two serious environmental obstacles to obtain a DPA license.

First, MARAD can issue a license for a proposed project only if, among other things, MARAD "determines, in accordance with the environmental review criteria established pursuant to section 1505 [of the DPA], that the applicant has demonstrated that the deepwater port will be constructed and operated using *best available technology* (BAT), so as to prevent or minimize adverse impact on the marine environment."[12] Groups opposed to offshore LNG projects have asserted that this statutory language requires technology that will have the least impact on the marine environment, regardless of other considerations, such as cost and the non-marine environment.[13] Since the DPA does not define best available technology, this assertion recently posed a significant threat to the Gulf Landing offshore LNG terminal project.[14]

Second, the DPA also provides for a governor's veto over the licensing of a project.[15] Two governors have already used their veto authority under the DPA to prevent the development of certain LNG projects, and in both instances the stated motivating concern was potential environmental effects on fisheries.[16] No veto or anticipated veto has yet been challenged in court.

We discuss these two obstacles in turn.

10. Deepwater Port Act of 1974, 33 U.S.C. §§ 1501–24 (2000). The DPA originally applied only to petroleum infrastructure, but in 2002 Section 106 of the Maritime Transportation Security Act amended the DPA to extend its coverage to natural gas ports. Maritime Transportation Security Act of 2002, Pub. L. No.107-295, § 106, 116 Stat. 2064, 2086. Applicants and agencies alike are still learning how the DPA works in the LNG context.

11. 33 U.S.C. § 1503(a).

12. 33 U.S.C. § 1503(c)(5) (emphasis added).

13. *See* Brief of Petitioners, Gulf Restoration Network v. U.S. Dep't of Transp., 452 F.3d 362 (5th Cir. 2006) (No. 05-60321) [hereinafter Petitioners' Brief].

14. Gulf Restoration Network v. U.S. Dep't of Transp., 452 F.3d 362, 371-373 (5th Cir. 2006). Bracewell & Giuliani LLP represented the licensee in the proceeding, while the government was represented by Lane Nemirow (MARAD) and Todd Kim (DOJ).

15. 33 U.S.C. § 1503(c)(8).

16. *See* Stephanie Grace, *An "Oil and Gas Governor" draws the line*, TIMES PICAYUNE, May 11, 2006; *see also* Press Release, Ala. Office of the Governor, Governor Riley Issues Statement of Withdrawal of Open Loop LNG Proposal (June 9, 2006) (on file with author).

1. Best Available Technology

On November 3, 2003, Gulf Landing LLC submitted an application to MARAD in order to obtain a DPA license to construct and operate an offshore LNG terminal in the Gulf of Mexico off the Louisiana coast. In response, MARAD and the Coast Guard prepared an Environmental Impact Statement (EIS) that, among other things, detailed the impacts that the Gulf Landing project would have on the environment.[17] Several months after the final EIS was issued, the administrator of MARAD granted a DPA license to Gulf Landing.[18] Several nongovernmental organizations (the Petitioners) filed suit in the Court of Appeals for the Fifth Circuit to overturn the licensing decision.[19] One of the chief arguments advanced by the Petitioners in their joint brief was that MARAD violated the DPA by failing to require the Gulf Landing facility to use "the best available technology so as to prevent or minimize adverse impact on the marine environment."[20]

The centerpiece of the BAT dispute was the technology that Gulf Landing proposed to use to regasify the LNG it will receive from tankers offshore. Among the various proven methods to regasify LNG, three prominent methods are (1) open rack vaporization (ORV), (2) submerged combustion vaporization (SCV), and (3) a hybrid of the two.[21] ORV uses ocean water in a closed loop system to warm, and thus regasify, LNG, while SCV entails burning natural gas in order to warm the LNG. In its DPA license application, Gulf Landing proposed using ORV technology for regasification. The Petitioners, among others, expressed concern that use of the ORV technology would significantly harm certain fish species in the Gulf of Mexico, principally by cooling the seawater around the terminal and by entraining or entrapping larvae and eggs in the seawater intake structures. They asserted that the ORV technology threatens the fish population because it causes a drop in the temperature of the seawater around the LNG terminal.[22] Accordingly, the Petitioners

17. The secretary of the Department of Transportation delegated certain portions of his statutory authority under the DPA to MARAD and certain portions to the Coast Guard. While MARAD is the licensing entity, the Coast Guard is involved in the application process and the NEPA review. 49 C.F.R. § 1.66(aa)(1)–(2) (2006); 33 C.F.R. § 148.3 (2006).

18. U.S. Dep't of Transp., The Secretary's Decision on the Deepwater Port License Application of Gulf Landing LLC, Feb. 16, 2005, at 4 (on file at http://dmses.dot.gov/docimages/p80/315745.pdf) [hereinafter Record of Decision].

19. Petition for Review, Gulf Restoration Network v. U.S. Dep't of Transp., 452 F.3d 362 (5th Cir. 2006) (No. 05-60321) [hereinafter Petition for Review].

20. Petitioners' Brief, *supra* note 13, at 10-11.

21. *See, e.g.*, Gulf Landing LLC Liquefied Natural Gas Deepwater Port License Application; Final Environmental Impact Statement, 69 Fed. Reg. 232,70270 (Dec. 3, 2004) [hereinafter Gulf Landing FEIS], *available at* http://dmses.dot.gov/docimages/pdf90/307023_web.pdf. at 2-6.

22. As stated in the Gulf Landing FEIS, "[m]odeling of the cool water plume anticipated from the use of ORVs at the proposed site indicates that at a distance of 100 meters (m) (328 Et) from the discharge point, the discharge water temperature along the sea floor would be [one degree Celsius] or less below the ambient water temperature." *Id.* at 2-8.

and other agencies and groups opposed the use of ORV technology and favored a submerged combustion approach instead.[23] In their briefs at the Fifth Circuit, the Petitioners challenged MARAD's finding that ORV is the "best available technology" under the DPA.

In their brief, the Petitioners claimed that ORV did not "prevent or minimize adverse impact on the marine environment" as required by the DPA. They argued that since submerged combustion would have less of an impact on the marine environment than ORV, ORV did not *minimize* impacts to the marine environment. In making this argument, the environmental groups relied on MARAD's own statement that ORV would have a "higher effect" on the marine environment than submerged combustion.[24]

In response, MARAD agreed that the DPA requires it to consider carefully the impacts of competing technologies on the marine environment, but MARAD stated that it need not necessarily choose the technology "that is best for the marine environment when that technology is demonstrably inferior in every other regard to another technology that also minimizes impacts on the marine environment. . .."[25] In short, MARAD and Gulf Landing, LLC, an Intervenor in the case, argued that the DPA requires MARAD to consider specified environmental review criteria beyond impacts to the marine environment. Among these criteria are considerations such as air emissions, where ORV performs better than submerged combustion, and "such other considerations as [MARAD] deems necessary."[26] With regard to MARAD's licensing of the Gulf Landing project, the licensee argued that "other considerations" should properly include the cost of each technology.[27] MARAD and Gulf Landing LLC also stressed the fact that the impacts of the ORV system on the marine environment would be minimal.[28]

On June 8, 2006, the Fifth Circuit issued its opinion on this question of first impression. The Fifth Circuit unanimously rejected the claims of the Petitioners and denied their petition for review under the DPA.[29] The court found that, if it were to accept the Petitioners' reading of the DPA: (1) MARAD could not apply the environmental review criteria expressly mandated by the DPA, (2) MARAD could not properly follow NEPA because it would have to ignore NEPA-mandated variables unrelated to

23. *See, e.g.*, Petitioners' Brief, *supra* note 13, at 10.

24. Gulf Landing FEIS, *supra* note 23, at 2-10.

25. Brief of Respondent at 33, Gulf Restoration Network v. U.S. Dep't of Transp., 452 F.3d 362 (5th Cir. 2006) (No. 05-60321) [hereinafter MARAD's brief].

26. 33 U.S.C § 1505(a)(7) (2000).

27. *See, e.g.*, Brief of Intervenor Gulf Landing LLC at 13, Gulf Restoration Network v. U.S. Dep't of Transp., 452 F.3d 362 (5th Cir. 2006) (No. 05-60321) [hereinafter Gulf Landing's Brief].

28. *See, e.g.*, *id.* at 8; MARAD's Brief, *supra* note 25, at 42; Record of Decision, *supra* note 18, at 6.

29. Gulf Restoration Network v. U.S. Dep't of Transp., 452 F.3d 362, 373 (5th Cir. 2006).

the marine environment, and (3) it would prevent MARAD from considering other factors, such as national security, that the statute also contemplates.[30] The court also held that the Petitioners' reading of the statute would demand "the use of the technology that is best for the marine environment, even if the costs were so prohibitive that no applicant could ever construct a port using that technology."[31] Accordingly, the Petitioners' reading of the DPA was rejected.

The court's groundbreaking decision provides several guideposts to future applicants under the DPA. It is clear that, in the Fifth Circuit at least, MARAD can and must review numerous criteria (not just impacts to the marine environment) in making its determination of best available technology. Perhaps as important, the Fifth Circuit has recognized that MARAD can include considerations of cost in its decision-making process. While this decision provides clarity to future applicants, the DPA can still be a formidable obstacle to the development of offshore LNG terminals, as discussed below.

2. The "Adjacent State" Governor's Veto Right

In addition to the license requirement, the DPA contains another potential roadblock to offshore terminal development. Under the Deepwater Port Act, the governor of a state that is "adjacent" to a deepwater port project can veto that project prior to licensing.[32] The statute provides no express limits on or criteria for exercising the veto, save that the veto must occur no later than forty-five days after the last public hearing on the permit application.

The considerable power of this veto right was seen in action with regard to two projects in the Gulf of Mexico.[33] On May 5, 2006, Louisiana governor Kathleen Blanco vetoed a project proposed by Freeport-McMoRan off the coast of her state.[34] Shortly thereafter, ConocoPhillips withdrew its DPA application for a project off the coast of Alabama following statements by Governor Bob Riley that he intended to veto the project.[35] Both the veto in Louisiana and the veto threat in Alabama were tied to the fact that the projects intended to use ORV technology.

30. *Id.*

31. *Id.*

32. *See* 33 U.S.C. § 1503(c)(8) (2000). In a somewhat unique approach, an LNG terminal can be located thirty miles offshore (outside of a state's territorial waters), but still have an "adjacent state" according to the DPA. 33 U.S.C. § 1508(a)(1) (2000). This gives the governor's veto an extraordinarily long reach.

33. The governor's veto right is discussed in detail in John A. Sullivan, *Conoco Pulls Application for Alabama Offshore LNG Terminal*, Natural Gas Week, June 12, 2006.

34. *See* Stephanie Grace, *An "Oil and Gas Governor" draws the line*, TIMES PICAYUNE, May 11, 2006.

35. *See* Press Release, Ala. Office of the Governor, Governor Riley Issues Statement of Withdrawal of Open Loop LNG Proposal (June 9, 2006).

The two companies are now reassessing whether they should alter their projects to utilize submerged combustion technology.[36] Given its political underpinnings, the governor's veto right under the DPA may represent the most powerful barrier an offshore LNG terminal developer can face today.[37]

B. Procedural Challenges Under the National Environmental Policy Act

The requirements of NEPA have often been fertile ground for challenges to projects of many kinds, including LNG projects.[38] NEPA may provide the most frequently used tool for blocking or redirecting large infrastructure development. Under NEPA, federal agencies must prepare an Environmental Impact Statement (EIS) prior to any major federal action (e.g., issuing a significant permit). When an agency prepares an EIS, it must consider the "cumulative impacts" that the project will have on the environment.

> Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and *reasonably foreseeable* future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.[39]

"An impact is 'reasonably foreseeable' if it is 'sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.'"[40]

The scope of an agency's cumulative impacts analysis is frequently an area of dispute between the agency, the developers, and those opposed to the project.[41] Indeed, with so many LNG projects competing with one another, particularly in the Gulf of Mexico, NEPA's "cumulative impacts" requirement can be a formidable obstacle to development, particularly if courts agree that NEPA's cumulative impacts analysis has a wide geographic reach. The Gulf Landing decision, discussed above, provides an example of how the Fifth Circuit chose to interpret the geographic reach of cumulative impacts with regard to offshore LNG projects in the Gulf of Mexico.

36. *See, e.g.*, *Inside FERC*, PLATTS, June 19, 2006, at 9.

37. The limits of this veto power have not been tested in court yet.

38. *See*, *e.g.*, the discussion of the Gulf Landing LNG import terminal project, *infra* Part III.B.1.

39. 40 C.F.R. § 1508.7 (2006) (emphasis added).

40. City of Shoreacres v. Waterworth, 420 F.3d 440, 453 (5th Cir. 2005) (quoting Sierra Club v. Marsh, 976 F.2d 763, 767 (1st Cir. 1992)).

41. *See*, *e.g.*, discussion of the legal challenges to the Gulf Landing LNG facility, *infra* Part III.B.1.

1. Scope of the Cumulative Impacts Analysis

In the Gulf Landing case, the Petitioners claimed that MARAD and the Coast Guard had improperly defined the scope of the cumulative impacts analysis for the Gulf Landing project. The scope of MARAD's cumulative impacts analysis was limited to projects that, at the time of the Draft EIS for Gulf Landing, had both (1) a complete DPA application on file and (2) an approved public draft NEPA document available for review. This amounted to two projects. The Petitioners argued that three other contemplated projects were also "reasonably foreseeable" and should have been included in the cumulative impacts analysis.[42]

In the Gulf Landing EIS, MARAD justified its decision to exclude these three projects on the basis that it did not have sufficient information about the projects. Without sufficient information, MARAD would have had to speculate about the details of each project in order to include them in the analysis. In other words, MARAD felt that the three projects were not "reasonably foreseeable" under the *Shoreacres* standard. The Petitioners disagreed because, they claimed, the applications for these three projects were on file with MARAD (and the Coast Guard), and they contained a wealth of detailed information, including analyses of projected environmental effects. The Petitioners focused on the fact that "the Secretary knew 'the proposed location,' and 'the type and design of all components' for three proposed Gulf of Mexico LNG ports."[43] They argued that "[t]hese were concrete proposals for which [MARAD] has sufficient information to analyze impacts to the marine environment."[44] In addition, they argued, the projects were "sufficiently likely to occur that a person of ordinary prudence would take [them] into account in reaching a decision."[45]

In response, Gulf Landing, as Intervenor, argued that "[i]ncluding the three projects in the analysis of cumulative impacts would have been speculative."[46] MARAD agreed, stating that "[a]pplicable regulations and precedent indicate . . . that cumulative impact analyses need not include undue speculation about the effects of uncertain future actions."[47] According to the licensing agency:

> Petitioners' argument that a cumulative impacts analysis must include every potential port for which an application has been filed supposes that the Administrator must speculate on cumulative im-

42. *Id.* at 14-20. The three projects were Compass Port, Main Pass and Pearl Crossing. Brief of Intervenors ConocoPhillips Co., Compass Port LLC, and Beacon Port LLC at 2, Gulf Restoration Network v. U.S. Dep't of Transp., 452 F.3d 362 (5th Cir. 2006) (No. 05-60321).

43. Petitioners' Brief, *supra* note 13, at 19.

44. *Id.*

45. *Id.*

46. Gulf Landing's Brief, *supra* note 27 at 12.

47. MARAD's Brief, *supra* note 25, at 16.

> pacts without (1) engaging in the process contemplated by the Deepwater Port Act to gather information to verify and supplement the data the applicant submits; (2) considering whether he might exercise his discretion to require changes or even deny the application entirely; (3) accounting for the fact that EPA or the Governor of the adjacent State could disapprove the application whether or not the Administrator wishes to grant a license; and (4) recognizing that even a licensed port may never be built.[48]

Instead of following this approach, MARAD determined "that a line must be drawn somewhere, and [MARAD drew] the line such that projects without a final license are to be considered, but only after a draft EIS is available."[49]

After review, the Fifth Circuit unanimously held that the secretary did not act arbitrarily or capriciously by excluding the three projects from the cumulative impacts analysis. The court found that MARAD "was entitled to conclude that the occurrence of any one of a number of contingencies could cause the plans to build the ports to be cancelled or drastically altered."[50] Indeed, the court noted that ExxonMobil withdrew its application for the Pearl Crossing LNG terminal after filing a complete application, but before MARAD made a licensing decision.[51] In short, the court agreed with MARAD and Gulf Landing that the three projects were not "reasonably foreseeable" or actions that "a person of ordinary prudence would take [ ] into account in reaching a decision."[52]

A definition of "cumulative impacts" that had wide geographic reach might have delayed or halted the Gulf Landing project, not to mention the scores of many other offshore LNG facilities in the works. The Fifth Circuit's decision to interpret NEPA's cumulative impacts requirement in a fairly narrow fashion negated the threat and provided guidance to agencies that will license similar facilities in the future. In addition, the decision reflects: (1) the considerable amount of discretion that courts will afford MARAD in making a licensing decision under the DPA, (2) the level of review typically expected in a NEPA document,[53] and (3) the fact that courts are willing to put a boundary on the scope of cumulative impacts. That said, there are still a number of requests from the public

48. *Id.* at 16-17.
49. Gulf Restoration Network v. U.S. Dep't of Transp., 452 F.3d 362, 369 (5th Cir. 2006).
50. *Id.* at 370.
51. *Id.* at 370-371.
52. *Id.* at 371.
53. NEPA's core requirement is that environmental analysis precede and meaningfully inform a decision that might trigger significant environmental effects. See Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989); see also 33 U.S.C. §§ 1503, 1504 (2000); 40 C.F.R. §§ 1502.1-1502.5 (2006). A court's review of an agency's action under NEPA "is limited to ensuring that the [agency] took a 'hard look' at the environmental consequences." Spiller v. White, 352 F.3d 235, 240 (5th Cir. 2003) (citing Kleppe v. Sierra Club, 427 U.S. 390, 410 (1976).

and other interested parties that agencies conduct regional or even programmatic EISs instead of dealing with projects on an individual basis.[54]

2. International Issues on the Horizon

Each of the three principal geographical areas in which new LNG terminals are currently proposed in North America—namely, the Gulf of Mexico, California, and New England—implicate international issues because of their proximity to the Canadian or Mexican border. In New England, for example, LNG projects on both sides of the border are in direct competition with one another economically, since the preponderant market for gas is in New England,[55] not Canada, yet the market could be served from the eastern coast of either Canada or the United States. The international dimension of the competition among LNG terminals has already prompted political discussion about the appropriate distribution of risk and reward between countries.[56] In short, the issue of how to assess and address cross-border effects and risks associated with LNG facilities can be seen on the horizon. Two recent developments outside the context of LNG development provide interesting perspectives on the issue.

a. Trail Smelter

The smelter at Trail, British Columbia, has a storied history in environmental legal circles, having occasioned two seminal international arbitrations—in the 1920s and 1930s—that recognized that "under the principles of international law, as well as the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence."[57] The famous decision

54. For example, the Conservation Law Foundation called for FERC to prepare a programmatic EIS prior to making a determination with regard to the onshore Weaver's Cove LNG facility proposed for Massachusetts. Letter from Christopher A. D'Ovidio, Director, Rhode Island Advocacy Center, Conservation Law Found., and Peter Shelley, Director, Massachusetts Advocacy Center, Conservation Law Found. to Sec'y Magalie R. Salas, Fed. Energy Regulatory Comm'n (Sept. 20, 2004) (on file with the Conservation Law Found.), *available at* http://www.clf.org/uploadedFiles/CLF/Programs/Clean_Energy_&_Climate_Change/Clean_Energy/LNG_Terminal_Siting/ 20040920_letter_LNG_DEIS_FallRiver.pdf.

55. *See generally,* The Power Planning Committee of The New England Governors' Conference, Inc., Meeting New England's Future Natural Gas Demands: Nine Scenarios and Their Impacts (March 1, 2005), *available at* http://www.negc.org/DOCUMENTS/NATURALGASSTUDY.PDF.

56. For example, Canada has objected to the passage of LNG tankers headed for Maine through Canadian waters. Canadian Broad. Corp., U.S. Will Be Told to Keep Tankers Out of Canadian Waters: MP (2006), http://www.cbc.ca/canada/story/2006/04/13/lng-passamaquoddy060413.html (last updated Apr. 13, 2006).

57. Tribunal Decision, *Trail Smelter Arbitral Tribunal*, 35 AM. J. INT'L L. 684, 716 (1941).

has been widely studied as the progenitor, or more accurately the catalyst, of the modern law of transboundary pollution.[58] The smelter has been much in the news again in recent years because its Canadian owner has resisted—successfully, in the end—submitting itself to the jurisdiction of the U.S. "Superfund" law for the purposes of analyzing and responding to the contamination of the Columbia River system downstream of the smelter.

The resolution of the more recent Trail smelter matter warrants study, not just for its implications concerning U.S. and international law but also for what it may augur in the context of international competition among LNG terminals. The matter began in earnest in November 2003, when negotiations between EPA and the smelter's owner broke off over a jurisdictional issue under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).[59] The following month, EPA issued a unilateral administrative order under CERCLA §106 requiring the smelter's owner to assess the contamination and to develop alternative remedial strategies.[60] The owner refused, citing a lack of subject matter jurisdiction.[61] In time, a formal complaint was lodged with the U.S. government by the Canadian government, protesting the attempted application of domestic U.S. law to the owner of Canadian-permitted smelting operations in Canada.[62] Neither party seemed to budge publicly until June 2006, when a settlement was announced.

The settlement takes the novel form of a contract—an Agreement for Remedial Investigation and Feasibility Study—that is enforceable in federal court in the United States. The contract expressly denies that the smelter's owner has, for any other purpose, submitted to the jurisdiction of the United States.[63] EPA agreed to withdraw its unilateral order, and the owner has agreed to do what it had long offered to do, namely to pay several million dollars to cover the costs of the environmental work and to support the participation of various interested parties on the U.S. side.

58. *See, e.g.*, Gerald F. George, *Environmental Enforcement Across National Borders*, NATURAL RESOURCES & ENVIRONMENT, Summer 2006.

59. *See* U.S. Envtl. Prot. Agency, Region 10 Cleanup: Upper Columbia River, Enforcement, http://yosemite.epa.gov/R10/CLEANUP.NSF/UCR/Enforcement (last visited Oct. 28, 2006).

60. In re Upper Columbia River Site, No. CERCLA-10-2004-0018 slip op. at 9-12 (EPA Dec. 11, 2003) (Unilateral Administrative Order for Remedial Investigation/Feasibility Study) *available at* http://yosemite.epa.gov/R10/CLEANUP.NSF/UCR/Enforcement (follow "Text" hyperlink at the bottom of the page).

61. See Letter from David Thompson, Deputy Chairman and CEO of Teck Cominco Limited to the United States Environmental Protection Agency (November 14, 2003), *available at* http://www.teckcominco.com/articles/roosevelt/dt-letter031114.htm.

62. See Letter from the Embassy of Canada to the Dep't of State of U.S. (January 8, 2003) (on file with author).

63. SETTLEMENT AGREEMENT FOR IMPLEMENTATION OF REMEDIAL INVESTIGATION AND FEASIBILITY STUDY AT THE UPPER COLUMBIA RIVER SITE at 16 (June 2, 2006), *available at* http://epa.gov/newsroom/pdf/teckcominco.pdf.

For our purposes two points are interesting. First, the smelter matter involved operations entirely conducted and permitted in Canada, but yielding environmental externalities in the United States. Much the same could be said of LNG projects operated solely within one country but arguably affecting the security or environment of a neighboring country. Second, over a period of years the parties to the smelter matter could find no acceptable resolution of the question of responsibility for those externalities on the basis of statutory or international law. In the end they relied upon common contract law to arrive at a legally enforceable understanding. Viewed pessimistically, the resolution highlights how ineffectual our current legal system is for addressing cross-border issues. Viewed optimistically, it suggests that collaborative, business-oriented negotiations with governments can be fruitful.[64]

b. La Rosita

On the other U.S. border—with Mexico—a pending lawsuit also deserves note.[65] The case involves a power plant built and operated in Mexico to provide power exclusively within the State of California. The La Rosita power plant, near Mexicali, was constructed according to Mexican environmental permits, but its associated transmission line extended into California and, therefore, required both a Presidential permit from the U.S. Department of Energy and a right-of-way from the Bureau of Land Management. These American approvals were obtained on the basis of an Environmental Assessment under NEPA (resulting in a Finding of No Significant Impact).[66] However, a border group challenged the Environmental Assessment as insufficient in various respects, and the U.S. District Court for Southern California largely agreed.[67] The federal agencies then prepared a more comprehensive Environmental Impact Statement.[68] To the border group's consternation, neither the EA nor the EIS included a substantive assessment of the environmental effects *in Mexico* from either the cross-border transmission line or the power plant located in Mexico. Should they have included such an analysis?

In the United States, there is a general presumption against the extraterritorial application of statutes.[69] However, "the presumption against

64. The potential for liability under CERCLA is still evolving. On July 3, 2006, the Court of Appeals for the Ninth Circuit held that CERCLA does apply to the smelter. Pakootas v. Teck Cominco Metals Ltd., 452 F.3d 1066, 1078 (9th Cir. 2006).

65. Border Power Plant Working Group v. Dep't of Energy, 260 F. Supp. 2d 997 (S.D. Cal. 2003).

66. Dep't of Energy Environmental Assessment EA-1391 (Dec. 5, 2001), *available at* http://web.ead.anl.gov/bajatermoeis/documents/docs/Baja-Sempra234-235fonsi.pdf.

67. *Border Power Plant Working Group*, 260 F. Supp. 2d 997 at 1028.

68. Final Environmental Impact Statement for the Imperial-Mexicali 230-kv transmission lines (Dec. 2004), *available at* http://web.ead.anl.gov/bajatermoeis/documents/finaleis/index.cfm.

69. Equal Employment Opportunity Comm'n v. Arabian Am. Oil Co., 499 U.S. 244, 248

extraterritoriality is not applicable when the conduct regulated by the government occurs within the United States."[70] The conduct regulated in this case was the issuance of a Presidential permit and a right-of-way to construct a transmission line. Thus, to the extent that the construction or operation of the transmission line caused significant environmental effects in Mexico, these effects should be reflected in the EIS.[71]

Indirect effects must also be considered.[72] In its May 2, 2003, order, the district court found that the emissions from the La Rosita facility were "effects" of the transmission line that had to be analyzed under NEPA. But the court did not expressly hold that the effects *within Mexico* had to be analyzed. The Council on Environmental Quality's (CEQ) guidance on this point directs that foreign effects do fall within the ambit of NEPA. That said, the guidance was prepared with an eye to the old Trail Smelter Arbitration and the then-new North American Free Trade Agreement, both of which more nearly contemplated a circumstance where not just the federal decision (e.g., granting a license) but also the activity subject to decision (e.g., operating a power plant pursuant to the license) occur within the United States yet cast their effect upon the environment abroad. In the case of La Rosita, however, the activity that most concerned the border group—namely the operation of the power plant—occurred within Mexico and cast its effects largely within Mexico. CEQ's guidance does not expressly address such a scenario.

Partially filling the gap is Executive Order 12114, which addresses "Environmental Effects Abroad of Major Federal Actions."[73] Executive Order 12114 details certain circumstances when the federal government must take into consideration actions that significantly affect the environment in foreign nations or the "global commons" (which are non-sovereign areas such as Antarctica). One of the specified instances arises when "major Federal actions significantly [affect] the environment of a foreign nation not participating with the United States and not otherwise

(1991) *superseded by statute*, Civil Rights Act of 1991, Pub. L. No. 102-166, 105 Stat. 1074 (statute does not address this point).

70. Environmental Defense Fund, Inc. v. Walter E. Massey, 986 F.2d 528, 531 (D.C. 1993) (stating that "[e]ven where the significant impacts of the regulated conduct are felt outside the U.S. borders, the statute itself does not present a problem of extraterritoriality, so long as the conduct which Congress seeks to regulate occurs largely within the United States").

71. *See also* Memorandum from Kathleen A. McGinty to Heads of Agencies on the Application of the Nat'l Envtl. Policy Act to Proposed Federal Actions in the U.S. with Transboundary Effects (July 1, 1997) [hereinafter McGinty Memorandum], *available at* http://www.nepa.gov/nepa/regs/transguide.html (stating that "CEQ has determined that agencies must include analysis of reasonably foreseeable transboundary effects of proposed actions in their analysis of proposed actions in the United States," but also noting that "this guidance [does not] apply NEPA to so-called 'extraterritorial actions'; that is, U.S. actions that take place in another country or otherwise outside the jurisdiction of the United States").

72. 40 C.F.R. § 1508.8(b) (2006).

73. 44 Fed. Reg. 1957 (January 9, 1979).

involved in the action."[74] A second specified instance arises when a major federal action provides to a foreign nation a "physical project producing . . . an emission or effluent which is prohibited or strictly regulated by Federal law in the United States because its toxic effects on the environment create a serious public health risk."[75]

Both of these provisions reflect the principle of comity toward foreign nations. Where a foreign sovereign is neither in a position to assess the effects of a decision nor to influence the decision making (in other words, it is not "participating"), the United States government must itself assess the significant foreign effects of the proposed action. Similarly, where the decision in the United States has the effect of exporting abroad a project whose emissions would be stringently regulated in the United States, the United States must consider the foreign environmental effects of its decision.

That said, the duty to consider environmental effects abroad may be satisfied by reviewing (and reflecting in the administrative record) the determinations of a foreign sovereign concerning the environmental effects of the proposed activity within its territory. In *Swinomish Tribal Community v. FERC*, the Court of Appeals for the D.C. Circuit ruled that a commission of the Department of Energy had adequately considered the environmental effects in Canada of authorizing an increase in the height of a dam in the United States.[76] The court explained that the agency had taken a "hard look" at these foreign environmental effects by considering and reflecting in the record the detailed environmental assessment of the International Joint Commission as to the proposed increase in dam height. No additional environmental analysis by the United States was necessary.

On balance one may conclude that, while NEPA requires the assessment of significant environmental effects abroad from major federal decisions made in the United States, such assessments may rely upon the work of foreign governmental or quasi-governmental agencies that have already assessed the effects within their territory. In the context of LNG import terminals proposed to be built near the Mexican and Canadian borders, the lessons of La Rosita and the Trail smelter recommend close consideration—in the earliest stages of a project—of the transboundary effects of both the terminals and the associated pipelines and tanker routes.

74. 44 Fed. Reg. 1957 § 2-3(b).
75. 44 Fed. Reg. 1957 § 2-3(c)(1).
76. Swinomish Tribal Cmty v. Fed'l Energy Regulatory Comm'n, 627 F.2d 499, 510 et seq. (D.C. Cir. 1980).

C. State and Local Challenges

State and local governments have proven at least as creative—and forceful—as nongovernmental organizations in challenging proposed LNG projects. The preferred point of attack is the siting of the facility itself, rather than the environmental standards that apply. Indeed, while the Energy Policy Act of 2005 (EPACT) provides FERC with the exclusive authority to site LNG facilities, the extent of its siting authority has not been conclusively determined, at least in the eyes of the states. Accordingly, nonfederal governments have used a variety of arguments to justify their own authority to hinder the siting of LNG facilities within their jurisdictions. A few prominent or innovative examples follow.

1. State Siting Authority for Intrastate Projects

In 2004, a dispute arose between the California Public Utilities Commission (CPUC) and FERC. Sound Energy Solutions, a subsidiary of Mitsubishi Corporation, applied to FERC for permission to site an LNG facility in Long Beach, California.[77] In so doing, Sound Energy Solutions declined to work through the CPUC, claiming that it needed only FERC approval to construct and operate its facility. In response, the CPUC filed suit against FERC to contest jurisdiction over the project.[78] Following the passage of the EPACT (and in light of FERC's new siting authority stated therein), the CPUC consented to a motion by FERC to dismiss the CPUC's complaint as moot, effectively conceding FERC's primacy in siting LNG terminals.[79] In October 2005, the Ninth Circuit granted this motion.[80] The resolution of this case strengthens the position of FERC and developers against similar claims of overriding state authority with regard to the siting of facilities. That said, it will not necessarily prevent the assertion of such claims, especially given the divergent regional approach to siting.

2. State Coastal Zone Management

One area where states wield considerable influence is in the management of coastal areas. The federal Coastal Zone Management Act (CZMA) requires that all federal actions in or affecting the coastal zone be consistent with the Coastal Zone Management (CZM) program of the

77. *See* Sound Energy Solutions' Application for Authority to Site, Construct and Operate a LNG Import Terminal Facilities, No. CP04-58 (FERC filed Jan. 26, 2004).

78. California Pub. Utils. Comm'n v. FERC, No. 04-75240 (9th Cir. filed Oct. 4, 2004).

79. *Id.*

80. *Id.* The advocacy group Californians for Renewable Energy continued the fight, but their petition for review was also dismissed as moot on June 29, 2006. Californians for Renewable Energy v. FERC, No. 04-73650 (9th Cir. filed July 20, 2004).

state in question.[81] If an applicant's project will affect coastal zones[82] and will require a federal license or permit, the applicant must submit a consistency application to the state certifying that the project will comply with that state's CZM plan.[83] Federal agencies, in turn, cannot grant a federal license or permit unless (1) the state concurs with this consistency determination or (2) the Secretary of Commerce determines, upon appeal, that the proposed activity is (a) consistent with the objectives of the Act or (b) necessary in the interest of national security.[84] In general, states must make a CZM determination within six months after notification, but states may extend the period upon timely notice of concern. Using the CZMA, states have some ability to block or at least delay LNG projects. We review two examples below.

a. Rhode Island's "Category B Assent" Process

Rhode Island recently used its CZM program to impede an LNG project. As part of its CZM plan, Rhode Island requires certain projects to obtain a "Category B Assent" from the state.[85] The Category B Assent process entails a full state review of a project's impacts, including the project's environmental impacts notwithstanding NEPA-related assessments under way or completed. Several years ago, KeySpan LNG sought approval from FERC to expand its existing onshore LNG terminal in Providence, Rhode Island.[86] As part of its CZM review, Rhode Island required KeySpan to apply for and obtain a Category B Assent, thereby giving the State the basis for a much broader environmental analysis and, not incidentally, delaying the state's CZM determination. KeySpan refused to pursue this authorization[87] on the grounds that Rhode Island did not have the authority necessary to require KeySpan to do so. The disagreement eventually went to litigation and remains there today.[88] While it is not clear if Rhode Island can require KeySpan to apply for and obtain a Category B Assent, it appears that Rhode Island was successful in slowing down the expansion of the KeySpan LNG terminal by asserting its authority

81. 16 U.S.C. § 1456(c)(1)(A) (2000).

82. 16 U.S.C. § 1456 (g) (2000). The authority of the CZMA extends inland, to the extent inland activities affect the coastal zone.

83. 16 U.S.C. § 1456(c)(3) (2000).

84. *See id.* State concurrence is conclusively presumed if the state fails to act within six months after receipt of the applicant's certification. 16 U.S.C. § 1456(c)(3)(A).

85. *See* Rhode Island's Coastal Resources Management Program (a.k.a. "the Red Book").

86. *See* Application of KeySpan LNG, LP for Authorization of a Liquefied Natural Gas Terminal, Nos. CP04-223 & CP04-293 (FERC filed April 30, 2004), *available at* http://elibrary.ferc.gov/idmws/docket_search.asp.

87. KeySpan eventually applied for a Category B Assent, while maintaining that it is not legally required to do so.

88. *See* R.I. Coastal Mgmt. Res. Council v. KeySpan LNG, LP, No. 1:05-CV-00091-S-LDA (D.R.I. filed Feb. 2, 2005).

under Category B.

b. Washington State's CZM Plan

While not involving LNG, the Georgia Strait Pipeline project off the coast of Washington State provides a useful example of an interesting—and ultimately unsuccessful—effort by the State to use its administration of the coastal zone management program to gain leverage over a significant energy project.[89] To summarize, Georgia Strait had initiated a proceeding for authorizations under the Natural Gas Act to construct and operate one or more new pipelines. The project submitted the requisite certification of consistency with Washington's coastal zone management program and sought the State's concurrence as required by the CZMA. After considerable back-and-forth between the applicant and the state agency, Georgia Strait eventually petitioned FERC for a declaratory ruling that the State had waived its right to concur or object to Georgia Strait's consistency certification, on the theory that the State had failed to meet the statutory six-month period for doing so.[90] The State intervened in the FERC proceeding and vigorously defended itself.[91] Although FERC swiftly dispatched the State, one of the State's arguments deserves special note.

The State agency asserted that the federal regulations governing CZM programs required all "necessary data and information" to be submitted as part of the request for state concurrence.[92] The State interpreted the federal requirement as encompassing the necessary State shoreline permits and completion of the Washington State Environmental Policy Act (SEPA) process. Both the permits and evidence of SEPA sufficiency would need to be supplied before the State would consider a request for concurrence to be administratively complete.[93] Moreover, the agency argued that FERC could not legally issue its authorization under the Natural Gas Act until the CZMA concurrence had been granted. Since the project had neither a shoreline permit nor evidence of SEPA satisfaction, the State was seeking to hold the federal permitting process in abeyance until the State permitting processes had fully run their course. If the CZMA process could be bent to such an end, the consequences for many energy projects could be substantial.

89. *See* Georgia Strait Crossing Pipeline LP, 105 F.E.R.C. P 61,190 (Fed. Energy Regulatory Comm'n Nov. 13, 2003).

90. *See* Georgia Strait Crossing Pipeline LP, 107 F.E.R.C. P 61,065 (Fed. Energy Regulatory Comm'n Apr. 20, 2004).

91. *See* Wash. St. Dep't. of Ecology's Motion to Intervene, No. CP03-350 (FERC filed Sept. 29, 2003), *available at* http://elibrary.ferc.gov/idmws/nvcommon/NVViewer.asp?Doc=9784779:0.

92. See 15 C.F.R. § 930.60(a)(1) (2006).

93. Georgia Strait Crossing Pipeline LP, 107 F.E.R.C. P 61,065, 61,211 (2004).

In the end, FERC resolutely resisted addressing the State's key argument concerning the scope of the material to be supplied as part of an administratively complete application for state concurrence. It ruled, instead, solely on the undisputed chronology of events, which had included a fateful decision by the State to declare Georgia Strait's application administratively complete notwithstanding the absence of the shoreline permits and evidence of SEPA sufficiency. Consequently, the substance of the State's arguments was not addressed and could find new currency in other settings.

3. Federal Preemption and State-Owned Lands

Rhode Island opposed the KeySpan project not just on coastal-zone grounds but also on the basis of an innovative argument arising from state ownership of the submerged land upon which the project would physically rest. In order to expand its LNG import terminal, KeySpan proposed building a pier into the adjacent river, which entails driving piles into the submerged land. Rhode Island claimed ownership of the submerged land and further claimed that its ownership permits it to require a lease for the use of the submerged land. KeySpan disputed this claim, and the issue is currently in litigation.[94]

The dispute between KeySpan and Rhode Island revolves around the degree to which the state's interests in the submerged land resemble the rights of a private property owner rather than the more limited authority of a regulatory entity. To the extent that Rhode Island's actions, with respect to the submerged land, appear more regulatory in nature, the state faces more significant obstacles under FERC precedent in restricting a project approved under the Natural Gas Act.

KeySpan acknowledged that Rhode Island has certain ownership interests in the submerged land, but it argued that the federal government's paramount right to control navigation trumps the state's ownership rights. KeySpan argued that: (1) a state's ownership interests in submerged lands are subject to the federal government's paramount right to control navigable waters for the constitutional purposes of commerce, (2) the transportation of natural gas from state-to-state is interstate commerce, and (3) Congress exercised its authority over the transportation of natural gas in interstate commerce by enacting the Natural Gas Act.[95] In short, KeySpan argued that Congress preempted Rhode Island's ownership rights over the submerged lands in question by virtue of the Natural Gas Act.

94. *See* R.I. Coastal Mgmt. Res. Council v. KeySpan LNG, No. 1:05-CV-00091-S-LDA (D.R.I. filed Feb. 2, 2005).

95. *See* KeySpan LNG's Motion for Summary Judgment, KeySpan LNG v. R.I. Coastal Mgmt. Res. Council, No. 1:05-CV-00091-S-LDA (D.R.I. filed Feb. 2, 2005).

In response, Rhode Island argued that the federal government has not preempted its ownership rights in the submerged land. It argued that: (1) it owns the submerged land in question, (2) the federal government has not exercised any eminent domain authority over the submerged land, and (3) the federal government has not exercised its dominant servitude over the submerged land.[96] Accordingly, the state argued that Congress did not preempt Rhode Island's ownership rights in the submerged land by passing the Natural Gas Act and KeySpan must obtain permission from the state prior to using the submerged land. This novel use of state ownership of land appears to be an issue of first impression for the courts at least in the context of an energy facility. While a decision in the case has not yet issued, the potential obstacle that state ownership of submerged land can pose to the development of LNG facilities is evident.

4. Federal Preemption and State Law

The Court of Appeals for the Second Circuit recently issued an opinion that confirmed the understanding, stated above, that regulatory actions are given less deference than direct ownership rights.[97] Islander East Pipeline Company intends to construct a natural gas pipeline from Connecticut to Long Island. As part of the permitting and siting process, Islander East must obtain water qualify certifications (WQCs) from both Connecticut and New York. While New York granted the necessary authorization, Connecticut denied it.[98] Utilizing the appeal provisions contained within the Energy Policy Act of 2005, Islander East appealed this determination to the Court of Appeals for the Second Circuit.[99] On October 5, 2005, the Second Circuit held that the Connecticut Department of Environmental Protection (CTDEP) "did not adequately examine the record, and failed to articulate rational connections between the facts in the record and the bases for its decision."[100] As a result, the court re-

96. In support of its argument against a dominant servitude, Rhode Island relies, in part, on a series of Federal Power Act cases that support the notion that the United States must expressly exercise its dominant navigational servitude in order for it to apply. *See, e.g.*, F.P.C. v. Niagara Mohawk Power Corp., 347 U.S. 239, 249 (1954) (stating "[w]hile we recognize the dominant servitude, in favor of the United States, under which private persons hold physical properties obstructing navigable waters of the United States and all rights to use the waters of those streams, we recognize also that the exercise of that servitude, without making allowances for preexisting rights under state law, requires clear authorization."). Rhode Island claims that Natural Gas Act § 3 lacks such clear authorization for the exercise of a dominant servitude.

97. Islander E. Pipeline Co., LLC v. Conn. Dep't. of Envtl. Prot., No. 05-4139-ag, 2006 U.S. App. LEXIS 25111 (2d Cir. Oct. 5, 2006).

98. Connecticut also found that the project was inconsistent with its Coastal Zone Management program. This decision was appealed to the secretary of commerce, who overruled the determination and granted the certification. *Id*. at *12.

99. *Id.*

100. *Id.* at *37.

manded the case to the CTDEP for further proceedings consistent with the court's opinion.[101]

One interesting aspect of the court's opinion revolved around the Tenth Amendment and the CTDEP's claim of jurisdiction over its public trust lands. The CTDEP argued that "federal court review of a WQC decision infringes on Connecticut's jurisdiction over its own public trust lands, i.e., the land underlying the Long Island Sound."[102] The Second Circuit rejected this argument and the CTDEP's use of Supreme Court case law.[103] The court distinguished the cases cited by CTDEP, which focused on state ownership of land, by pointing out that the *Islander East* case instead dealt with a matter of state law (i.e., the grant or denial of a WQC).[104] Accordingly, the court found that a state WQC determination "is not a sovereign state right under the Tenth Amendment" and, therefore, not entitled to immunity.[105] By making this distinction, the Second Circuit has given the KeySpan litigation, discussed above, even more significance, as that court must now decide whether states can block projects on the basis of land ownership.

The most lasting impact of the *Islander East* decision, however, may be its discussion of what constitutes an arbitrary and capricious decision by a state agency under the Administrative Procedures Act. The CTDEP denied its WQC on the basis that the Islander East project would "adversely affect water quality and prohibit the existing and designated uses of the receiving waters."[106] On appeal, the Second Circuit determined that "the CTDEP did not adequately examine the relevant record evidence, and failed to articulate rational connections between the facts in the record and the bases for its decision."[107] While this standard is nothing new, the basis for the Second Circuit's finding is instructive as to how future state agency decisions may be reviewed by federal appeals courts. The court systematically reviewed the sources cited by the CTDEP and came to the conclusions that: (1) the CTDEP's findings were minimally supported in the record, (2) the support that was cited for the CTDEP's decision was not substantively discussed by the CTDEP, and (3) the WQC denial failed to mention at least four scientific studies that were directly opposite to the CTDEP's findings.[108] Based on these findings, the

101. *Id.* at *68.
102. *Id.* at *28.
103. Islander E. Pipeline Co., LLC v. Conn. Dep't. of Envtl. Prot., No. 05-4139-ag, 2006 U.S. App. LEXIS 25111 at *29 (2d Cir. Oct. 5, 2006) (noting that the cases that the CTDEP relied upon "involved challenges to state sovereignty over state land.").
104. *Id.*
105. *Id.*
106. *Id.* at *36.
107. *Id.* at *37.
108. *Id.* at *37-44.

court found the agency's decision to be arbitrary and capricious.[109] The court's close review of the record and its related decision shows that state agencies will have difficulty opposing projects without substantial support for their opposition in the record.

5. County Ordinances and Referenda

The opposition to onshore and offshore LNG projects is so intense that even counties and municipalities are asserting themselves in attempts to block projects. There is perhaps no better example than the efforts of Suffolk County, New York, to prevent the Broadwater LNG project from coming online. Suffolk County opposes the project, which would be located in Long Island Sound and is designed to resemble a large ship moored offshore. Several local lawmakers recently hit upon the idea of reviving a nineteenth century law to block the project. These lawmakers claim that Chapter 695 of the Laws of 1881 provides Suffolk and Queens counties with jurisdiction over the "Waters of Long Island Sound."[110] Proponents of the project consider the effort a "gimmick" and calmly argue that the Natural Gas Act and the law of interstate commerce preempt the county from asserting such authority, but local officials are pressing their case.[111] While this may just be yet another delaying tactic, it shows the tenacity and creativity of the opponents of LNG projects.

Baltimore County is also trying to block the development of a proposed LNG facility at Sparrow's Point in Maryland. The chairman of the county council recently proposed a county-wide ban that would prohibit any natural gas facilities and oil refineries from being located within five miles of a residential property. A ban, if enforceable, would preclude the Sparrow's Point project. When faced with the argument that a federal court would likely strike down such a law, the county's top government attorney "pointed out that even if the federal government approves [the plan], county government officials could withhold permits under the ban, forcing the company to go to court."[112] Indeed, some developers claim that the states are purposely delaying the issuance of (or even refusing to

109. Indeed, the court noted that the failure to mention at least four scientific studies alone could be deemed arbitrary and capricious. *Id.* at *44.

110. *See, e.g.*, Rick Brand, *Troubled Waters*, NEWSDAY, June 14, 2006, *available at* http://www.newsday.com/news/local/longisland/ny-lilng0614,0,3841471.story?coll=ny-main-tabheads1.

111. *Id.*

112. *See, e.g.*, Josh Mitchell, *Effect of Proposed Ban on LNG Sites Not Clear*, BALTIMORE SUN, June 14, 2006, at 4B. On July 10, 2006, a law also went into effect in Rhode Island that is also intended to kill an LNG project in Fall River, Massachusetts (Weaver's Cove LNG). *See* Act of July 10, 2006, ch. 565, 2006 R.I. Pub. Laws 565 (to be codified at R.I. Gen. Laws § 39-1-2.1); Ray Henry, *Governor Signs Law restricting LNG tankers from Narragansett Bay*, ASSOCIATED PRESS, July 12, 2006.

issue) the state permits necessary to construct and operate LNG facilities.[113]

In some instances, the decision whether to accept an LNG facility is not in the hands of state regulators, but instead is in the hands of the voters themselves. In 2004 two companies sought to persuade the citizens of Harpswell, Maine, to accept (and vote for) the siting of an LNG facility in their town. In time, the town selectmen and the companies were able to reach an agreement on a comprehensive lease that addressed financial, environmental and safety issues—and many other subjects—in detail. However, when the lease was put to a town vote, the town rejected the proposed agreement by roughly 300 votes (out of approximately 3,500 votes cast).[114] Unlike other cases of local opposition, in Harpswell's case the project developers had a clear opportunity to present their best offer directly to the town, and the townspeople had a clear opportunity to vote directly on the offer, up or down. In contrast, most—perhaps all—of the other examples of local opposition to LNG projects have involved direct legal action that puts the matter to the judiciary on the basis of contested law.[115] The contrast is one that deserves attention.[116]

6. State Restrictions on Navigation and Access to State Waters

Beyond creative revivals of 19th century laws and maneuvering by counties and municipalities, the fight over LNG projects has reached both Capitol Hill and the Supreme Court. For example, the opponents to the Weaver's Cove LNG project may have scored their most significant, or at least most surprising, success on Capitol Hill. During the intense negotiations surrounding the Transportation Act of 2005, Massachusetts congressmen Barney Frank and Jim McGovern managed to introduce provisions into the Transportation bill last year intended to block the Weaver's Cove project. The Congressmen arranged to have language inserted into the bill that requires the historic preservation of the Brightman Street Bridge. This bridge spans the river that Weaver's Cove intends to use for its LNG tankers. If the bridge is preserved in its current form, the large LNG tankers intended to dock at the Weaver's Cove facility will not be able to reach the proposed facility. Such legislative maneuvering, which was something of a coup, caused howls of protest from the proponents of

113. Timothy C. Barmann, *Weaver's Cove: R.I. Holding Up LNG Plan*, PROVIDENCE J., July 1, 2006, at F1.

114. *See* Dennis Hoey, *Harpswell LNG Plan Dead*, PORTLAND PRESS HERALD (Me.), July 16, 2004 at B1.

115. *See, e.g.*, Gulf Restoration Network v. U.S. Dep't of Transp., 452 F.3d 362 (5th Cir. 2006).

116. For the purpose of disclosure, please note that the authors represented the Town of Harpswell, Maine, with respect to the proposed LNG terminal, by assisting in the negotiation of the lease that was put to a vote.

the project.[117] That the congressmen were able to pull it off testifies to the level of opposition to many LNG projects. Whether the legislative tactic carries the day remains to be seen: the project says it is proceeding with smaller vessels.[118]

The opponents of one LNG project have brought the case directly to the U.S. Supreme Court. British Petroleum intends to construct an LNG terminal in Logan Township, New Jersey. The terminal, however, requires a 2,000-foot jetty for ships to unload their cargo. This jetty, as currently envisioned, would extend from New Jersey into Delaware's portion of the river. Delaware opposes the construction of the jetty and, per the Constitution, the Supreme Court has original jurisdiction over the disagreement between New Jersey and Delaware.[119] Although there are many aspects to the dispute, the case centers on whether or not New Jersey obtained and maintained a right to exercise riparian rights on the Delaware side of the river.[120] A decision is expected sometime in the next three to seven months.

D. Internecine Federal Battles

Opposition to the licensing or approval of LNG projects has not been limited to entities outside the federal government. Some projects have been ensnared by serious disagreement between the agency in charge of licensing the project and other federal agencies participating in the licensing and permitting process. Some important examples follow.

1. Agencies Commenting Under NEPA

Throughout the preparation of the EIS for the Gulf Landing offshore LNG project, MARAD and the National Oceanic and Atmospheric Administration (NOAA) disagreed about (1) which technology (ORV or SCV) represented "best available technology" under the Deepwater Port Act and (2) the projected impacts of the Gulf Landing facility on the environment.[121] NOAA repeatedly expressed its concern that the ORV technology could significantly harm the area's fisheries.[122] To the extent

117. *See, e.g.*, Jim Snyder, *Fight Over Gas Terminal May Go a Bridge Too Far*, THE HILL, May 3, 2006, at 18.

118. Charles Savage, *LNG Company Suggests Smaller Ships, More Trips; Proposal Sparks Outrage in Terminal's Opponents*, BOSTON GLOBE, Feb. 11, 2006, at A1.

119. Similarly, Canada is objecting to the transport of LNG through its national waters to proposed LNG terminals in Maine. *See, e.g.*, Chris Morris, *Canada Labels LNG 'Dangerous Cargo,'* CANADIAN PRESS, Mar. 31, 2006.

120. New Jersey v. Delaware, No. 22O134 (U.S. filed Aug. 1, 2005).

121. *See, e.g.*, Petitioners' Brief, *supra* note 13, at 1-2.

122. *See, e.g.*, Letter from Susan A. Kennedy, Acting NEPA Coordinator at NOAA at National Marine Fisheries Service, to Mark A. Prescott at U.S. Coast Guard Office of Operating and Environmental Standards (Jan. 3, 2005) (on file at http://dmses.dot.gov/docimages/pdf91/310115_web.pdf).

that NOAA's concerns focused on fisheries, they carried particular weight, coming from a fisheries resource agency. On the other hand, MARAD's obligations under the Deepwater Port Act included but also transcended fisheries-resource issues. As the Administrator of MARAD noted, "I am directed to make specific findings that seek to protect, promote and, in some cases, reconcile national priorities in energy, the environment, the economy, and freedom of navigation on the high seas."[123] In making its decision, MARAD considered: (1) the financial responsibility of Gulf Landing LLC, (2) compliance with laws, (3) the interest of the nation, (4) navigational issues, (5) non-marine environmental concerns, (6) the Coastal Zone Management Act, and (7) the viewpoints of the Secretaries of State, Defense and the Army as well as the Administrator of EPA.[124]

The difference in perspectives—NOAA's relatively narrow focus on marine effects compared with MARAD's broader consideration of factors—became a point of serious contention. During the preparation of the environmental impact statement, NOAA sent MARAD correspondence stating:

[W]e strongly disagree that the results of the assessment support the USCG/MARAD's conclusion that the impacts to marine fishery species would not be significant. As we have consistently stated in our previous comments on this project, we are convinced that the use of a submerged combustion vaporizer (SCV), or closed loop heating system, would greatly reduce ecological impacts and yield a stronger, more environmentally responsible action.[125]

As the tenor of NOAA's letter (and prior comments) made clear, the fisheries agency was not backing down from its reading of the environmental record. Significant disputes such as these can lead to a "referral" under NEPA, which is to say a formal submission to the Council on Environmental Quality (CEQ) within 25 days of the publication of the final environmental impact statement.[126] Upon referral, CEQ has the authority to hear and resolve (or even refer to the President) such disputes among agencies concerning the outcome of a NEPA review. While NEPA referrals are rare, the documented severity of the disagreement between NOAA and MARAD/Coast Guard might well have led to a referral in the Gulf Landing case. As it turned out, further dialogue among

123. *See* Record of Decision, *supra* note 18, at 4.

124. *See id.* at 2.

125. Letter from Susan A. Kennedy, Acting NEPA Coordinator at NOAA at National Marine Fisheries Service, to Mark A. Prescott at U.S. Coast Guard Office of Operating and Environmental Standards (Jan. 3, 2005) (on file at http://dmses.dot.gov/docimages/pdf91/310115_web.pdf).

126. See 40 C.F.R. §§ 1504.1-1504.3 (2006).

relevant agencies appeared to be sufficient: the deadline for referral passed without a formal referral being made.

Nevertheless, the gravamen of NOAA's complaint was taken up by the parties that filed suit against MARAD to overturn its licensing decision, as discussed above. The Fifth Circuit's ruling supporting MARAD allowed both the final impact statement and the license issued on its foundation to stand.[127]

2. Competing Federal Statutes and Agency Missions

Apart from disagreements over a single standard (such as the interagency NEPA dispute discussed above), agencies can apply different—possibly incompatible—statutory requirements to the same project. For instance, while MARAD accepted ORV technology as the "best available technology" for LNG regasification in the Gulf of Mexico under the Deepwater Port Act, it did not necessarily follow that EPA would make a similar finding as to the best available technology for purposes of the wastewater discharge permit to be issued under the Clean Water Act's National Pollution Discharge Elimination System (NPDES) program. Under Section 301(b)(2)(A) of the Clean Water Act, NPDES permits must incorporate effluent limitations that represent the "best available technology economically achievable" (BATEA). If EPA required a technology under the Clean Water Act that was incompatible with the technology licensed under the Deepwater Port Act, the environmental agency would effectively have veto authority over a project, since the terminal would not be able to operate in compliance with incompatible technology requirements.

In part to forestall such statutory clashes, in early 2004 MARAD entered into a memorandum of understanding (MOU) with several federal agencies, including EPA. The MOU created "a framework for cooperation" among the agencies with respect to licensing under the Deepwater Port Act.[128] While the MOU did not (and could not) limit the statutory authority of any of the participating agencies, it sought to orchestrate the involvement of the various agencies in a manner that preserved MARAD's ability to issue a license within the narrow period delimited by the DPA, without subjecting the license to avoidable collateral attack or objection by the other agencies.

127. Gulf Restoration Network v. U.S. Dep't of Transp., 452 F.3d 362, 365 (5th Cir. 2006).

128. *See* Memorandum of Understanding Related to the Licensing of Deepwater Ports Among the U.S. Department of the Army, U.S. Department of Commerce, U.S. Department of Defense, U.S. Department of Energy, U.S. Department of Homeland Security, U.S. Department of the Interior, U.S. Department of State, U.S. Department of Transportation, U.S. Environmental. Protection Agency, Federal Energy Regulatory Commission, Council on Environmental Quality, *available at* http://www.etf.energy.gov/pdfs/DPA_MOU.pdf.

In the Gulf of Mexico, an incompatible EPA determination of technology became a serious possibility as different EPA Regions with jurisdiction in the Gulf continued to consider the technology issue in earnest. However, on April 3, 2006, Ben Grumbles, EPA's Assistant Administrator for Water, issued a letter to the EPA Regional Administrators providing detailed guidance on how Clean Water Act permitting should be conducted for LNG facilities.[129] In summary, the letter emphasized the importance of considering "non-water quality environmental impacts and other appropriate factors" when making a BATEA determination.[130] In the letter, Assistant Administrator Grumbles stressed that it is important to consider these impacts and factors "to help ensure consistency, certainty, and predictability in meeting the nation's energy needs."[131] Effectively, the guidance underscored the need for a holistic environmental analysis, rather than a narrow marine-effects analysis, when permitting under the Clean Water Act.

Moreover, with regard to the specific assertion that ORV systems have a more significant marine impact than SCV systems, Assistant Administrator Grumbles reminded the EPA regions that, in the context of offshore oil and gas operations, EPA had previously rejected a discharge technology that had *no impacts* to the marine environment, because its non-water quality environmental impacts were deemed unacceptably high.

The Grumbles letter goes a long way toward smoothing out the potential for incompatible permitting of technologies by different federal agencies, although it is open to question whether the guidance or its future application will give rise to a legal challenge.

IV. CLOSING OBSERVATIONS

The development of LNG terminals in the United States has been the focal point for significant legal challenges based upon environmental law and environmental effects. In some instances, these challenges have altered the course of a particular project (or even ended the project), and overall they have influenced the national strategy for bringing more natural gas into the country. Although our review of examples leaves many

129. Letter from Benjamin Grumbles, Assistant Administrator (Water), to the Regional Administrators (Regions I-X) (April 3, 2006) (stating "[t]his memorandum clarifies policy for EPA Regional Offices regarding the derivation of technology-based effluent limitations in National Pollutant Discharge Elimination System (NPDES) permits for offshore liquefied natural gas (LNG) terminals. This memo emphasizes the importance of considering non-water quality environmental impacts and other appropriate factors, as provided in the Clean Water Act (CWA), including factors unique to the particular LNG port.") (on file with author).

130. *Id.*

131. *Id.* at 8.

issues unaddressed and many examples unnoted, it is worth remarking how broad the spectrum of environmental challenges is.

Major infrastructure projects often face tough audiences in permit hearings and in permit challenges, but LNG projects also confront federal-state jurisdictional issues and heightened federal-state boundary disputes that together create a complicated and still-changing procedural framework within which projects must clear their regulatory hurdles. Conflicting timing requirements, inconsistent permitting standards, and traditional issues of environmental impact analysis all present obstacles that are more difficult to surmount so long as the overall regulatory and political power issues are not fully resolved. Add to the mix the focused attention of state and local legislators and the public, and the prospect for developing LNG terminals in the United States along predictable paths and timetables becomes even murkier.

If incipient lessons can be teased from these challenges (and from analogous experiences outside the LNG sector), one might focus on four:

1. Environmental law and policy are central, even determinative, drivers in the development of LNG terminals in the United States, so their active management is a prerequisite for success.
2. Understanding the permitting process and the sensitive interrelation of competing authorities and interests is a precondition for a coherent permitting strategy. Success before the "lead" regulatory agency, e.g., MARAD/Coast Guard, does not prevent a debilitating setback from seemingly secondary authorities with inconsistent mandates or agendas.
3. It is essential to anticipate local, state, and federal concerns and to reflect a strategic response to these concerns in the design of the project, the definition of purpose and need under NEPA, and the preparation of the EIS. By the same token, having done so, projects must be vigilant and tireless in asserting and defending the rights granted under lawful permits.
4. The public's initial degree of acceptance of or objection to the proposed project is an important bellwether for gauging the severity and creativity of legal challenges to follow.

The theme that runs through these early observations is the importance of designing not just an energy project but an environmental project, and doing so from the outset, so that public concerns about safety and habitat are assuaged to the extent reasonably possible. Means for accomplishing this goal include affirmatively using the FERC pre-filing process to address and satisfy stakeholder concerns, so as to avoid regulatory delays and to help ensure that the EIS scope and conclusion will be satisfactory. Likewise, the DPA administrative process can be used effectively to ensure that the environmental review criteria are met and docu-

mented, the NEPA work is properly integrated and scoped, and the technology is both DPA-licensable and permittable under the Clean Water Act.

It seems a truism that successful development of LNG terminals in the United States requires highly competitive positioning in the natural gas marketplace. Just as important, it turns out, is positioning a project competitively in the environmental permitting process and in the public's eye.