

OFFSHORE RENEWABLE ENERGY REGULATION: FERC AND MMS JURISDICTIONAL DISPUTE OVER HYDROKINETIC REGULATION RESOLVED?

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INTRODUCTION

For four years, the Federal Energy Regulatory Commission (FERC) and the Minerals Management Service (MMS), a bureau of the Department of the Interior (DOI), have both claimed to have the authority to regulate wave, tidal, and instream renewable energy projects (hydrokinetic projects)¹ on the Outer Continental Shelf (OCS).² The OCS consists of “the

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1. See NIC LANE, CONG. RESEARCH SERV., WAVE, TIDAL, AND IN-STREAM ENERGY PROJECTS: WHICH FEDERAL AGENCY HAS THE LEAD? 1 (2008), available at <http://www.digital.library.unt.edu/govdocs/crs/permalink/meta-crs-10715:1> (referring to

submerged lands, subsoil, and seabed” located three miles to two hundred miles³ off the coast of the United States.⁴ On March 17, 2009, FERC and MMS reached an initial agreement (the March 17th agreement) to “work together to facilitate the permitting of renewable energy” on the OCS.⁵ This agreement will pave the way for future cooperation regarding procedures for obtaining permits on the OCS, and FERC and MMS intend to sign a Memorandum of Understanding to facilitate transparent regulation of hydrokinetic technologies.⁶

The jurisdictional dispute began, when Congress passed the Energy Policy Act of 2005 (EPACT),⁷ which authorized MMS to regulate hydrokinetic projects on the OCS. The EPACT also states that MMS authority does not modify existing regulatory authority held by other federal agencies.⁸ Since the Federal Power Act of 1920 (FPA) authorizes FERC to regulate power-production facilities “in any of the navigable waters of the United States,”⁹ FERC is currently responsible for issuing licenses for hydropower facilities in the United States.¹⁰ Pursuant to this authorization, FERC asserted that the EPACT did not affect the applicability of the FPA on the OCS, and FERC believes it has the authority to regulate hydropower facilities up to two hundred miles off the coast.¹¹ From 2005 onward both agencies developed separate administrative regulations to govern hydrokinetic projects on the OCS.

wave, tidal, and instream energy generation as hydrokinetic energy).

2. *See id.* (explaining Minerals Management Service’s (MMS’s) claim to authority, Federal Energy Regulatory Commission’s (FERC’s or Commission’s) actions taken under the assumption of authority, and the unresolved nature of the dispute).

3. While *nautical miles* and *miles* actually constitute slightly different measurements, MMS and FERC use the two terms interchangeably. For consistency, this Article will use the term *mile*, even though a nautical mile is 1.85 kilometers and a mile is 1.61 kilometers.

4. Minerals Management Service, About the Minerals Management Service, <http://www.mms.gov/aboutmms/ocsdef.htm> (last visited Mar. 18, 2009); *see also* 43 U.S.C. § 1301(b) (2000) (limiting state jurisdictional boundaries to three miles off the coast); *id.* § 1331(a) (providing the statutory definition of the Outer Continental Shelf (OCS)).

5. E.g., Press Release, Federal Energy Regulatory Commission, Interior and FERC Announce Agreement on Offshore Renewable Energy Development (Mar. 17, 2009), <http://www.ferc.gov/news/news-releases/2009/2009-1/03-17-09.pdf>.

6. *See id.* (explaining that FERC and MMS would prepare a “short Memorandum of Understanding that sets forth these principles, and which describes the process by which permits and licenses related to renewable energy resources in offshore waters will be developed”).

7. Energy Policy Act of 2005 (EPACT), Pub. L. No. 109-58, 119 Stat. 594 (2005) (codified as amended in scattered sections of 22, 25, 42, and 43 U.S.C.).

8. 43 U.S.C. § 1337(p)(9) (Supp. V 2005).

9. 16 U.S.C. § 817(1) (2006).

10. *See* 16 U.S.C. § 797(e) (2006) (granting FERC the authority to “issue licenses . . . for the purpose of constructing, operating, and maintaining . . . project works necessary or convenient for the . . . utilization of power across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction”).

11. Pac. Gas & Elec. Co., 125 F.E.R.C. ¶ 61,045, paras. 45–47, 59 (2008).

Hydrokinetic projects represent an important untapped renewable resource that has the potential to generate significant amounts of clean, renewable energy.¹² FERC and other stakeholders credibly claim that hydrokinetic projects could double hydropower production in the United States and thereby satisfy roughly ten percent of current domestic electricity demand.¹³ If developers cannot adequately predict the regulations governing their hydrokinetic projects, they may be discouraged from investing in the industry because unknown regulations could significantly modify or even shut down their projects.¹⁴ The March 17th agreement between FERC and MMS could do much to resolve regulatory ambiguities in the sector.

Part I of this Article offers a brief overview of hydrokinetic technologies. Part II examines the jurisdictional dispute between FERC and MMS by focusing on two contested offshore projects. Part III discusses the problems that could arise from FERC's and MMS's differing policies on regulation. Part IV examines the March 17th agreement and analyzes how other federal agencies have adequately addressed competing regulatory frameworks.

I. OVERVIEW OF THE TECHNOLOGIES

Hydrokinetic technologies harness the movement of the ocean and convert tidal movement into electricity.¹⁵ Hydrokinetic technologies have

12. See Thomas F. Armistead et al., *Wave and Tidal Generation Open a New Frontier for Renewables*, ENGINEERING NEWS-REC., May 14, 2007, at 26, 27, available at <http://enr.construction.com/features/powerIndus/archives/070509a-1.asp> (noting that “[o]cean energy has the potential to meet 10% of current U.S. electricity demand, or 400 billion [megawatt]-hours per year”); RENEWABLE NW. PROJECT, WAVE AND TIDAL 1 (2007), <http://www.rnp.org/RenewTech/Wave%20Tidal%20FactSheet%2007April4.pdf> (claiming that “[t]he United States receives 2,100 terawatt-hours of incident wave energy along its coastlines each year, and tapping just one quarter of this potential could produce as much energy as the entire U.S. hydropower system”).

13. See FED. ENERGY REGULATORY COMM'N, THE PROPOSED LICENSING PROCESS FOR HYDROKINETIC PILOT PROJECTS 1 (2007), <http://www.ferc.gov/EventCalendar/Files/20070904090801-white-paper.pdf> (noting that “[e]stimates are that the new hydrokinetic technologies, if fully developed, could double the amount of hydropower production in the United States, bringing it from just under 10% to close to 20% of the national supply”); see also Armistead et al., *supra* note 12, at 27.

14. See FINLAY ANDERSON ET AL., A PROGRAMMATIC APPROACH TO WAVE ENERGY PLANNING 1 (2007), http://www.longviewassociates.com/documents_library/documents/ca07_abstract.pdf (calling “regulatory uncertainty . . . the most significant non-technical obstacle to deployment of this new technology”); Thomas C. Jensen, *Offshore Renewable Energy Development After the Energy Policy Act of 2005*, at 2 (presented at the 36th Conference on Environmental Law of the American Bar Association Section of Environment, Energy, and Resources) (Mar. 8–11, 2007), <http://www.oceanrenewable.com/wp-content/uploads/2007/03/aba-ocs-paper-final.pdf> (noting that “[t]he United States’ uncertain regulatory environment for offshore renewables compounds the inherent development risk” associated with the hydrokinetic projects).

15. Cf. Pac. Gas & Elec. Co., 125 F.E.R.C. ¶ 61,045, at para. 39 (2008) (defining hydroelectric projects as those which generate electricity through ocean waves).

the demonstrated potential to generate clean renewable energy for the U.S. consumer;¹⁶ however, the development of hydrokinetic technology is still in its infancy and the environmental impact of hydrokinetics is uncertain.¹⁷ As a result, appropriate federal regulation at this stage of technological development is a necessity.

A. Wave, Tidal, and Instream Energy Sources

Several varieties of hydrokinetic technology are used to harness wave energy including point absorbers, oscillating water columns, overtopping terminators, and attenuators. Point absorbers are buoys or similar devices that float on the surface of water and produce energy by converting the up-and-down and side-to-side movement of waves into electricity.¹⁸ Oscillating water columns generate power with a submerged column that moves vertically like a piston, relying on the movement of air to generate electricity.¹⁹ Overtopping terminators are large floating reservoirs that are filled continuously through wave action.²⁰ New water enters the reservoir via a ramp and pushes water out through submerged turbines thus generating power much like a turbine in a dam.²¹ This technology is generally deployed near the coastline.²² Attenuators rest on the surface of

16. See, e.g., *Developing Untapped Potential: Geothermal and Ocean Power Technologies: Hearing Before the Subcomm. on Energy and Environment, H. Comm. on Science & Technology*, 110th Cong. 59 (2007) (statement of Sean O'Neill, President, Ocean Renewable Energy Coalition) (arguing that “[w]ith the right encouragement, ocean renewable energy technologies can help us reduce our reliance on foreign oil—fossil fuels, in general—and provide clean energy alternatives to conventional power generating systems”).

17. See ELEC. POWER RESEARCH INST., INSTREAM TIDAL POWER IN NORTH AMERICA: ENVIRONMENTAL AND PERMITTING ISSUES 2-1, 2-3 to -10 (2006), http://archive.epri.com/oceanenergy/attachments/streamenergy/reports/007_Env_and_Reg_Issues_Report_060906.pdf (noting that “there are no field demonstrated environmental effects data available at this time” regarding tidal energy, but suggesting that such projects could affect aquatic life, water quality, and terrestrial life).

18. See ELEC. POWER RESEARCH INST., PRIMER: POWER FROM OCEAN WAVES AND TIDES 4 (2007), <http://www.aidea.org/aea/PDF%20files/OceanRiverEnergy/6-22-2007EPRIprimer.pdf> (explaining how point absorbers operate to convert ocean wave energy to electricity).

19. See *id.* (explaining how oscillating water columns operate to convert ocean wave energy to electricity by compressing and decompressing air through an exit hole in the chamber).

20. See, e.g., *id.* at 4–5 (illustrating overtopping terminators and providing an example).

21. See *id.* at 4 (providing that these “reservoir structure[s]” float near the surface of the ocean and harness waves that “overtop the ramp and are restrained in the reservoir” until the “head of collected water turns the turbines as it flows back out to sea, and the turbines are coupled to generators to produce electricity”).

22. See U.S. DEP’T OF THE INTERIOR, WAVE ENERGY POTENTIAL ON THE U.S. OUTER CONTINENTAL SHELF 3 (2006), available at http://www.ocsenergy.anl.gov/documents/docs/OCS_EIS_WhitePaper_Wave.pdf (noting

the ocean and consist of several connected segmented tubes that are orientated parallel to the direction of the waves.²³

Companies have also developed hydrokinetic technology to harness tidal and instream movement. These projects employ a submerged vertical or horizontal turbine.²⁴ As the tides flow in and out, turbines rotate and act much like submerged windmills. Because water is denser than air, tidal energy movement has a high potential for energy extraction.²⁵

II. BACKGROUND OF THE FERC AND MMS JURISDICTIONAL DISPUTE

In 2005, Congress attempted to address regulatory ambiguity in the hydrokinetic sector by passing the EPACT.²⁶ The EPACT designated MMS as the lead agency to regulate hydrokinetic technologies on the OCS.²⁷ MMS has experience in regulating projects on the OCS and is currently responsible for regulating the multibillion-dollar industry²⁸ of gas, oil, and mineral on the OCS.²⁹ While the EPACT grants MMS the authority to regulate hydrokinetic technology, it qualifies this authority by providing that “[n]othing in [the Act] displaces, supersedes, limits, or modifies the jurisdiction, responsibility, or authority of any Federal or State agency under any other Federal law.”³⁰ This qualification plays the central role in the FERC and MMS dispute.

FERC is responsible for issuing licenses for the construction, operation, and maintenance of hydropower facilities in the United States.³¹ The FPA delegates power to FERC to regulate power-production facilities “in any of

that terminator devices are deployed on or near the shore).

23. See, e.g., *id.* at 4 (explaining how attenuators operate to convert ocean wave energy to electricity).

24. See, e.g., ELEC. POWER RESEARCH INST., *supra* note 17, at 6 (explaining how water turbines convert ocean tidal energy into electricity).

25. See, e.g., ROGER BEDARD ET AL., ELEC. POWER RESEARCH INST., NORTH AMERICA TIDAL IN-STREAM ENERGY CONVERSION TECHNOLOGY FEASIBILITY STUDY 2 (2006), http://archive.epri.com/oceanenergy/attachments/streamenergy/reports/008_Summary_Tidal_Report_06-10-06.pdf (stating that “since kinetic energy is a function of the density of the moving mass and its speed and water has high density, the power density of the tidal resource is high”).

26. E.g., LANE, *supra* note 1, at 2.

27. See 43 U.S.C. § 1337(p)(8) (Supp. V 2005) (stating that “the Secretary [of the Interior] . . . shall issue any necessary regulations to carry out this subsection” of the Energy Policy Act of 2005).

28. LANE, *supra* note 1, at 2–3.

29. See Minerals Management Service, *supra* note 4 (explaining that MMS “is the Federal agency that manages the nation’s natural gas, oil and other mineral resources on the [OCS]”).

30. 43 U.S.C. § 1337(p)(9) (Supp. V 2005).

31. See 16 U.S.C. § 797(e) (2006) (granting FERC the authority to “issue licenses . . . for the purpose of constructing, operating, and maintaining . . . project works necessary or convenient for the . . . utilization of power across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction”).

the streams or other bodies of water over which Congress has jurisdiction,”³² or “in any of the navigable waters of the United States.”³³ “Navigable waters” are defined as waters “suitable for use for the transportation of persons or property in interstate or foreign commerce.”³⁴ FERC believes that the statutory definition of navigable waters includes the OCS.³⁵ As a result, FERC may regulate hydrokinetic projects on the OCS because the agency views them as hydropower facilities under the FPA.³⁶

The EPACT clearly grants MMS the authority to regulate hydrokinetic projects on the OCS in § 388,³⁷ which affirmatively authorizes MMS to award leases and permit easements for alternative energy projects on the OCS.³⁸ However, the EPACT further “stipulates that MMS authority does not supercede the existing authority of any other agency for renewable energy project permitting.”³⁹ Thus, FERC claims that EPACT does not modify the agency’s existing authority to regulate hydropower, and therefore hydrokinetic, projects.⁴⁰ The EPACT does not define how MMS will interact with the existing FERC hydropower regulatory regime.⁴¹ This omission in the EPACT has resulted in several disputes between FERC and MMS over the last several years, as each confronted the other over perceived infringements of jurisdiction. The following discussion focuses on the initial dispute between FERC and MMS surrounding an AquaEnergy project in Oregon, and also on a recent disagreement over a Pacific Gas & Electric (PG&E) project off the coast of California.

A. *AquaEnergy*

Nearly a year after the passage of the EPACT, FERC formally asserted that the agency’s mandate to regulate hydrokinetic projects extended to projects in all federal and state waters within twelve miles offshore,⁴²

32. *Id.*

33. *Id.* § 817(1).

34. *Id.* § 796(8).

35. Pac. Gas & Elec. Co., 125 F.E.R.C. ¶ 61,045, paras. 41–44 (2008).

36. *See id.* paras. 41, 47–48, 50 (explaining why FERC has jurisdiction over hydropower projects on the OCS).

37. 43 U.S.C. § 1337(p)(8) (Supp. V 2005) (stating that “the Secretary [of the Interior] . . . shall issue any necessary regulations to carry out this subsection”).

38. *See* § 1337(p)(1) (stating that “[t]he Secretary [of the Interior] . . . may grant a lease, easement, or right-of-way on the [OCS]”).

39. NIC LANE, ISSUES AFFECTING TIDAL, WAVE, AND IN-STREAM GENERATION PROJECTS, CONG. RESEARCH SERV. 13 (2008).

40. Pac. Gas & Elec. Co., 125 F.E.R.C. ¶ 61,045, para. 59.

41. *See* ANDERSON ET AL., *supra* note 14, at 2 (elucidating the extent to which the relationship between FERC and MMS is unknown and the implications of jurisdictional conflict).

42. *See* AquaEnergy Group, Ltd., 102 F.E.R.C. ¶ 61,242, at 61,735 (Feb. 28, 2003) (arguing that FERC has jurisdiction not only to regulate a power production project located

pursuant to the hydropower provisions of the FPA.⁴³ AquaEnergy,⁴⁴ a hydrokinetic operator, applied to FERC for a permit to build and operate a hydrokinetic project located off the coast of Oregon, some two to four miles offshore.⁴⁵ The location of the proposed project potentially places it within the three-mile boundary of the OCS to which MMS claims to have jurisdiction. FERC accepted AquaEnergy's application and requested comments.

MMS responded to the notice, filing a protest in the AquaEnergy Docket alleging that FERC infringed on MMS jurisdiction.⁴⁶ The MMS protest raises three major arguments: (1) the FPA does not grant FERC the authority to regulate projects on the OCS; (2) the EPACT exclusively authorizes MMS to regulate wave energy projects on the OCS; and (3) the FERC regulatory scheme for hydroelectric power projects is not suited for the regulation of wave projects.⁴⁷

The MMS protest maintains that FERC is only authorized to regulate projects "in any of the navigable waters of the United States."⁴⁸ The FPA defines *navigable waters* as

those parts of streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, and which . . . are used or suitable for use for the transportation of persons or property in interstate or foreign commerce, including therein all such interrupting falls, shallows, or rapids, together with such other parts of streams as shall have been authorized by Congress for improvement by the United States or shall have been recommended to Congress for such improvement after investigation under its authority.⁴⁹

According to MMS, the OCS does not constitute navigable waters under the FPA, and therefore FERC is not authorized to regulate any projects on

almost two miles off the coast of Washington State but also to regulate projects up to twelve miles offshore).

43. See 16 U.S.C. § 797(e) (2006) (granting FERC the authority to "issue licenses . . . for the purpose of constructing, operating, and maintaining . . . project works necessary or convenient for the . . . utilization of power across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction").

44. AquaEnergy is now part of Finavera Renewables. Press Release, Finavera Renewables, Finavera Renewables Acquires 100% of AquaEnergy Group (June 21, 2006), <http://www.finavera.com/files/2006-06-21%20Finavera%20Renewables%20Acquires%20AquaEnergy%20Group.pdf>.

45. See AquaEnergy Group, Ltd., 102 F.E.R.C. ¶ 61,242, at 61,733–34 (locating the original project 1.9 miles offshore and the revised location 3.17 miles offshore).

46. See Protest of the United States Minerals Management Service, AquaEnergy Group Ltd., No. P-12752-000 (FERC Jan. 30, 2007), available at <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11239967> (lambasting FERC for its perceived infringement on MMS regulatory jurisdiction).

47. See *id.* at 5–10 (asking the Commission to both reject the permit application and refuse any similar types of applications for wave energy projects on the OCS).

48. See *id.* at 2 (citing the Federal Power Act, 16 U.S.C. § 817 (2006)).

49. 16 U.S.C. § 796(8) (2006).

the OCS.⁵⁰ MMS argues that the Clean Water Act,⁵¹ the Oil Pollution Act of 1990,⁵² the Rivers and Harbors Act of 1899,⁵³ and the Artificial Reef Program of the National Fishing Enhancement Act of 1984⁵⁴ all demonstrate that the OCS falls outside the accepted definition of navigable waters under the FPA.⁵⁵ Because MMS does not consider the OCS as navigable waters, the agency argues that FERC's hydropower "licensing jurisdiction [does] not extend into the OCS."⁵⁶

Second, the protest contends that MMS alone may regulate wave energy projects on the OCS.⁵⁷ The EPACT authorizes MMS to "grant leases, easements or rights-of-way authorizing activities on the OCS that produce or support production, transportation, or transmission of energy from sources other than oil and gas."⁵⁸ According to MMS, the EPACT delegates exclusive authority to MMS to regulate OCS projects.⁵⁹

Third, the MMS protest maintains that FERC regulations are not suitable for offshore projects.⁶⁰ MMS asserts that FERC's preliminary permit procedure is outdated, inefficient, and would prohibit development of promising areas where the projects may be deployed.⁶¹ MMS also alleges that FERC's traditional hydropower licensing term of thirty to fifty years is too long for new technologies.⁶² Finally, MMS argues that FERC's policy

50. *See supra* note 46, at 3–5 (noting that even if the definition can be interpreted to include some ocean water, it cannot be broadened to include any water beyond the "traditional three mile boundary").

51. 33 U.S.C. § 1362(7) (2000) ("The term 'navigable waters' means the waters of the United States, including the territorial seas.").

52. *Id.* § 2701(21) (defining navigable waters as "the waters of the United States, including the territorial sea"); *id.* § 2701(35) ("[T]erritorial seas" means the belt of the seas measured from the . . . [coastline] and extending seaward a distance of 3 miles.").

53. 33 C.F.R. § 329.12 (2006) ("The navigable waters of the United States . . . include all ocean and coastal waters within a zone three geographic (nautical) miles seaward from the baseline.").

54. 33 U.S.C. § 2105(3) (2000) (noting that the "waters" covered by the program are "the navigable waters of the United States and the waters superjacent to the Outer Continental Shelf").

55. *See supra* note 46, at 2–5.

56. *Id.* at 5 (asserting that, "absent subsequent legislation expanding its authority beyond the traditional three-mile boundary," FERC cannot regulate projects on the OCS).

57. *See id.* (arguing that the EPACT authorizes the Secretary of the Interior to regulate OCS projects, and that the Secretary delegated this authority to MMS).

58. *Id.*

59. *See id.* at 10 (stating that "such activities on the OCS are expressly authorized and regulated by the MMS" pursuant to the EPACT).

60. *See supra* note 46, at 9–10 (identifying at least seven reasons why FERC licensing procedures are not suitable for the new energy technologies operating on the OCS).

61. *See id.* at 9 (charging that FERC preliminary permits "essentially cordon off large areas for the first applicants rather than for the best applicants" and that because "ocean energy projects are experimental at this time, preliminary permits basically tie up areas that may support other uses or more efficient technologies or proposals").

62. *See id.* (stating that the typical term of thirty to fifty years that FERC grants is "too long a time period to allow exclusive use of prototype projects with uncertain project-

of granting exemptions for small hydropower projects is not suitable for ocean projects because their impact remains largely unknown.⁶³

FERC resolved the AquaEnergy dispute without addressing MMS's jurisdictional claims. After MMS filed its protest, FERC requested that AquaEnergy supplement its filing to include the coordinates for the actual footprint of the project.⁶⁴ AquaEnergy's response indicated that the entire project would be within the three-mile boundary of the OCS, placing the project in state waters. As a result, FERC declared the MMS protest moot and did not substantively address MMS's arguments.⁶⁵

B. PG&E

In early 2007, PG&E applied to FERC for a preliminary permit to conduct a hydrokinetic project located between half a mile and ten miles off the coast of northern California, placing the proposed project within the area of contested FERC and MMS jurisdiction.⁶⁶ After FERC accepted the PG&E application and solicited comments, DOI filed an intervention on behalf of MMS.⁶⁷ FERC largely dismissed the DOI intervention and, in March 2008, issued a preliminary permit for the project.⁶⁸

In April 2007, DOI filed a Request for Rehearing arguing that FERC's issuance of a preliminary permit infringed on MMS jurisdiction "insofar as [the permit] include[s] portions of the OCS."⁶⁹ The DOI submission, like the MMS protest in the AquaEnergy Docket, contends that (1) FERC's jurisdiction to regulate hydrokinetic projects does not extend onto the OCS

specific and cumulative impacts").

63. *See id.* (arguing that FERC's exemption policy is not suitable for the OCS because both small and large projects can injure a variety of users in the ocean environment).

64. *See* AquaEnergy Group Ltd., 119 F.E.R.C. ¶ 62,073, at 64,205 (Apr. 26, 2007) (requesting that AquaEnergy supplement its application with additional information that "reduces the project boundary to more realistically represent the actual footprint of the project").

65. *See id.* (undercutting the MMS protest by noting that AquaEnergy supplemented its application with project coordinates that are entirely within the three-mile boundary).

66. *See* Pac. Gas & Elec. Co., 122 F.E.R.C. ¶ 62,228, at 64,472 (Mar. 13, 2008) (describing Pacific Gas & Electric's (PG&E's) application to study the feasibility of the Mendocino WaveConnect Project); Pac. Gas & Elec. Co., 122 F.E.R.C. ¶ 62,229, at 64,475 (Mar. 13, 2008) (describing PG&E's application to study the feasibility of the Humboldt WaveConnect Project).

67. *See* Notice of Intervention by the United States Department of the Interior at 1, Pac. Gas & Elec. Co., 122 F.E.R.C. ¶ 62,228, No. P-12781-000 (FERC May 31, 2007), *available at* http://elibrary.ferc.gov/idmws/File_list.asp?document_id=13513593 (arguing that the Department of the Interior's statutory authority would be directly affected if the Commission granted PG&E's application).

68. Pac. Gas & Elec. Co., 122 F.E.R.C. ¶ 62,229, at 64,475, 64,477 (Mar. 13, 2008).

69. *See* Request for Rehearing of the United States Department of Interior at 4, Pac. Gas & Elec. Co., 122 F.E.R.C. ¶ 62,228, No. P-12781-000 (FERC Apr. 14, 2008), *available at* http://elibrary.ferc.gov/idmws/File_list.asp?document_id=13598783.

and (2) the EPACT unambiguously designates DOI as the federal agency with regulatory authority over hydrokinetic projects on the OCS.⁷⁰

The DOI submission asserts that FERC only has the authority to regulate projects in the navigable waters of the United States.⁷¹ DOI contends that navigable waters do not include the OCS. Similar to MMS's contentions in AquaEnergy, DOI cites the Clean Water Act, the Oil Pollution Act of 1990, the Rivers and Harbors Act of 1899, and the Artificial Reef Program of the National Fishing Enhancement Act of 1984 as evidence that navigable waters of the United States do not extend onto the OCS.⁷² In addition to the argument that FERC does not have authority to regulate projects on the OCS, DOI also argues that the EPACT explicitly delegates the authority to regulate such projects to MMS.⁷³ While the DOI submission praises FERC for the agency's work and offers to cooperate on an interagency approach to permitting, DOI objects to FERC's issuance of a permit to PG&E and insists that all hydrokinetic projects on the OCS must be "expressly authorized and regulated by the MMS."⁷⁴

In October 2008, FERC issued an Order on Rehearing in part to respond to DOI arguments that FERC is not authorized to regulate hydrokinetic projects on the OCS.⁷⁵ The FERC Order states that "the FPA and its related legislative history support[] the Commission's jurisdiction over hydropower projects on the OCS, its submerged lands, and the waters above it."⁷⁶ The FERC Order dismisses the DOI arguments that (1) numerous federal statutes exclude the OCS from the definition of navigable waters and (2) the EPACT gives MMS exclusive jurisdiction to regulate OCS hydrokinetic projects.

First, FERC addresses DOI's argument that multiple federal statutes seem to limit the scope of navigable waters to include only those waters within the three-mile OCS boundary by asserting that the FPA clearly authorizes FERC jurisdiction on the OCS.⁷⁷ FERC argues that the FPA authorizes the Commission to regulate projects in "*any of the streams or other bodies of water over which Congress has jurisdiction.*"⁷⁸ FERC maintains that the proper interpretation of the FPA gives FERC jurisdiction "to grant preliminary permits and licenses for hydroelectric projects on

70. *Id.* at 5–9.

71. *Id.* at 4–5.

72. *Id.* at 5–7; *see also supra* notes 45–48 and accompanying text.

73. *See supra* note 69, at 5–9 (noting that, under the EPACT, Congress intended for the DOI to have federal regulatory authority over energy projects on the OCS).

74. *See id.* at 10–11 (urging the Commission to either grant a rehearing or modify the preliminary permits to exclude areas of the OCS outside the Commission's jurisdiction).

75. Pac. Gas & Elec. Co., 125 F.E.R.C. ¶ 61,045, para. 39.

76. *Id.* para. 41.

77. *Id.* paras. 41–44 (citing Section 4(e) of the Federal Power Act of 1920 (FPA)).

78. *Id.* para. 42.

bodies of water over which Congress has jurisdiction under the Commerce Clause, and on public lands and reservations of the United States.”⁷⁹ FERC also claims that the FPA grants it the authority to regulate hydropower projects on the “reservations” of the United States, and that the OCS qualifies under this definition as well.⁸⁰ Accordingly, FERC argues it has the authority to regulate the PG&E project located up to ten miles off the California coast.⁸¹ Indeed, FERC declares that it has the authority to regulate hydrokinetic projects on all of the OCS⁸²—up to two hundred miles offshore.⁸³

Second, FERC dismisses DOI’s argument that the EPACT makes MMS the lead agency to regulate offshore hydrokinetic projects on the OCS. FERC asserts that the EPACT does nothing to “limit[] or narrow[] the scope of [FERC’s] authority over hydroelectric power under the FPA.”⁸⁴ FERC notes that § 388 of the EPACT expressly states that it does not affect the authority of federal or state agencies already responsible for regulatory activities on the OCS.⁸⁵ The Order on Rehearing concludes by arguing that nothing in the EPACT or its legislative history demonstrates that Congress intended to divest FERC of its authority to regulate hydroelectric power projects under the FPA.⁸⁶ While a preliminary permit was initially granted in March 2008,⁸⁷ FERC denied requests for a rehearing to review PG&E’s preliminary permit for its proposed hydrokinetic project on the OCS on October 16, 2008.

III. FERC AND MMS PERMITTING PROCEDURES

Differences in permitting procedures between FERC and MMS pose a significant threat to the realization of hydrokinetic technologies. Before the March 17th agreement, both agencies were in the process of developing

79. *Id.* para. 46.

80. *See id.* paras. 45–47 (arguing that FERC could license PG&E projects on the OCS because the FPA allows the agency to regulate “structures . . . affixed to U.S. lands and reservations”).

81. 125 F.E.R.C. ¶ 61,045, para. 49.

82. *See id.* (declaring that PG&E projects on the OCS are within FERC’s licensing jurisdiction under the FPA).

83. *See id.* para. 48 n.79 (stipulating the geographic boundaries of the OCS).

84. *Id.* para. 59.

85. *Id.* para. 60 (“[S]ection 388(p)(9)[] provides that ‘[n]othing in this subsection displaces, supersedes, limits, or modifies the jurisdiction, responsibility, or authority of *any Federal or State agency under any other Federal law*.’”).

86. *See id.* paras. 63–65 (noting that the Department of the Interior (DOI) failed to identify anything in the legislative history suggesting that Congress wanted to create “a disjunctive energy policy for the regulation of hydroelectric projects on the OCS” and that in subsequent bills, provisions divesting FERC of OCS licensing power have been removed from the final legislation).

87. Pac. Gas & Elec. Co., 122 F.E.R.C. ¶ 62,229 (Mar. 13, 2008).

separate permitting regulations for hydrokinetic projects on the OCS.⁸⁸ FERC held a technical conference in October 2007, and is continuing to develop a licensing program for hydrokinetic projects, after already establishing a conditional leasing program.⁸⁹ MMS was continuing to pursue its own licensing scheme and formerly requested public comments to aid in developing a permanent OCS regulatory regime.⁹⁰ The March 17th agreement acknowledges the potential harm of these competing permitting procedures on hydrokinetic projects and states that FERC permitting procedures alone will be used, in consultation with MMS, to regulate hydrokinetic projects.⁹¹ The following subsection will briefly examine FERC's and MMS's permitting proposals to demonstrate the negative effects competing regulations could have on hydrokinetic developers.

A. FERC Permitting Procedures

FERC officials realized the need to adapt the agency's hydroelectric regulation program to accommodate hydrokinetic technologies.⁹² After recognizing the deficiencies in its current hydroelectric permitting program, FERC issued a Notice of Inquiry requesting stakeholder comments on a preliminary permitting regime for hydrokinetic technologies in February 2007.⁹³ Under the FPA, FERC may grant preliminary permits that grant the applicant the rights to the site for up to three years while the applicant determines how best to proceed with construction of the project.⁹⁴

88. See *supra* notes 66–67 and accompanying text.

89. See, e.g., LANE, *supra* note 1, at 4 (stating that FERC has issued the first license under this conditional program); see also Preliminary Permits for Wave, Current, and Instream New Technology Hydropower Projects, 72 Fed. Reg. 9281 (Mar. 1, 2007) (to be codified at 18 C.F.R. pt. 1) (indicating that FERC's current licensing process is not suitable for new technologies and requesting comments on how to proceed).

90. See Alternate Energy-Related Uses on the Outer Continental Shelf, 70 Fed. Reg. 77,345, 77,345–47 (proposed Dec. 30, 2005) (to be codified at 30 C.F.R. pt. 285) (seeking comments from the public about developing rules to govern alternative energy development on the OCS).

91. E.g., Press Release, Fed. Energy Regulatory Comm'n, Interior and FERC Announce Agreement on Offshore Renewable Energy Development (Mar. 17, 2009), <http://www.ferc.gov/news/news-releases/2009/2009-1/03-17-09.pdf> (suggesting that the FERC and MMS agreement “will help sweep aside red tape” so that the benefits of hydrokinetic power may be achievable).

92. See, e.g., Joseph T. Kelliher, Chairman, Fed. Energy Regulatory Comm'n, Statement at Open Commission Meeting (July 19, 2007), available at <http://www.ferc.gov/EventCalendar/Files/20070719105020-AD07-14-KELLIHER.pdf> (noting that FERC regulatory barriers were an impediment to the deployment of the new technologies and that the new licensing program is “a major step to reduce the regulatory barriers to the success of these new technologies”).

93. Preliminary Permits for Wave, Current, and Instream New Technology Hydropower Projects, 72 Fed. Reg. 9281, 9281 (Mar. 1, 2007).

94. See 16 U.S.C. § 798 (2006) (explaining the “[p]urpose and scope of preliminary

Historically, FERC has been extremely liberal in granting preliminary permits.⁹⁵

Many stakeholders agree that FERC's hydroelectric regime was poorly suited for hydrokinetic technologies because of competitive, economic, and environmental reasons.⁹⁶ Interested parties have noted that FERC's application process allows for abusive practices such as "site banking," in which companies apply for locations in order to ensure access to them in the future.⁹⁷ Because the preliminary permit lasts for as long as three years, this could effectively take promising locations off the market for long periods of time with no guarantee of development.⁹⁸ Additionally, commentators noted that the current permitting plan does not adequately address environmental concerns associated with the projects.⁹⁹

On October 2, 2007, after receiving many stakeholder comments, FERC held a technical conference and unveiled its Hydrokinetic Pilot Project

permits").

95. See, e.g., Preliminary Permits for Wave, Current, and Instream New Technology Hydropower Projects, 72 Fed. Reg. 9281, 9282 (Mar. 1, 2007) (explaining that since a preliminary permit holder cannot disturb the land, the Commission has liberally issued such permits).

96. See Letter from Willie R. Taylor, Director, Office of Envtl. Pol'y and Compliance, Dep't of the Interior, to William Guey-Lee, Fed. Energy Regulatory Comm'n (Apr. 27, 2007), available at http://www.pstidalenergy.org/Tidal_Energy_Projects/FERC_Mtg_2-15-2007/Interior_Comments_4-27-2007.pdf (advocating a cautious "stricter scrutiny" approach for approving preliminary permits and expressing concern about hydrokinetic projects' potential environmental impacts); Comments of Morgan Stanley Capital Group Inc. at 3, No. RM07-8-000 (FERC Apr. 30, 2007), available at http://www.pstidalenergy.org/Tidal_Energy_Projects/FERC_Mtg_2-15-2007/Morgan_Stanley_Capital_Group_4-30-2007.pdf (claiming that site banking presents a serious problem with the current system and "the minimal demonstration of project viability required of permit applicants could inhibit the [industry's] growth"); Comments of City and County of San Francisco et al. in Response to the Commission Notice of Inquiry and Interim Statement of Policy at 1–2, No. RM07-8-000 (FERC Apr. 30, 2007), available at http://www.pstidalenergy.org/Tidal_Energy_Projects/FERC_Mtg_2-15-2007/San_Francisco_Bay_Area_Local_Gov_4-30-2007.pdf (stating that current deficiencies encourage site-banking and allow companies to reserve areas that are overly broad for their proposed projects).

97. See Comments of Morgan Stanley Capital Group Inc., *supra* note 96, at 3 (arguing that since the preliminary permit grants the permittee priority for building anywhere within the permit area, the permittee "enjoys a *de facto* monopoly over the permit area—a monopoly that arises solely by virtue of holding the preliminary permit").

98. See *id.* note 96, at 4 ("Recent successful applicants have conceded that their project's actual 'footprint' would likely occupy less than 0.1% of the study area requested.").

99. See Letter from Jack A. Nasca, N.Y. State Dep't of Envtl. Conservation, to Magalie R. Salas, Sec'y, Fed. Energy Regulatory Comm'n, at 2–3 (Apr. 30, 2007), available at http://www.pstidalenergy.org/Tidal_Energy_Projects/FERC_Mtg_2-15-2007/NYSDOEC_Comments_4-30-2007.pdf (noting that while most of the environmental feasibility study will be conducted after the preliminary permit is issued, FERC should require preliminary permit applicants to explain how "natural resources in the project area [are] potentially impacted").

Licensing Process.¹⁰⁰ FERC claimed that the new regulations would allow “pilot projects to be tested, over the short-term, without the need for the full [FPA] licensing process.”¹⁰¹ In April 2008, FERC followed up on the Pilot Project Licensing Process by issuing a user-friendly white paper to help hydrokinetic developers efficiently navigate the FERC permitting procedures.¹⁰² The white paper offers developers guidance on efficiently seeking waivers and modifications.¹⁰³ While these FERC procedures may be effective in facilitating hydrokinetic development, they are limited in effect because they do not address the competing regulatory and licensing claims of MMS.

B. MMS Permitting Procedures

MMS, like FERC, has not promulgated a comprehensive regulatory system. In late 2005, MMS issued an Advance Notice of Proposed Rulemaking (ANPR) for the creation of a regulatory program to govern “Alternate Energy-Related Uses on the Outer Continental Shelf.”¹⁰⁴ The ANPR requested public comments on all elements of MMS’s regulatory program, including environmental effects and how best to regulate new energy technologies.¹⁰⁵ While the ANPR has a section dealing with “Coordination and Consultation,”¹⁰⁶ it does not specifically address FERC’s competing jurisdictional claims.¹⁰⁷ MMS also issued a final programmatic environmental impact statement for hydrokinetic projects on the OCS to assist with the formulation of a regulatory mechanism.¹⁰⁸

100. See FED. ENERGY REGULATORY COMM’N, THE PROPOSED LICENSING PROCESS FOR HYDROKINETIC PILOT PROJECTS: A FRAMEWORK FOR DISCUSSION 1–6 (2007), <http://www.ferc.gov/eventcalendar/Files/20070904090801-white-paper.pdf> (announcing FERC’s issuance of the new policy “to encourage the development of innovative hydrokinetic technology”).

101. *Id.* at 1.

102. FED. ENERGY REGULATORY COMM’N, LICENSING HYDROKINETIC PILOT PROJECTS 1 (2008), http://www.ferc.gov/industries/hydropower/indus-act/hydrokinetics/pdf/white_paper.pdf (noting that the white paper is to offer “guidance as part of the Commission’s ongoing effort to support the advancement and orderly development of innovative hydrokinetic technologies”).

103. See *id.* at 2 (explaining that such guidance would “allow expedited license processing and short-term testing for a specific class of projects”).

104. See generally Alternate Energy-Related Uses on the Outer Continental Shelf, 70 Fed. Reg. 77,345 (proposed Dec. 30, 2005) (to be codified at 30 C.F.R. pt. 285) (establishing the broad contours of the regulatory program).

105. See *id.* at 77,346–47 (“Environmental management systems and review will be critical components of any activity in the new program.”).

106. Alternate Energy-Related Uses on the Outer Continental Shelf, 70 Fed. Reg. 77,345, 77,348 (proposed Dec. 30, 2005) (explaining that MMS would develop and implement regulations “in consultation with certain Federal agencies”).

107. See generally *id.* (making no mention of any competing claims to MMS’s jurisdiction).

108. See Alternative Energy and Alternate Use Final Programmatic Environmental

In November 2007, after significant stakeholder participation,¹⁰⁹ MMS established an interim policy pertaining to offshore hydrokinetic projects that will be in effect until MMS promulgates its final rules regarding OCS regulation.¹¹⁰ The initial MMS policy allows hydrokinetic developers limited-term leases to test technologies.¹¹¹ MMS will not issue final decisions concerning official permit applications until the agency completes its rulemaking.¹¹² Importantly, MMS's interim policy does not address FERC's competing claims to jurisdiction over hydrokinetic projects on the OCS.¹¹³

IV. THE MARCH 17TH AGREEMENT AND SUCCESSFUL INTERAGENCY COOPERATION

The March 17, 2009 agreement between FERC and MMS marked an important first step in working to ensure that companies may adequately predict which licensing mechanism will govern offshore hydrokinetic projects. Without the establishment of a comprehensive, transparent, and predictable regulatory regime, the realization of hydrokinetic technology's potential benefit is in jeopardy. As the Ocean Renewable Energy Coalition—a trade association promoting offshore renewable energy—has noted, the regulatory issues associated with FERC and MMS regulations “must be clarified to ensure that OCS renewable projects are not subject to conflicting or duplicative regulatory requirements.”¹¹⁴

In the March 17th agreement, FERC and MMS assented to the

Impact Statement, 72 Fed. Reg. 62,672, 62,672 (Nov. 6, 2007) (“[T]his final programmatic EIS examines the potential environmental effects of the program on the OCS and identifies policies and best management practices that may be adopted for the program.”); *see also* Guide to the OCS Alternative Energy Final Programmatic Environmental Impact Statement (2007), <http://ocsenergy.anl.gov/eis/guide/index.cfm>.

109. *See generally* Ocean Renewable Energy Coalition, Comments on Alternative Energy Related Uses on the Outer Continental Shelf 15 (2006), <http://ocearenewable.typepad.com/orecmmscomments.pdf> (detailing the Ocean Renewable Energy Coalition's response to MMS's proposed rulemaking).

110. *See* Request for Information and Nominations of Areas for Leases Authorizing Alternative Energy Resource Assessment and Technology Testing Activities Pursuant to Subsection 8(p) of the Outer Continental Shelf Lands Act, as Amended, 72 Fed. Reg. 62,673, 62,673–74 (Nov. 6, 2007) [hereinafter Request] (“The MMS is initiating this interim policy under which resource data collection facilities . . . and technology testing facilities . . . could be considered and authorized for installation and operation on the OCS before promulgation of final rules.”).

111. *See* LANE, *supra* note 1, at 3 (explaining that MMS policy allows short leases for limited purposes “but no commercial-scale project development”).

112. *See id.* (“MMS will not issue decisions on hydrokinetic energy projects until a final rule is established”).

113. *See generally* Request, *supra* note 110, at 62,673 (containing no acknowledgment of FERC's jurisdictional claims).

114. Ocean Renewable Energy Coalition, *supra* note 109, at 15.

preparation of a “Memorandum of Understanding [(MoU)] that sets forth these principles, and which describes the process by which permits and licenses related to renewable energy resources in offshore waters will be developed.”¹¹⁵ Such an MoU could do much to clarify permitting procedures for hydrokinetic technologies. Such clarification would allow companies to predict the regulations governing their projects and could facilitate additional investment in the industry.

There are numerous examples of successful interagency cooperation relating to project regulation. For instance, the Maritime Transportation Security Act of 2002¹¹⁶ amended the Deepwater Port Act of 1974¹¹⁷ to authorize the Secretary of Transportation to regulate the transmission of liquefied natural gas in deepwater ports on the OCS.¹¹⁸ Much like the jurisdictional disputes over renewable energy production on the OCS, the Coast Guard faced competing regulatory claims from the Department of Commerce, the Environmental Protection Agency, FERC, DOI, and the Department of Defense, among others.¹¹⁹ At the urging of the White House,¹²⁰ agencies with a regulatory interest in licensing deepwater ports signed a Memorandum of Understanding (Coast Guard MoU) to help manage competing jurisdictional claims and regulations.¹²¹

CONCLUSION

The March 17th agreement establishes the groundwork for effective cooperation between FERC and MMS. By pursuing an agreement similar

115. E.g., Press Release, Fed. Energy Regulatory Comm'n, *supra* note 5, at 15.

116. The Maritime Transportation Security Act of 2002, Pub. L. No. 107-295, 116 Stat. 2064 (2002).

117. See 33 U.S.C. §§ 1501–1524 (2000) (declaring that the Act’s purpose is, *inter alia*, to “authorize and regulate the location, ownership, construction, and operation of deepwater ports in waters beyond the territorial limits of the United States”).

118. Compare Maritime Transportation Security Act § 106(b)(13), 116 Stat. at 2086–87 (declaring that liquefied natural gas is included within the definition of *natural gas*), with *id.* § 106(c)(4) (“The Secretary shall approve or deny any application for a deepwater port for natural gas submitted pursuant to this Act . . . ”).

119. See LT Ken Kusano, U.S. Coast Guard Headquarters, *The Deepwater Port Act: Understanding the Licensing Process* 7–10 (Sept. 14–15, 2004) (presented at the California State Lands Commission Symposium and Technology Exhibition), http://www.slc.ca.gov/division_pages/MFD/Prevention_First/Documents/2004/LNG%20ON%20THE%20WEST%20COAST/Kusano%20paper.pdf (detailing the responsibilities of different agencies under the Deepwater Port Act).

120. See Exec. Order No. 13,212, 66 Fed. Reg. 28,357, 28,357 (May 22, 2001) (creating “an interagency task force . . . to monitor and assist the agencies in their efforts to expedite their review of permits”).

121. See U.S. DEP’T OF DEFENSE, MEMORANDUM OF UNDERSTANDING RELATED TO THE LICENSING OF DEEPWATER PORTS 1 (2004), http://www.etc.energy.gov/pdfs/DPA_MOU.pdf (noting that “[t]he [p]urpose of this [Coast Guard MoU] . . . is to establish a framework for cooperation among the Participating Agencies with responsibilities related to the licensing of deepwater ports pursuant to the Deepwater Port Act of 1974”).

to the Coast Guard MoU, FERC and MMS could clarify a framework that would allow companies to reasonably predict which regulations would cover offshore energy projects. Energy prices continue to rise and the deleterious effects of climate change are increasingly apparent. In response to such global phenomena, it is imperative that our government facilitate—rather than hinder—the development of clean, renewable energy sources, and the March 17th agreement represents an important first step in developing a harmonized, multi-agency approach to hydrokinetic development on the OCS.