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WORKING GROUP 4A
SUBMARINE CABLE
RESILIENCY

Final Report – Interagency and Interjurisdictional
Coordination

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Glossary

ACHP	Advisory Council on Historic Preservation
ACOE	U.S. Army Corps of Engineers
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety and Environmental Enforcement
CEQ	Council on Environmental Quality
COP	Construction and Operations Plan
CSLC	California State Lands Commission
CZMA	Coastal Zone Management Act
DHS	U.S. Department of Homeland Security
DOI	U.S. Department of the Interior
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EPAct	Energy Policy Act of 2005
ESA	Endangered Species Act
FCC	Federal Communications Commission
FERC	the Federal Energy Regulatory Commission
FPA	Federal Power Act
FPC	Federal Power Commission
FWS	U.S. Fish and Wildlife Service
LNG	Liquefied Natural Gas
MARCO	Mid-Atlantic Regional Council on the Ocean
MHK	Marine and Hydrokinetics
MMP	Marine Minerals Program
MMPA	Marine Mammal Protection Act
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSA	Magnuson Stevens Fishery Conservation and Management Act
NASCA	North American Submarine Cable Association
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NMSA	National Marine Sanctuaries Act
NNA	Non-Competitive Negotiated Agreement
NOAA	National Oceanic and Atmospheric Administration
NROC	Northeast Regional Ocean Council
NSCPO	Naval Seafloor Cable Protection Office
NWP	Nationwide Permit
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act
ONMS	Office of National Marine Sanctuaries
PGP	Programmatic General Permit
RGP	Regional General Permit

RPB Regional Planning Body
SUP Special Use Permit
USCG U.S. Coast Guard

1 EXECUTIVE SUMMARY

This Report of the Submarine Cable Resiliency Working Group of CSRIC V (“WG4A”) examines the key regulatory agencies and activities that impact submarine cables, along with interagency coordination mechanisms and problems. It recommends the adoption of additional policies, best practices and protection measures to mitigate the problems. Recent conflicts between cables and other marine activities (including offshore dredging, beach replenishments, and offshore wind farms and hydrokinetic energy projects) highlight the urgent need for establishment of a single federal point of contact and clearing house for submarine cables, timely exchange of information by and greater coordination between the agencies that authorize such projects, proactive involvement by the FCC in marine spatial planning, and development of additional standards and policies to ensure the resilience of submarine cables infrastructure and continuity of communications.

2 BACKGROUND ON CSRIC V AND WORKING GROUP 4A

2.1 Objectives and Methods

The Federal Communication Commission (“FCC” or “Commission”) tasked the Submarine Cable Routing and Landing Working Group of CSRIC IV (“WG8”) with the responsibility of examining the risks posed to submarine cable infrastructure and how proximity to other marine activities, governmental permitting processes, and clustering of cable routes and landings can increase the risk of cable damage. This, in turn, has the potential to affect U.S. network reliability. WG4A continues the work begun during CSRIC IV.

The focus of the working group includes addressing not only spatial separation of cable lines, but also governmental coordination issues. This report examines interagency and interjurisdictional coordination issues. More specifically, this report identifies: (1) key federal regulatory activities and their lead agencies; (2) key state and local regulatory activities; (3) existing coordination problems; and (4) existing interagency and interjurisdictional coordination mechanisms. The report examines gaps, conflicts, and sources of delay in existing federal, state, and local interagency coordination for offshore permitting, as well as recommends mechanisms for enhancing coordination without increasing regulatory burdens.

2.2 Membership

WG4A consists of approximately 22 members. They represent diverse interests including submarine cable operators, cable system customers, marine services consultants, federal energy agencies, and state regulators, all with subject matter expertise to accomplish WG4A’s objectives.

WG4A MEMBERS AND PARTICIPANTS

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* *As an independent regulatory agency, FERC and its personnel are not formal members of WG4A and participate only in an informal, advisory capacity.*

3 BACKGROUND

3.1 Extent of Federal and State/Local Jurisdiction

3.1.1 *Limits of U.S. Jurisdiction*

Multilateral treaties, customary international law, federal statutes, and Executive Orders define the limits of U.S. jurisdiction over ocean areas adjacent to the U.S. coast. As described in CSRIC IV's report on the use of spatial separation to protect submarine cable infrastructure,¹ various international treaties dating back to 1884 guarantee unique freedoms to lay, maintain, and repair submarine cables—freedoms not granted for any other marine activities—and restrict the ability of coastal states (*i.e.*, countries) to regulate them.² Specifically, these treaties guarantee:

- The freedom to install submarine cables on the high seas beyond the continental shelf and to repair existing cables without impediment or prejudice;³
- The freedom to install and maintain submarine cables on the continental shelf, which extends 200 nautical miles seaward from the shore of a coastal state, subject to further extension upon recognition of a claim of an extended continental shelf,⁴ subject to reasonable measures for the exploration of the continental shelf and the exploitation of its natural resources;⁵
- The freedom to install and maintain submarine cables in the exclusive economic zone (“EEZ”) of all states, which such states may assert up to 200 nautical miles seaward from their shores;⁶

¹ Communications Security, Reliability and Interoperability Council, *Working Group 8 Submarine Cable Routing and Landing Final Report—Protection of Submarine Cables Through Spatial Separation* at 3 (Dec. 2014) http://transition.fcc.gov/pshs/advisory/csric4/CSRIC_IV_WG8_Report1_3Dec2014.pdf (“CSRIC Spatial Separation Report”)

² *See* Convention for the Protection of Submarine Telegraph Cables, Mar. 14, 1884, 24 Stat. 989, 25 Stat. 1424, T.S. 380, (entered into force definitively for the United States on May 1, 1888) (“1884 Convention”); Geneva Convention on the High Seas, Apr. 29, 1958, 13 U.S.T. 2312, T.I.A.S. 5200, 450 U.N.T.S. 82 (entered into force definitively for the United States on Sept. 30, 1962) (“High Seas Convention”); Geneva Convention on the Continental Shelf, Apr. 29, 1958, 15 U.S.T. 471, T.I.A.S. 5578, 499 U.N.T.S. 311 (entered into force definitively for the United States on June 10, 1964) (“Continental Shelf Convention”); Law of the Sea Convention, Dec. 10, 1982, 1833 U.N.T.S. 397 (entered into force on Nov. 16, 1994) (“LOS Convention”).

³ High Seas Convention, arts. 2, 26(1), 26(3); LOS Convention art. 112(1).

⁴ LOS Convention arts. 79(1), 79(5). *See also* LOS Convention, art. 78(2) (“The exercise of the rights of the coastal State over the continental shelf must not infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other States as provided for in this Convention.”).

⁵ Continental Shelf Convention, art.; LOS Convention, arts. 79(2), 79(4). The course of a pipeline on the continental shelf is subject to coastal-state consent, while the course of a submarine cable is not. *See id.*, art. 79(3).

⁶ LOS Convention art. 58(1).

- The ability to install submarine cables in a state’s territory or territorial sea, which a state may assert up to 12 nautical miles seaward from its shore subject to conditions and exercise of national jurisdiction;⁷ and
- The freedom to maintain existing submarine cables passing through the waters of an archipelagic state without making landfall.⁸

These treaty obligations are now treated as customary international law,⁹ in particular by the United States.¹⁰

Although these treaties permit coastal states to take reasonable measures respecting natural resource exploitation on the continental shelf, they bar states from taking such measures with respect to submarine cables, the construction and repair of which are not undertaken for natural resource exploration or exploitation.¹¹

In contrast with freedoms granted to submarine cable operators in the EEZ and on the continental shelf, these treaties grant coastal states jurisdiction to control and regulate a variety of activities, including commercial fishing, oil and gas exploration, marine minerals development, and renewable energy infrastructure development.

In the United States, the Outer Continental Shelf Lands Act (“OCSLA”) explicitly extended federal jurisdiction and of certain enumerated laws to the outer Continental Shelf (“OCS”) with respect to regulation of a specific class of activities:

⁷ *Id.*, art. 79(4).

⁸ *Id.*, art. 51(2).

⁹ *See* Delimitation of the Maritime Boundary in the Gulf of Maine Area (Can. v. U.S.), 1984 I.C.J Rep. 246, 294 ¶ 94 (1984).

¹⁰ The United States recognized these freedoms starting in 1983, even though the United States has never ratified the LOS Convention (it signed only in 1994) and even though the Convention did not enter into force for those states that had ratified it until 1994. Presidential proclamations by two different U.S. presidents expressly stated that the establishments of an EEZ and a contiguous zone, respectively, did not infringe on the high-seas freedoms to lay and repair submarine cables. *See* Presidential Proc. No. 5030, 48 Fed. Reg. 10,605 (Mar. 10, 1983) (“Pres. Proc. No. 5030”) (establishing the U.S. EEZ); Presidential Proc. No. 7219, 64 Fed. Reg. 48,701 (Aug. 2, 1999) (establishing the U.S. contiguous zone).

¹¹ LOS Convention, art. 79(2); Continental Shelf Convention, art. 4; *Maritime Space: Maritime Zones and Maritime Delimitations—Frequently Asked Questions*, United Nations Department of Oceans and Law of the Sea, Office of Legal Affairs (responding to Question #7, “What regime applies to the cables and pipelines?”), www.un.org/Depts/los/LEGISLATIONANDTREATIES/frequently_asked_questions.htm (last visited Aug. 15, 2014) (stating that “beyond the outer limits of the 12 nm territorial sea, the coastal State may not (and should not) impede the laying or maintenance of cables, even though the delineation of the course for the laying of such pipelines [but not submarine cables] on the continental shelf is subject to its consent. The coastal State has jurisdiction only over cables constructed or used in connection with the exploration of its continental shelf or exploitation of its resources or the operations of artificial islands, installations and structures under its jurisdiction.”).

The Constitution and laws and civil and political jurisdiction of the United States are extended to the subsoil and seabed of the outer Continental Shelf and to all artificial islands, and all installations and other devices permanently or temporarily attached to the seabed, which may be erected thereon for the purpose of exploring for, developing, or producing resources therefrom, or any such installation or other device (other than a ship or vessel) for the purpose of transporting such resources, to the same extent as if the outer Continental Shelf were an area of exclusive Federal jurisdiction located within a State.¹²

OCSLA grants the U.S. Coast Guard (“USCG”) the authority to regulate the marking of artificial islands, installations, and other devices enumerated in 43 U.S.C. § 1333(a)(1) for purposes of promoting safety of life and property. OCSLA also grants the Secretary of the Army authority to regulate artificial islands, installations, and other devices enumerated in 43 U.S.C. § 1333(a)(1) for purposes of preventing obstruction to navigation in the navigable waters of the United States.

3.1.2 *Extent of Federal and State Jurisdiction: Dividing Line Between the Two*

In the 1940s, several U.S. states claimed jurisdiction over mineral and other resources off their coasts. The U.S. Supreme Court rejected these claims in 1947 when it determined that states had no title to, or property interest in, these resources. In response, the U.S. Congress enacted the Submerged Lands Act in 1953 to give each coastal state jurisdiction over a territorial sea extending three nautical miles seaward from the coastal baseline.¹³ For historical reasons, the state territorial seas of Texas and the Gulf Coast of Florida extend nine nautical miles seaward from the coastal baseline. Subsequent legislation granted the U.S. Virgin Islands, Guam, and American Samoa jurisdiction three nautical miles seaward from the coastal baseline, while Puerto Rico has jurisdiction nine nautical miles from the coastal baseline.

The federal government retains the power to regulate commerce, navigation, power generation, national defense, and international affairs throughout state waters. Nevertheless, U.S. states and territories retain authority within their territorial seas to manage, develop, and lease resources throughout the water column and on and under the seafloor. States have similar authorities on the land side of the baseline, usually up to the mean high tide line, an area known as state tidelands.

In certain instances, a state’s regulatory role stems from a federal law where authority to administer compliance with the act’s requirements is delegated to the state.¹⁴ The array

¹² 43 U.S.C. § 1333(a)(1).

¹³ *Id.* § 1312.

¹⁴ For example, under the Coastal Zone Management Act, the U.S. Department of Commerce can delegate to a state the responsibility to regulate activities within the state’s designated coastal zone.

of federal and state regulations and tribal requirements can create a complex set of processes and requirements for pursuing or tracking a project proposal. Although an individual state's regulatory process may be less complex than the federal bureaucracy, the variation in how states regulate the aforementioned activities leads to complexity on an interstate, regional, and national level.¹⁵

3.2 Regulatory Fundamentals

3.2.1 *Action Agencies and Authorizing Agencies*

Agency roles in offshore waters vary greatly based on statutory and pragmatic factors. For instance, one agency may authorize an infrastructure project, another may construct an infrastructure project, and others may be charged with protecting specific resources within the area where an infrastructure project is sited. In cases where a federal agency is acting on its statutory authority to carry out a project, the federal agency is the action agency (*e.g.*, the U.S. Army Corps of Engineers (“ACOE” or “Corps”) is the action agency for federal dredging projects). In cases where a federal agency has the statutory role of approving all or part of a project, the federal agency is the authorizing agency (*e.g.*, the U.S. Fish and Wildlife Service (“FWS”) is the authorizing agency when species or critical habitat protected under the Endangered Species Act (“ESA”), and that fall under FWS's jurisdiction, could be affected by a proposed project). In general, if a federal action or authorization for a project is under review, even a small part of a larger project, the entire project is subject to the requirements of all applicable federal laws and statutes. As a result, in most proceedings that have a ‘federal nexus,’ there are multiple federal authorizing agencies, each with different mandates and responsibilities, and operating under different statutes.

3.2.2 *Lead Agencies and Decision-Making Agencies*

As a practical matter in dealing with the multiple statutes, sets of regulations, and agencies, an important role is that of the ‘lead agency.’ The key roles of a lead agency are to: (1) provide a process that complies with the letter and spirit of the administrative requirements of the relevant statutes; (2) establish a common process schedule; (3) maintain a record (generally a public record) of the proceeding; (4) support the making of the necessary decisions; and (5) communicate the decisions to those who must act on them. As an example, the Federal Energy Regulatory Commission (“FERC”) is the lead agency for the siting of marine and hydrokinetic (“MHK”) energy projects in state waters. In terms of authority, however, the lead agency may or may not make the final decision on authorizing or denying a project proposal and rarely has authority over all of the conditions (and smaller decisions) that might be applied as part of a project approval. Though the lead agency is usually essential, other federal agencies, and state agencies

Also, the U.S. Environmental Protection Agency can delegate to the state the responsibility for administering compliance with sections of the Clean Water Act.

¹⁵ This paragraph is partially paraphrased from *An Ocean Blueprint for the 21st Century*. See fn. 1, *supra*.

and tribal organizations applying federal authority, often have the authority to stop or significantly modify a project.

3.2.3 *Site-Specific Reviews, Cumulative Assessments, and Agency Planning Activities*

While the discussion above is focused on individual projects, the potential effects of multiple proposed projects in a given area over time may need to be assessed. Some statutes require that the review of a specific project include evaluation of cumulative effects to existing resources and uses. For example, the National Environmental Policy Act (“NEPA”) requires the federal action agency to consider cumulative effects as part of its environmental review of a proposed project.¹⁶

In addition to their site-specific and cumulative-impact assessments, agencies also engage in policy planning and rulemaking activities that establish ground rules for the conduct of particular categories of marine and coastal activities and encourage or discourage particular kinds of activities. Several statutes require the preparation of large-scale, multi-year plans by federal agencies. In some cases, a federal agency is authorized to lead or participate in large-scale planning processes with other federal agencies, tribes, state agencies, and other stakeholders. Plans developed from such a framework are generally intended to inform local or regional scale decisions. Site-specific authorizations, however, usually require the collection and analysis of information gathered for a specific area of interest, generally more than can realistically be gathered for a large-scale planning document. Often, site-specific information is needed for an authorization, even when some information for the site exists in a large-scale plan.

3.3 **Process Requirements**

The regulatory framework for evaluating a proposed project is complex and governed by multiple federal laws and statutes. Although individual federal agencies typically act pursuant to their “organic” statutes (*i.e.*, the laws authorizing them to undertake licensing, permitting, and other regulatory activities in specific substantive areas), certain federal laws and regulations dictate some of their procedures and the means by which they must interact with each other.

3.3.1 *Environmental Impact*

Under the NEPA, federal agencies must establish procedures to identify and account for the environmental impact of projects they undertake or authorize.¹⁷ To that end, NEPA established the Council on Environmental Quality (“CEQ”), tasking it to oversee the

¹⁶ According to the Council on Environmental Quality’s regulations for implementing NEPA (50 C.F.R. § 1508.7), an action may cause cumulative impacts on the environment if its impacts overlap in space or time with the impacts of other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.

¹⁷ 42 U.S.C. §§ 4321-4370e.

programs and activities of the federal government in order to determine whether those programs and activities are contributing to the achievement of U.S. environmental policy.¹⁸ The CEQ has established a three-tiered approach to NEPA implementation and compliance which applies to all federal agencies, including the Commission. First, for “major Federal actions significantly affecting the quality of the human environment,” NEPA requires agencies to prepare an environmental impact statement (“EIS”).¹⁹ Second, for major actions that may significantly affect the quality of the human environment, the CEQ permits federal agencies to prepare an environmental assessment (“EA”) to determine whether an EIS is necessary.²⁰ Third, for activities that individually and cumulatively do not significantly affect the quality of the human environment and for which environmental analysis would be required only in extraordinary circumstances, the CEQ allows federal agencies to exclude categorically those activities from evaluation under NEPA.²¹ The EA and categorical exclusion provisions of the CEQ’s regulations make plain that not every action of a federal agency is a “major” action with “significant”—or even certain—environmental effects. To ensure proper agency coordination, the CEQ’s NEPA regulations call for the selection of a “lead agency” to take primary responsibility for preparing the EIS or EA.²² NEPA directs the responsible federal official (*i.e.*, the lead agency) to “consult and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved.”²³

3.3.2 *Historical Preservation*

As for matters of historic preservation, Section 106 of the National Historic Preservation Act (“NHPA”) requires federal agencies to consider the effects of their actions upon properties included in, or eligible for inclusion in, the National Register of Historic Places.²⁴ To that end, NHPA established the Advisory Council on Historic Preservation (“ACHP”) to implement the NHPA. Both the NHPA and the ACHP’s regulations require that, for actions affecting historic properties, federal agencies initiate a consultation process with the appropriate State Historic Preservation Officer, affected Indian Tribes, and the ACHP.²⁵

¹⁸ *Id.* § 4344(3).

¹⁹ *Id.* § 4332.

²⁰ 40 C.F.R. § 1508.9.

²¹ *Id.* § 1508.4.

²² *Id.* §§ 1501.6, 1508.16.

²³ 42 U.S.C. § 4332(2)(C).

²⁴ 16 U.S.C. § 470f.

²⁵ *Id.*; 36 C.F.R. § 800.3(c).

3.3.3 *Administrative Process and Fairness*

The Administrative Procedure Act establishes standards governing the internal processes of federal administrative agencies and their interactions with members of the public, including rulemaking, adjudication, and licensing.²⁶ It requires agencies to: (1) inform the public of their organization, procedures and rules; (2) provide for public participation in the rulemaking process; (3) establish uniform standards for rulemakings and adjudications, including on-the-record proceedings with an opportunity to be heard; and (4) restate the law for seeking judicial review of agency actions.

Most states and territories have similar state-level laws governing environmental impact and the administrative process.

Additionally, there are a number of other organic federal laws and statutes that a federal action agency must consider and comply with in its review of a proposed project. These include the Marine Mammal Protection Act (“MMPA”), the ESA, section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (“MSA”) (Essential Fish Habitat), the Coastal Zone Management Act (“CZMA”), the Clean Water Act, the Federal Power Act, the Fish and Wildlife Coordination Act, the Communications Act of 1934, and the Rivers and Harbors Act of 1899. Complying with the requirements of these federal laws and statutes creates a complex and intricate regulatory process that can create interagency and interjurisdictional challenges when reviewing and authorizing a proposed project.

4 Key Federal Regulatory Activities and Their Lead Agencies

4.1 Cable Landing Licenses for Submarine Cables

4.1.1 *Federal Communications Commission*

Cable Landing License. Before constructing or operating a submarine cable within U.S. territory (including the U.S. territorial sea, which extends 12 nautical miles seaward from the shore), an operator must obtain a cable landing license issued by the FCC pursuant to the Cable Landing License Act of 1921.²⁷ The Cable Landing License Act does not apply to “cables, all of which, including both terminals, lie wholly within the continental United States.”²⁸ Consequently, a number of coastal and intrastate submarine cable systems have

²⁶ 5 U.S.C. §§ 551-559.

²⁷ “An act relating to the Landing and Operation of Submarine Cables in the United States,” *codified at* 47 U.S.C. §§ 34-39 (“Cable Landing License Act”); 47 C.F.R. § 1.767.

²⁸ *Id.* Although the term “continental United States” appears frequently in federal statutes, it does not have a consistent meaning throughout. In some statutes, the term refers to the lower 48 states plus Alaska (*see, e.g.*, 1 U.S.C. § 1 note) or to all 50 states (*see, e.g.*, 12 U.S.C. § 221). In other cases, the term refers only to the lower 48 states (*see, e.g.*, 5 U.S.C. § 5701(6); 26 U.S.C. § 4262(c)(1)). When the U.S. Congress admitted Hawaii and Alaska as states, amending numerous provisions of the U.S. Code to specify whether “continental United States” included Hawaii or should be replaced by a reference to “the States,” it neglected to clarify the applicability or non-applicability of the Cable

not been licensed by the FCC pursuant to the Cable Landing License Act. The FCC issues a single cable landing license for all landings in the United States and its territories. Although construction is undertaken by a supplier, it is the cable owner that must apply for and hold the cable landing license, even during the construction phase. The FCC requires license applications for: (1) every entity directly owning five percent or more of the cable system assets (but not each entity that owns five percent or more of the corporate entity owning the cable system) which also intends to use the U.S. endpoint(s) of the cable system, and, absent a waiver, (2) every entity owning or controlling a U.S. cable station where the cable system lands.²⁹ A cable landing license is both an infrastructure and a services license that authorizes the construction, ownership, and operation of a submarine cable system landing in the United States. If a submarine cable operator provides—or is required by the FCC to provide—“common-carrier” services, it must obtain a separate carrier license (in addition to the cable landing license) under Section 214 of the Communications Act of 1934, as amended.³⁰

Executive Branch Review. The Cable Landing License Act authorizes the President—not the FCC—to grant cable landing licenses. Under a 1954 Executive Order, President Eisenhower delegated to the FCC the ministerial task of granting cable landing licenses subject to final review and approval by the U.S. Department of State, in consultation with the U.S. Departments of Defense and Commerce.³¹ Such Executive Branch review and approval is now routine. This Executive Branch review is entirely separate from Team Telecom national security reviews, discussed below.

Categorical Exclusion from Environmental Processing. Under NEPA, the FCC decided in 1974 that an application for a submarine cable landing license would be categorically excluded from scrutiny under the FCC’s environmental processing, based on a finding that submarine cable installation was unlikely to have a significant

Landing License Act. See Hawaii Omnibus Act, Pub. L. 86-624, July 12, 1960, 74 Stat. 411 (48 U.S.C. note prec. 491); Alaska Omnibus Act, Pub. L. 86-70, June 25, 1959, 73 Stat. 141. The FCC International Bureau has long taken the position that a system requires a cable landing license if it extends beyond the U.S. territorial sea. See FCC International Bureau, Submarine Cable Landing Licenses (last visited Apr. 1, 2016) (stating that a cable landing license must be obtained for a system connecting “points within the continental United States, Alaska, Hawaii or a territory or possession in which the cable is laid within international waters”).

²⁹ 47 C.F.R. § 1.767(h) (stating that “the purpose of [Section 1.767(h)] is to ensure that entities having a significant ability to affect the operation of the cable system become licensees so that they are subject to the conditions and responsibilities associated with the license.”); *Actions Taken Under the Cable Landing License Act*, Public Notice, FCC File SCL-LIC-20070222-00002, 23 FCC Rcd. 227, 229 (Int’l Bur. 2008) (citing *Review of Commission Consideration of Applications under the Cable Landing License Act*, Report and Order, 16 FCC Rcd. 22,167, 22,194-95 ¶¶ 53-54 (2001)).

³⁰ 47 U.S.C. § 214; 47 C.F.R. § 1.767(g)(4).

³¹ Executive Order No. 10530 (May 10, 1954), *codified at* 3 C.F.R. 189 (1954-1958), *reprinted in* 3 U.S.C. § 301 app. (1988).

environmental impact.³² Having inadvertently eliminated the categorical exclusion in 1986, it reinstated the exclusion in 1999.³³

Consistency with State and Territorial Coastal Zone Management Plans. Under the complex system of U.S. coastal regulation, the CZMA grants state and territorial governments the right to review permitting and licensing activities by federal government agencies to ensure consistency with state and territorial coastal management plans, under which the states and territories regulate activities within or affecting a state or territory's sea (which extends three nautical miles seaward from the shore).³⁴ Most states and territories maintain coastal zone management plans for which they may seek consistency reviews of federal permitting activities. If a state or territory were to require a consistency review of an FCC cable landing license application, that state or territory could delay FCC licensing until completion of the consistency review.³⁵ To date, no state or territory has ever requested such a consistency review of an FCC cable landing license application. Instead, the states and territories seek consistency reviews of submarine telecommunications cable projects only with respect to permits issued by the Corps under the Rivers and Harbors Act of 1899 and the Clean Water Act.³⁶

4.1.2 ***Team Telecom National Security Review and Mitigation***

Team Telecom Scrutinizes Foreign Investment, Foreign Landings, and Financing and Supplier Arrangements. The FCC under the authority delegated by Executive Order refers cable landing license applications to the Executive Branch agencies for review of any national security, law enforcement, and foreign policy and trade policy issues.³⁷ Team Telecom—an informal interagency group that consists of the Departments of Defense, Homeland Security, and Justice (including the Federal Bureau of

³² *Implementation of the National Environmental Policy Act of 1969, Report & Order*, 49 FCC.2d 1313, 1321 (1974) (finding that “although laying transoceanic cable obviously involves considerable activity over vast distances, the environmental consequences for the ocean, the ocean floor, and the land are negligible. In shallow water, the cable is trenched and immediately covered; in deep water, it is simply laid on the ocean floor. In the landing area, it is trenched for short distance between the water’s edge and a modest building housing facilities.”).

³³ *Amendment of Environmental Rules in Response to New Regulations Issued by the Council on Environmental Quality, Report & Order*, 60 Rad. Reg. 2d (P&F) 13 (1986); *1998 Biennial Regulatory Review—Review of International Common Carrier Regulations, Report & Order*, 14 FCC Rcd. 4909, 4938 (1999).

³⁴ Coastal Zone Management Act of 1972, 16 U.S.C. §§ 1451-64 (“CZMA”).

³⁵ See 47 C.F.R. 1.767(k)(4).

³⁶ Rivers and Harbors Act of 1899 § 10, *codified at* 33 U.S.C. § 403 (requiring authorization for structures installed in the navigable waters of the United States); Clean Water Act § 404, *codified at* 33 U.S.C. § 1344 (requiring authorization for certain activities in coastal estuaries or involving dredged material).

³⁷ See *Rules and Policies on Foreign Participation in the U.S. Telecommunications Market, Report and Order and Order on Reconsideration*, 12 FCC Rcd. 23,891, 23,933-34 ¶¶ 61-66 (1997) (“*Foreign Participation Order*”).

Investigation)—conducts national security and law enforcement reviews of new facilities or services and for FCC consent to transfer or assign a license in a merger or acquisition. For a new submarine cable system, Team Telecom will generally conduct a review if (1) the system will connect the United States to a foreign point, or (2) the system will have aggregate direct or indirect foreign ownership of 10 percent or more. Where particular ownership, supply, or financing arrangements raise concerns, Team Telecom will typically make additional inquiries and information requests and will often seek additional security-agreement conditions to safeguard U.S. surveillance activities, U.S. communications generally, and infrastructure security.

Procedures. Team Telecom does not act pursuant to any law and has not promulgated any regulations governing its substantive requirements and procedures. In spite of the unwritten and non-public nature of its reviews, Team Telecom’s processes are reasonably well-established. The filing of a cable landing license application with the FCC formally triggers the Team Telecom process when it meets the foreign-ownership or foreign-landing criteria described above. Team Telecom initiates its review by issuing a “triage” questionnaire to the applicant. Team Telecom’s “triage” questionnaire requires information duplicating parts of the FCC application as well as significant information about each system’s principal equipment, U.S. landing arrangements, network operations center operations, demarcation points, fiber map, cable station map, law enforcement point of contact, direct and indirect ownership interests of five percent or more, and management. Team Telecom typically requests that the FCC defer action on a license application pending execution of a risk mitigation instrument, as described below. Once a mitigation instrument (either a network security agreement or letter of assurances) is executed, Team Telecom will petition the FCC to condition any license or transaction approval on compliance with the mitigation instrument. The process is entirely confidential, though any resulting security agreement or assurances letter is generally made public via Team Telecom’s petition to the FCC to condition approval upon compliance with the mitigation instrument. The FCC defers to the Executive Branch on issues of national security, law enforcement, and public safety, and the FCC will not grant a cable landing license absent Team Telecom clearance.³⁸ The Team Telecom process, rather than FCC scrutiny, is the principal source of delay in the grant of a cable landing license.

4.2 Structures and Work in Waters of the U.S.

4.2.1 U.S. Army Corps of Engineers

Permit Requirements in Waters of the United States, Including Navigable Waters. The Corps regulates structures and work in navigable waters of the U.S. under Section 10 of the Rivers and Harbors Act (Section 10) of 1899; discharges of dredged and fill material in waters of the U.S. (including jurisdictional wetlands) under Section 404 of the Clean Water Act (Section 404); and the transportation of dredged material for the purpose of ocean disposal under Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972. The mission of the Corps’ Regulatory Program is to protect the nation’s

³⁸ *Foreign Participation Order*, 12 FCC Rcd. at 23,919-20 ¶ 63.

aquatic resources and navigation capacity, while allowing reasonable development through fair and balanced decisions.

Navigable waters under Section 10 and Section 404 include, but are not limited to, tidal waters and wetlands. Section 10 jurisdiction in tidal waters extends from the mean high water line at shore to three nautical miles.³⁹ The OCSLA of 1953 extended the Corps' Section 10 authority from three nautical miles to the OCS for artificial islands, installations, and devices located on the seafloor.⁴⁰ As a general rule, the Corps does not require the government of a foreign nation or a corporation incorporated in a foreign nation and not incorporated in the U.S., to obtain a Section 10 permit for those portions of a submarine communication cable laid on the seabed of the OCS seaward of twelve nautical miles. Section 404 jurisdiction for tidal waters extends from the high tide line at shore to three nautical miles.⁴¹

Examples of regulated work per Section 10 include obstructions or alterations of navigable waters like construction or demolition in, over or under navigable waters, excavation, dredging, or any other work that has the potential to affect the course, location, condition or capacity of navigable waters, such as laying cables on or burying cables under the seafloor. Examples of regulated work under Section 404 include fill pads, trench and backfill, grading, rip-rap, mechanized land clearing, bank stabilization and beach nourishment.

The Section 10/404 Permit Process. If the project would result in regulated activities as described above, a permit from the Department of the Army is required prior to initiating the work.⁴²

Permit Application: The project proponent needs to submit an application to the appropriate Corps District, describing the proposed work, location, purpose and need, and to include drawings.⁴³ After the application is received by the Corps, it is assigned an identification number and reviewed for completeness. When applications are incomplete, additional information will be requested of the applicant in order to initiate the application process. The Corps determines what form of permit is appropriate: individual, through a standard permit or letter of permission; or general, through a regional general permit (“RGP”), programmatic general permit (“PGP”) or nationwide permit (“NWP”).

³⁹ See 33 C.F.R. § 329.

⁴⁰ When the OCSLA was codified in 43 U.S.C. 1333(a), energy exploration, exploitation, or transport was used as an example of a circumstance when a permit may be required. The First Circuit Court of Appeals clarified in the decision *Alliance to Protect Nantucket Sound v. U.S. Department of the Army*, 298 F.3d 105 (1st Cir. 2005) that this provision does not limit the authority of federal agencies to issue permits only for energy exploration, exploitation, or transport. The submarine cable industry believes that this ruling, as it might be applied to regulation of submarine cables on the OCS, is inconsistent with U.S. treaty obligations.

⁴¹ See 33 C.F.R. § 328.

⁴² See *id.* § 325 (describing the permitting process).

⁴³ See *id.* § 325.1(d) (listing permit application requirements).

General Permits: The review processes for authorized general permits (RGPs, PGP or NWP) vary. A case-by-case review of activities authorized by general permits is not required when the project proponent complies with all the terms and conditions of the general permit and any applicable regional conditions. There are cases when general or regional permit conditions trigger reporting requirements when certain thresholds are crossed, such as effects to endangered or threatened species, or historic properties.

The case-by-case review by Corps Districts ensures the proposed activity results in minimal adverse environmental effects and also meets the terms and conditions of the general permit. Regional conditions can be added requiring reporting for a district, state, county, watershed, or other geographic area. Also, special conditions can be added to general permit authorizations to minimize adverse environmental effects. Compensatory mitigation requirements may be imposed to offset the losses of aquatic resources and time-of-year restrictions to protect species during critical life cycle processes.

The district will notify the project proponent when the proposed activity will have more than minimal individual or cumulative net adverse effects on the aquatic environment or otherwise may be contrary to the public interest. The notification can be either: (1) a NWP authorization with special conditions that are necessary to ensure the adverse effects are minimal, or (2) instructions on how to apply for an individual permit. Individual websites for Corps Districts list existing RGPs and PGPs.

Examples of NWPs used in the past for submarine cables are NWP-3 and NWP-12. NWP-3 authorizes the repair, rehabilitation, or replacement of any previously or currently authorized, structure, or fill, authorized by 33 C.F.R. § 330.3, provided the structure or fill is not being used different from those uses specified or contemplated in the original permit or the most recently authorized modification. This NWP also authorizes the removal of accumulated sediments and debris in the vicinity of existing structures (*e.g.*, bridges, culverted road crossings, water intake structures, etc.) and/or the placement of new or additional riprap to protect the structure. It also authorizes temporary structures, fills, and work necessary to conduct the maintenance activity. NWP-12 authorizes activities for construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States. These activities must not result in the loss of greater than 1/2-acre of water for each single and complete project. Once an application is submitted, the Corps District will make a determination on which type and level of permit is appropriate for the proposed activity.

A complete list of available NWPs is posted at

<http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/NationwidePermits.aspx>

Individual Permit: Proposed work or activity not qualifying for the general permit will require an Individual Permit. Once the Corps receives all information to complete the application a public notice will be issued with a 30 day (normally) comment period. This provides local, state and federal agencies, stakeholders and the general public an opportunity to comment. The Corps reviews and considers all comments received and any substantive comments will be furnished to the applicant for their information and comment. The Corps may ask the applicant for additional information, including information to make a public interest review determination,⁴⁴ environmental data or information on other alternative sites.

The Corps evaluates the impacts of the project and all comments received, works with the applicant to ensure necessary modifications of the project as required to avoid and minimize effects, and completes appropriate documentation to support a recommended permit decision. The permit decision document must include environmental documentation required by the NEPA and findings of the public interest review process. NEPA documentation, either an EA or EIS, provides for consideration of alternatives, including the no action alternative, and discussion of effects of each alternative. For the public interest review, all factors relevant to the proposal must be considered including the cumulative effects: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership, and needs and welfare of the people. The specific weight of each factor is determined by its importance and relevance to the particular proposal.

The following general criteria will also be considered: the relative extent of the public and private need for the proposed structure or work; where there are unresolved conflicts

⁴⁴ Until 1968, the primary focus of the Corps' regulatory program was the protection of navigation. Implementing subsequent laws and judicial decisions, the Corps' program has evolved to one involving the consideration of the full public interest by balancing the favorable impacts against the detrimental impacts. This is known as the "public interest review." *Public Interest Review*. (1) The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it would be permitted, are therefore determined by the outcome of this general balancing process. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. 33 C.F.R. § 320.4.

as to resource use; the practicability of using reasonable alternatives and methods to accomplish the objectives of the proposed structure or work; and the extent and permanence of the beneficial and/or detrimental effects the proposed structure or work is likely to have on the public and private uses.

A decision may not be made until consultations required under Section 7 of the ESA, Section 106 of the NHPA are complete and the essential fish habitat (“EFH”) provisions of the MSA have been met. The Corps makes every effort to adopt the lead federal agency NEPA document, as well as Section 7, Section 106 and EFH. This works better when the lead federal agency coordinates early in the process to incorporate information that will be necessary to complete the Corps permit decision.

The Corps also considers Tribal resources affected by the project and complete appropriate consultation with Tribes. Since there is no lead federal agency for tribal trust responsibilities, each federal agency must consult with tribes on the impacts to tribal trust resources within their jurisdiction. Work with the tribes is needed to determine if joint meetings are appropriate and acceptable to the tribes.

When all considerations are complete, the Corps decides to either issue or deny the permit. When a denial is warranted, a written explanation will be provided to the applicant. The Corps makes every effort to process Individual Permit applications within 120 days of the submitted application. In controversial projects or projects dealing with endangered species or other concerns, the processing time may be greater than 120 days.

Permission to alter Corps Civil Works Projects. Permission under Section 14 of the Rivers and Harbors Appropriation Act of 1899 (codified in 33 USC 408), commonly referred to as Section 408, is required for activities within the lands and real property interests identified and acquired for Corps Civil Works projects by any entity other than the Corps. Under Section 408, the Corps grants permission for the alteration, occupation or use of a Corps Civil Works project when the Corps determines the activity will not be injurious to the public interest and will not impair the usefulness of the project. Proposed alterations vary in size, level of complexity, and potential impacts. Procedures and information required to make a determination are scalable. Based on the proposed alteration, Corps Districts determine data, analyses and documentation necessary for the evaluation.

The Basic Section 408 Request and Determination Process. The Corps follows procedures in Engineer Circular 1165-2-216, Policy and Procedural Guidance for Processing Requests to Alter U.S. Army Corps of Engineers Civil Works Projects Pursuant to 33 U.S.C. § 408. Each district office has a designated Section 408 coordinator to assist and facilitate the reviews. The following are the basic steps for a Section 408 determination. Depending on the activity, not all steps may be required or steps can be conducted concurrently. It is important to note that many Corps Civil Works projects have a non-federal sponsor responsible for operations and maintenance of the project and must be involved in the Section 408 determination if they are not the requester of the activity.

Step 1: Pre-Coordination. Early coordination between the Corps, the requester and/or the non-federal sponsor, is strongly recommended and will aid in identifying potential issues, focusing efforts, minimizing costs, and protecting sensitive information.

Step 2: Written Request. Section 408 process initiation begins with the written request and is used by the Corps District to determine documentation and approval requirements.

Step 3: Required Documentation. The documentation outline is necessary for the Corps District to determine whether the proposed alteration would impair the usefulness of the project or be injurious to the public interest. This documentation includes technical analyses and environmental compliance documentation as deemed necessary by the Corps District.

Step 4: Corps Formal Review Process. The Corps District determines the level of review which is scalable based on the scope and complexity of the activity. Higher level review and decision may be required based on the potential impacts of the proposed activity.

Step 5: Final Determination. Reviews and the final determination will be documented in a Summary of Findings, which the Corps District will issue as the official notification to the requester.

Close coordination is required when a Section 408 request also requires a Section 10, 404, or 103 decision. Section 10/404/103 decisions are separate from Section 408 decisions and require separate documentation. However, the information required to make those separate determinations should be leveraged. A Section 408 request decision must be made prior to a Section 10/404/103 decision being issued.

Example of coordination between Section 10/404 and Section 408: A submarine cable was being installed in association with an offshore wind farm, and would pass beneath the Federal shore stabilization project in Atlantic City. The requester was made aware of the Section 408 requirement, and the Section 408 and Regulatory permit review process were carried out concurrently, which minimized impacts to the project schedule. Early awareness of the Section 408 requirement, and early coordination between the Section 408 coordinator and the requester is important to ensure timely and effective reviews for the applicant.

The Corps encourages an applicant to contact the Corps District, or the appropriate District field office, to request a pre-application consultation. Pre-application consultation may involve one or more meetings between an applicant, Corps district staff, and other federal, state or Tribal regulatory and resource agencies. The basic purpose of the consultation is to provide an opportunity for the applicant to learn about the Corps and other agencies' concerns with the potential location and type of proposed project, assess the viability of the different alternatives to accomplishing the project purpose, discuss measures for reducing the impacts of the project, and to inform the applicant of the factors the Corps must consider in its decision making process. If the activity may

affect federally listed threatened and/or endangered species, critical habitat, historic properties, EFH, or Tribal trust resources, the agencies would discuss with the applicant information that will likely be necessary to conduct these consultations.

The benefit of a pre-application consultation is maximized when the applicant brings a project at a stage with enough level of detail on location and extent of the proposed impacts for a meaningful discussion, but still flexible enough to incorporate agencies' concerns to avoid and minimize proposed impacts to jurisdictional resources.

One challenge with the pre-application process is the lack of specificity on cable route. In situations where there have been pre-application requests for guidance on burial depths for a non-specific cable route, the ACOE can only provide very general information which is subject to change based on future project details. The Corps might not schedule pre-applications meetings with applicants until project descriptions and drawings which depict their proposed cable routes are provided. This should be done in advance of the meeting so that the materials can be reviewed and prepared to provide substantive comments. Also, it is important that the applicant identify the locations of associated shoreline facilities or cable landing methods that might result in additional impacts to jurisdictional resources (*e.g.* coastal wetlands).

4.3 Leasing and Permitting for Oil and Gas Development

Oil and Gas development in U.S. waters is regulated by the Bureau of Ocean Energy Management ("BOEM") and by FERC. Each operates under separate authority and has separate missions divided by location and type of the activity.

4.3.1 *Bureau of Ocean Energy Management*

Statutory Authority. BOEM is a bureau in the U.S. Department of the Interior ("DOI") that manages the offshore energy resources of OCS. The passage of the OCSLA authorized the Secretary of the Interior to grant mineral leases and to prescribe regulations governing oil and natural gas activities on OCS lands in a manner that protects human, marine, and coastal environments. OCSLA's Congressional Declaration of Policy, provided with amendments passed in 1978, states the OCS should be made available for expeditious and orderly development, subject to environmental safeguards while maintaining competition for OCS resources.

BOEM has jurisdiction over offshore energy development in the federal waters of the OCS. Federal jurisdiction generally covers the area that extends from 3 nautical miles (5.6 km) to 200 nautical miles along the coastline in the Atlantic, Pacific, and Arctic Oceans, and the Gulf of Mexico. The only exceptions are in Texas and the west coast of Florida where state jurisdiction extends to 3 marine leagues or nine nautical miles (16.2 km). Additionally, under principles of international law, federal jurisdiction may extend beyond 200 miles where it can be shown that the continental shelf physically extends beyond 200 miles, subject to various measures. (See discussion at

<http://www.boem.gov/Oil-and-Gas-Energy-Program/Leasing/Outer-Continental-Shelf/Index.aspx>)

Leasing Process. BOEM does not propose, construct, operate, or own offshore energy projects. It issues leases for offshore mineral and energy development and enforces lease terms and conditions as well as regulations described in 30 C.F.R. Chapter V. Initial terms for oil and gas leases are 5 years, not to exceed 10 years in areas of unusually deep water or other unusually adverse conditions. If a discovery is made within the initial term of an oil and gas lease, the lease is extended as long as oil and/or natural gas is produced in paying quantities or approved drilling operations are conducted.

Leasing and operational activities on the OCS are also subject to the requirements of some 30 federal laws such as the NEPA, ESA, and CZMA to name a few. All oil and gas exploration, development, and production plans are carefully reviewed by BOEM to ensure they will be performed in an environmentally sound and safe manner.

BOEM is responsible for start-to-finish oversight of each lease for the duration of its term. The Bureau of Safety and Environmental Enforcement (“BSEE”) is responsible for safety and enforcement responsibilities, including operations, inspections, and environmental compliance.

The leasing process begins with the development of a Five Year Program pursuant to Section 18 of the OCSLA. The Five Year Program process includes:

- three separate comment periods,
- three proposals,
- final secretarial approval, and
- the development of an EIS.

The statutorily-mandated process usually takes about two and a half years and includes the coordination of multiple federal agencies, state, local, tribal input, and other stakeholders, including energy and non-energy industries, environmental and other public interest organizations, and the general public. Before the Secretary of the Interior can approve the Program, the Proposed Final Five Year Program is sent to the President and Congress for a minimum of 60 days. No area may be leased unless it is on an approved Five Year Program schedule of lease sales.

The next stage of the leasing process is the lease sale. The typical first step in the sale process for an individual area is to publish a Call for Information and Nominations and a Notice of Intent to Prepare an EIS in the *Federal Register*. Subsequent steps include preparation of Draft and Final EISs, Proposed and Final Notices of Sale, and consistency determinations under the CZMA where applicable. Some proposed sale areas may include an additional first step, a request for industry to express their interest in the specific area. Leases are generally issued to the highest bidders in a sealed competitive cash bonus bid process. Such bids are subject to “fair market value” review by BOEM

and antitrust review by the Department of Justice and Federal Trade Commission before a lease is issued.

During the Call comment period, BOEM solicits information for the public about the identified areas, and individual and private entities have the opportunity to identify areas where existing infrastructure is located and provide information about any multiple use conflicts.

BOEM conducts in-depth reviews and must approve lessees' Exploration Plans and Development and Production Plans (Development Operation Coordination Documents in the Central and Western Gulf of Mexico) before any regulated activities can take place. BOEM conducts project-specific reviews for multiple use conflicts during its reviews of these plans, such as any conflicts associated with existing infrastructure.

4.3.2 *The Federal Energy Regulatory Commission*

Statutory Authority. FERC is an independent federal agency with a mission to regulate and oversee energy industries in the economic, environmental, and safety interests of the American public. FERC's statutory authority centers on major aspects of the Nation's wholesale electric, natural gas, hydroelectric, and oil pipeline industries.

FERC is composed of up to five commissioners who are appointed by the President of the United States with the advice and consent of the Senate. Commissioners serve staggered 5-year terms and have an equal vote on the orders through which the FERC takes action. To avoid any undue political influence or pressure, FERC is a bi-partisan body and no more than three commissioners may belong to the same political party. The President appoints one of the Commissioners to be the Chairman of FERC, and the Chairman is the administrative head of FERC.

Among the areas under FERC's statutory authority, regulating the construction and operation of natural gas infrastructure, as well as hydroelectric development (see renewable energy discussion that follows), are most likely to require coordination with submarine telecommunication cables.

Natural Gas and Liquefied Natural Gas Permitting Process. FERC's role in regulating the natural gas industry is largely defined by the Natural Gas Act of 1938. Under section 3 of the Natural Gas Act, FERC reviews the siting, construction, and operation of facilities to import and export natural gas, including liquefied natural gas ("LNG") terminals. As part of its responsibility, FERC conducts cryogenic design and technical review of the of the proposed LNG facilities during the authorization process, and compliance inspections during construction. Once an LNG facility is constructed and operational, FERC conducts safety, security, infrastructure, and environmental inspections for the life of the facility.

Under section 7 of the NGA, FERC issues certificates of public convenience and necessity for the construction and operation of interstate natural gas pipelines and storage

facilities. FERC also conducts compliance inspections of the natural gas pipelines and storage facilities during construction. Although FERC does not have any jurisdiction over the safety or security of natural gas pipelines or storage facilities once they are in service, it actively works with other agencies with these responsibilities, most notably the Pipeline and Hazardous Materials Safety Administration of the Department of Transportation.

As required by NEPA, the Commission prepares environmental documents for proposed natural gas and LNG facilities and acts in conformance with other environmental statutes as appropriate, including the ESA, NHPA, and CZMA. NEPA, specifically the early phase of scoping, provides a mechanism for identifying where existing infrastructure (*e.g.*, submarine cables) may be located.

The Commission's Pre-filing Review Process is voluntary for interstate natural gas pipeline, compression, and natural gas storage projects, but required for LNG projects. If an applicant does not go through pre-filing, the review process (including scoping) will begin after a formal application is filed with FERC.

Pre-filing is requested by the project sponsor, or applicant. During the pre-filing process, the applicant submits drafts of its environmental resource reports. These reports contain the environmental information that is the basis of FERC's NEPA document. Pre-filing ends when the project sponsor files an application for a Certificate of Public Convenience and Necessity (pipeline or storage facilities) under section 7 of the NGA or an Authorization (for LNG facilities) under section 3 of the NGA. The application includes both environmental and developmental (*e.g.*, infrastructure) information that staff use to prepare FERC's NEPA document. The FERC considers its own staff's analyses and recommendations, as well as all other information in the record, including stakeholder comments, in deciding whether to approve or deny a project. A project found to be in the Public Convenience and Necessity will be approved. A favorable LNG import or export project receives an Authorization.

4.4 Marine Mineral Leasing

OCSLA also provides BOEM with the authority to issue leases for "non-energy minerals" (primarily sand and gravel) obtained from the ocean floor. To date, BOEM has conveyed rights to millions of cubic yards of OCS sand for coastal restoration projects in multiple states.

The Bureau uses two types of lease conveyances for sand and gravel and other non-energy minerals from the OCS. The first type is a non-competitive negotiated agreement ("NNA") or Memorandum of Agreement ("MOA"), which can only be used for obtaining sand and gravel for public works projects funded in part or whole by a federal, state, or local government agency. Marine minerals leases or negotiated agreements are project dependent, typically lasting between 2 and 4 years. NNAs are held between BOEM and a state agency while a MOA is issued for a partnership between BOEM and another federal agency. The second type is a competitive lease sale in which any qualified person

may submit a bid. To date, all leases for marine minerals on the OCS have been NNAs for beach nourishment and coastal restoration projects.

Preparation of a noncompetitive agreement is a multi-step process that typically takes 12-14 months to complete. It involves technical and environmental review of the request and project, including preparation of an environmental analysis (EA or EIS), completion of a MOA with any federal agency participating in the project, signing of the agreement instrument with terms and conditions, and formal notification of House and Senate committees when the agreement has been signed.

Through these processes, BOEM ensures that all federally-regulated marine minerals activities are performed in an environmentally sound and safe manner, and that any potential adverse impacts to the marine, coastal and/or human environments are avoided or minimized. BSEE's role in federal marine mineral leasing is limited to addressing use conflict issues with pipelines.

More information about BOEM's Marine Mineral Program ("MMP"), such as key program statistics and summaries of various sand management working group meetings, can be found on BOEM's MMP website.

4.5 Authorizing Renewable Energy Development

As with traditional energy, renewable energy development in U.S. waters is also regulated by BOEM and FERC. Again, the type of activity and its location determines the role of each agency.

4.5.1 *The Federal Energy Regulatory Commission*

Statutory Authority. In 1920, the U.S. Congress passed the Federal Water Power Act, which provided the Federal Power Commission ("FPC"), FERC's predecessor, its original authority to license and regulate non-federal hydropower projects. As the regulatory authority of the FPC expanded, the Federal Water Power Act became Part I of the Federal Power Act ("FPA"). The FPA has been amended over the years by the Electric Consumers Protection Act of 1986, the Energy Policy Act of 1992, the Energy Policy Act of 2005 ("EPAct"), and the Hydropower Regulatory Efficiency Act of 2013. FERC relies on these authorities to carry out its hydropower responsibilities, including: (1) the issuance of preliminary permits; (2) the issuance of licenses for the construction and operation of new projects; (3) the issuance of relicenses for existing projects; (4) the investigation and assessment of headwater benefits; and (5) the oversight of all ongoing project operations, including dam safety and security inspections, public safety, and environmental monitoring.

FERC's responsibility under the FPA is to strike an appropriate balance among the many competing developmental and non-developmental (including environmental) interests. These responsibilities are complicated by other statutes that affect hydropower regulations, which include, but are not limited to, NEPA, Clean Air Act, ESA, Fish and Wildlife Coordination Act, CZMA, and NHPA.

For purposes of administering Part I of the FPA, hydropower includes not only conventional and pumped storage projects, but MHK projects as well.⁴⁵ Ocean-based projects have the potential to require coordination with submarine telecommunication cables.

Hydropower/Hydrokinetic Licensing Process. Part of the FERC's mission involves promoting the development of a strong national energy infrastructure that includes hydropower, which is currently the leading renewable energy source in the United States. Congress charged FERC with evaluating whether proposed non-federal hydropower projects should be approved, including MHK projects as well as conventional and pumped storage projects. Wind turbines are not considered hydrokinetic, and FERC has no jurisdiction over such projects.

FERC does not propose, construct, operate, or own such projects. It issues preliminary permits and licenses for hydropower projects, enforces the conditions of each license for the duration of its term, and conducts project safety and environmental inspections. Preliminary permits maintain a permittee's priority to file a license application while it gathers data and studies the feasibility of developing a proposed project at a particular site. Permits expire after 3 years; they do not authorize any land-disturbing activities, project construction, or installation. During the term of the permit, a permittee prepares an application for an original hydropower license. An original hydropower license authorizes the construction and operation of a project for a term of up to 50 years. A new license, also called a relicense, authorizes the continued operation of an existing (previously licensed) project, and the license term may be 30 to 50 years.

The licensing process formally begins with the applicant filing a Notice of Intent and a Preliminary Application Document (initial proposal and information document) to begin the pre-filing licensing process. The process involves FERC staff working with the prospective applicant and stakeholders to develop a science-based study plan to obtain information on a variety of resources (*e.g.*, water quality, fish, wildlife, recreation, operational considerations, and existing infrastructure) that will facilitate and inform FERC staff's NEPA review. Studies typically take 1-2 years to complete, and the study results are used to develop the license application. The final step in the pre-filing stage is the prospective applicant's filing of a Preliminary Licensing Proposal, which describes the proposed project, its operations, and other infrastructure considerations, and includes an environmental review of the proposed action.

The post-filing phase of the licensing process begins with the filing of a final license application, which includes: (1) a detailed description of the project facilities and its operation; (2) a description of the applicant's proposal; (3) a description of existing environmental resources and infrastructure affected by the project; and (4) an evaluation of the effects of the proposed project on those resources. All comments and

⁴⁵ A hydrokinetic project is a project that generates electricity from waves or directly from the flow of water in ocean currents, tides, or inland waterways without the use of a dam or reservoir.

recommendations filed on the license application are considered by FERC staff in developing its NEPA document.

After construction is complete, FERC staff conducts periodic safety inspections to ensure safe project operation, as well as environmental inspections to ensure that project operators comply with the environmental conditions required by the license. FERC staff ensures that any required plans (*e.g.*, aquatic habitat, recreation, shoreline management, and historic properties management plans, etc.) are developed and implemented according to the license. During the term of a license, FERC must approve any proposed changes or amendments to that license.

To facilitate the licensing of hydrokinetic projects, FERC staff issued guidance on *Licensing Hydrokinetic Pilot Projects* in 2008, in the form of a white paper. The goal was to provide a mechanism to expedite license application processing to allow developers to test new marine and hydrokinetic technologies to determine appropriate siting of these technologies and to confirm their environmental effects. Developers would do so while connected to the interstate grid. FERC oversight and opportunities for input would be maintained. The guidance was intended for small projects, which are able to be shut down or removed on short notice, and avoid sensitive locations. The resulting licenses would be short-term and include rigorous environmental monitoring and safeguards. The guidance clearly stated that it was a staff document and not new regulation.

In addition, FERC staff developed added internal guidance in 2015 that directed staff to look at the submarine cable maps to scan for cables near a proposed project site when a preliminary permit application is received, when a pre(license) application document is received, or when a draft license application for a pilot project is received. If a submarine cable appears to be in the vicinity of the proposed project site staff is to: (1) contact the applicant and, if possible, the cable owner, to notify them of the issue; (2) direct the developer to consult; and (3) add the cable owner to the mailing list for the project. If the cable owner cannot be identified via the maps, a staff person has been designated to reach out to the FCC, Navy, or the cable industry trade association, as appropriate, to try to identify and obtain contact information for the cable owner.⁴⁶

In the end, FERC determines whether issuing a license for a project is in the public interest and, if so, what operational conditions and other environmental measures to include in the license. In so doing, FERC bases its licensing decisions on the public record for the project, including FERC staff's NEPA document and the comments filed on that document.

⁴⁶ FERC also requires applicants for a preliminary permit to send a copy of the preliminary permit application to the FCC, the Naval Seafloor Cable Protection Office, and the NOAA Charting Branch within five days of receiving FERC's letter accompanying the notice accepting the application for review. FERC does not, however, require that the FCC or the Navy provide an affirmative or negative response to the notification.

4.5.2 *Bureau of Ocean Energy Management*

Statutory Authority. EPO Act amended OCSLA to provide BOEM with the authority to issue leases, easements and rights of way for certain renewable energy projects on the OCS. EPO Act provided a general framework for BOEM to follow when authorizing these renewable energy activities. For example, OCSLA as amended requires that for renewable energy projects, BOEM coordinate with relevant Federal agencies and affected state and local governments, obtain fair return for leases and grants issued, and ensure that renewable energy development takes place in a safe and environmentally responsible manner that considers other users of the OCS.

In 2009, President Barack Obama and Secretary of the Interior Ken Salazar announced the finalization of regulations governing BOEM's OCS Renewable Energy Program. These regulations provide a detailed structure to govern how BOEM manages its Renewable Energy Program, ensure that BOEM meets its statutory obligations, and provide both certainty and flexibility for overseeing the nascent offshore renewable energy industry. Also in 2009, FERC and BOEM finalized a Memorandum of Understanding ("MOU") to establish jurisdiction over OCS MHK projects, which establishes that BOEM will issue leases for the siting of OCS MHK projects and FERC will issue licenses governing the operations of OCS MHK projects. This MOU and the resulting guidelines are discussed further in section 66 of this report.

Renewable Energy Leasing. BOEM's offshore wind authorization process can be broken down into four phases: planning, leasing, site assessment, and construction and operations.

The offshore wind planning process typically begins with the establishment of an Intergovernmental Renewable Energy Task Force. BOEM currently establishes its Task Forces on a state-by-state basis, and coordinates with the members of each Task Force in order to inform how and whether renewable energy planning and leasing should proceed offshore that state.

Though there are different paths provided for in BOEM's renewable energy regulations, after delineation of a planning area in coordination with the applicable Task Force and/or receiving an unsolicited application identifying a particular area from a developer, BOEM will typically publish one or more *Federal Register* notices to determine whether there is competitive interest in the area identified and gather comments from the public.

If there is competitive interest, then BOEM will follow a competitive planning and leasing process that involves steps similar to those included in the agency's oil and gas lease sale process. This includes the step of Area Identification to establish a Wind Energy Area, conducting the necessary environmental reviews to inform a potential leasing action, the publication of sale notices detailing the proposed lease sale, and holding an auction to award one or more leases to the winning bidder(s).

If there is not competitive interest, then after the completion of necessary environmental reviews, BOEM may begin with negotiating the terms of the lease with the one interested developer prior to lease issuance.

BOEM solicits comments from stakeholders at several points during its planning and leasing process. Stakeholders are encouraged to provide information and feedback during the comment periods associated with a Request for Interest, Call for Information and Nominations, and Proposed Sale Notice. There are also one or more comment periods to inform BOEM's pre-lease NEPA process. Finally, BOEM encourages stakeholders to observe its Task Force meetings and provide feedback during the subsequent public Q&A session.

After lease issuance, the lessee begins the site assessment term of their lease and has approximately five years to complete the necessary site characterization and assessment activities. If a lessee is proposing to install a meteorological tower or buoy to gather resource data on the leasehold, then the lessee must submit a Site Assessment Plan that describes these activities for BOEM's approval.

The final phase of the process, construction and operations, begins with the submission of a Construction and Operations Plan ("COP"). The COP provides the lessee's detailed plan for the construction and operation of a wind energy project in the lease area. BOEM will conduct thorough engineering and environmental reviews of the COP, likely to include an EIS. BOEM will also examine each COP to evaluate the potential for interference or harm to other uses and users of the OCS. After completing its reviews, BOEM will approve, disapprove, or approve with modifications the COP. The approval, or approval with modifications, of a COP is the last BOEM approval necessary before the lessee may construct and operate their project. BOEM's offshore wind leases typically include a 25-year operations term.

There are a number of opportunities for the public to provide input in the NEPA process associated with BOEM's plan review. For example, stakeholders can provide comments during comment periods and participate in public meetings. There is also the opportunity to observe Task Force meetings held to discuss the specifics of the proposed project.

With regard to BSEE's safety and enforcement oversight obligations, the division of responsibility is still underway for BOEM's renewable energy program.

BOEM has developed a number of national and regional guidelines to provide its renewable energy lessees with additional information and guidance for compliance with its regulations, standards and other requirements.⁴⁷ Certain guidelines provide information to lessees relating to how BOEM expects those lessees to coordinate with other ocean users in order to obtain information BOEM needs to conduct its plan reviews, such as its Guidelines for Providing Information on Fisheries Social and Economic

⁴⁷ BOEM's renewable energy guidelines can be found at: <http://www.boem.gov/National-and-Regional-Guidelines-for-Renewable-Energy-Activities/>

Conditions for Renewable Energy Development on the Atlantic Outer Continental Shelf and its Guidelines for Information Requirements for a Renewable Energy COP. Specifically, BOEM’s Guidelines for Information Requirements for a Renewable Energy Construction and Operations Plan provide guidance to lessees regarding the information BOEM would expect to receive in a COP in the event that the lessee’s proposed project area is traversed by one or more telecommunications cables.

BOEM provides a lease and grant information on its Renewable Energy Program webpage as well as detailed information about BOEM’s renewable energy activities offshore specific coastal states. This information includes:

- published planning and leasing notices, such as: a Call for Information and Nominations, the Notice of Intent to Prepare an EA, Proposed Sale Notices, Final Sale Notices, and associated public comments and a summary of commercial nominations;
- individual submitted project plans;
- executed leases;
- Task Force and public meeting summaries;
- press releases.

Comments and recommendations made by other governmental agencies, other stakeholders, and the public are taken into account by BOEM as the agency moves through its various decision-making processes.

4.6 Permitting and Exclusions (and Mitigation) Involving Marine Protected Areas and Species

Offices within the National Oceanic and Atmospheric Administration (“NOAA”) are charged with protecting coastal and marine resources. The Office of National Marine Sanctuaries (“ONMS”) regulations have established permit procedures and have the responsibility for permit review and issuance for projects including submarine cable installations within National Marine Sanctuaries. National Marine Fisheries Service is the trustee for coastal and marine resources including commercial and recreational fisheries, marine mammals, and endangered and threatened species and their habitats. Submarine cabling consultations most likely to be triggered occur under the ESA, MMPA, or MSA.

Most cable projects will require a permit from the ACOE pursuant to the Corps’ authority under Section 10 of the Rivers and Harbors Act or Section 404 of the Clean Water Act. If the ONMS decides to authorize another agency’s permit (rather than issue a sanctuary permit), a permit from the ACOE would be a likely vehicle through which ONMS could authorize cable projects in cases where a permit or a special use permit is not available.

The FCC has rules that clarify that: (1) there is no requirement to include a CZMA consistency certification in a cable landing license application filed under FCC’s rules unless the FCC licensing process is a listed activity in a state’s federally-approved coastal

management program; (2) the applicant must promptly report to the FCC pursuant to FCC's rules, if a state timely requests consistency review of the unlisted activity within the 30-day period prescribed by NOAA's regulations; (3) upon expiration of that 30-day period, the applicant must file a report with FCC on the extent to which the affected states have waived, or are deemed to have waived, consistency review of the unlisted activity; and (4) applies to those states that have waived, or are deemed to have waived, any right to review the application under the CZMA.

4.6.1 *Marine Protected Areas*

Regulatory Authority. The National Marine Sanctuaries Act (16 U.S.C. § 1431 et seq.) ("NMSA") requires the designation and management of the marine environment with nationally significant aesthetic, ecological, historical, or recreational values as national marine sanctuaries. The ONMS of NOAA has issued regulations to implement this act, safeguard resources within sanctuary boundaries, and prohibit the conduct of some activities (15 CFR Part 922).

The CZMA, federal consistency provision (16 U.S.C. § 1456(c)(3)(A)) and NOAA's CZMA regulations (15 C.F.R. Part 930, Subpart D), outline that an applicant for an FCC submarine cable license may have to submit a CZMA consistency certification to a coastal state for review. NOAA and the FCC previously collaborated with each other to clarify the application of the CZMA when FCC amended its cable licensing regulations in 2010.

In most national marine sanctuaries it is unlawful to alter or place material on the seabed or submerged lands unless conducted pursuant to a sanctuary permit or other authorization. Since cable installation activities require seabed disturbance or placement of material on the seabed, cable installation is prohibited in most sanctuaries. However, certain prohibited activities may be authorized to the extent they are compatible with the resource protection mandate of the NMSA and meet the regulatory requirements for a sanctuary permit or authorization. Submarine cable installation and maintenance has been permitted in sanctuaries using a sanctuary general permit, special use permit ("SUP"), authorization, or combination of the three tools.

Sanctuary General Permits. Most sanctuaries have regulations that allow permits to be issued for activities that would otherwise be prohibited when those activities are related to research, education, or management related to the goals and objectives of the sanctuary. Additional permit categories are available for Indian tribal welfare (Olympic Coast National Marine Sanctuary) and for furthering sanctuary purposes (Florida Keys National Marine Sanctuary). These permit categories are included here because they could potentially allow installation and maintenance of submarine cables at these two sanctuaries. In order to qualify for a regulatory general permit, a cable project must meet the purposes of an ONMS permit category.

Special Use Permits. The NMSA also provides authority to issue SUPs for specific activities and for the collection of fees for the conduct of any activity under a SUP.

SUPs are issued for specific activities in a sanctuary only if such authorization is necessary: (1) to establish conditions of access to and use of any sanctuary resource; or (2) to promote public use and understanding of a sanctuary resource. Should ONMS determine that a special use permit is appropriate for the continued presence and operation of a specific submarine cable project, it will process the application consistent with Section 310 of the NMSA. The notice specifies that the continued presence of commercial submarine cables beneath or on the seabed will be subject to the requirements of special use permits.

ONMS has adopted a methodology for determining the fair market value of special use permits.⁴⁸

Authorizations. In certain sanctuaries ONMS can also authorize an otherwise prohibited activity if that activity is permitted by a valid lease, permit, license, approval or other authorization issued by any federal, state, or local authority of competent jurisdiction. Such approval by the sanctuary superintendent is known as an “authorization.” The authority to issue authorizations is limited to the following sanctuaries: Florida Keys, Flower Garden Banks, Monterey Bay, Stellwagen Bank, Olympic Coast, and Thunder Bay.

4.6.2 *Protected Species*

National Marine Fisheries Service (“NMFS”) is the trustee for coastal and marine resources including commercial and recreational fisheries, marine mammals, and endangered and threatened species and their habitats. Submarine cabling consultations are most likely to be triggered under the ESA, MMPA, or MSA.

Under the ESA §7(a)(2), federal agencies must insure that any action authorized, funded or carried out by the agency is not likely to (1) jeopardize the continued existence of any endangered or threatened species; (2) result in the destruction or adverse modification of habitat of such species; or (3) result in adverse modification of habitat of such species. Any agency determining an endangered species or critical habitat, under NOAA jurisdiction, may be adversely impacted is required to consult with NOAA Fisheries to avoid, minimize, and mitigate any harm, prior to the authorization of any take.

The MMPA prohibits the take of marine mammals unless exempted by the MMPA or authorized under a permit. Take is broadly defined as to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill. Sections 101(a)(5)(A) and (D) allow for the authorization of the incidental taking of marine mammals that occur during otherwise lawful activities, if it is found that the total taking will have a negligible impact on the affected species (or stock) and that the total taking will not have an unmitigatable adverse impact. In the case of a submarine cable installation, a 101(a)(5)(D) Incidental

⁴⁸ NOAA, *Fair Market Value Analysis for a Fiber Optic Cable Permit in National Marine Sanctuaries*, Final Report (Aug. 2002), http://sanctuaries.noaa.gov/library/pdfs/fmv_focpermit_final_2002.pdf.

Harassment Authorization is the most likely permit sought. The MMPA permits are only issued by NMFS headquarters, however, all other consultations occur in the appropriate regional office. If approved, the Incidental Harassment Authorization authorizes incidental harassment, but not mortality, for permissible methods of taking and mitigation, monitoring and reporting requirements, and is valid for up to one year.

Habitat loss is one of the greatest long term threats to commercial and recreational fisheries. Under the MSA, §3(10), EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. Some subsets of EFH merit special attention and are identified as Habitat Areas of Particular Concern. These areas are considered high priority for conservation, management, and research, and increased conservation measures may be warranted. EFH is designated by Fishery Management Councils and described in Fishery Management Plans. Under §305 (b)(2) Federal Agencies must consult with NOAA Fisheries on any action or proposed action that a federal agency authorizes, funds, or undertakes that may adversely affect EFH. If a federal agency determines an action will adversely affect EFH, then the federal agency must provide NOAA Fisheries with a written assessment of the effects of the action on EFH, with detail commensurate with the complexity and magnitude of the potential adverse effects of the action. NOAA Fisheries will work with the agency to identify ways to avoid, minimize, mitigate, and offset any impacts from the proposed action.

4.7 Commercial and Tribal Fishing

The submarine cable industry has a long and, and at times, adversarial relationship with the commercial fishing industry in the US, and indeed throughout the world. Commercial fishing has been, since the first cables were laid, and continues to be the cause of the greatest proportion of submarine cable faults. From the perspective of the commercial fisherman, new submarine cabling restricts some of their “traditional” fishing grounds. Add to this the fact that submarine cable owners have successfully recouped damages from those fishermen they could prove damaged their cables and one can easily see how the tensions developed. Commercial fishing in the U.S. is regulated by the Regional Fisheries Management Commissions. These Commissions are generally in biogeographic regions where groups of species of fish regularly occur and the fishing effort for those fish can be logically regulated.

From the perspective of the submarine cable owner, not all fishing is the same. The most harmful to submarine cables are those fisheries which drag nets or dredges across the bottom in the vicinity of cables. Clam dredges, scallop dredges and otter trawls are those fishing gears that have the greatest potential to damage a submarine cable. Clam dredges are generally used in the North Atlantic from about Maryland north. Scallop dredges are used in various places throughout the U.S. but the main concentration generally overlaps with that for clam dredges and otter trawls are used throughout the US.

Tribal fisheries do not generally present an additional concern for submarine cable owners. Ancient artisanal methods pose little danger to submarine cables. Instead, cable owners work with tribal fishers in the same way they work with others.

While cable faults in the U.S. due to fishing tend to be lower than in many other regions of the world, fishing remains one of the primary causes of cable faults on the continental shelf of the U.S. as noted above. In almost all regions in the US, cable companies and cable installers have engaged fishing captains, owners and fishing organizations in discussions on cable routing and protection measures such that fishing activities are minimally disturbed during the route survey, cable installation and burial program, and over the life of the system. This process reduces fault rates over the life the system, assists in reducing objections during the permitting process, and reduces interference of fishing vessels and gear during the installation. This informal process is followed even in regions not covered by one of the regional committees noted above (*i.e.* U.S. east coast as an example). Route planning engineers arrange meetings and early notice in order to maintain a good relationship with the fishing community. This communication normally takes the form of project and route notices, charts, and meetings in key fishing ports. The process is somewhat more formal in regions covered fishing committees which often requires a signed MOU and consulting fee for route review and survey consultants. These relationships have been developed over several decades and have been a critical step in the process, albeit informal and ad hoc in many cases.

4.8 Fisherman/Cable Coordination Committees and Agreements

In several West Coast states, commercial fishermen have entered into contractual agreements with submarine cable owners. These agreements exist in California, Oregon and Alaska and the entities formed by the agreements are generally referred to as cable/fisheries liaison committees. The reasons behind the formation of these committees are various but key among them is the feeling among fishermen that their livelihoods were being affected by submarine cables during the boom time at the end of the 1990's. Several cable owners were required by local regulators to participate in the liaison committees as a condition of permitting or receipt of a seabed lease. Some of these committees require yearly payments on the order of \$100K from the cable owner. Among the provisions of these agreements is the requirement for commercial fishermen to exercise certain behaviors in the vicinity of a submarine cable or avoid fishing over the cable entirely for participation in the agreement. Typically the submarine cable owner will exempt the fishermen from liability in the event they cause a cable break and are operating under the practices spelled out in the agreement. The Liaison Committees we are aware of at the time of the drafting of this report are:

- Southern California Cable Fisheries Liaison Committee
- Central California Joint Cable/Fisheries Liaison Committee
- Point Arena Cable Committee
- Bandon Submarine Cable Committee
- Oregon Fishermen's Cable Committee
- Alaska Fisheries Cable Committee
- South Bay Cable and Fishing Committee

While the initial method of forming the committees may have been unwelcome to the cable owners, the results, in terms of the lack of submarine cable faults caused by commercial fishermen, seem to have been worthwhile.

4.9 Military Activities, Exercises and Construction

Large portions of oceans within the U.S. EEZ are used for military exercises. These areas are called Department of Defense Operating Areas. The majority of these areas are not exclusively reserved for military use. However, some portions of the areas are closed to vessel traffic at particular times to limit exposure to dangerous activities. The military exercises can pose a threat to cable ships during installation and repair. Vessel operations must be coordinated with the military to ensure that there are not scheduling conflicts between the cable ship and exercises involving live fire or other military activities. Because exercises can last for weeks, cable installations can be significantly impacted if the schedules are not coordinated in advance.

In addition, there are cabled military ranges where ships and aircraft operate over an instrumented seabed. Military ranges fall generally within the outer boundaries of the operating areas. Portions of the ranges close to shore are charted as restricted areas, but the cables and instruments can extend well beyond those boundaries. These ranges should be avoided by cable route planners, as repair operations to either the commercial cable or the range cables would be significantly complicated by the presence of the other.

Construction of new ranges and other cables is completed in accordance with the NEPA, Executive Order 12114, and various Navy procedures. The construction process is similar to the construction of new commercial cables, with environmental studies and acquisition of applicable permits.

In order to ensure that industry has a means of communicating with Navy regarding cable installation and repair, Navy operates the Naval Seafloor Cable Protection Office (“NSCPO”). The NSCPO maintains a database of commercial and government cables and acts as a liaison between the Navy and the cable industry. When Navy is planning new construction in the vicinity of commercial cables, NSCPO will reach out to cable owners in order to minimize conflicts. Alternately, Navy requests that industry inform NSCPO of new construction projects so that impacts to naval facilities and operations can be evaluated and resolved. The Navy, represented by NSCPO, is a member of the International Cable Protection Committee. New cable construction, repairs, and cable recoveries all create an impediment in the water column. The U.S. Navy categorizes these as fixed hazards and requires submarines to keep clear. In order to do so, Navy asks that cable construction companies file broadcast warnings and notices to mariners, and contact the NSCPO.

5 Key State and Local Regulatory Activities

U.S. state/territorial environmental regulators generally take the lead role in the combined state and federal permitting processes for new cable landings. While each state and territory has a different process, generally there is an environmental review under NEPA

and state regulations and a separate granting of a seabed lease. After the state regulators have reviewed and approved a project, the ACOE will complete its process.

In addition to NEPA, several coastal states, such as New York, California, and Washington, have state-law equivalent statutes that resemble NEPA and require different levels of detail in their technical analysis of impacts. These statutes present similar advantages and disadvantages as NEPA when it comes to cable protection.

For example, in California the California State Lands Commission (“CSLC”) performs the environmental review and writes the environmental document (EIS or Negative Mitigated Declaration) associated with the granting of the lease of State Sovereign Submerged Lands. Staff time for these activities is reimbursed by the submarine cable owner. In areas where the seabed is owned by a local jurisdiction, that town will complete a similar process. The California Coastal Commission conducts their own review after the CSLC (or local entity) has completed theirs. Only after these regulators have reviewed the project and added in appropriate mitigation will the ACOE perform their review and add in any additional mitigation efforts they feel may be needed. This environmental review process, in recent years, has taken approximately 2 years to complete.

The State of Oregon follows a similar method in which the Oregon Department of State Lands is the lead agency in the environmental review process and the ACOE comments at the end of the process.

Both Oregon and California have, as a condition of the State Lands Lease, a requirement to periodically re-inspect the cable to verify burial. Currently re-inspections occur every 2-5 years depending on the age of the cable. Re-inspections generally show that there is no change in the burial status of the cable over time.

Local permitting is generally focused on road and beach opening permits, compliance with noise, water, and air pollution requirements, and acquisition of easements.

In addition, certain states require compliance with air quality regulations both for the cable station equipment (*i.e.*, emergency generators) and vessel emissions.

6 Existing Coordination Problems

The United States lacks a regulator with regulatory and planning oversight over all marine and coastal activity. Instead, the United States has a fragmented system of federal, state, local, and tribal regulations that is largely activity or industry-specific. Moreover, unlike other countries such as Australia and New Zealand, the United States lacks a robust submarine cable protection regime to highlight the economic and national-security importance of submarine cables and to require that other proposed marine and coastal activities account for and minimize the risk of damage to submarine cables.

This fragmented system of regulation and planning has resulted in a number of particular coordination problems that exacerbate risks to submarine cables, including gaps in actual

or perceived legal authorities, gaps in how existing legal authority is exercised, lack of familiarity with submarine cable technologies and installation and repair operations, and lack of clarity in procedures for consultation between relevant agencies when other marine activities are proposed for permitting in proximity to submarine cables. Existing coordination problems should inform recommendations for enhancing coordination without increasing regulatory burdens. One of the most pressing elements of the coordination issue is to ensure the entity requesting the action engage as early in the process as possible and on as broad of a spectrum of stakeholders as possible. Often the “new action” may not be aware of all the aspects and elements of the maritime environment and unsure of where to turn or how to engage. In all cases, coordination among diverse maritime industries and their infrastructure, such as pipelines, energy projects, and power transmission cables, is in all parties’ best interests.

6.1 NEPA Alone Is Insufficient to Ensure Protection of Submarine Cables

Existing U.S. authorizing statutes do not include a specific requirement to consider cable protection when federal or state agencies are considering a new use in proximity to submarine cables. Damaging a submarine cable through culpable negligence or intentional action is a violation of U.S. and some U.S. state laws. U.S. law also prohibits fishing vessels from interfering with cable ships or buoys marking a cable when using nets. However, these prohibitions are not incorporated into permitting processes or standards. Marine spatial planning has not progressed to the point of requiring a cable protection analysis except in individual jurisdictions such as Oregon.⁴⁹

The NEPA requires environmental impact analysis of new marine uses if a federal approval is required. NEPA requires federal agencies to consider the direct and indirect environmental impacts of actions which may significantly affect a broad definition of the environment, which includes the built environment. Submarine cables fit within this broad definition and therefore impacts of new marine uses on submarine cables can be analyzed under NEPA. In practice, however, NEPA’s utility as a cable protection tool is limited.

However, in the experience of the telecommunications cable industry, there are several limitations to relying only on NEPA analyses to provide for sufficient protection for telecommunications cables.

First, some agencies do not interpret “environment” to refer to existing infrastructure. In that case, the proposed action’s potential impacts to telecommunications cables would not be thoroughly analyzed. For example, while cables are considered critical telecommunications infrastructure and the integrity and resilience of such networks can have safety and national security implications, these factors may not be considered part of a typical “environmental” impact analysis. This inconsistency makes it difficult to predict the extent to which impacts to existing infrastructure will be analyzed in a NEPA document.

⁴⁹ See CSRIC Spatial Separation Report 1, at 10-11, Appendix C.

Second, agencies generally require project developers to provide a description of existing infrastructure to help inform the agency's NEPA analysis. Nevertheless, if a potential developer is unaware of the existence of submarine cables in its proposed project area, submarine cables may not be identified for NEPA analysis. This would need to be remedied either by the agency itself identifying the need to analyze potential impacts to telecommunications cables, or through this issue being raised by commenters during a comment period associated with the preparation of the NEPA document.

Finally, NEPA is a procedural statute in that it establishes an environmental review process that can help to inform agencies' decision-making. Ultimately the law lacks any substantive requirements that obligate an agency to select any particular alternative. For example, NEPA would not require an agency to select the alternative that presents the fewest impacts to other uses of the proposed project area.

These issues illustrate that NEPA's utility as a cable protection tool is limited. Nevertheless, there is opportunity for agencies to coordinate and identify potential process revisions and improvements outside of NEPA.

In addition to NEPA, several coastal states, such as New York, California, and Washington, have state-law equivalent statutes that resemble NEPA and require different levels of detail in their technical analysis of impacts. These statutes present similar advantages and disadvantages as NEPA when it comes to cable protection.

6.2 Many Permitting Regulations Do Not Require Identification of Submarine Cables or Coordination with Cable Operators, Other Agencies

In addition to NEPA, the authorization of marine activities that potentially impact submarine cables typically requires agency approvals under various federal and state permitting statutes. These, however, in some instances only focus on particular specific impacts that are the focus of the permitting statute.⁵⁰ Where the consideration of potential adverse effects is of a more general nature, as with NEPA, there is no specific provision for submarine cables,⁵¹ and use of these types of provisions to protect submarine cables raise identical issues.

Identification of cables should occur as early as possible in the stages of conceptualizing and site identification of a new marine project to avoid potentially significant adverse interactions.

⁵⁰ See, e.g., Army Corps of Engineers permits under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403) and Section 404 of the Clean Water Act of 1972 (33 U.S.C. § 344).

⁵¹ E.g., Section 10(a)(1) of the Federal Power Act, under which marine energy projects are authorized, requires, *inter alia*, that licensed projects be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce and for other beneficial public uses. 16 U.S.C. § 803(a)(1).

Importantly, the FCC and the Department of Homeland Security (“DHS”), which are responsible for various efforts involving critical infrastructure protection, do not have direct roles and do not participate (by MOU or other mechanism) in permitting activities in close proximity to submarine cables. Planning procedures and permitting criteria fail to require coordination and consultation with the FCC and DHS or otherwise ensure cable protection is integrated into substantive permitting decisions. The FCC does not have a defined role in coordination between agencies, by MOU or otherwise, and thus lacks an adequate reliable procedural mechanism to address potential threats to the telecommunication network’s integrity, resilience, or reliability raised by activities being permitted by other agencies.

In practice, it is typically the responsibility of the project applicants to identify the presence of submarine cables in proximity to a new proposed use of the sea. Without increased awareness of submarine telecommunications cables and improved coordination between agencies, the existing regulatory requirements may not be effective.

6.3 Agencies and Other Industry Sectors are Unfamiliar with Submarine Cable Protection and Operation Requirements, Vulnerabilities

Certain state and federal agencies, as well as private sector industries, are unfamiliar with the presence, operational requirements, vulnerabilities, status as critical telecommunications infrastructure, and statutory and treaty protections that apply to cables. Additionally, agencies focused on other resources and infrastructure generally lack expertise in telecommunication cable technology. Awareness of such expertise elsewhere in government and access to expertise could improve coordination and analysis of potential effects on submarine cables.

6.4 Public Resources Identifying Existing and Planned Submarine Cables and Their Owners are Not Fully Utilized

Information about the location of submarine cables is critical to early identification of potential issues in the planning stages of new marine uses. The Marine Cadastre and the North American Submarine Cable Association (“NASCA”) websites provide centralized access to a repository of information identifying existing and planned submarine cables, including ownership or operator contact information, to facilitate planning and dialogue among stakeholders. While these sites cannot provide 100% of the current information required for project engineering, they provide a good baseline of data required for planning. However, if project proponents and authorizing agencies are not aware of the importance of this information or its existence, they will not realize that it should be taken into account. Further development of these sources and use of these tools by agencies and applicants is essential to detecting potential issues with submarine cables and other infrastructure resources.

6.5 Absence of a Clear Federal Point of Contact

Terrestrial infrastructure, such as a natural gas pipeline or underground electrical transmission line, benefits from a “call before you dig” requirement with a clearly defined hotline that is well-known to relevant stakeholders. Marine infrastructures, such as submarine cables, lack similar protections and procedures to allow for coordination.

Agencies, project proponents, and cable owners facing a new proposed use, a siting or planning question, or a potential conflict between uses, lack a simple and straightforward federal point of contact to begin the coordination process among federal agencies. As noted above, permitting processes and environmental review have proven inadequate for this purpose to date. A clear notice requirement and clear point of contact to deliver the notice would initiate the coordination process and help alleviate greater issues later on.

7 Existing Interagency and Interjurisdictional Coordination Mechanisms

To land or operate a submarine cable in the United States, an operator must obtain a cable landing license from the FCC pursuant to the Cable Landing License Act of 1921. As described in Section 4.1, the FCC plays a coordinating role in various interagency processes, and other governmental agencies frequently look to the FCC for guidance on matters pertaining to submarine cables.

7.1 Existing Coordination Mechanisms

The U.S. Army Corps of Engineers grants permits for submarine cables as structures located in the navigable waters of the United States pursuant to the Rivers and Harbors Act of 1899 and the Clean Water Act, as described in Section 4.2. The Corps typically completes an environmental review under the NEPA before issuing permits and will consult with other agencies on fisheries and endangered species issues, including FWS and NOAA. If a cable system will traverse a national marine sanctuary, the cable owner must also obtain a permit from the ONMS under the NMSA.

In recent years, federal and state agencies responsible for permitting activities and siting infrastructure in the ocean employed several strategies to improve coordination efforts within a complex set of existing statutes and regulations. Individual agencies developed public and internal guidance to improve coordination with other ocean uses. Agencies worked together, formally and informally, through the drafting and issuing of joint guidance, and through the negotiations of agreements such as MOUs. Federal, state, and regional bodies developed plans to help coordinate future infrastructure siting and other oceanic activities.

BOEM, FERC, NOAA, and the Corps all provide guidance for maneuvering their regulatory processes on their web pages, in guidance documents and checklists, and in communications with project proponents. The agencies also commonly provide internal guidance to their staff to promote consistent review and, in some cases, coordination with other agencies and stakeholders in the regulatory process.

Limiting the effort to one agency makes drafting and vetting language as simple as possible. Guidance must be vetted to ensure compliance with existing statutes and regulations, and clarity of language for achieving its purpose. However, general guidance, as discussed here, is not regulation or policy. It is merely staff's direction on how to comply with the regulations and move efficiently through the process. The advantages of such guidance are speed and simplicity. It is limited, however, to fairly mechanical matters and to the authority of staff and does not have the imprimatur of the agency principals or the force of policy, regulation, or statute. Additionally, guidance documents typically do not undergo the notice-and-comment process associated with rulemaking efforts, and BOEM, for example, has received feedback recommending its renewable energy guidelines documents undergo review by parties outside the agency prior to finalization.⁵²

7.1.1 *Multi-Agency Efforts*

Federal agencies often recognize the need to document agreements that detail how the agencies will coordinate and consult on areas of mutual interest or jurisdiction. These agreements typically take the form of MOUs that require the signature of all parties to the agreement. Agencies can also coordinate when conducting reviews pursuant to the NEPA. The CEQ's regulations implementing NEPA allow federal agencies (as lead agencies) to invite other federal agencies and tribal, state, and local governments to serve as cooperating agencies in the preparation of NEPA documents.

Examples

- BOEM invites relevant government entities (federal, state, local, and tribal) to act as cooperating agencies during its NEPA reviews as a standard approach early in the process. BOEM tries to be very inclusive in this process, and generally invites as broad an interagency group as possible to participate.
- In 2009, DOI and FERC developed a formal MOU, signed by the Secretary of the Interior and the Chairman of FERC, to clarify jurisdictional understandings regarding MHK energy projects in the offshore waters on the OCS.
- In 2012, BOEM and FERC issued an update to joint *Guidelines on Regulation of Marine and Hydrokinetic Energy Projects on the OCS*, originally drafted in 2009, to clarify the responsibilities of each agency and how to best navigate the process of obtaining an OCS MHK lease and license, pursuant to the MOU.
- In 2013, USCG and FERC negotiated a formal MOU, signed by the Commandant of the Coast Guard and the Chairman of FERC, to cooperate as FERC receives applications to site, construct, and operate hydrokinetic power generation

⁵² BOEM received comments on this point in response to its recent request for feedback. *See Request for Information on the State of the Offshore Renewable Energy Industry—Request for Feedback*; MMAA104000, 80 Fed. Reg. 58,786 (Sept. 30, 2015).

- equipment and facilities (proposed projects) in waters subject to the jurisdiction of the United States.
- In 2010, the Office of Science and Technology Policy and the Council of Environmental Quality negotiated a formal MOU with FERC, signed by each agency's executive, regarding FERC's participation on the National Ocean Council and in marine spatial planning.
 - In 2004, FERC was one of 11 agencies to sign a MOU to establish a process to facilitate the timely review of deep water port applications.
 - Established between 2008 and 2010, FERC has MOUs with the states of California, Oregon, Maine, and Washington to coordinate the review of MHK energy projects within state waters.
 - BOEM and NOAA's Office for Coastal Management have established the Marine Cadastre⁵³ website. It is a collection of marine data and a web publishing service for others who curate their own data. It includes a downloadable layer of cable data from charts and viewable data including contact information provided by NASCA.
 - BOEM has signed a number of MOUs with other federal agencies in order to better coordinate its various processes, including:
 - In 2009, BOEM and FWS signed a MOU concerning the responsibilities of federal agencies to protect migratory birds.
 - In 2004, the Minerals Management Service (a predecessor agency to BOEM and BSEE) signed an agreement with the USCG to, in part, foster communication and cooperation, and to clearly delineate areas of expertise and jurisdiction. Further, in 2011, the Bureau of Ocean Energy Management, Regulation and Enforcement (the second predecessor agency to BOEM and BSEE) signed a MOU with the USCG to identify and clarify the roles and responsibilities of the two agencies with regard to BOEM's renewable energy authorization process.
 - The Red Book: In September 1985, a group of the principal agencies involved in assessing permit applications under Section 404 of the Clean Water Act for federal-aid highway projects (Federal Highway Administration, USACE, EPA, FWS, and NMFS) formed a workgroup to identify methods for improving interagency coordination and conducting more efficient (*e.g.*, concurrent) reviews. The end result was a handbook entitled "Applying the Section 404 Permit Process to Federal-Aid Highway Projects," more commonly known as the Red Book, released in September 1988. In 2012, the Transportation Rapid Response Team—a federal interagency group launched in November 2011 to streamline federal reviews of transportation projects—expressed a renewed interest in the concept of concurrent review processes covered in the original Red Book. A new interagency workgroup consisting of FHWA, FRA, USACE, USCG, EPA, FWS,

⁵³ <http://marinecadastre.gov/>

and NMFS was formed in late 2013 to update the 1988 Red Book. The 2015 Red Book was finalized in September 2015, and has been posted at

https://www.environment.fhwa.dot.gov/strmlng/RedBook_2015.asp

The Red Book provides a “how-to” on synchronizing the NEPA and other regulatory reviews such as ACOE’s Section 10/404 review, USCG’s bridge permit reviews, and the ESA’s consultation for field staff of federal agencies that review permit applications and federal, state, and local agencies that fund or develop transportation projects. It includes techniques and lessons learned that can support more efficient and concurrent review processes. While the document focuses primarily on the transportation sector, transferability of these techniques to other infrastructure sectors are noted.

Communication Methods, Pros, and Cons. Developing interagency agreements fosters communication and understanding among the staff at the participating agencies. Once established, the resulting agreement must be communicated to the agency staff who will be implementing it and those stakeholders affected by it. A MOU often lacks the level of detail needed for day-to-day implementation and may need to be followed by a less formal and more flexible mechanism, such as a letter or memorandum of agreement, joint guidance, or responses to frequently asked questions.

While an informal agreement is less complex than a formal one, the involvement of multiple agencies still adds a significant challenge. Differences in decision structure, culture, and terminology require effort to overcome. Formal MOUs start with the same, interagency challenges, but require additional work to gain a high level of approval to receive the signature of an agency principal.

Generally, federal agencies have found that cooperating agency participation in a NEPA review enhances the quality of its NEPA documents, provides for efficiencies in the NEPA review process, and improves communication and understanding.

7.1.2 Agency Specific Planning Efforts

Existing and future ocean-based infrastructure are major concerns. Planning efforts should focus on centrally gathering available information, coordinating and streamlining regulatory processes, and educating stakeholders about the regulatory process in order to maximize input.

Examples

- BOEM’s primary mechanism of informally coordinating and consulting with its intergovernmental partners with regards to a particular potential renewable energy lease area is through the establishment of its Intergovernmental Task Forces. BOEM’s Intergovernmental Task Forces are currently established on a state-by-state basis, and include officials from relevant and potentially affected federal agencies and elected state, local, and federally-recognized tribal officials (or their

designated representatives). These Task Forces help to inform all stages of BOEM’s renewable energy authorization (planning, leasing, site assessment, construction, and operations) and are particularly valuable in helping BOEM understand the issues on the landscape and identify areas where, because of potential multiple-use or environmental conflicts, renewable energy development may not be appropriate. Though BOEM’s current Task Force structure does not enable participation by non-government entities, those entities are always welcome to observe Task Force meetings, and BOEM holds a Q&A session immediately following each Task Force meeting during which other stakeholders can raise issues or ask questions.

- BOEM’s Five Year Program, detailed in section 2.2 of this document, includes several comment periods during which the public and stakeholders can provide input on the proposal, and provides for coordination of input from multiple federal agencies and state, local, and tribal governments.
- In the case of FERC, plans can have a pertinent place under section 10(a)(2)(A) of the FPA. That section requires the FERC to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project. If an ocean plan meets the requirements to be recognized as a comprehensive plan under the FPA and provides information with enough specificity to apply to site-specific decisions, the plan will receive the status of review required under the FPA. In fact, portions of the marine spatial plans developed by Rhode Island and Oregon have been accepted by the FERC as comprehensive plans, pursuant to section 10(a)(2)(A) of the FPA.

7.1.3 *Regional Ocean Planning*

State, regional, and federal bodies have carried out planning for coordination of ocean uses through marine spatial planning. While the initial focus of several of these efforts had not considered submarine telecom cables in planning, telecom industry voices have been present to ensure submarine cables are included in the ocean planning processes.

State Level. Massachusetts, Rhode Island, and Oregon led the effort among the states. The state efforts involved an extensive public process to establish state priorities. They also involved aggressive gathering of information to inform the development of the plans. Much of the data existed, with a smaller amount of new data collected. Much of the data was in the form of maps or could be represented on maps. All three of these leading states in marine spatial planning incorporated ocean-based infrastructure into their mapping data, including specific maps of submarine cables. The states are using the data to bolster their Coastal Zone Management Plans under the CZMA. With specific exceptions, all federal actions and authorizations must be deemed consistent with the state’s coastal zone management program.

Regional Level. At the regional level, groups of states have formed regional planning entities to carry out ocean planning across state boundaries. Examples include the Mid-Atlantic Regional Council on the Ocean (“MARCO”), Northeast Regional Ocean Council

(“NROC”), West Coast Governors' Alliance on Ocean Health, and the Gulf of Mexico Alliance. These entities have compiled regional ocean data, fostered cooperative planning efforts, delivered education and outreach, and provided funding for planning-related projects.

National Ocean Policy and Regional Planning Bodies. Issued as Executive Order 13547 in 2010, the President’s Ocean Policy called for the formation of regionally focused Regional Planning Bodies (“RPB”) to better manage the nation’s oceans and coasts. To carry out this significant endeavor, the area of ocean under United States authority was divided into nine regions, each to have a RPB of government officials. In the Northeast (<http://neoceanplanning.org/about/northeast-rpb/> established November 2012) and the Mid-Atlantic (<http://www.boem.gov/Mid-Atlantic-Regional-Planning-Body/> established April 2013), the RPB regions overlap NROC and MARCO respectively. The Northeast region also includes two of the three states with the most thorough state-level marine spatial plans. In these regions, the RPBs and regional entities are working together closely and are farther along in the process than elsewhere.

The RPBs comprise State, Federal, Tribal, and Fishery Management Council representative that include BOEM, NOAA, U.S. Navy, UGCG, EPA, Natural Resources Conservation Service, Department of Energy, and Maritime Administration. Although the ACOE is not a formal member of the RPBs at this writing, it is the lead agency for permits of telecom cable routes.

The RPBs have been working to define their mission and role in the ocean planning process after having held a number of public meetings to discuss the process and define work products. For the Mid Atlantic RPB, a facilitation team is helping to coordinate the meetings and assist with preparation of the region's Ocean Action Plan. An important role of the RPBs is to act as a forum for engaging stakeholders and the public on the range of ocean uses and resources. This has been successful in that a number of not-for-profit groups (Surf Rider Foundation and others), commercial and recreational fishers, recreational boaters, industry shipping companies and telecom owners and installation companies have been able to have input into the process.

It should be noted that the RPBs are not regulatory bodies; they do not create new regulations, laws, authorities, or missions. RPBs may create regional ocean plans, information exchange, and coordination processes to help inform and guide decision-making under existing agency authorities. So it is left to the existing agencies (ACOE in the case of granting federal permits for telecom cables) to review permit applications, consult with agencies such as NOAA and FWS and others to rule on a telecom cable permit and set conditions (if appropriate) for its route and installation methods. Although, there is optimism that the RPB will act as a resource and coordination body such that the cognizant agencies can make use of prepared studies to make informed decisions on impacts and act in an efficient manner.

Aside from the Northeast and Mid-Atlantic ocean data portals that comprise layers of seabed infrastructure and uses and the RPBs’ intention to use this data in their agencies’

decision-making, there does not appear to be a plan for the RPBs themselves to act as vetting organizations for new ocean uses or for future ocean planning per se. However, the website of the Northeast RPB states, “The RPB has no authority to create new regulations. Its mandate is to create a plan and oversee its implementation, with many opportunities for public participation.”

Regional ocean planning is intended to improve decision-making by helping individual agencies exercise existing authorities in a more informed, coordinated, and efficient manner. The RPBs' mandate is to create an ocean action plan and oversee its implementation, with many opportunities for stakeholder engagement and public participation. The financial resources needed to stand up and staff the RPB, as well as carry out the necessary data development and analysis efforts and stakeholder engagement, have been funded both by agencies and foundations. The RPBs leveraged State and Federal funding through agency in-kind support, existing federally-funded marine survey and scientific work, and inter-agency coordination.

Plans, by definition, are intended to support future decisions. The plans being developed by the states, regional bodies, and RPBs will provide significant amounts of data, records of stakeholder interests and opinions, and better understanding of agency roles, all of which will support decisions about competing uses of the ocean, including for infrastructure projects. Through these planning efforts, submarine cable data has been collected and easily placed in the context of many other ocean uses. Siting a specific infrastructure project, however, requires site-specific data. While the planning data probably will lower the burden of gathering site-specific data for each impacted or regulating agency, the need is likely to persist when the details of a development project are presented.

7.1.4 Consultations with North American Submarine Cable Association as the Key Industry Point of Contact and Clearinghouse for Cable System Information

NASCA is a non-profit organization of companies that own, install or maintain submarine telecommunications cables in the waters of North America. NASCA serves as a forum for its membership to provide and exchange information on technical, legal, and policy issues of common interest. These issues include standards and procedures for government approval of new cable installations; working relationships with other marine industries; and public education about such cables. NASCA was formed in October 2000.

NASCA, and its seventeen members, are pleased to unveil member submarine telecom cable system routes now available at the NASCA website at <http://www.n-a-s-c-a.org/cable-maps/> for online viewing or downloading in PDF format. NASCA has taken this major step forward to further ensure the safety and continued operations of submarine telecom cable systems which have been designated critical infrastructure for both economic and security reasons. NASCA cable charts provide the interested stakeholder the ability to assess the proximity of submarine cable systems to any planned coastal projects or infrastructure buildout, and to request further information if required.

Cable routes are overlaid onto NOAA Charts for those residing in United States waters, and on equivalent charts for those outside of the United States.

8 Evaluation and Recommendations

8.1 Recommendations

Given the economic and national security importance of submarine cables, the continuing need to ensure submarine cable protection in light of the risks posed to submarine cables by other marine and coastal activities, the complex and diffuse regulation of such marine and coastal activities, and gaps in understanding and coordination among government agencies involved in such regulation, CSRIC V makes the following recommendations to improve interagency and interjurisdictional coordination.⁵⁴

- 1. Single Federal Point of Contact and Clearinghouse for Submarine Cables:**
The FCC should establish—most likely within the FCC International Bureau—a single federal point of contact and an information clearinghouse for submarine telecommunications cables. The point of contact would provide a centralized and initial point of contact for other federal, state, and local government agencies, tribal organizations, and private parties seeking information regarding submarine cables. The clearinghouse would provide information about existing and planned submarine cables landing in the United States and its territories. It should also provide other information about submarine cables, including but not limited to: installation and repair methods; spatial requirements for installation, repair, and infrastructure protection; federal laws prohibiting negligent and willful damage to cables; limitations on commercial fishing activities in the proximity to submarine cable-related activities; and the economic and national security importance of submarine cables. The FCC should also encourage industry to share data regarding existing submarine cables and planned submarine cables (to the extent plans have otherwise been publicly disclosed). The FCC should make information about the point of contact (whether an individual or office) and clearinghouse resources available on its web site and encourage other government agencies and private parties to link to that information to promote awareness and use of those resources.

- 2. Encourage Timely Information Exchanges and Investigations to Identify Potential Spatial Conflicts with Existing Submarine Cable Infrastructure:**
The FCC should coordinate and cooperate with other governmental agencies issuing permits and licenses for other marine and coastal activities—including but not limited to BOEM (offshore oil and gas, offshore wind, and marine minerals), Corps of Engineers (infrastructure in navigable waters, sand and gravel dredging,

⁵⁴ These recommendations do not address the continuing need to improve coordination and streamlining relating to Team Telecom’s national security reviews of submarine cable-related applications filed with the FCC, as such coordination issues are somewhat separate from the marine spatial planning-related issues addressed in this report. Nevertheless, such issues still require consideration and analysis.

and beach replenishment), the Department of Defense (military activities), FERC (MHK projects), and NOAA (commercial fishing and National Marine Sanctuaries)—to encourage those agencies to: (1) notify the FCC at the earliest possible stage regarding planned activities and programs that could affect installed submarine cables and seek feedback from the FCC regarding potential conflicts (2) identify existing mechanisms, and develop and/or revise rules and forms where necessary, to require permit applicants seeking authority for particular marine and coastal activities to identify submarine cables that the applicants' activities could affect and consult with owners of those cables; and (3) promote and use the FCC's single point of contact and clearinghouse as a resource for identifying installed and planned submarine cable infrastructure.

- 3. Proactive Participation in Marine Spatial Planning Activities:** The FCC should take an active role in marine spatial planning activities conducted by other government agencies and interagency and interjurisdictional bodies to ensure protection for existing and planned submarine cable infrastructure and to minimize potential foreclosure of particular submarine cable routes and landings and impairment of telecommunications network resilience. For example, the FCC should participate in Corps of Engineers scoping processes both for new submarine cables and for other marine and coastal projects. The FCC should participate, when invited, in BOEM's intergovernmental task forces and as a cooperating agency during BOEM NEPA reviews. The FCC should also seek to participate in NOAA proceedings to create new national marine sanctuaries or expand the boundaries of existing sanctuaries.
- 4. Participation in National Ocean Council and Regional Planning Bodies:** The FCC should enter into a Memorandum of Understanding with the CEQ in order to participate in the National Ocean Council and Regional Planning Bodies. As an independent regulatory agency, such a MOU could follow the model of FERC's MOU.
- 5. Development of Guidance for Regulatory Reviews for New Submarine Cable Construction:** In consultation with other government agencies, the FCC should develop guidance regarding permitting of submarine cables similar to the interagency (DOT, Corps, USCG, EPA, FWS, NOAA) Red Book. The FCC should serve as the coordinating federal agency for submarine cables and seek to synchronize regulatory reviews for submarine cables.
- 6. Use GIS for Marine Spatial Planning:** FCC staff associated with point-of-contact and clearinghouse functions should develop familiarity with geospatial information systems ("GIS") and use GIS in submarine cable-related activities. The FCC should develop and maintain a database of existing and proposed submarine cable routes and landings, leveraging existing resources already available from NASCA and NOAA, in order to create a comprehensive resource documenting all existing and planned submarine cables landing in the United States and its territories. Through spatial analysis of cables and other activities

(e.g., wind energy planning areas, potential sand and gravel borrow areas, etc.), the FCC will be in a much better position to assist in deconflicting proposed cable routes and landings and to coordinate protection of existing cables from risks of damage posed by other marine and coastal activities. This central system for identification and location of existing infrastructure could be referred to by ACOE Districts when evaluating projects for 404/10 or 408 permitting, and by other agencies.

- 7. Improved Data Management and Accessibility:** The FCC should encourage better management of spatial data by all government agencies involved in authorizing marine and coastal projects. Agencies should be encouraged to use the existing Marine Cadastre⁵⁵ for planning projects and to require all project applicants to use the same for both discovery of existing uses and capturing the spatial requirements of planned projects. The FCC should encourage the Corps of Engineers to require prompt provision of as-built cable data to NOAA for charting. The FCC should also explore with other government agencies how to improve access to and understanding of submarine cable location data, particularly for audiences that may be unfamiliar with submarine cables and/or lack a reason to search for such information.
- 8. Streamline Permitting Requirements:** The FCC should work with other federal, state and local agencies, and tribal organizations to streamline existing permitting requirements and minimize burdens and timeframes for additional coordination and infrastructure protection activities. For a new submarine cable system, the combined permitting processes can already extend up to two years, delaying and rendering more expensive the deployment of new connectivity. Without a renewed focus on streamlining and elimination of duplicative requirements, additional coordination activities could otherwise result in longer permitting times for new cable installations, maintenance, or repairs.
- 9. Evaluate the Role of NEPA and other Relevant Statutes:** The FCC should work with other government agencies to identify situations in which NEPA is used to identify potential conflicts between existing/ and planned submarine cable activities and other marine and coastal activities, to understand the limitations of NEPA as an infrastructure protection tool, and to consider other potential sources of statutory authority for identification of submarine cable infrastructure in permitting processes for other marine and coastal activities.
- 10. Liaison with DHS re Critical Infrastructure Protection:** The FCC should liaise with the U.S. Department of Homeland Security, which serves as the lead agency for critical infrastructure protection in the telecommunications sector, to coordinate submarine cable protection efforts and highlight the FCC's single point of contact and clearinghouse.

⁵⁵ www.marinecadastre.gov

