

2016

Arctic Energy Cooperation

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Arctic Energy Cooperation

Hari M. Osofsky,^{†*} Jessica Shadian^{**} & Sara L. Fechtelkotter^{***}

The Arctic — with almost a third of the world’s remaining natural gas and thirteen percent of its oil — is one of the globe’s last frontiers for competition over unexplored natural resources. The rapid pace of Arctic melting due to climate change has created opportunities to extract the region’s previously inaccessible offshore oil and gas. The 2015 controversy over the Obama Administration’s approval of Shell Oil’s drilling in the Chukchi Sea followed by the company’s decision to pull out highlighted the need for clear and effective regulation of Arctic drilling. Offshore oil spills are difficult to prevent and clean up, as showcased by the BP Deepwater Horizon accident — which occurred in an environment not plagued by Arctic ice and weather extremes. The complexity and fragmentation of existing governance arrangements further complicate matters. Numerous public and private entities are currently developing standards for Arctic drilling and spill response as new projects and accidents highlight the urgency of addressing risks.

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This Article makes a novel proposal for addressing these challenges through what it terms “hybrid cooperation.” In this form of cooperation, diverse public and private stakeholders at multiple governmental levels coordinate their efforts through either: (1) creating institutions or (2) integrating each other’s standards in agreements and regulations. The Article uses original case studies to assess the possibilities for hybrid cooperation to make Arctic drilling safer and to create more cohesive governance. It argues that this convergence of standards and stakeholders, while piecemeal, helps to develop norms for how to operate in the Arctic. More broadly, this concept of hybrid cooperation — which draws from and contributes to interdisciplinary scholarship on hybrid governance — can shed light on governance challenges in other areas, such as humanitarian crisis management, transnational investment, climate change, and whaling.

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INTRODUCTION

In July 2015, Shell Oil received a controversial final approval from the Obama Administration for its Arctic offshore drilling project in the Chukchi Sea.¹ Less than three months later, Shell Oil announced that it was suspending its offshore Arctic oil and gas exploration for the foreseeable future.² Although the company faced significant public pressure over its decision to drill in the Arctic, its decision to withdraw appears to have been largely financial; the exploration well contained insufficient oil and gas to justify continued drilling at a time when oil prices are low and regulations are evolving.³ As environmental groups cheered, Alaska Natives had a more mixed response. Some Inupiat leaders highlighted the risks to the delicate

¹ Shell announced in early 2015 that it intended to start Arctic oil drilling that summer in the Chukchi Sea, a portion of the Arctic Ocean located between Alaska and Siberia. See Terry Macalister & Damian Carrington, *Shell Determined to Start Arctic Oil Drilling This Summer*, GUARDIAN (Jan. 29, 2015, 12:52 PM), <http://www.theguardian.com/business/2015/jan/29/shell-determined-arctic-oil-drilling-summer>. The Obama Administration conditionally approved the drilling. Joby Warrick, *One Step Closer to Arctic Drilling? Obama Administration Grants Shell "Conditional" Approval*, WASH. POST (May 11, 2015), <http://www.washingtonpost.com/news/energy-environment/wp/2015/05/11/one-step-closer-to-arctic-drilling-obama-administration-grants-shell-conditional-approval>. However, the U.S. Fish and Wildlife Service put restrictions on well spacing that prevent Shell Oil's implementation of its initial plan. See Timothy Gardner, *UPDATE 2 — U.S. Walrus Protections Hit Shell's Arctic Drilling Plan*, REUTERS (June 30, 2015, 11:53 PM), <http://uk.reuters.com/article/2015/06/30/usa-shell-arctic-idUKL1N0ZG2QT20150630>. Shell received final regulatory approval to drill the two exploration wells in July 2015, but with constraints regarding depth and ice unless Shell could repair its ice-breaking vessel. See Steven Mufson, *Obama Administration Greenlights Shell Drilling off Alaska's Arctic Coast*, WASH. POST (July 22, 2015), <http://www.washingtonpost.com/news/energy-environment/wp/2015/07/22/obama-administration-greenlights-shell-drilling-off-alaskas-arctic-coast>. The ice-breaking vessel reached the site by August 2015 despite efforts by Greenpeace protestors to block it. See Karl Mathieson, *Shell Ready to Begin Drilling for Oil in the Arctic*, GUARDIAN (Aug. 11, 2015, 7:15 AM), <http://www.theguardian.com/environment/2015/aug/11/shell-ready-to-begin-drilling-for-oil-in-arctic>.

² See *Shell Updates on Alaska Exploration*, SHELL GLOBAL (Sept. 28, 2015), <http://www.shell.com/global/aboutshell/media/news-and-media-releases/2015/shell-updates-on-alaska-exploration.html>.

³ See Sarah Kent, *Shell to Cease Oil Exploration in Alaskan Arctic After Disappointing Drilling Season*, WALL ST. J. (Sept. 28, 2015, 7:51 PM), <http://www.wsj.com/articles/shell-to-cease-oil-exploration-offshore-alaska-1443419673>; *Shell Updates on Alaska Exploration*, *supra* note 2.

ecological environment, while others worried about the economic repercussions; Alaska Native corporations were co-invested with Shell Oil in the Chukchi Sea and the industry brings jobs and resources to coastal communities.⁴

However, the Shell Oil venture — despite all the controversy and publicity — was just one among several planned and potential Arctic offshore drilling projects in the five coastal Arctic nations' waters. Just a few days before Shell Oil announced the pullout, Hilcorp Alaska, LLC filed a Development and Production Plan (“DPP”) for its Liberty Prospect oil and gas project in the Beaufort Sea with the U.S. Bureau of Ocean Energy Management.⁵ The agency is proceeding with its review of that project.⁶ Moreover, U.S. activities occur in a broader Arctic drilling context. Despite low oil and natural gas prices and public pressure around climate change and oil spill risks that have resulted in a number of oil companies shelving offshore projects in the Canadian and Russian Arctic for the time being, Norwegian and Italian companies continue with projects in the Barents Sea and Russian Gazprom moves toward production in the Pechora Sea.⁷

The high profile Shell Oil approval and pullout also paralleled important regulatory developments that reinforced both the growing U.S. legal focus on and ever-shifting politics and economics of Arctic offshore oil and gas. In February 2015, the Obama Administration issued new Arctic-specific regulations for exploratory offshore drilling.⁸ Two months later, the United States began its two-year term as chair of the Arctic Council — “the preeminent intergovernmental forum for

⁴ See Julia O'Malley, *Alaska Divided as Shell Halts Arctic Drilling: Heartbreaking News or a Miracle?*, GUARDIAN (Sept. 29, 2015, 1:19 PM), <http://www.theguardian.com/us-news/2015/sep/29/alaska-shell-offshore-oil-drilling-reaction-natives>; *infra* Part III.C.1.

⁵ See *Hilcorp Alaska LLC: About the Liberty Project*, BUREAU OCEAN ENERGY MGMT., <http://www.boem.gov/Hilcorp-Liberty> (last visited Feb. 20, 2016); *Hilcorp Submits Development Plan for Liberty Prospect, Offshore Alaska*, WORLD OIL (Sept. 21, 2015), <http://www.worldoil.com/news/2015/9/21/hilcorp-submits-development-plan-for-liberty-prospect-offshore-alaska>.

⁶ *Hilcorp Alaska LLC: About the Liberty Project*, *supra* note 5.

⁷ See Kent, *supra* note 3; Chris Mooney, *Following in Shell's Footsteps, Oil Major Statoil Will Also Exit the Alaskan Arctic*, WASH. POST (Nov. 17, 2015), <https://www.washingtonpost.com/news/energy-environment/wp/2015/11/17/following-in-shells-footsteps-oil-major-statoil-will-also-exit-the-alaskan-arctic>.

⁸ See Oil and Gas and Sulphur Operations on the Outer Continental Shelf — Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf, 80 Fed. Reg. 9916 (proposed Feb. 24, 2015) (to be codified at 30 C.F.R. 250, 254, 550) [hereinafter Arctic Drilling Rule], available at <http://www.bsee.gov/uploadedFiles/Proposed%20Arctic%20Drilling%20Rule.pdf>.

addressing issues related to the Arctic Region”⁹ — and specifically referenced “oil pollution preparedness and response” among its program highlights.¹⁰ However, in October 2015, shortly after Shell Oil’s announced withdrawal, the Obama Administration announced that it was canceling two lease sales scheduled for 2016 and 2017 in the Chukchi and Beaufort Seas in response to Shell Oil’s decision and the lack of industry nomination of specific exploration areas.¹¹

Even as Alaskan offshore drilling appears to be slowing in the short term, the U.S. and global focus on the tumultuous Arctic offshore oil and gas industry is warranted because our global energy future depends on how we manage these resources. The region contains roughly 30% of global undiscovered, technically recoverable gas — which has not yet been found but could plausibly be retrieved — and 13% of such oil.¹² Most of this oil and gas can only be accessed through complex offshore drilling techniques; approximately 80% of Arctic energy resources are located below a sea that is ice covered much of the year.¹³

Climate change has made the question of how we regulate these Arctic energy resources more urgent. The Arctic is warming at a faster rate than most of the rest of the world, with major implications for the sea ice that has historically limited access to the Arctic Ocean, its seas, and its resources.¹⁴ The expanding open water creates prospects for

⁹ *Arctic Council*, U.S. DEP’T ST., <http://www.state.gov/e/oes/ocns/opa/arc/ac> (last visited Feb. 20, 2016).

¹⁰ U.S. ARCTIC COUNCIL TEAM, ONE ARCTIC: ARCTIC COUNCIL, U.S. CHAIRMANSHIP 2015–17 (2015), available at https://oaarchive.arctic-council.org/bitstream/handle/11374/943/2015-09-01_US_Chairmanship_Brochure_2015-2017.pdf.

¹¹ See Chris Mooney, *In a Major Setback for Arctic Drilling, the Obama Administration Cancels Two Oil Lease Sales*, WASH. POST (Oct. 16, 2015), <http://www.washingtonpost.com/news/energy-environment/wp/2015/10/16/oil-drilling-in-the-arctic-just-received-another-major-setback>.

¹² See CHARLES EBINGER ET AL., OFFSHORE OIL AND GAS GOVERNANCE IN THE ARCTIC: A LEADERSHIP ROLE FOR THE U.S. 6 (Mar. 2014), available at <http://www.brookings.edu/~media/Research/Files/Reports/2014/03/offshore-oil-gas-governance-arctic/Offshore-Oil-and-Gas-Governance-text-revised.pdf>.

¹³ See *id.*

¹⁴ See SUSAN JOY HASSOL, ARCTIC CLIMATE IMPACT ASSESSMENT, IMPACTS OF A WARMING ARCTIC: ARCTIC CLIMATE IMPACT ASSESSMENT 8 (2004), available at <http://www.amap.no/documents/download/1058>; JOAN NYMAND LARSEN ET AL., *Polar Regions*, in CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY 1567, 1570–85, 1587–93 (Maria Ananicheva & F. Stuart Chapin III eds., 2014), available at http://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-Chap28_FINAL.pdf. Minimum summer sea ice in 2012 was 49% below the 1979 to 2000 average and 18% below 2007. See *Arctic Sea Ice Extent Settles at Record Seasonal Minimum*, NAT’L SNOW

commercial shipping and oil and gas exploration in places that were previously inaccessible.¹⁵ Even with less summer sea ice, however, conditions remain harsh, making offshore drilling risky.¹⁶ During its most accessible period, many parts of the Arctic Ocean and its seas (particularly North American waters) continue to experience rough conditions, very cold temperatures, strong winds, fog, and floating ice.¹⁷ The Arctic summer is also short, only three to four months, with ice covering the ocean during the rest of the year and continuous darkness in the winter months.¹⁸

The 2010 BP *Deepwater Horizon* oil spill — much farther south in the Gulf of Mexico — reinforced the dangers of offshore drilling; oil flowed for 87 days, resulting in approximately 4.9 million barrels of oil being discharged, with ongoing significant impacts on the ecosystem and Gulf communities.¹⁹ Although that spill took place in the less pristine Gulf environment with its easier accessibility for cleanup (though in much deeper water than current Arctic projects), stopping the spill and addressing the waste posed formidable barriers.²⁰ Extraction and spill recovery in Arctic conditions are far more difficult, and spills could have disastrous effects on the Arctic's unique ecosystem and the Alaska Natives who rely on it.²¹

Addressing these physical challenges adequately is made more challenging by the complexity and fragmentation of relevant existing governance arrangements. The United Nations Convention on the Law

& ICE DATA CTR. (Sept. 19, 2012), <http://nsidc.org/arcticseaicenews/2012/09/arctic-sea-ice-extent-settles-at-record-seasonal-minimum>.

¹⁵ See EBINGER ET AL., *supra* note 12, at xv.

¹⁶ See *Arctic Standards: Recommendations on Oil Spill Prevention, Response, and Safety*, PEW CHARITABLE TR. (Sept. 23, 2013), <http://www.pewtrusts.org/en/research-and-analysis/reports/2013/09/23/arctic-standards-recommendations-on-oil-spill-prevention-response-and-safety>.

¹⁷ See *id.*

¹⁸ See *id.*

¹⁹ See NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, *DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING* 129, 165, 167-68, 173-78, 180-82 (2011); NAT'L WILDLIFE FED'N, *FIVE YEARS AND COUNTING: GULF WILDLIFE IN THE AFTERMATH OF THE DEEPWATER HORIZON DISASTER* 3-22 (2015), http://www.nwf.org/~media/PDFs/water/2015/Gulf-Wildlife-In-the-Aftermath-of-the-Deepwater-Horizon-Disaster_Five-Years-and-Counting.pdf.

²⁰ See NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, *supra* note 19, at 90-92.

²¹ See EBINGER ET AL., *supra* note 12, at xv, 38; *Arctic Standards: Recommendations on Oil Spill Prevention, Response, and Safety*, *supra* note 16.

of the Sea (UNCLOS)²² helps to resolve land disputes among Arctic nation-states crucial to establishing resource rights to drill.²³ However, in the context of offshore drilling safety, the Arctic Council has been the most significant supranational regional entity developing international cooperation.²⁴ The Arctic Council is governed through a consensus-based decision-making process among the eight Arctic states and six organizations representing indigenous peoples, with other governmental and nongovernmental entities serving as observers.²⁵ Its six working groups provide opportunities for public and private stakeholders to give input into key Arctic policy issues;²⁶ the Protection of the Arctic Marine Environment (“PAME”) working group in particular has helped develop guidelines for offshore drilling safety.²⁷ The Arctic Council largely secures each nation’s compliance with soft law norms rather than hard rules, but more recent agreements negotiated in this context under its auspices have had binding force and have been integrated into domestic regulation. For example, as discussed in more depth below, the new U.S. regulations

²² United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

²³ In the 2008 Ilulissat Declaration, the five coastal Arctic nations, including the United States, recognized that the United Nations Convention on the Law of the Sea (“UNCLOS”) “provides for important rights and obligations concerning the delineation of the outer limits of the continental shelf, the protection of the marine environment, including ice-covered areas, freedom of navigation, marine scientific research, and other uses of the sea.” The Ilulissat Declaration, U.S.-Can.-Den.-Nor.-Russ., May 28, 2008, available at https://www.regjeringen.no/globalassets/upload/ud/080525_arctic_ocean_conference_outcome.pdf. However, the United States is not a party to UNCLOS and interacts with it by treating it as customary international law. See *Chapter XXI Law of the Sea*, UNITED NATIONS TREATY COLLECTION, https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&lang=en (last visited Feb. 17, 2016); *What Is the Law of the Sea?*, NOAA, <http://oceanservice.noaa.gov/facts/lawofsea.html> (last visited Mar. 28, 2016). See generally John A. Duff, *The United States and the Law of the Sea Convention: Sliding Back from Accession and Ratification*, 11 OCEAN & COASTAL L.J. 1, 10 (2006) (discussing the U.S. relationship with UNCLOS); Commander Robert C. “Rock” De Tolve, JAGC, USN, *At What Cost: American’s Failure to Ratify UNCLOS at a Time of “Lawfare”*, 61 NAVAL L. REV. 1 (2012) (analyzing the longstanding U.S. debates over ratification and the national security questions raised by its failure to ratify UNCLOS).

²⁴ For an in-depth description of Arctic Council governance, see *infra* Part II.B.

²⁵ See *id.*

²⁶ See *id.*

²⁷ See *New Guidelines from PAME on Arctic Oil and Gas Safety Management*, ARCTIC COUNCIL (May 22, 2014), <http://www.arctic-council.org/index.php/en/our-work/2/8-news-and-events/236-new-guidelines-from-pame-on-arctic-oil-and-gas-safety-management>.

on Arctic offshore drilling incorporate the Arctic Council's Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic.²⁸

The Arctic Council's initiatives, though, occur in conjunction with other relevant multilateral and bilateral agreements, efforts by standard-setting and trade organizations to address technical aspects of drilling safety, and governance arrangements involving the Arctic's indigenous peoples.²⁹ Furthermore, the domestic-international interface and relevant domestic law is also complex. When the United States began its term as chair of the Arctic Council in Spring 2015, for instance, that nation-state was represented by a different federal agency in each of the Council's six working groups.³⁰ In addition, the United States, like other Arctic member states, has a complicated array of domestic law applicable to drilling safety and spill clean up, including the Arctic-specific regulations proposed in spring 2015.³¹ The BP *Deepwater Horizon* spill highlighted the difficulties of coordinating clean up among the federal agencies, state and local government, and companies involved,³² and these issues would be magnified in the Arctic because of the greater likelihood of a spill crossing international boundaries.³³

This Article is the first to examine the possibilities for addressing these regulatory and governance challenges through what it terms "hybrid cooperation."³⁴ In this form of cooperation, diverse

²⁸ See *infra* Part III.B.2.

²⁹ See *infra* Parts II.C, II.D.

³⁰ See U.S. GOV'T ACCOUNTABILITY OFFICE, ARCTIC ISSUES: BETTER DIRECTION AND MANAGEMENT OF VOLUNTARY RECOMMENDATIONS COULD ENHANCE U.S. ARCTIC COUNCIL PARTICIPATION 23 fig.5 (2014).

³¹ See *infra* Part II.E.

³² For an in-depth exploration of these governance complexities, see Hari M. Osofsky, *Multidimensional Governance and the BP Deepwater Horizon Oil Spill*, 63 FLA. L. REV. 1077, 1082-99 (2011) [hereinafter *Multidimensional Governance*].

³³ See *Arctic Standards: Recommendations on Oil Spill Prevention, Response, and Safety*, *supra* note 16.

³⁴ The term "hybrid cooperation" has been used to refer to a consortium of companies working on hybrid vehicle technology. See Jeff Nisewanger, *Revenge of the Two-Mode Hybrid*, HYBRID CARS (Nov. 5, 2015), <http://www.hybridcars.com/revenge-of-the-two-mode-hybrid>. However, an SSRN search on May 15, 2015 revealed no articles using "hybrid cooperation" ("No results for Abstracts with title, content, keywords or author containing 'hybrid cooperation.'"), and a title search for "hybrid cooperation" in secondary sources on Westlaw on May 16, 2015 revealed only one. The one article used it in the context of the Antitrust Criminal Penalty Enhancement and Reform Act of 2004 to refer to "a form of cooperation less than required under ACPERA but more than would be permitted under a stay," and so has a very different

stakeholders at multiple levels of government intertwine their efforts through either (1) creating institutions that bring them together or (2) integrating each other's work in the agreements and regulations that they develop.³⁵ For example, prior to the Shell Oil pullout, that company and Alaska Native corporations entered into a new venture to collaborate in Arctic offshore drilling. The federal government has formed subnational multi-stakeholder groups around oil spill safety and waterway transport issues. Both the Arctic Council and U.S. government are incorporating standards from industry organizations or standard setting bodies.³⁶ Although existing scholarship and reports have identified some of these structures, none has considered how this approach to governance provides opportunities for and barriers to more systematic disaster prevention and management.³⁷

This Article fills that gap. It analyzes the drivers of unconventional energy development in the Arctic, existing hybrid governance arrangements, and models for further cooperation embedded in them. In so doing, the Article focuses on the crucial question of how this governance innovation might translate into the creation of a regional Arctic offshore oil and gas governance system that can prevent and respond to oil spills more effectively.

Part I provides the context for the rest of the Article's analysis of governance. It describes the Arctic's rich hydrocarbon energy resources and global demand for them, the role of climate change in making them more accessible, and the ways in which technological developments in deep water drilling and hydraulic fracturing — paired with disaster response — have influenced the broader market and regulatory context.

Part II analyzes the multi-level law pertaining to and institutions working on Arctic unconventional energy, with a particular focus on the United States as a key example. It provides an in-depth analysis of the international (including Arctic regional) agreements and entities relevant to Arctic unconventional energy and their interaction with

usage than in this article. Michael D. Hausfeld et al., *Observations from the Field: ACPERA's First Five Years*, 10 SEDONA CONF. J. 95, 113 (2009).

³⁵ See *infra* Part III.A.

³⁶ See *infra* Parts III.B, III.C.

³⁷ For example, EBINGER ET AL., *supra* note 12, at 22, 26, 28, and Edward T. Canuel, *The Four Arctic Law Pillars: A Legal Framework*, 46 GEO. J. INT'L L. 735, 739-42, 747 (2015) provide thoughtful discussions of some of the complex multi-level governance dynamics and institutions described in Part II of this Article, but do not examine how emerging hybrid cooperation might help to address these governance concerns.

transnational industry and standard-setting entities, indigenous peoples, and U.S. domestic law.

Part III provides a novel conceptual model of “hybrid cooperation” — which draws from and contributes to interdisciplinary scholarship on hybrid governance — and then examines six case examples of cooperation currently taking place. It focuses in particular on innovative regulatory and institutional developments that together demonstrate emerging cooperation. After analyzing these examples, it assesses the benefits and limitations of hybrid cooperation in the Arctic offshore drilling context.

The Article concludes by examining the role of these instances of hybrid cooperation in building a multi-stakeholder regional governance approach to offshore oil and gas. It then considers how this model could be applied in other contexts — like transnational investment, humanitarian intervention, and climate change — in which many stakeholders have initiated overlapping, fragmented regulatory efforts.

I. DRIVERS OF ARCTIC ENERGY DEVELOPMENT

Although there has long been interest in the possibilities of massive energy resources under the Arctic ice,³⁸ accessing them has only recently become more realistic.³⁹ The confluence of climate change melting the ice barrier part of the year with recent developments in extraction technology have made offshore Arctic drilling possible (though still very difficult).⁴⁰

This Part provides the context for the rest of the Article by explaining the ways in which physical, market, and technological forces have converged to make the regulation of Arctic unconventional energy a pressing issue. It begins by analyzing the continuing high demand for fossil fuel resources and the pressure it creates to extract Arctic oil and gas. It then explores the ways in which climate change has made meeting this demand increasingly feasible. Finally, it discusses Arctic offshore drilling in the broader context of offshore drilling. It highlights the dramatic technological developments in offshore drilling and hydraulic fracturing that have opened up previously inaccessible oil and gas resources. It also considers the

³⁸ See *infra* Part I.A.

³⁹ See *infra* Part I.B.

⁴⁰ See *infra* Parts I.B, I.C.

impact of BP *Deepwater Horizon* disaster on the industry and regulatory initiatives.

A. *Existence of Resources to Help Meet Demand*

Despite efforts to transition our primary sources of energy, 82% of U.S. primary energy consumption still comes from fossil fuels.⁴¹ Most relevant to Arctic resources, 36% of that consumption is of petroleum and 26% of that consumption is of natural gas.⁴² This high dependence on fossil fuels is replicated around the world.⁴³ As of 2011, natural gas comprised 20.0% and oil comprised 47.8% of global energy consumption.⁴⁴ These percentages reflect a rise in natural gas consumption and a fall in oil consumption over the last forty years.⁴⁵

This demand for fossil fuels generally, and oil and gas in particular, creates pressure to access more resources through offshore drilling. As noted in the introduction, a significant percentage of global undiscovered oil and gas is located in the Arctic.⁴⁶ All five Arctic coastal states and Iceland have responded to national and global demand for oil and gas by beginning to explore how to access these offshore resources (or at least in what ways they can benefit from the resources to be found).⁴⁷ As discussed in the following sections, their efforts have been aided by Arctic melting and technological developments, and hindered by the difficult physical environment and low natural gas prices due to the advent of hydraulic fracturing.⁴⁸ Although the barriers may slow development, major investments and projects are underway and seem likely to expand in the coming decades.⁴⁹

⁴¹ *Total Energy: Energy Perspectives 1949–2011*, U.S. ENERGY INFO. ADMIN., <http://www.eia.gov/totalenergy/data/annual/perspectives.cfm> (last visited Feb. 21, 2016).

⁴² *Id.*

⁴³ See INT'L ENERGY AGENCY, 2013 KEY WORLD ENERGY STATISTICS 29 (2013), available at http://www.energiatalgud.ee/img_auth.php/e/ef/IEA_Key_World_Energy_Statistics_2013.pdf.

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ See EBINGER ET AL., *supra* note 12, at 5.

⁴⁷ See EBINGER ET AL., *supra* note 12, at xv; Beth Gardiner, *Iceland Aims to Seize Opportunities in Oil Exploration*, N.Y. TIMES (Oct. 1, 2013), <http://www.nytimes.com/2013/10/02/business/energy-environment/iceland-aims-to-seize-opportunities-in-oil-exploration.html>.

⁴⁸ See *infra* Parts I.B, I.C.

⁴⁹ EBINGER ET AL., *supra* note 12, at x.

B. *Accessibility Through Climate Change*

The Arctic has already been experiencing major physical impacts due to climate change. The U.S. Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska indicated in a 2013 report to the president that:

The Arctic is warming faster than any other region on Earth, bringing dramatic reductions in sea ice extent, altered weather, and thawing permafrost. Implications of these changes include rapid coastal erosion threatening villages and facilities, loss of wildlife habitat, ecosystem instability, increased greenhouse-gas emissions from melting permafrost, and unpredictable impacts on subsistence activities and critical social needs.

In addition to elevating the already high level of uncertainty associated with resource management in the region, changes such as reduced sea ice are increasing interest in economic opportunities such as offshore oil and gas development and increased shipping through the region. The likelihood of increased human activity in this environmentally sensitive region has implications for managing a U.S. Arctic that currently lacks much of the costly infrastructure necessary to monitor and control the impacts of such activities.⁵⁰

Most relevant to accessing offshore energy resources, the dramatic declines in summer sea ice have created access for drilling. Multi-year sea ice, which stabilizes the Arctic ice pack, has declined by half since 2005, and the polar ice cap has shrunk 40% since 1979. The 2012 summer sea ice covered half the area that it did in 2000.⁵¹ The extent of annual season melt is extensive; for example, 4.57 million miles of sea ice melted between March and September in 2012.⁵²

Although summer melting has made new hydrocarbon exploration possible, accessing offshore Arctic oil and gas remains challenging and expensive. The Arctic Ocean still has ice cover for most of the year. Even during the summer months, cleaning up an oil spill would be

⁵⁰ INTERAGENCY WORKING GRP. ON COORDINATION OF DOMESTIC ENERGY DEV. & PERMITTING IN ALASKA, MANAGING FOR THE FUTURE IN A RAPIDLY CHANGING ARCTIC: A REPORT TO THE PRESIDENT 1 (2013), available at http://www.afsc.noaa.gov/Publications/misc_pdf/IAMreport.pdf.

⁵¹ See *id.* at 11; U.S. COAST GUARD, ARCTIC STRATEGY 18 (2013), available at http://www.uscg.mil/seniorleadership/DOCS/CG_Arctic_Strategy.pdf.

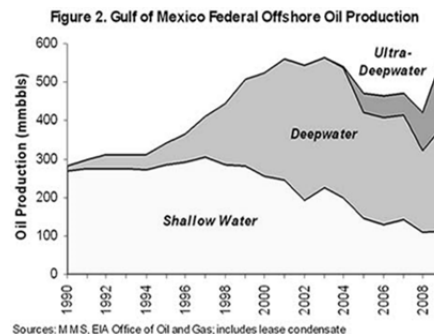
⁵² U.S. COAST GUARD, *supra* note 51.

much more difficult than in most other places where offshore drilling takes place.⁵³

The increased possibilities of Arctic oil exploration that climate change-induced melting brings paired with the enormous global demand for oil and gas makes a functional regulatory regime critical. Especially because the physical conditions increase the risks of already-difficult extraction under water, clear and coherent regulatory approaches are needed.

C. Technological Development

Although Arctic offshore drilling in the near term will take place in shallow waters, it occurs in the larger context of massive technological development driven by deepwater drilling and industry and governmental responses to the BP *Deepwater Horizon* oil spill. Even in the comparatively easy-to-access Gulf of Mexico, deepwater drilling barely existed two decades ago and ultra-deepwater drilling has only emerged in the last decade, as the following figure indicates.⁵⁴



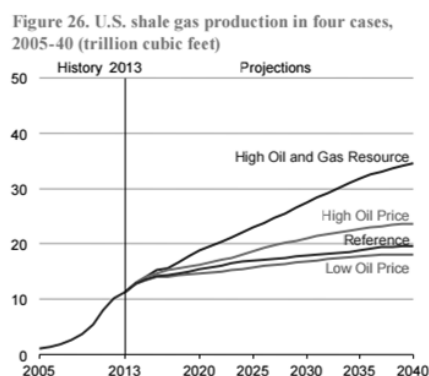
While these technological advances in drilling and safety will assist in the Arctic offshore oil and gas context, they also make regulation more difficult. The technology is changing so quickly that effective prescriptive regulation is hard.

Moreover, at the same time as the capacity for deepwater drilling has expanded, hydraulic fracturing has also opened up previously inaccessible oil and gas reserves, an expansion that will likely

⁵³ *Arctic Standards: Recommendations on Oil Spill Prevention, Response, and Safety*, *supra* note 16, at 14.

⁵⁴ *Production, Proved Reserves and Drilling in Ultra-Deepwater Gulf of Mexico*, *This Week in Petroleum*, U.S. ENERGY INFO. ADMIN. (May 26, 2010), <http://www.eia.gov/petroleum/weekly/archive/2010/100526/twipprint.html>.

continue. The U.S. Energy Information Administration's 2015 Annual Energy Outlook indicates that U.S. dry natural gas production increased 35% from 2005 to 2013 largely due to shale gas resources. It projects a 73% increase in shale gas production in the lower 48 states from 2013 to 2040, which would result in a 45% increase in total U.S. dry natural gas production. The following figure from that report depicts the major expansion in shale gas over the past decade and projected future growth.⁵⁵



With respect to the Arctic in particular, there are shale formations onshore that may be accessible through hydraulic fracturing. However, the most significant impact thus far of hydraulic fracturing on Arctic unconventional energy development has been to stall offshore natural gas development projects. As a 2014 Brookings Energy Security Initiative Report notes, “the success of the unconventional oil and gas revolution in the lower 48 states has had a sobering effect on how soon energy resources in high-cost areas such as the Arctic will be developed.”⁵⁶ Dropping oil prices in 2014 further undermined current offshore projects. For example, prior to the Shell Oil pullout described in the introduction, Chevron in December 2014

⁵⁵ U.S. ENERGY INFO. ADMIN., ANNUAL ENERGY OUTLOOK 2015 WITH PROJECTIONS TO 2040, at 1, 21, (Apr. 2015), available at [http://www.eia.gov/forecasts/aeo/pdf/0383\(2015\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383(2015).pdf). Dry natural gas is “[n]atural gas which remains after: 1) the liquefiable hydrocarbon portion has been removed from the gas stream (i.e., gas after lease, field, and/or plant separation); and 2) any volumes of nonhydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable.” *Glossary: Natural Gas*, U.S. ENERGY INFO. ADMIN, <https://www.eia.gov/tools/glossary/?id=natural%20gas> (last visited Feb. 16, 2016).

⁵⁶ EBINGER ET AL., *supra* note 12, at 7.

put drilling plans for Beaufort Sea in the Canadian Arctic “on hold indefinitely” due to “economic uncertainty in the industry.”⁵⁷

Although this slowdown in projects provides more breathing room for regulatory efforts, the longer-term picture likely involves increased Arctic offshore drilling unless a major transition in energy sources takes place. Even if physical challenges and lower oil and gas prices delay some of the exploratory efforts, demand for oil and gas and continuing melting will continue to create pressure to access these resources. Moreover, some projects are moving ahead even in the current economic environment. In the U.S. context, for example, as described in the Introduction, Hilcorp Alaska, LLC is continuing to proceed with exploration projects in the Beaufort Sea.⁵⁸ And globally, Statoil is producing natural gas from the Barents Sea,⁵⁹ Eni is nearing production of oil there,⁶⁰ and Gazprom continues to move ahead in the Pechora Sea.⁶¹

These developments make functional governance in this context important. However, as the following Part explores, Arctic energy governance is exceedingly complex and faces major challenges. Despite the efforts of numerous governmental and nongovernmental entities, a systematic and effective approach to Arctic offshore drilling energy has yet to emerge fully.

II. EXISTING REGULATORY APPROACHES TO ARCTIC OFFSHORE OIL AND GAS

Arctic offshore oil and gas exploration, on the surface, has a lot of law at multiple levels that applies to it. Treaties recognized by the Arctic Council member states address property rights to the Arctic Ocean subsurface and constrain pollution in those waters. National and subnational laws in each of the countries help to allocate property rights

⁵⁷ Scott Haggett et al., *Chevron Cancels Canadian Arctic Drilling as Oil Prices Slide*, REUTERS (Dec. 17, 2014), <http://www.reuters.com/article/2014/12/17/us-chevron-canada-artic-idUSKBN0JV2UU20141217>.

⁵⁸ See *supra* notes 5–6 and accompanying text.

⁵⁹ *Snohvit*, STATOIL, <http://www.statoil.com/en/ouoperations/explorationprod/ncs/snoehvit/pages/default.aspx> (last visited Feb. 15, 2016).

⁶⁰ See *High Level of Activity at Goliat Field*, ENI NORGE (June 18, 2015), <http://www.eninorge.com/en/News—Media/News-Archive/2015/High-level-of-activity-at-Goliat-field/>.

⁶¹ See *Prirazlomnoye Oil Field*, GAZPROM, <http://www.gazprom.com/about/production/projects/deposits/pnm> (last visited Feb. 15, 2016); *Prirazlomnoye Oilfield — Russia*, OFFSHORE-TECHNOLOGY.COM, <http://www.offshore-technology.com/projects/prirazlomnoye> (last visited Feb. 15, 2016).

to the oil and gas and regulate exploration, drilling, and spill cleanup. The United States, in particular, has been developing new regulations for offshore drilling generally and in the Arctic context specifically.

But this surface legal analysis masks the influence of a variety of stakeholders through mixed public-private arrangements. At a regional level, the Arctic Council — which involves not just the Arctic states but also indigenous peoples and, to an extent, other countries — plays a lead role in Arctic governance through its policy-shaping and, increasingly, policy-making efforts. The Arctic states have varying and complex domestic approaches to interacting with relevant international and regional legal structures. In addition, several transnational trade organizations have worked to establish industry standards around offshore drilling. Within most Arctic states, indigenous peoples have a variety of property rights and co-management arrangements that will help shape how each country approaches oil and gas exploration.

This Part traces the multi-level mix of law and more informal governance arrangements that shape current regulatory approaches to Arctic unconventional energy. It analyzes how the formal public law — such as treaties, statutes, and agency regulations — interacts with public-private arrangements to create a complex governance structure in this context.

A. UNCLOS and Its Limits

As noted in the Introduction, UNCLOS is the most significant of the treaties relevant to Arctic offshore energy development. UNCLOS guarantees coastal states' sovereignty over their coastal zones; recognizes property rights — including resource rights such as those to offshore oil and gas — over their exclusive economic zones (“EEZs”) of 200 nautical miles and continental shelves; and protects the marine environment of the international high seas.⁶² This Section describes the importance and the limits of UNCLOS for oil and gas extraction in the Arctic.

Following a decade of negotiations, the Law of the Sea Convention was adopted by the Third United Nations Conference on the Law of the Sea in 1982.⁶³ As of April 2015, 167 states and the European

⁶² *Id.* at arts. 55–57, 192–237.

⁶³ See *United Nations Convention on the Law of the Sea of 10 December 1982, Overview and Full Text*, OCEANS & L. SEA, DIVISION FOR OCEAN AFF. & L. SEA, UNITED NATIONS (Aug. 22, 2013), http://www.un.org/depts/los/convention_agreements/convention_overview_convention.htm.

Commission were parties.⁶⁴ This list includes all of the Arctic states, except the United States, which largely recognizes UNCLOS as customary international law.⁶⁵ Over the past several years, UNCLOS has served as a key mechanism for resolving Arctic continental shelf and maritime boundary claims relevant to oil and gas development.

Under UNCLOS Article 76 and Annex II, Article 4, a coastal state has 10 years from the time of ratification to submit scientific evidence regarding the limits of its extended outer continental shelf.⁶⁶ Historically, resolving the exact limits of the extended continental shelf was limited by the presence of year round ice. Further, the inaccessibility of resources expected to exist there meant that nations did not feel a sense of urgency about this issue.⁶⁷ However, beginning with Russia in 2001, Arctic states began bringing claims to the United Nations Commission on the Limits of the Continental Shelf (“CLCS”) that would clarify natural resource rights under the Arctic Ocean.⁶⁸

⁶⁴ *Chapter XXI Law of the Sea*, UNITED NATIONS TREATY COLLECTION, https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&lang=en (last visited Feb. 17, 2016).

⁶⁵ *Id.*; see *supra* note 23.

⁶⁶ United Nations Convention on the Law of the Sea art.76, Annex II, art.4, Dec. 10, 1982, 1833 U.N.T.S. 7, available at http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf.

⁶⁷ See JESSICA SHADIAN, *THE POLITICS OF ARCTIC SOVEREIGNTY: OIL, ICE, AND INUIT GOVERNANCE 178* (2014) [hereinafter *ARCTIC SOVEREIGNTY*].

⁶⁸ Russia, the first Arctic state to ratify UNCLOS, submitted a claim in 2001, providing research-based evidence that the Lomonosov Ridge was part of Russia’s coast. Norway, which ratified UNCLOS in 1996, submitted the last of its claims in 2006 and 2009. Iceland and Denmark submitted their claims in April 2009. In June 2010, Russia and Norway, of their own accord, resolved a 20-year dispute regarding the Barents Sea. The two countries have since begun to cooperate in developing the vast amounts of non-renewable resources said to exist in the Barents Sea. In December 2013, Canada made a partial submission with the intention to submit information on the limits of the continental shelf beyond 200 nautical miles in the Arctic Ocean at a later date. *Submissions to the Commission: Partial Submission by Canada*, OCEANS & L. SEA, DIVISION FOR OCEAN AFF. & L. SEA, UNITED NATIONS (Dec. 29, 2014), http://www.un.org/depts/los/clcs_new/submissions_files/submission_can_70_2013.htm. The Canadian position is that the Northwest Passage is part of Canadian internal waters and is therefore an extension of the land boundary along the 141st Meridian to the North Pole. The United States argues that Canada’s land boundary ends at the shore. Much of the international community (Russia being an important exception) supports the U.S. claim. Other Arctic boundary disputes include (1) the border between Russia and the United States in the Beaufort Sea (the longest Arctic maritime boundary), (2) between Denmark/Greenland and Canada over Hans Island (a tentative deal on the Canadian-Danish boundary in the Lincoln Sea, north of Ellesmere Island between northeastern Canada and Greenland, was negotiated in November 2012), and (3) a disputed Norwegian claim to the Spitsbergen Shelf. The Spitsbergen Treaty of 1920

The United States is the only Arctic state that cannot bring such claims because it is not party to UNCLOS. The United States does recognize UNCLOS as customary international law, though, and some of the continental shelf disputes in the Arctic involve its continental shelf boundaries.⁶⁹

The Arctic states made the central role of UNCLOS in resolving Arctic boundary disputes more explicit in 2008, the same year in which the U.S. National Snow and Ice Data Center reported that the polar cap had shrunk to its second smallest size in recorded history and the Northwest Passage was ice-free for the second consecutive summer.⁷⁰ Amid growing international attention to the Arctic and media reports stating that the Arctic states could be heading towards war,⁷¹ the five Arctic coastal states — Canada, Denmark, Norway, the Russian Federation and the United States — met in Ilulissat, Greenland in May 2008. The meeting concluded with the signing of the Ilulissat Declaration, which underscored the resolve of the Arctic

does not make it clear whether Norway has rights over that island's EEZ. Kim Mackrael, *Canada, Denmark Closer to Settling Border Dispute*, GLOBE & MAIL (Nov. 29, 2012), www.theglobeandmail.com/news/national/canada-denmark-closer-to-settling-border-dispute/article5831571. For an in-depth discussion of the legal issues surrounding claims to Arctic outer continental shelves, see MICHAEL BYERS, INTERNATIONAL LAW AND THE ARCTIC 92-127 (2013); TIMO KOIVUROVA ET AL., CONTINENTAL SHELF CLAIMS IN THE ARCTIC: WILL LEGAL PROCEDURE SURVIVE THE GROWING UNCERTAINTY? 1-8 (FIIA Briefing Paper No. 178, Aug. 2015), available at http://www.fiaa.fi/en/publication/516/continental_shelf_claims_in_the_arctic.

⁶⁹ This renewed focus on UNCLOS also reinvigorated ratification debates, which continue despite the last several Democratic and Republican presidential administrations supporting ratification. See Stewart M. Patrick, *(Almost) Everyone Agrees: The U.S. Should Ratify the Law of the Sea Treaty*, ATLANTIC (June 10, 2012), <http://www.theatlantic.com/international/archive/2012/06/almost-everyone-agrees-the-us-should-ratify-the-law-of-the-sea-treaty/258301>. For a discussion of U.S. efforts at continental shelf delineation, see *Defining the Limits of the U.S. Continental Shelf*, U.S. DEPT. ST., <http://www.state.gov/e/oes/continentalsshelf> (last visited Feb. 15, 2016).

⁷⁰ Bob Tkacz, *Arctic Conference Emphasizes Cooperation to Address New Issues*, ALASKA J. COM. (June 4, 2009), <http://www.alaskajournal.com/community/2009-06-05/arctic-conference-emphasizes-cooperation-address-new-issues>.

⁷¹ ANNETA LYTVYVENKO, ARCTIC SOVEREIGNTY POLICY REVIEW (Apr. 5, 2011), available at <http://www4.carleton.ca/cifp/app/serve.php/1355.pdf>; Jamie Doward, et al., *Russia Leads Race for North Pole Oil*, GUARDIAN (July 29, 2007), <http://www.theguardian.com/world/2007/jul/29/russia.oil>; *Military Tensions Heating Up on Canada's Coldest Frontier*, LIVE LEAK (Mar. 1, 2009), www.liveleak.com/view?i=8c7_1235958275; *Russian General Fires Arctic Warning*, CANWEST NEWS SERV. (June 24, 2008), www.canada.com/topics/news/story.html?id=ac0d24dfdc10-43da-89f3-b3c3c0928ae7; Paul Reynolds, *The Arctic's New Gold Rush*, BBC NEWS (Oct. 25, 2005), <http://news.bbc.co.uk/2/hi/business/4354036.stm>.

states to sustainably manage the Arctic Ocean, as well as their commitment to international peace through law.⁷² It also, most importantly for the energy extraction context, established UNCLOS as the primary mechanism through which they would resolve existing territorial disputes in the Arctic:

By virtue of their sovereignty, sovereign rights and jurisdiction in large areas of the Arctic Ocean the five coastal states are in a unique position to address these possibilities and challenges. In this regard, we recall that an extensive international legal framework applies to the Arctic Ocean Notably, the law of the sea provides for important rights and obligations concerning the delineation of the outer limits of the continental shelf, the protection of the marine environment, including ice-covered areas, freedom of navigation, marine scientific research, and other uses of the sea. We remain committed to this legal framework and to the orderly settlement of any possible overlapping claims.⁷³

Although the meeting and resulting Ilulissat Declaration were helpful in providing clarity about how property rights would be resolved among Arctic states, they did not include key stakeholders beyond those five nation-states. The non-coastal Arctic Council states (as well as Iceland) were not invited to the meeting, and despite the meeting taking place in Greenland, the Inuit Circumpolar Council (“ICC”) and the other five Permanent Indigenous Participants of the Arctic Council — described in the next section — did not have a formal role to play.

Aqqaluk Lynge, the only indigenous representative at the meeting, expressed his concerns with the meeting’s limited focus on nation-state land claims and its implications for Inuit property rights:

the Inuit Circumpolar Council has been invited here, I presume, to give you insight into how Inuit are exploring the new question that others seem to be posing with increasing intensity. The new question and the debate that it has generated is an old one for Inuit While “ownership” is an uncomfortable concept for Inuit, it is a word we have to face today because others are asking it. . . . While Inuit were not formally asked about the borders that have been created

⁷² Ilulissat Declaration, *supra* note 23.

⁷³ *Id.*

among us, we are nevertheless practical and believe in compromise. . . . Yesterday's debate does not only begin with the various land claims processes in each country. It goes back to the time when the first foreign whaling ship came in the 1600s to hunt our big whales and decimate our stocks from which they have never recovered. . . . While we are uncomfortable with the word "own," I say it is all Inuit who "own" much of the Arctic, if I must use a non-Inuit word. And through ICC, Inuit will continue to voice this message loudly, clearly, and collectively.⁷⁴

As Lynge's remarks illustrate, UNCLOS can and is playing a helpful role in recommending how to divide the Arctic Ocean and delineate state claims. Its focus on these nation-state-based rights does not, however, specifically determine who within those countries have the rights and responsibilities to manage the Arctic's resources and, as such, fails to address the rights and role of non-state actors such as Inuit in managing and controlling Arctic development. While UNCLOS is highly relevant in helping to create formal boundaries between sovereign states, it does not establish needed governance structures for offshore Arctic oil and gas development nor a legitimate role and authority for those non-state entities that are critical to its development. As discussed in the next section, the Arctic Council, with its more inclusive structure but less formal authority, is increasingly assuming that more nuanced role.

B. Arctic Council

The only fully circumpolar and comprehensive governance institution in the Arctic is the Arctic Council.⁷⁵ Arctic regime building began in the late 1980s in Finland,⁷⁶ was then superseded by Canadian

⁷⁴ Aqqaluk Lynge, Address to the Ministerial Summit of Arctic Oceans: The New Debate of Who Owns the Arctic Is an Old One for Inuit (May 28, 2008), available at <http://www.iccalaska.org/servlet/download?id=92>.

⁷⁵ The Arctic Council is both a transnational and intergovernmental institution. It is intergovernmental because it brings together the eight Arctic states to collaborate on Arctic issues, including formulating binding treaties. At the same time, there are six indigenous organizations (Permanent Participants) that sit at the negotiating table and fully participate and debate all matters alongside the eight Arctic states, as well as numerous official governmental and nongovernmental observers.

⁷⁶ More generally, throughout the 1970s and 1980s, regional and global attention to the Arctic environment was minimal. At that time, the Cold War was the focus of all activities in the region. The only evidence of Arctic intergovernmental cooperation

efforts, and culminated with the ratification of the Arctic Council in 1996. The initial Finnish Initiative was an ad hoc multilateral cooperation among Arctic nation-states aimed at moving them towards a collective environmental strategy⁷⁷ and emerged from a Consultative Meeting on the Protection of the Arctic Environment in Rovaniemi, Finland in September of 1989. Two groups were created at that time — one focused on the state of the environment in the Arctic and the other examined the existing legal instruments for protecting the Arctic environment and the organization for future cooperation. The Finnish Initiative, according to Mary Simon, a Canadian (Inuk) involved in the process, “provide[d] a crucial opportunity for Arctic states and indigenous peoples to devise a sustainable and equitable development strategy for the circumpolar North . . . the direct involvement of indigenous peoples in the Finnish Initiative should serve to enrich this vital, new multilateral process.”⁷⁸

The inception of the Finnish Initiative began a process of building a fully circumpolar political collaboration led by Finland initially and then Canada. All eight Arctic states committed to the idea that the Arctic is a distinct political region and, together, set out to foster a new relationship with the larger international community. In 1991, the ministers of the environment of the eight Arctic states came together and signed the Rovaniemi Declaration, which created the Arctic Environmental Protection Strategy (“AEPS”) to operationalize the Finnish Initiative. The Rovaniemi Declaration and the AEPS officially commenced an era of Arctic political institution building.⁷⁹

during this time was the Agreement on the Conservation of Polar Bears, which represented only five of the present-day Arctic states. Clive Archer & David Scrivener, *International Co-operation in the Arctic Environment*, in *THE ARCTIC: ENVIRONMENT, PEOPLE, POLICY* 601, 601-02 (Mark Nuttall & Terry V. Callaghan eds., 2000). By the late 1980s, global attention had turned towards the Arctic. The reasons for this included the rise of perestroika in Russia, growing interest in exploiting Arctic resources, and increasing awareness among scientists of the link between the Arctic’s physical condition and the state of the global environment. See SHADIAN, *ARCTIC SOVEREIGNTY*, *supra* note 67, at 105.

⁷⁷ Mary Simon, *Towards an Arctic Sustainable and Equitable Development Strategy; Some Preliminary Views*, in *PROTECTING THE ARCTIC ENVIRONMENT: REPORT ON THE YELLOWKNIFE PREPARATORY MEETING, APRIL 18–23, 1990*, YELLOWKNIFE, NWT, CANADA (1990).

⁷⁸ *Id.*

⁷⁹ It should be noted that prior to the Rovaniemi Declaration, there was a formal multilateral treaty on the Conservation of Polar Bears, signed in Oslo, Nov. 15, 1973 by the five nations with the largest polar bear populations: Canada, Denmark (Greenland), Norway (Svalbard), the United States, and the Soviet Union. Archer & Scrivener, *supra* note 76, at 602.

At the outset, the indigenous groups were not signatories to the AEPS, but instead the Arctic states merely committed themselves to “continue to promote cooperation with the arctic [sic] indigenous peoples and to invite their organizations to future meetings as observers.”⁸⁰ Nevertheless, the Declaration recognized “the special relationship of the indigenous peoples and local populations to the Arctic and their unique contribution to the protection of the arctic environment.”⁸¹

As discussions of an Arctic Council progressed, however, the Arctic states determined that the indigenous participants should be granted a special status, though its precise definition was still not resolved. There was no existing document or reference stating clearly how this status would differ from other existing observers such as various NGOs. Central to this ambiguity was whether or not special status inferred that the indigenous representatives were merely special participants or if this would give them equal standing as part of the managerial board.⁸²

This ambiguity was eventually resolved over the course of the biannual meetings of the executive level of the AEPS, the Senior Arctic Officials (“SAO”). These meetings gradually increased the scope of interest in the initiative to include coordination with NGOs, governmental scientists, indigenous peoples, and other actors with expertise in Arctic concerns. Yet the role and consistent contributions of three indigenous peoples organizations — the ICC, the Sámi Council and the Association of the Indigenous Minorities of the North, Siberia, and the Far East of the Russian Federation (“RAIPON”) — led to their transition from observers to Permanent Participants (“PPs”), with a mandate to help with “articulating the consensus” at the SAO and ministerial meetings.⁸³

By 1996, all eight Arctic countries had given their support to ratify the Declaration for the Arctic Council and at that time the three initial indigenous peoples organizations were formally designated PPs. In 2000, the Aleut International Association (“AIA”) became a permanent participant in the first Iqaluit Declaration. The Arctic Athabaskan

⁸⁰ Monica Tennberg, “Indigenous Peoples” Involvement in the Arctic Council, 4 NORTHERN NOTES 21 (Dec. 1996), available at <http://arcticcircle.uconn.edu/NatResources/Policy/tennberg.html>.

⁸¹ *Id.*

⁸² SHADIAN, ARCTIC SOVEREIGNTY, *supra* note 67, at 119.

⁸³ Archer & Scrivener, *supra* note 76, at 608.

Council (“AAC”), and the Gwich’in Council International (“GCI”) were then established as PPs in the Barrow Declaration.⁸⁴

The structure that the Arctic Council created, which included a formal role for indigenous organizations, did not previously exist in the realm of traditional state-centered international relations. Specifically, the six indigenous organizations sit at the table as ministers, debate the issues with the other ministers, and receive recognition by the Chair in all matters. During the two-year period between meetings, PPs are full partners in all working groups including the ability to submit projects and activities.⁸⁵

The Arctic Council was established as a consensus-based body, constituted through political declaration rather than a legally binding charter. The central mandate of the Arctic Council is to help facilitate sustainable economic and social development in the Arctic, and it remains to date the most important fully circumpolar intergovernmental institution. With the creation of the Arctic Council, the AEPS became subsumed under the Arctic Council as an initiative. The overarching objective of the Arctic Council is to “provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of Arctic indigenous communities and other Arctic inhabitants on common issue, in particular issues of sustainable development and environmental protection in the Arctic.”⁸⁶ Structurally, the Arctic Council is comprised of the eight Arctic countries and six permanent indigenous participants (all of which sit at the table). The Arctic Council also has a total of thirty-two observers. Observers can be non-Arctic states, inter-governmental and inter-parliamentary organizations, global and regional, non-governmental organizations “that the Council determines can contribute to its work.”⁸⁷ At the present time, twelve non-Arctic states, nine

⁸⁴ Arctic Council, Barrow Declaration on the Occasion of the Second Ministerial Meeting of the Arctic Council 1, 6, 8 (Oct. 13, 2000), *available at* http://oaarchive.arctic-council.org/bitstream/handle/11374/87/02_barrow_declaration_2000_signed.pdf.

⁸⁵ Because the Arctic Council is a consensus-based organization, PPs work together with the Arctic states to reach consensus on all matters. *Id.* at 2.

⁸⁶ The Ottawa Declaration also explicitly states that the Arctic Council will not deal with matters related to military security. Arctic Council, Declaration on the Establishment of the Arctic Council (Sept. 19, 1996), *available at* https://oaarchive.arctic-council.org/bitstream/handle/11374/85/00_ottawa_decl_1996_signed%20%284%29.pdf.

⁸⁷ *Id.* at art. 3.

intergovernmental and inter-parliamentary organizations, and eleven nongovernmental organizations have been granted observer status.⁸⁸

The criteria for admitting observers includes among other factors “the extent to which observers”: (1) “[a]ccept and support the objectives of the Arctic Council,” (2) recognize Arctic States have “sovereignty, sovereign rights, and jurisdiction in the Arctic”; and (3) “[r]ecognize that an extensive legal framework applies to the Arctic Ocean including, notably, the Law of the Sea and that this framework provides a solid foundation for responsible management of this ocean.”⁸⁹ Observers must also “[r]espect the values, interests, culture, and traditions of Arctic indigenous peoples and other Arctic inhabitants” and must demonstrate “a political willingness as well as financial ability to contribute to the work of the Permanent Participants and other Arctic indigenous peoples.”⁹⁰

Once admitted, observers are invited to Arctic Council meetings in a limited, non-voting capacity. For instance, they are not allowed to participate in the SAO meetings (these meetings are only open to the Arctic states and PPs). They can, however, participate more fully in the Council’s working groups. The last round of admitted countries took place in May 2013 when China, India, Italy, Japan, and South Korea were given observer status. In the lead up to their admission and partly due to the unprecedented number of applications, the Arctic Council updated its criteria for admission. Under this revised process, an application by the EU — among a number of other applications — was postponed.⁹¹ Despite this decision, the Arctic

⁸⁸ *Observers*, ARCTIC COUNCIL (May 7, 2015), <http://www.arctic-council.org/index.php/en/about-us/arctic-council/observers>.

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ Reports have argued that the Arctic Council had concerns over the 2010 European Union (“EU”) ban on the import and sale of seal fur, meat and other products and subsequently a consensus was made by the Arctic Council that the EU did not sufficiently respect the values, interests, culture and traditions of Arctic indigenous peoples, which is one prerequisite for obtaining observer status. See Timo Koivurova et al., *The Present and Future Competence of the European Union in the Arctic*, 48 POLAR REC. 361, 366-69 (2012). In a *Financial Times* report regarding the application for permanent status, Lawrence Cannon, Canada’s Foreign Affairs Minister, stated: “Canada doesn’t feel that the European Union, at this stage, has the required sensitivity to be able to acknowledge the Arctic Council, as well as its membership, and so therefore I’m opposed to it.” Joshua Chaffin, *Canada Slows EU Entry to Arctic Council*, FIN. TIMES (Apr. 29, 2009), www.ft.com/cms/s/0/bacb51ee-34e8-11de-940a-00144feabdc0.html. The Arctic Council ultimately deferred the granting of observer status to the EU until after “the concerns of Council members” are resolved. Jim Bell, *Canada Wants Permanent Fix for EU Seal Hunt Dispute: Aglukkaq*, NUNATSIAQ NEWS (May 16, 2013), www.nunatsiaqonline.ca/

Council generally takes the approach that it is better to work with interested observers than to exclude them.

The Arctic Council has six working groups: Arctic Contaminants Action Program (“ACAP”); Arctic Monitoring and Assessment Programme (“AMAP”); Conservation of Arctic Flora and Fauna (“CAFF”); Emergency Prevention, Preparedness and Response (“EPPR”); PAME; and the Sustainable Development Working Group (“SDWG”).⁹² Most importantly for the unconventional energy context, as mentioned in the introduction, PAME, in collaboration with other working groups, has produced offshore oil and gas guidelines, with its most recent update report in 2014.⁹³ The Council’s first set of guidelines, almost two decades ago, were an outcome of the Report of the Third Ministerial Conference on the Protection of the Arctic Environment in March 1996.⁹⁴

In 2002, the Guidelines were updated by the PAME working group with the help of EPPR, AMAP, and CAFF. The 2002 Guidelines included the involvement of representatives of Arctic, regional and other governments, non-governmental organizations, industry, indigenous people, and the scientific community. Since 2002, several new resources have been made available and in 2014 the guidelines were once again updated.⁹⁵ Section III.B.1 discusses the 2014 guidelines in more depth.⁹⁶

Growing interest in the Arctic has also prompted the Arctic Council to move away from being a consensus based, policy-shaping organization into being more of a policymaking regime in some instances. Most noteworthy in the context of oil and gas development are the 2011 Agreement on Cooperation in Aeronautical and Maritime Search and Rescue in the Arctic (“SAR”); 2013 Agreement on Cooperation on Marine Oil Pollution, Preparedness and Response in the Arctic; and 2015 Framework Plan for Cooperation on Prevention of Oil Pollution from Petroleum and Maritime Activities in the Marine Areas of the Arctic.⁹⁷ As discussed in more depth in Part III, the 2015

stories/article/65674canada_wants_permanent_fix_for_eu_seal_hunt_dispute_aglukkaq.

⁹² *Working Groups*, ARCTIC COUNCIL (June 29, 2015), <http://www.arctic-council.org/index.php/en/about-us/working-groups>.

⁹³ *New Guidelines from PAME on Arctic Oil and Gas Safety Management*, *supra* note 27.

⁹⁴ *Id.*

⁹⁵ *New Guidelines from PAME on Arctic Oil and Gas Safety Management*, PAME (May 5, 2014), <http://pame.is/index.php/shortcode/blog/item/30-aoogg-2014/30-aoogg-2014>.

⁹⁶ *See infra* Part III.B.1.

⁹⁷ *See* Press Release, Arctic Council, Arctic Council Renews Commitment to Arctic Economic and Social Development and Environmental Protection (Apr. 24, 2015),

Framework Plan, approved by the Arctic state ministers on April 24, 2015, supports cooperation among not only Arctic nations, but also with industry and indigenous peoples.⁹⁸

Aside from the formal working groups, in May 2013, as part of Canada's chairmanship, the Arctic Council agreed to establish a circumpolar business forum. The mandate of this new Arctic Economic Council is to "foster business development in the Arctic, engage in deeper circumpolar cooperation, and provide a business perspective to the work of the Arctic Council."⁹⁹ The founding meeting took place in September 2014 in Iqaluit, Nunavut, Canada. Several oil and gas industry executives are part of this Council as nominated representatives of Arctic states in this process.¹⁰⁰

The transition of the Arctic Council Chairmanship in April 2015 from Canada to the United States (2015–17) brought additional focus on unconventional energy development. This emphasis on unconventional energy began in the lead up to the Chairmanship. For example, Senator Murkowski of Alaska made the following comments on the Senate floor upon her return from the Arctic Council ministerial meeting in Kiruna, Sweden in May 2013:

In 2015, the gavel of that chairmanship will pass from Canada to the United States, so we will be working to set the agenda, although it is a very consensus-driven process [T]hese consensus initiatives that help to advance the dynamic in an evolving part of the world. In Nuuk, the first-ever binding agreement of the parties was entered into, and this was a search-and-rescue agreement

Yesterday, in Kiruna, it was the adoption of the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic. There is a recognition that in the

available at <http://www.arctic-council.org/index.php/en/ministerial-meetings/27-iqaluit-ministerial-2015/94-news-release-post-iqaluit>; *Agreements*, ARCTIC COUNCIL, <http://www.arctic-council.org/index.php/en/our-work/agreements> (last updated Sept. 16, 2015).

⁹⁸ See ARCTIC COUNCIL, FRAMEWORK PLAN FOR COOPERATION ON PREVENTION OF OIL POLLUTION FROM PETROLEUM AND MARITIME ACTIVITIES IN THE MARINE AREAS OF THE ARCTIC (Apr. 24, 2015), available at https://oaarchive.arctic-council.org/bitstream/handle/11374/609/ACMMCA09_Iqaluit_2015_SAO_Report_Annex_3_TFOPP_Framework_Plan.pdf [hereinafter FRAMEWORK PLAN FOR COOPERATION].

⁹⁹ *Arctic Economic Council*, ARCTIC COUNCIL (Jan. 28, 2014), <http://www.arctic-council.org/index.php/en/our-work2/8-news-and-events/195-aec-2>.

¹⁰⁰ See *Representatives*, ARCTIC ECON. COUNCIL (2016), <http://arcticeconomiccouncil.com/about-us/representatives>.

Arctic, where some 15 percent of the world's known oil and gas reserves are situated, there will be activity. We are seeing it in Russia to our left-hand side; we are seeing it in Canada to our right-hand side. In the United States, as we all know, Shell attempted to begin exploration this year. There have been previous exploration efforts up in the Beaufort and in the Chukchi. Whether you are for or against oil development here in this country, the recognition is that within the Arctic nations there is activity. There are ongoing efforts, whether it is through exploration or, hopefully, production that will move forward.

... [W]e are putting forward collaboration and collective agreements so there is an understanding that in the event — hopefully, a very unlikely event — something would ever happen, there is an understanding as to how all the nations act, the level of preparation that moves forward.¹⁰¹

In light of these interests, the United States established that its Chairmanship will include a focus on better preparation for a maritime disaster or oil spill, increasing resiliency in Arctic communities, and establishing new marine protected areas.¹⁰² This includes increased “sharing of oil spill preparedness and response capabilities” and the continued development of specialized pollution response resources and operational guidelines for responses in broken ice and ice-covered areas.¹⁰³ The United States also seeks to improve SAR through the coordination of table-top exercises and possibly a “full scale live exercise.”¹⁰⁴ In recognition of this role, a number of the key think tanks making recommendations in the lead up to the Chairmanship focused specifically on how the U.S. chairmanship could be used to address offshore oil and gas regulation.¹⁰⁵

The Arctic Council — despite its limited formal authority — is playing a key role in involving public and private stakeholders to

¹⁰¹ *Congressional Record*, Volume 159, Number 69 (Thursday, May 16, 2013), GOV'T PUBLISHING OFF., <https://www.gpo.gov/fdsys/pkg/CREC-2013-05-16/html/CREC-2013-05-16-pt1-PgS3538-2.htm> (last visited Mar. 28, 2016).

¹⁰² See *One Arctic: Shared Opportunities, Challenges and Responsibilities*, U.S. DEP'T ST. (2014), <http://www.state.gov/e/oes/ocns/opa/arc/uschair>.

¹⁰³ Julie Gourley, *One Arctic: Shared Opportunities, Challenges and Responsibilities*, U.S. DEP'T ST. 1, 12 (2014), <http://www.knom.org/wp-audio/2014/11/2014-11-03-US-Chair-Arctic-Council.pdf>.

¹⁰⁴ *Id.* at 13.

¹⁰⁵ See EBINGER ET AL., *supra* note 12, at 48-54.

establish a regional approach to addressing the risks of offshore oil and gas development. Yet how much the United States can accomplish during its chairmanship and whether or not the land locked country of Finland will place equal emphasis on this issue when it takes the Chairmanship in 2017 remains to be seen.¹⁰⁶

Moreover, additional Arctic Council governance issues likely will influence its role in the oil and gas context. First, a key issue facing the Arctic Council is whether or not the PPs will continue to maintain their authority in the face of its increasing efforts to make formally binding policies. The indigenous organizations that serve as PPs play a limited (and at times nonexistent) role in traditional treaty making. At the same time, their inclusion is critical because indigenous peoples in many cases have rights — which at times include ownership — to the lands, seas and resources where they live. Other commentators worry more generally about the diluting effect of new powerful nation-state observers, as well as the increasing number of observers in other categories despite recent efforts to limit that growth.¹⁰⁷

Second, the U.S. domestic interface with the Arctic Council remains highly fragmented with different agencies serving as leads for each of the six working groups. Although the State Department officially serves in a coordinating role, the United States will need to make sure that its approach is more coherent and coordinated in order to maximize its effectiveness during its term as chair. In one step in this direction, on January 21, 2015, President Obama signed an Executive Order 13689 on Enhancing Coordination of National Efforts in the Arctic.¹⁰⁸ The executive order “established an Arctic Executive Steering Committee (“Steering Committee”), which shall provide guidance to executive departments and agencies (“agencies”) and enhance coordination of Federal Arctic policies across agencies and offices, and, where applicable, with State, local, and Alaska Native tribal governments and similar Alaska Native organizations, academic and research institutions, and the private and nonprofit sectors.”¹⁰⁹

¹⁰⁶ For a discussion of the current U.S. work under its Chairmanship, see *U.S. Chairmanship 2015–2017*, ARCTIC COUNCIL (2015), <http://www.arctic-council.org/index.php/en/about-us/arctic-council/u-s-chairmanship>.

¹⁰⁷ See Andrea Charron, *Has the Arctic Council Become Too Big?*, INT’L REL. & SECURITY NETWORK (Aug. 15, 2014), <http://www.isn.ethz.ch/Digital-Library/Articles/Detail/?id=182827> (exploring the complexities of this expansion).

¹⁰⁸ See generally Exec. Order No. 13,689, 80 Fed. Reg. 4191 (Jan. 26, 2015), available at <https://www.gpo.gov/fdsys/pkg/DCPD-201500039/pdf/DCPD-201500039.pdf>.

¹⁰⁹ *Id.* In particular, its charge has been described as follows:

The Steering Committee includes representatives from the key agencies involved in Arctic-relevant issues, and may help address some of the fragmentation concerns with the U.S. interface with the Arctic Council over time.¹¹⁰

The Steering Committee, in coordination with the heads of relevant agencies and under the direction of the Chair, shall:

(a) provide guidance and coordinate efforts to implement the priorities, objectives, activities, and responsibilities identified in National Security Presidential Directive 66/Homeland Security Presidential Directive 25, Arctic Region Policy, the National Strategy for the Arctic Region and its Implementation Plan, and related agency plans;

(b) provide guidance on prioritizing Federal activities, consistent with agency authorities, while the United States is Chair of the Arctic Council, including, where appropriate, recommendations for resources to use in carrying out those activities; and

(c) establish a working group to provide a report to the Steering Committee by May 1, 2015, that:

(i) identifies potential areas of overlap between and within agencies with respect to implementation of Arctic policy and strategic priorities and provides recommendations to increase coordination and reduce any duplication of effort, which may include ways to increase the effectiveness of existing groups; and

(ii) provides recommendations to address any potential gaps in implementation.

...

[D]evelop a process to improve coordination and the sharing of information and knowledge among Federal, State, local, and Alaska Native tribal governments and similar Alaska Native organizations, and private-sector and nonprofit-sector groups on Arctic issues; . . . [In order to do this the steering committee will] establish a process to ensure tribal consultation and collaboration, consistent with my memorandum of November 5, 2009 (Tribal Consultation).

¹¹⁰ See *id.* Specifically, it includes:

(i) the heads, or their designees, of the Office of Science and Technology Policy, the Council on Environmental Quality, the Domestic Policy Council, and the National Security Council;

(ii) the Executive Officer of the Steering Committee, who shall be designated by the Chair of the Steering Committee (Chair); and

(iii) the Deputy Secretary or equivalent officer from the Departments of State, Defense, Justice, the Interior, Agriculture, Commerce, Labor, Health and Human Services, Transportation, Energy, and Homeland Security; the

Finally, beyond any direct questions of the Arctic Council's governance role and effectiveness, several other entities are also addressing standards and resource management issues regarding offshore drilling and oil spills. The following sections detail those additional roles and the complexity that they add.

C. Trade Associations and Standard Setting Organizations

Parallel to the supranational agreements reached through UNCLOS and the latest agreements concerning offshore activities by the Arctic Council, several trade associations and standard-setting organizations — most notably the American Petroleum Institute; International Oil and Gas Producers Association; IPIECA, the global oil and gas industry association for environmental and social issues; and International Organization for Standardization — have all taken recent steps to try to support safer and more effective industry practices.¹¹¹ This Section describes the efforts of those four entities, as well as some of the other oil and gas industry activities.

The American Petroleum Institute (“API”) is a U.S. national trade association that focuses on all aspects of the oil and natural gas industry. It originated during World War I, when the oil and gas industry worked together with Congress to support the war effort. Its members “are dedicated to continuous efforts to improve the compatibility of their operations with the environment while economically developing energy resources and supplying high quality products and services to consumers.”¹¹² API has helped to develop oil and gas industry equipment and operating standards since 1924. It works with industry experts to maintain over 600 standards and recommended practices, and distributes over 300,000 documents annually.¹¹³

API has issued several standards regarding offshore drilling, including ones on pipelines, platforms, and safety management in offshore

Office of the Director of National Intelligence; the Environmental Protection Agency; the National Aeronautics and Space Administration; the National Science Foundation; the Arctic Research Commission; and the Office of Management and Budget; the Assistant to the President for Public Engagement and Intergovernmental Affairs, or his or her designee; and other agencies or offices as determined appropriate by the Chair.

¹¹¹ See EBINGER ET AL., *supra* note 12, at 21-33.

¹¹² *About API*, AM. PETROLEUM INST., <http://www.api.org/globalitems/globalheaderpages/about-api> (last visited Mar. 28, 2016).

¹¹³ *Publications, Standards, and Statistics Overview*, AM. PETROLEUM INST., <http://www.api.org/publications-standards-and-statistics> (last visited Mar. 28, 2016).

operations.¹¹⁴ Its RP 2N standard focuses on “Planning, Designing, and Constructing Structures and Pipelines for Arctic Conditions” in particular, indicating that it should be used together with other offshore drilling-related standards. It provides recommended practice for the Arctic environment for several systems, including:

- offshore concrete, steel, and hybrid structures, sand islands, and gravel islands used as platforms for exploration, drilling or production;
- offshore ice islands used as platforms for exploration drilling;
- near shore causeways;
- offshore pipelines; and
- shore crossings for pipelines¹¹⁵

The International Association of Oil and Gas Producers (“IOGP”) provides a forum for leading publicly-traded, private and state-owned oil and gas companies, industry associations, and major upstream service companies to identify and share best practices. IOGP was formed in 1974 to foster effective communications between the ever-more complex network of international regulators and upstream industry. Its members produce over half of the world’s oil and roughly a third of its gas, making it a particularly significant association.¹¹⁶

In 2014, IOGP formed an Arctic Committee out of a recognition of the region’s important role in meeting the world’s energy demand in coming decades. That committee will:

- Act as the technical and advocacy focal point for the E&P industry on issues related to upstream activities in the Arctic and cold region environments more generally, consistent with the principles of sustainability.
- Develop a long-term strategy to address the key Arctic issues for the upstream industry.

¹¹⁴ See EBINGER ET AL., *supra* note 12, at 30.

¹¹⁵ See AM. PETROLEUM INST., PUBLICATIONS, PROGRAMS AND SERVICES 1-42 (2014), available at <http://www.api.org/~media/Files/Publications/Catalog/Final-catalog.pdf> (listing the recommended practices and requirements for these systems).

¹¹⁶ See *About IOGP*, INT’L ASS’N OIL & GAS PRODUCERS, <http://www.iogp.org/About-IOGP> (last visited Mar. 28, 2016).

- Review and shape work of global importance being carried out within IOGP standing committees and in other entities regarding the development of good practices and guidelines associated with working in Arctic conditions.
- Monitor, review and contribute to international and regional regulatory and policy developments in relation to the Arctic.
- Establish and support industry positions with respect to regulatory developments and, through the IOGP secretariat, advocate and communicate those positions in close liaison with national/regional associations.¹¹⁷

IOGP also established the Arctic Coordination Task Force to serve as the “technical and advocacy focal point for the E&P industry on issues related to upstream activities in the Arctic.” The task force has the following objectives:

- Develop a long-term strategy to address the key arctic issues for upstream industry
- Review and shape projects of pan-arctic importance being carried out within OGP and other entities
- Monitor, review and contribute to and provide advocacy on policy and regulatory developments affecting the Arctic
- Advise IOGP of issues impacting industry’s ability to gain access and operate in arctic regions.¹¹⁸

The task force is currently focusing on issues of Arctic science, Arctic spill response, climate change mitigation, the effect of sounds on marine life, the development of technology and operating standards, natural resources development and management, and indigenous peoples.¹¹⁹

In addition, IOGP has developed and published guidelines and a good practice guide for Arctic environmental protection. It produced recommendations for preventing, intervening and responding to well incidents in the aftermath of the BP *Deepwater Horizon* disaster. It also helped to form the Arctic Oil Spill Response Technology Joint

¹¹⁷ See INT’L ASS’N OF OIL & GAS PRODUCERS, OGP HIGHLIGHTS 1 (Feb.–Mar. 2014), available at <http://www.iogp.org/PapersPDF/1403.pdf>.

¹¹⁸ See *Arctic Committee*, INT’L ASS’N OIL & GAS PRODUCERS, <http://www.iogp.org/arctic-committee> (last visited Mar. 28, 2016).

¹¹⁹ See *id.*

Industry Programme (“JIP”), which brings together companies to research and develop technologies and approaches for responding to Arctic marine oil spills. IOGP advocated for the formation of the Subsea Well Response Project (“SWRP”), serves as a non-governmental observer to the Convention for the Protection of the Marine Environment of the North-East Atlantic (“OSPAR”), and applied for — but was denied — Arctic Council observer status.¹²⁰

Like IOGP, IPIECA is a “global oil and gas industry association for environmental and social issues” formed in 1974. Its members also produce over half the world’s oil, but, unlike IOGP, they include both upstream and downstream oil and gas industry participants. Its formation was tied to the launch of the United Nations Environment Programme (“UNEP”), and IPIECA serves as the primary mechanism through which the industry communicates with the United Nations.¹²¹

IPIECA has oil spill preparedness as one of its focus areas,¹²² and has been very active on Arctic issues. In 2009, IPIECA created an Oil Spill Response in the Arctic Task Force focused on improving “coordination of industry efforts in identifying research needs for spills in cold environments.” Its initial meeting in 2009 aimed to advance work on an IPIECA/API publication on *Oil Spill Response in Arctic and Cold Climate Conditions*, and to analyze technology and research needs regarding spills in cold environments.¹²³ IPIECA also co-authored a report with IOGP on *Spill Response in the Arctic Offshore* that the JIP used as the basis for a white paper.¹²⁴

The International Organization for Standardization (“ISO”) is an independent, non-governmental membership organization that develops voluntary international standards. It has sixty-three member countries and is the largest organization of its kind in the world. ISO’s Technical Committee 67 focuses on structures used in offshore oil and gas exploration. The Committee’s scope includes “[s]tandardization of the materials, equipment and offshore structures used in the drilling, production, transport by pipelines and processing of liquid and

¹²⁰ See EBINGER ET AL., *supra* note 12, at 31.

¹²¹ See *About Us*, IPIECA, <http://www.ipieca.org/about-us> (last visited Mar. 28, 2016).

¹²² See *Oil Spill Preparedness*, IPIECA, <http://www.ipieca.org/focus-area/oil-spill-preparedness> (last visited Mar. 28, 2016).

¹²³ See *Oil Spill Response in the Arctic Task Force Formed*, IPIECA (Oct. 14, 2009), <http://www.ipieca.org/?q=news/20091015/oil-spill-response-arctic-task-force-formed>.

¹²⁴ See ARCTIC RESPONSE TECH. OIL SPILL PREPAREDNESS, *SPILL RESPONSE IN THE ARCTIC OFFSHORE 1* (2012), available at <http://www.arcticresponsetechnology.org/wpcontent/uploads/2012/11/FINAL-printed-brochure-for-ATC.pdf>.

gaseous hydrocarbons within the petroleum, petrochemical and natural gas industries.”¹²⁵ The ISO has published 198 standards related to this Committee, with twenty-three under its direct responsibility. Thirty-two countries are participating in this Committee and thirty-four more are observing.¹²⁶

Through its committee working on offshore drilling, the ISO has done significant standards development focused on the Arctic. Its ISO-19906 standard addresses Arctic offshore structures, and several Arctic nations are adopting it.¹²⁷ The ISO also created Subcommittee 8 on Arctic operations within Technical Committee 67.¹²⁸ The Subcommittee has established working groups on the working environment; escape, evacuation, and rescue; environmental monitoring; ice management; Arctic materials; physical environment for Arctic operations; and man-made islands and land extension. This subcommittee will also be responsible for developing standards for oil and gas operations in cold climate regions that aim to ensure safe and effective Arctic oil and gas operations and protection of the environment and the people working and living in these regions.¹²⁹

Other entities discussed in this Section are working to collaborate with the ISO. For example, the IOGP’s Arctic Coordination Task Force is seeking to be a formal liaison to Subcommittee 8. In addition, the Barents 2020 project, which focuses on developing safety standards for the Barents Sea between Russia and Norway, has submitted recommendations to the ISO.¹³⁰

These various interrelated efforts by leading industry and standard setting organizations are only some of the most Arctic specific and well developed. Numerous other private and public-private entities are

¹²⁵ *ISO/TC 67 Materials, Equipment and Offshore Structures for Petroleum, Petrochemical and Natural Gas Industries*, ISO, http://www.iso.org/iso/iso_technical_committee?commid=49506 (last visited Mar. 28, 2016).

¹²⁶ *See id.*

¹²⁷ *See ISO 19906:2010*, ISO (Dec. 15, 2010), http://www.iso.org/iso/catalogue_detail.htm?csnumber=33690; EBINGER ET AL., *supra* note 12, at 33 (stating that the European Union has adopted it, while Russia and Canada are in the process of adopting it).

¹²⁸ *See ISO/TC 67/SC 8 Arctic Operations*, ISO (2011), http://www.iso.org/iso/standards_development/technical_committees/other_bodies/iso_technical_committee.htm?commid=652790.

¹²⁹ *See id.*; *ISO/TC 67/SC 8 — Arctic Operations, Standards Catalogue*, ISO (2016), http://www.iso.org/iso/home/store/catalogue_tc/catalogue_tc_browse.htm?commid=652790&development=on.

¹³⁰ *See* EBINGER ET AL., *supra* note 12, at 28-30; *Barents 2020 Reports*, DNVGL (2016), <https://www.dnvgl.com/oilgas/arctic/barents-2020-reports.html>.

doing work on relevant standards and safety in the Arctic offshore environment. The Brookings Energy Security Initiative Report highlights several additional initiatives and organizations beyond these examples.¹³¹ This quasi-regulatory behavior — these standards are generally voluntary — form an important part of how corporate efforts to develop Arctic offshore resources are governed. Because these organizations have such a broad membership in the oil and gas industry and collaborate with national governments, their standards end up influencing transnational behavior of companies with Arctic operations. Moreover, as discussed in Part III, these standards are becoming part of governmental regulation through incorporation, such as in emerging U.S. standards for offshore oil and gas exploration in the Arctic.

D. Public-Private Co-Management Arrangements

Industry-based entities are not the only private actors with significant governance responsibilities in the Arctic. The indigenous peoples of the Arctic are not simply affected by climate change and offshore drilling. They also have long-standing co-management arrangements with national governments and have developed their own corporate entities involved in aspects of oil and gas development. While it varies among Arctic states the extent to which indigenous peoples have shared authority over land and offshore resources, they have in certain places attained resource, land, and property rights in the Arctic and have organized to serve as an important voice in decision-making in international, regional, and national governmental processes.

Land claim processes in both the United States and Canada over the past four decades have resulted in arrangements that provide indigenous communities with some formal control. The historic Alaska Native Claims Settlement Act (“ANCSA”) in 1971 led to a number of native controlled governments including the North Slope Borough in 1972, a public government with an Inupiat majority. ANCSA also helped establish thirteen regional for profit corporations to facilitate the transfer of property and monetary compensation. Such corporations include the Arctic Slope Regional Corporation and NANA (Inupiat are the shareholders for both of them). In Canada, the federal government has settled a number of Northern land claims. For instance, in the specific context of Inuit land claims, the James Bay and Northern Quebec Agreement (“JBNQA”) of 1975 became the first

¹³¹ See also EBINGER ET AL., *supra* note 12, at 31-32.

Inuit land claims agreement. This was followed by the Inuvialuit Final Agreement, Northwest Territories in 1984; the Nunavut Agreement in 1993 (which came into effect in 1999); and the Inuit agreement in Labrador in 2005. Finally, in Nunavik, a series of agreements were reached with the federal government in 2007.¹³² Canadian Inuit have also developed major corporations with substantial revenues over this same time period — such as Makivik Corporation in Northern Quebec and Nunavut Tunngavik Inc. (“NTI”) in Nunavut, both of which closely interact with the governmentally-constituted arrangements.

These North American grants of power to indigenous communities vary in the form of governance they create. The Arctic Human Development Report (“AHDR”), for instance, distinguishes between devolution and co-management arrangements: “Devolution refers to the transfer of power to more local and regional jurisdictions and governments” whereas co-management “typically involves a sharing of power between the state and resource-user communities.”¹³³ Examples of devolution include the Alaska Native Claims Settlement Act (“ANCSA”) and the Nunavut Land Claims Agreement. Co-management pertains specifically to resource use and is a regime in which stakeholders share power in managing specific resources. In the North American context, co-management commonly refers to a “shared decision-making process, formal or informal, between a government authority and a user group for managing a species of fish and wildlife, or other resource[s].”¹³⁴ Co-management, as such, is not merely about consultation with indigenous communities after a project has been determined, but includes local community involvement from a project’s

¹³² ANCSA was the first Inuit land claim agreement which was signed in 1971. This was followed by the James Bay and Northern Quebec Agreement (“JBNQA”) passed in 1975; the Inuvialuit Final Agreement, Northwest Territories in 1984; the Nunavut Agreement in 1993 (put into effect in 1999); the Inuit agreement in Labrador in 2005 and finally, in Nunavik, a series of agreements were reached with the federal government in 2007.

¹³³ RICHARD A. CAULFIELD ET AL., ARCTIC HUMAN DEVELOPMENT REPORT 121, 129 (2004), available at http://svs.is/images/pdf_files/ahdr/English_version/AHDR_chp_7.pdf.

¹³⁴ *Id.* at 131. Co-management systems include a system of rights and obligations, rules that outline all shareholders responsibilities, and collective decision-making. *See id.* Co-management, as practiced in the Arctic, offers a space for knowledge sharing between users and scientists; acts as a balancing of power between users and government officials; provides a means for continual cooperation in research, education, and management; and recognizes cultural and linguistic differences as they impact effective understanding. *See also id.* at 129-31; F. Berkes et al., *Co-Management: The Evolution in Theory and Practice of the Joint Administration of Living Resources*, 18 ALTERNATIVES 1, 11-18 (1991).

inception. It thus serves as an important force shaping oil and gas development in communities whose rights extend to those resources.

The governance role of indigenous communities and Inuit communities in particular has translated into a number of specific initiatives with relevance for Arctic unconventional energy development. For instance, the Nunavut Community-Based Wildlife Monitoring Network, among other tasks, acquires data and Inuit and local ecological knowledge relating to management zones, critical harvesting and other areas. It also documents species abundance and movement patterns, for setting wildlife research and management priorities.¹³⁵ These efforts are critical pieces of the larger scientific research that encompasses any type of resource extraction including Arctic offshore oil and gas development.

Another example, which will be explored in more depth in Part III, is the Prince William Sound Regional Citizens' Advisory Council. This council was set up in the wake of the *Exxon Valdez* oil spill. Its mission is to promote environmentally safe operation of the Alyeska Pipeline marine terminal in Valdez and the oil tankers that use it. The council explains that it "regularly retains experts in various fields to conduct independent research on issues related to oil transportation safety."¹³⁶

These initiatives often complement and reflect the particularities of the governance and property rights that indigenous communities have obtained. For example, in most parts of the Canadian Arctic where there are land claims settlements, aboriginal environmental governance is a process of joint jurisdiction that legally specifies both aboriginal and government rights and responsibilities. The established comprehensive claims agreements have one or more sections specifying how the jurisdiction for fisheries and wildlife management are shared; these co-management boards are the main instruments of resource management.¹³⁷ For instance, the Beaufort Sea Integrated Management Planning Initiative ("BSIMPI") started in 1999 with the collaboration of Inuvialuit management and co-management bodies, Department of Fisheries and Oceans ("DFO"), Department of Indian and Northern Affairs ("INAC"), and the oil and gas industry. The

¹³⁵ See *Community-Based Wildlife Monitoring Network*, NUNAVUT WILDLIFE MGMT. BOARD (2016), <http://www.nwmb.com/en/component/content/article/97-english/sidebars/current-initiatives/107-community-based-wildlife-monitoring-network>.

¹³⁶ *About Us*, PRINCE WILLIAM SOUND REGIONAL CITIZENS' ADVISORY COUNCIL, <http://www.pwsrccac.org/about> (last visited Apr. 22, 2012).

¹³⁷ See Fikret Berkes et al., *Collaborative Integrated Management in Canada's North: The Role of Local and Traditional Knowledge and Community-Based Monitoring*, 35 COASTAL MGMT. 143, 147 (2007).

BSIMPI is comprised of two bodies: the Senior Management Committee and the Working Group. The BSIMPI Working Group is mandated to plan and deliver integrated ocean management activities, and link this work back to the communities. It is responsible for holding public meetings and for ensuring that the local Hunters and Trappers Committees, the Community Corporations which focus on economic development, and Elders' Committees are consulted and given the opportunity to comment on BSIMPI activities at regular intervals.¹³⁸

Moreover, the North-American arrangements that this Section has focused on thus far represent only one variation in how indigenous communities are participating in land management in the Arctic. Greenland Self-Rule, contrary to the devolution processes in Alaska and Canada which either directly or indirectly led to the creation of Inuit co-management regimes, has been a process, according to Frank Sejersen, of state building rather than devolution. Within the political capital of Nuuk, there is little discussion about co-management.¹³⁹ Instead citizens participate in resource management through citizen groups such as the Association of Fishermen and Hunters in Greenland ("KNAPK") or the Greenland Employers' Association ("GA"), (not totally unlike interest groups in the United States) which represent their constituents and lobby the Greenlandic government to enact policies in their favor.

When it comes to discussions around offshore oil and gas specifically, local communities are involved through processes of stakeholder dialogues (often taking place in Nuuk, where citizen groups speak on behalf of community members) or consultation processes where the companies involved in a project visit the communities that will be affected. These visits are often viewed as "explanations" *to* rather than consultations *with* local community members. In the case of Greenland, community frustrations with consultation processes includes feelings that the information provided

¹³⁸ See *id.* at 149.

¹³⁹ Frank Sejersen, *Local Knowledge in Greenland: Arctic Perspectives and Contextual Differences*, in *CULTIVATING ARCTIC LANDSCAPES: KNOWING AND MANAGING ANIMALS IN THE CIRCUMPOLAR NORTH* 33, 33-54 (D. Anderson & M. Nuttall eds., 2004). Greenland attained Home Rule in 1979. In 2009, Greenland Home Rule was replaced by Greenland Self Rule. A key component of the Self Rule legislation concerns Greenland's resources. While sovereign statehood was not sought, the new Self Rule Government acquired the right to develop its subsurface minerals, which were deemed to belong to Greenland. Thus, Greenland achieved total control over its renewable and non-renewable resources. *Id.*

is too technical, it fails to address the questions that are of importance to the community members, there is not enough time to learn about the project before the consultation, and community members are not well enough informed beforehand for the meeting.¹⁴⁰

Overall, the relationship between Arctic indigenous communities and unconventional energy development is nuanced, which plays out in these shared governance arrangements. For example, despite the media focus on and litigation over the ways in which climate change is disrupting traditional indigenous ways of life, a number of Inuit communities also treat the greater accessibility to natural resources, including offshore oil and gas, due to Arctic melting as a potential opportunity. For those communities, resource development is viewed as a means to improve standards of living and gain further economic autonomy, which was reflected in the mixed reactions to the Shell Oil pull out described in the Introduction.¹⁴¹ The May 2011 ICC Circumpolar Inuit Declaration on Resource Development Principles in Inuit Nunaat, for instance, states that:

[r]esponsible non-renewable resource development can also make an important and durable contribution to the well-being of current and future generations of Inuit. Managed under Inuit Nunaat governance structures, non-renewable resource development can contribute to Inuit economic and social development through both private sector channels (employment, incomes, businesses) and public sector channels (revenues from publicly owned lands, tax revenues, infrastructure). . . . Inuit welcome the opportunity to work in full partnership with resource developers, governments and local communities in the sustainable development of resources of Inuit Nunaat, including related policy-making, to the long-lasting benefit of Inuit and with respect for baseline environmental and social responsibilities.¹⁴²

¹⁴⁰ See *Ilisimatusarfik University of Greenland Successfully Hosts Nation's First Ever Oil and Gas Key Stakeholder Dialogue*, UARCTIC (Oct. 20, 2011), <http://www.uarctic.org/news/2011/10/ilisimatusarfikuniversity-of-greenland-successfully-hosts-nations-first-ever-oil-and-gas-key-stakeholder-dialogue>.

¹⁴¹ See *supra* INTRODUCTION.

¹⁴² ICC (INUIT CIRCUMPOLAR COUNCIL), *A CIRCUMPOLAR INUIT DECLARATION ON RESOURCE DEVELOPMENT PRINCIPLES IN INUIT NUNAAT* (2011), available at http://www.inuitcircumpolar.com/uploads/3/0/5/4/30542564/declaration_on_resource_development_a3_final.pdf.

At the same time, coastal Arctic indigenous communities such as Inuit in Alaska, Canada, and Greenland, as well as Aleut (in Alaska and Russia), often possess local/traditional knowledge needed to establish where and when offshore development comes into contact with Arctic mammal migration, fisheries, wildlife, and environmental changes more generally. Their local knowledge and proximity positions them to spot and participate in a response to an oil spill or other incident (indigenous coastal communities also, by proximity, could very well become first responders or the first contact on land as the Coast Guard and other entities can be hours or days if not weeks away, depending on weather conditions). Arctic indigenous coastal communities are, in effect, the “boots on the ground” and, as such, are already taking an active role in developing and participating in emergency response (from being first responders to monitoring problems or changes on and off shore in the Arctic to providing shelter for stranded people).¹⁴³

E. U.S. Regulation of Offshore Oil and Gas

For each of the Arctic states, a mix of public and private transnational entities interacts with a domestic law system regulating offshore drilling and oil spill responses. The U.S. approach, which is evolving in response to the BP *Deepwater Horizon* oil spill and growing interest in the Arctic, exemplifies the complexities of domestic regulation in this context. Moreover, as explored in Part III, federal regulatory efforts, despite their apparently clear role as a site for domestic national regulation, incorporate transnational governmental and nongovernmental efforts at standard setting.

With respect to the regulation of the offshore drilling generally, U.S. law provides a mix of federal and state authority.¹⁴⁴ Depending on how far from the coast drilling takes place, the federal and state governments (in the case, Alaska) have regulatory roles based on the Outer Continental Shelf Lands Act (“OCSLA”) and Coastal Zone Management Act (“CZMA”).¹⁴⁵ In addition, Alaska state contract law

¹⁴³ See Jane George, *Stranded Passengers Find Warmth in Kugluktuk*, NUNATSIAQ ONLINE (Aug. 30, 2010, 2:19 PM), http://www.nunatsiaqonline.ca/stories/article/3008109_Stranded-passengers_crew_find_warm_welcome_in_Kugluktuk.

¹⁴⁴ For Hari Osofsky’s in depth discussion of these governance structures and their complex dynamics, see Osofsky, *Multidimensional Governance*, *supra* note 32, at 1084, 1086-87.

¹⁴⁵ See Coastal Zone Management Act, 16 U.S.C. §§ 1451–1466 (2012); Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331–1356b (2012). Coastal states, with

applies as federal law to the various subcontracting relationships involved in the offshore drilling operations.¹⁴⁶

Federal regulation of offshore drilling is largely promulgated and enforced by the Department of the Interior (“DOI”) and the Coast Guard.¹⁴⁷ The Coast Guard oversees the platform level and DOI regulates sub-platform drilling systems.¹⁴⁸ The regulatory structure within DOI has changed in response to the BP *Deepwater Horizon* spill; Order 3299 separated leasing, environmental oversight, and money collection through establishing Bureau of Ocean Energy Management (“BOEM”); the Bureau of Safety and Environmental Enforcement (“BSEE”); and the Office of Natural Resource Revenue.¹⁴⁹ DOI Secretary Salazar also established an Ocean Energy Safety Advisory Committee, “a permanent advisory body of the nation’s leading scientific, engineering, and technical experts who will provide critical

some exceptions not relevant to the Arctic context, have jurisdiction that extends to three nautical miles from the shore at mean low tide. See 43 U.S.C. § 1337 (2012). The dividing of state and federal authority over the submerged land offshore contained in these statutes was first established under the Submerged Lands Act, ch. 65, 67 Stat. 29 (1953) (codified as amended at 43 U.S.C. §§ 1301–1315 (2012)). For an analysis of how this regime evolved, see Rachael E. Salcido, *Offshore Federalism and Ocean Industrialization*, 82 TUL. L. REV. 1355, 1375-96 (2008).

¹⁴⁶ See 43 U.S.C. § 1333 (2012); *Frugé ex rel. Frugé v. Parker Drilling Co.*, 337 F.3d 558, 560 (5th Cir. 2003) (“Federal jurisdiction is predicated on the Outer Continental Shelf Lands Act (OSCLA) . . . [and] OSCLA adopts the law of the adjacent state (Louisiana) as surrogate federal law, to the extent that it is not inconsistent with other federal laws and regulations.” (citations omitted)). For an example of the relevant Louisiana law, see LA. REV. STAT. ANN. § 9:4807(C) (2015) (“A subcontractor is one who, by contract made directly with a contractor, or by a contract that is one of a series of contracts emanating from a contractor, is bound to perform all or a part of a work contracted for by the contractor.”).

¹⁴⁷ See CURRY L. HAGERTY & JONATHAN L. RAMSEUR, CONG. RESEARCH SERV., R41262, DEEPWATER HORIZON OIL SPILL 13-17 (2010). For a discussion of the oil-spill response command structure, see Nat’l Comm’n on the BP Deepwater Horizon Oil Spill & Offshore Drilling, *Decision-Making Within the Unified Command 2* (Staff Working Paper No. 2, 2011), available at <http://cybercemetery.unt.edu/archive/oilspill/20121211010432/http://www.oilspillcommission.gov/sites/default/files/documents/Updated%20Unified%20Command%20Working%20Paper.pdf>.

¹⁴⁸ HAGERTY & RAMSEUR, *supra* note 147, at 16.

¹⁴⁹ See U.S. DEP’T OF THE INTERIOR, SECRETARIAL ORDER NO. 3299, ESTABLISHMENT OF THE BUREAU OF OCEAN ENERGY MANAGEMENT, THE BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT, AND THE OFFICE OF NATURAL RESOURCES REVENUE (May 19, 2010), available at <http://elips.doi.gov/ELIPS/0/doc/444/Page1.aspx>. For a discussion of the ways in which outside review failed to catch problems with MMS analysis and of how outside review could be more effective, see Holly Doremus, *Through Another’s Eyes: Getting the Benefit of Outside Perspectives in Environmental Review*, 38 B.C. ENVTL. AFF. L. REV. 247, 262-71, 272-79 (2011).

guidance on improving offshore drilling safety, well containment, and spill response.”¹⁵⁰

In addition to this reorganization and institutional development, the Obama Administration’s response to the *Deepwater Horizon* disaster included rule revisions and development with respect to drilling and worker safety. According to the BSEE, these include:

Enhanced Drilling Safety

- Operators must demonstrate that they are prepared to deal with the potential for a blowout and worst-case discharge per NTL-06.
- Permit applications for drilling projects must meet new standards for well-design, casing, and cementing, and be independently certified by a professional engineer per the new Drilling Safety Rule. Drilling standards have been strengthened in the exploration and development stages, for equipment, safety practices, environmental safeguards, and oversight.
- New guidance, through NTL-10, requires a corporate compliance statement and review of subsea blowout containment resources for deepwater drilling, a key lesson of the *Deepwater Horizon* oil spill.
- The bureau announced that they will begin to use multiple-person inspection teams for offshore oil and gas inspections. This internal process improvement will improve oversight and help ensure that offshore operations proceed safely and responsibly. The new process will allow teams to inspect multiple operations simultaneously and thoroughly, and enhance the quality of inspections on larger facilities.

¹⁵⁰ Salazar Names Members of Ocean Energy Safety Advisory Committee to Guide Oil and Gas Regulatory Program Reform, U.S. DEP’T INTERIOR (Mar. 11, 2011), <http://www.doi.gov/news/pressreleases/Salazar-Names-Members-of-Ocean-Energy-Safety-Advisory-Committee-to-Guide-Oil-and-Gas-Regulatory-Program-Reform.cfm>; see also Ocean Energy Safety Advisory Committee, Notice of Meeting, 76 Fed. Reg. 18,232 (Apr. 1, 2011); Establishment of the Ocean Energy Safety Advisory Committee, 76 Fed. Reg. 4,128 (Jan. 24, 2011); *Ocean Energy Safety Advisory Committee*, BUREAU SAFETY & ENVTL. ENFORCEMENT, <http://www.bsee.gov/about-bsee/public-Engagement/OESC/Index/> (last visited Jan. 1, 2016); BUREAU OF SAFETY & ENVTL. ENFORCEMENT, U.S. DEP’T OF THE INTERIOR, OCEAN ENERGY SAFETY ADVISORY COMMITTEE CHARTER (Jan. 30, 2013), available at http://www.bsee.gov/uploadedFiles/BSEE/About_BSEE/Public_Engagement/Ocean_Energy_Safety_Advisory_Committee/2011OceanEnergySafetyAdvisoryCommitteeCharter.pdf.

Enhanced Workplace Safety

- BSEE imposed, for the first time, requirements that offshore operators maintain comprehensive safety and environmental programs. This includes performance-based standards for offshore drilling and production operations, including equipment, safety practices, environmental safeguards, and management oversight of operations and contractors. Companies will now have to develop and maintain a Safety and Environmental Management System (“SEMS”) per the new Workplace Safety Rule.¹⁵¹

In April 2015, BSEE supplemented these efforts by proposing a new blowout preventer rule to address the issues that arose with that technology during the spill, which Section III.B.3 discusses in depth.¹⁵²

Beyond this broadly focused rulemaking, the post-spill reassessment — combined with (1) the push to explore increasingly accessible Arctic oil and gas and (2) concerns raised by environmental groups and some Alaska Native groups — caused the Obama Administration to decide to promulgate drilling regulations specifically focused on mobile offshore drilling units (“MODUs”) in the planning areas of the Arctic Chukchi and Beaufort Seas.¹⁵³ The rule proposed in February 2015 would ensure that each operator:

1. Designs and conducts exploration programs in a manner suitable for Arctic OCS [Outer Continental Shelf] conditions;
2. Develops an integrated operations plan (IOP) that would address all phases of its proposed Arctic OCS exploration program and submit the IOP to DOI, acting through its designee, BOEM, at least 90 days in advance of filing the Exploration Plan (EP);

¹⁵¹ *Regulatory Reform*, BUREAU SAFETY & ENVTL. ENFORCEMENT, <http://www.bsee.gov/About-BSEE/BSEE-History/Reforms/Reforms/> (last visited Jan. 1, 2016) (emphasis omitted).

¹⁵² See Oil and Gas and Sulphur Operations in the Outer Continental Shelf — Blowout Preventer Systems and Well Control, 80 Fed. Reg. 21504 (proposed Apr. 13, 2015) (to be codified at 30 C.F.R. pt. 250), available at http://www.bsee.gov/uploadedFiles/BSEE/Regulations_and_Guidance/Recently_Finalized_Rules/Well_Control_Rule/BSEE%202015-08587%20Final%20FR%2004-13-15.pdf [hereinafter Blowout Preventer Rule].

¹⁵³ See Arctic Drilling Rule, *supra* note 8.

3. Has access to, and the ability to promptly deploy, Source Control and Containment Equipment (SCCE) while drilling below, or working below, the surface casing;
4. Has access to a separate relief rig located so that it could timely drill a relief well in the event of a loss of well control under the conditions expected at the site;
5. Has the capability to predict, track, report, and respond to ice conditions and adverse weather events;
6. Effectively manages and oversees contractors; and
7. Develops and implements an Oil Spill Response Plan (OSRP) that is designed and executed in a manner suitable for the unique Arctic OCS operating environment and has the necessary equipment, training, and personnel for oil spill response on the Arctic OCS.¹⁵⁴

As discussed in more depth in Section III.C, both this rule and the new blowout preventer rule reflect the hybrid quality of governance in this context by including standards from transnational standard setting entities and approaches from the Arctic Council.¹⁵⁵

Although the new rules described previously include disaster planning, the response and spill liability regimes are largely constituted separately from efforts to regulate offshore drilling to prevent disaster. The federal government responds to major oil spills, such as the BP *Deepwater Horizon* spill, through the National Oil and Hazardous Substances Pollution Contingency Plan, often referred to as the National Contingency Plan (“NCP”). Several laws help to establish the NCP: the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (“CERCLA”) as amended by the Superfund Amendments and Reauthorization Act of 1986 (“SARA”), the Clean Water Act (“CWA”), and the Oil Pollution Act of 1990 (“OPA”).¹⁵⁶

¹⁵⁴ *Id.* at 5.

¹⁵⁵ *See infra* Part III.C.

¹⁵⁶ 40 C.F.R. § 300.2 (2015). The National Contingency Plan:

The NCP is required by section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9605, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. 99-499, (hereinafter CERCLA), and by section 311(d) of the Clean Water Act (CWA), 33 U.S.C. § 1321(d), as amended by the Oil Pollution Act of 1990 (OPA), Pub. L. 101-380. In Executive Order (E.O.) 12777 (56 FR 54757, October 22, 1991), the President delegated to the

The NCP, as written, sets up a federally-controlled approach to the response with opportunities for involvement and input by key state actors. The NCP establishes a national response team of fifteen key federal departments and agencies, as well as regional response teams that include state and local government representatives.¹⁵⁷ An On-Scene Coordinator leads this response effort under a unified command system.¹⁵⁸ However, the on-the-ground reality during the BP *Deepwater Horizon* spill response was far more complex, as smaller interagency groupings addressed specific issues, such as fisheries and dispersants, and state and local governments took independent action at times.¹⁵⁹

In addition to addressing the response, the OPA, paired with the CWA and other environmental law, establishes a federal framework for oil spill liability. However, it does not preempt similar state laws¹⁶⁰ and a number of states have established their own similar liability laws, often referred to as mini-OPAs.¹⁶¹

The long-term spill response to the BP *Deepwater Horizon* spill exemplifies the administrative complexity that would arise in the United States if a major spill took place in U.S. Arctic waters. The official government website on that spill includes fifteen federal partners in the response: Corporation for National and Community Service, Department of Agriculture, Department of Defense, Department of Energy, Department of Homeland Security, Department of the Interior, Department of Justice, Department of Labor, Environmental Protection Agency, Health and Human Services, National Aeronautics and Space Administration, National Oceanic and

Environmental Protection Agency (EPA) the responsibility for the amendment of the NCP. Amendments to the NCP are coordinated with members of the National Response Team (NRT) prior to publication for notice and comment. This includes coordination with the Federal Emergency Management Agency (FEMA) and the Nuclear Regulatory Commission in order to avoid inconsistent or duplicative requirements in the emergency planning responsibilities of those agencies. The NCP is applicable to response actions taken pursuant to the authorities under CERCLA and section 311 of the CWA, as amended.

Id.

¹⁵⁷ See *id.* §§ 300.105(c), .110(a), .175(b) (2015).

¹⁵⁸ See *id.* § 300.105(c), (d).

¹⁵⁹ See Osofsky, *Multidimensional Governance*, *supra* note 32, at 1091-93, 1095.

¹⁶⁰ 33 U.S.C. § 2718 (2012).

¹⁶¹ For an analysis of these “state mini-OPAs,” see Stanley A. Millan, *Escaping the “Black Hole” in the Gulf*, 24 TUL. ENVTL. L.J. 41, 66-67 (2010).

Atmospheric Administration, Small Business Administration, Research and Innovative Technology Administration, and the White House.¹⁶² These entities work collaboratively with a focus on thirteen areas of response and recovery: administration, assistance, data/energy, environment, food, health, investigation, military, travel, volunteer, weather, wildlife, and workers.¹⁶³ Moreover, in the context of the Arctic, more significant transnational issues may arise given the likelihood of a spill traveling into transnational waters, especially those of Russia and Canada.

The many governance arrangements described in this Part — which span levels of government and involve both public and private authorities and stakeholders — provide a dilemma for those trying to improve Arctic offshore oil and gas regulation. Namely, they are diverse and diffuse, and could not be supplanted easily by some overarching governmental agreement. Effective next steps need to take the many relevant entities and their roles into account, which constrains simple solutions. The next Part focuses on nascent efforts to create needed interconnections among these entities, which can serve as a basis for further collaboration.

III. EMERGING HYBRID COOPERATION

The previous Part explores the diversity of governance arrangements relevant to offshore oil and gas regulation in the Arctic. This Part analyzes the implications of that diversity for cooperation in disaster prevention and response. It focuses in particular on the hybridity — mixed public/private character — of most of the entities addressing oil and gas development to propose the value of what it terms “hybrid cooperation” in this and other complex governance contexts. As noted in the introduction, this form of cooperation involves diverse stakeholders at multiple levels of government combining their efforts either through creating institutions that bring them together or through integrating each other’s work in the agreements and regulations that they develop.

This Part begins in Section A by defining the concept of “hybrid cooperation.” Sections B and C then provide case examples of ways in

¹⁶² See *Federal Partners by Agency A–Z*, RESTORETHEGULF, <https://www.restorethegulf.gov/coast-guard-response/national-response-team/federal-partners-agency-z> (last visited Jan. 1, 2016).

¹⁶³ See *Federal Partners by Topic A–Z*, RESTORETHEGULF, <https://www.restorethegulf.gov/coast-guard-response/national-response-team/federal-partners-topic-z> (last visited Feb. 18, 2016).

which that cooperation appears in regulatory approaches and institutions. The Part concludes with an assessment of the benefits and limitations of hybrid cooperation in the Arctic offshore drilling context.

A. Defining Hybrid Cooperation

In order to provide a meaningful analysis of the role of hybrid cooperation in Arctic energy governance, we must first explain what we mean by that term. Such a definition is complicated, however, by the many forms that hybrid arrangements take and the overlapping but not identical analyses of these kinds of arrangements in the scholarly literature. For instance, polycentric governance,¹⁶⁴ global legal pluralism,¹⁶⁵ the New Haven School,¹⁶⁶ global administrative

¹⁶⁴ Polycentric governance approaches similarly engage the multi-level, multi-actor, mixed formal and formal governance dynamics that dominate the Arctic oil and gas context. For example, according to political scientist Jan Aart Scholte:

governance now also involves suprastate (regional and transworld) regimes that operate with some autonomy from the state. In addition, many substate (municipal and provincial) governments today engage directly with spheres beyond their state . . . governance . . . has become distinctly multi-layered and cross-cutting. Regulation occurs at — and through interconnections among — municipal, provincial, national, regional and global sites Thus in polycentric circumstances no site or level of governance has one-way sway over the others.

J.A. Scholte, *Globalization and Governance: From Statism to Polycentrism* 3, 21 (Ctr. for the Study of Globalisation and Regionalisation, Working Paper No. 130/04, 2004). Elinor Ostrom, Dan Cole, and Hari Osofsky, among others, have applied these ideas of polycentric governance in the context of climate change. Elinor Ostrom's 2009 World Bank Research Working Paper, in particular, helped open a broader conversation about the need to acknowledge the significance of a wide range of formal and informal action beyond the confines of the United Nations Framework Convention on Climate Change. See Elinor Ostrom, *A Polycentric Approach for Coping with Climate Change* (World Bank, Policy Research Working Paper No. 5095, 2009). For an example of scholarship building on this approach, see Daniel H. Cole, *From Global to Polycentric Climate Governance* (European Univ. Inst. Robert Schuman Ctr. for Advanced Studies, Working Paper No. 2011/30, 2011), available at https://www.researchgate.net/publication/228147855_From_Global_to_Polycentric_Climate_Governance.

¹⁶⁵ Global legal pluralism explores the multiple normative, and sometimes legal, communities operating in shared social space and the navigation of simultaneously valid orders. For examples of this approach in a variety of substantive contexts, see Robert B. Ahdieh, *Dialectical Regulation*, 38 CONN. L. REV. 863 (2006); Diane Marie Amann, *Calling Children to Account: The Proposal for a Juvenile Chamber in the Special Court for Sierra Leone*, 29 PEPP. L. REV. 167 (2001); Diane Marie Amann, *Current Debates in the Conflict of Laws: Application of the Constitution to Guantanamo Bay: Abu Ghraib*, 153 U. PA. L. REV. 2085 (2005); Elena A. Baylis, *Parallel Courts in Post-Conflict Kosovo*, 32 YALE J. INT'L L. 1 (2007); Paul Schiff Berman, *Global Legal Pluralism*, 80 S.

law,¹⁶⁷ network theory,¹⁶⁸ and reconceptualizations of globalization¹⁶⁹ and indigeneity¹⁷⁰ treat a diverse set of multilevel activity as relevant

CAL. L. REV. 1155 (2007); William W. Burke-White, *International Legal Pluralism*, 25 MICH. J. INT'L L. 963 (2004); Janet Koven Levit, *A Bottom-Up Approach to International Lawmaking: The Tale of Three Trade Finance Instruments*, 30 YALE J. INT'L L. 125 (2005); Ralf Michaels, *The Re-state-ment of Non-State Law: The State, Choice of Law, and the Challenge from Global Legal Pluralism*, 51 WAYNE L. REV. 1209 (2005). For Hari Osofsky's examination of pluralism in the context of climate change litigation, see Hari M. Osofsky, *Climate Change Litigation as Pluralist Legal Dialogue?*, 26 STAN. ENVTL. L.J. 181 (2007) [hereinafter *Climate Change*]. For an exploration of property rights in the context of legal pluralism, see Ruth S. Meinzen-Dick & Rajendra Pradhan, *Legal Pluralism and Dynamic Property Rights* (Int'l Food Policy Research Inst., CAPRI Working Paper No. 22, 2002), available at <http://dlc.dlib.indiana.edu/dlc/handle/10535/4231>.

¹⁶⁶ The New Haven School treats law as "a process of authoritative decision by which the members of a community clarify and secure their common interests." HAROLD D. LASSWELL & MYRES S. MCDUGAL, *JURISPRUDENCE FOR A FREE SOCIETY: STUDIES IN LAW, SCIENCE AND POLICY*, at xxi (1992); accord Myres S. McDougal et al., *The World Community: A Planetary Social Process*, 21 UC DAVIS L. REV. 807, 810-11 (1988). For a discussion of the New Haven School's goals, see LASSWELL & MCDUGAL, *supra*, at xxix. Ideas of new governance and polycentric governance share much in common with a variety of interdisciplinary approaches to legal pluralism, which in turn have much in common with the New Haven School, in that they all have a broad conception of lawmaking that incorporates a diverse set of activity. See Osofsky, *Climate Change*, *supra* note 165, at 184. Under such models, the wide range of activities trying to establish unconventional energy standards can be treated as part of a lawmaking process that also incorporates formal treaty processes and accompanying national legislation and regulation.

¹⁶⁷ For an analysis of key principles of global administrative law, see Benedict Kingsbury et al., *The Emergence of Global Administrative Law*, 68 L. & CONTEMP. PROBS. 15 (2005).

¹⁶⁸ Considerable scholarly literature across several disciplines explores the role of networks in governance, which is relevant to this context because many of the key stakeholders in the Arctic relate to one another through a variety of networks. For instance, the intersection of international law, international relations, and transgovernmentalism examines how relationships among a range of governmental and nongovernmental entities shape international governance. Anne-Marie Slaughter's *A New World Order*, for example, describes vertical and horizontal networks of governmental officials interacting with one another and with disaggregated international organizations. See ANNE-MARIE SLAUGHTER, *A NEW WORLD ORDER* 18-23 (2004). At the intersection of urban studies and geography, Saskia Sassen has explored how economic globalization and the emergence of new information and communication technologies have established world cities as key nodes for cross-border networks and resource concentration. See Saskia Sassen, *Locating Cities on Global Circuits*, 14 ENV'T & URBANIZATION 13 (2002), available at <http://eau.sagepub.com/content/14/1/13.full.pdf>. In the political geography scale literature, Kevin Cox has argued that different scales are themselves networks, focusing in particular on local spaces as comprised both of core local interactions and multi-level ones. See Kevin R. Cox, *Spaces of Dependence, Spaces of Engagement and the Politics of Scale, or:*

Looking for Local Politics, 17 POL. GEOGRAPHY 1, 2 (1998). At the intersection of law and anthropology, Annelise Riles has described the role of multilevel networks as Fijian activists and bureaucrats prepared for and then participated in the United Nations Fourth World Conference on Women. See ANNELISE RILES, *THE NETWORK INSIDE OUT* (2000). Hari Osofsky, using a law and geography approach, has considered the role of networks of cities in climate change governance. See, e.g., Hari M. Osofsky, *Multiscalar Governance and Climate Change: Reflections on the Role of States and Cities at Copenhagen*, 25 MD. J. INT'L L. 64 (2010); Hari M. Osofsky, *Rethinking the Geography of Local Climate Action: Multilevel Network Participation in Metropolitan Regions*, 2015 UTAH L. REV. 173 [hereinafter *Rethinking*]; Hari M. Osofsky, *Suburban Climate Change Efforts: Possibilities for Small and Nimble Cities Participating in State, Regional, National, and International Networks*, 22 CORNELL J.L. & PUB. POL'Y 395 (2012); Hari M. Osofsky & Janet Koven Levit, *The Scale of Networks?: Local Climate Change Coalitions*, 8 CHI. J. INT'L L. 409 (2008). While each of these accounts has a distinct focus and orientation, a common thread running through them is their analysis of the way in which interactions at multiple levels both inside and outside of the formal confines of law formation help to constitute governance.

¹⁶⁹ A number of political scientists, geographers, legal scholars, and sociologists rethink traditional notions of sovereignty and the state as the center of analysis. See, e.g., JENS BARTLESON, *A GENEALOGY OF SOVEREIGNTY* (1995); STATE SOVEREIGNTY AS SOCIAL CONSTRUCT (Thomas J. Biersteker & Cynthia Weber eds., 1996); John Agnew, *Sovereignty Regimes: Territoriality and State Authority in Contemporary World Politics*, 95 ANNALS ASSOC. AM. GEOGRAPHERS 437 (2005); Mathias Albert & Lothar Brock, *What Keeps the Westphalia Together? Normative Differentiation in the Modern System of States*, in IDENTITIES, BORDERS, ORDERS: RETHINKING INTERNATIONAL RELATIONS THEORY 29 (Mathias Albert et al. eds., 2001); Noel Castree, *Differential Geographies: Place, Indigenous Rights and "Local" Resources*, 23 POL. GEOGRAPHY 133 (2004). Some of these analyses focus on multilevel governance. See MULTI-LEVEL GOVERNANCE (Ian Bache & Matthew Flinders, eds. 2004).

¹⁷⁰ For instance, geographer Noel Castree has looked at how indigenous groups have constructed new ways of thinking about political relationships to land that go beyond traditional considerations of state sovereignty. See Castree, *supra* note 169, at 156. According to Castree, indigeneity is "both a reaction to and an embrace of translocal connectivity . . . or [globalization]." *Id.* (emphasis omitted). International Relations ("IR") scholar Jessica Shadian likewise contends that traditional notions of Westphalian sovereignty — in which sovereign and equal nation states create international law through binding agreements — are now ceding space to newer ideas of quasi *non*-state sovereignty. The Inuit through the Inuit Circumpolar Council ("ICC"), for instance, have attained a form of *cultural* sovereignty (i.e. cultural integrity), rather than state sovereignty (territorial integrity), affording Inuit the authority to participate formally in global politics. See SHADIAN, *ARCTIC SOVEREIGNTY*, *supra* note 67, at 12-16, 196; Jessica Shadian, *From States to Politics: Reconceptualizing Sovereignty Through Inuit Governance*, 16 EUROPEAN J. INT'L REL. 485, 493 (2010). IR theorist Karena Shaw also focuses on the impact of indigenous politics on our traditional understandings of sovereignty and the state. According to Shaw, indigenous struggles are *our* problems, not because they are our fault, but because of the implications those struggles have for understanding our own identities. Karena Shaw, *Indigeneity and the International*, 31 MILLENNIUM: J. INT'L REL. STUD. 55, 58-59 (2002). If we want to understand current world politics, Shaw argues, and so "shift

to lawmaking processes. New governance,¹⁷¹ regulatory institutions,¹⁷² and adaptive management¹⁷³ theories explore mechanisms for

[our] exploration of the diverse spatial, temporal, and discursive conditions under which forms of authority are being constituted, enabled and authorised today,” then we need to move the center of our analysis from ontologically given assumptions about authority to the ontological conditions of possibility. *See id.* at 79. Legal scholar Natalia Loukacheva has written about the legalities of the Inuit land claims agreements. According to her, they are creating new conceptions of autonomy that she refers to as “constitutional hybrids.” *See* NATALIA LOUKACHEVA, *THE ARCTIC PROMISE: LEGAL AND POLITICAL AUTONOMY OF GREENLAND AND NUNAVUT* 145 (2007); *see also* Marshall Beier, *Forgetting, Remembering, and Finding Indigenous Peoples in International Relations*, in *INDIGENOUS DIPLOMACIES* 11 (J. Marshall Beier., ed., 2009).

¹⁷¹ New governance scholars have written — most relevantly — about ways to reconceptualize the traditional practices of environmental regulation and natural resource management to meet the changing nature of resource rights, ownership, and use. Rather than relying upon traditional top-down regulatory models, these scholars focus on the need to take into account the various levels of governance and multiplicity of stakeholders. Professors Kenneth W. Abbot and Duncan Snidal have outlined four core attributes of new governance approaches across various substantive contexts: (1) state-orchestrated instead of state-centered; (2) decentralized instead of centralized; (3) based on dispersed instead of bureaucratic expertise; and (4) integrating a mixture of hard and soft law instead of focusing only on mandatory rules. *See* Kenneth W. Abbott & Duncan Snidal, *Strengthening International Regulation Through Transnational New Governance: Overcoming the Orchestration Deficit*, 42 *VAND. J. TRANSNAT'L L.* 501, 508-09 (2009). For additional examples of new governance scholarship, *see* *LAW AND NEW GOVERNANCE IN THE EU AND THE US* (Gráinne de Búrca & Joanne Scott eds., 2006); Bradley C. Karkkainen, Reply, “New Governance” in *Legal Thought and in the World: Some Splitting as Antidote to Overzealous Lumping*, 89 *MINN. L. REV.* 471 (2004) [hereinafter *New Governance*]; Orly Lobel, *The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought*, 89 *MINN. L. REV.* 342 (2004); Orly Lobel, Surreply, *Setting the Agenda for New Governance Research*, 89 *MINN. L. REV.* 498 (2004); J.B. Ruhl & James Salzman, *Climate Change, Dead Zones, and Massive Problems in the Administrative State: A Guide for Whittling Away*, 98 *CALIF. L. REV.* 59 (2010). According to Bradley Karkkainen, who has developed new governance approaches in an environmental context most relevant here, the traditional model of environmental protection which materialized in the 1960s assumes that an expert decision maker — the regulatory agency which was an arm of the state — would identify the most important environmental problems, gather sufficient expert information to specify effective solutions, express those solutions as a series of specific legally binding commands, and finally enforce those commands by employing the coercive sanctioning power of the state. *See* Karkkainen, *New Governance*, *supra*, at 473-74. Jessica Shadian explains that new governance approaches to resource management also aim to deal with the fact that often resource management is controlled equally by states and various non-state actors including private companies. Shadian further recognizes:

that the competences of varying actors are multilayered among mission-specific agencies and are dispersed over various tiers of government.

... Non-state actors ... are not considered merely as stakeholders, or

developing more inclusive, responsive, and decentralized governance approaches. Dynamic federalism¹⁷⁴ also analyzes the development and structures of multilevel governance, generally in more domestic contexts. We draw in particular from a conception of hybrid governance that Hari Osofsky developed with Hannah Wiseman in the U.S. domestic energy context, though modified somewhat to reflect the particular characteristics of the Arctic.¹⁷⁵ Although these conceptualizations vary significantly from one another, they all

consultants, epistemic communities or lobbyists to the sovereign authority (for example a federal or city government). [Rather, they comprise part of the governance arrangement.] The state, as such, is often forced to engage “in an open-ended effort at collaborative problem-solving” with non-state actors in order to utilize their expertise and resources.

Jessica M. Shadian, *Of Whales and Oil: Inuit Resource Governance and the Arctic Council*, 49 POLAR REC. 392, 394 (2013) [hereinafter *Of Whales and Oil*] (citation omitted).

¹⁷² For examples of regulatory institutions theory, see Valerie Braithwaite, *Ten Things You Need to Know About Regulation and Never Wanted to Ask*, 14 AUSTL. L. LIBR. 19 (2006); Charlotte Wood et al., *Applications of Responsive Regulatory Theory in Australia and Overseas* (Reg. Inst. Network, Occasional Paper No. 15, 2010), available at <http://regnet.anu.edu.au/research/publications/3097/no-15-applications-responsive-regulatory-theory-australia-and-overseas>.

¹⁷³ Adaptive management, at times drawing from concepts of panarchy, see C.S. Holling et al., *In Quest of a Theory of Adaptive Change*, in PANARCHY: UNDERSTANDING TRANSFORMATIONS IN HUMAN AND NATURAL SYSTEMS 3, 5 (Lance H. Gunderson & C.S. Holling eds., 2002), explores how law can be structured to allow for regulatory evolution in response to change. See, e.g., Alejandro E. Camacho, *Assisted Migration: Redefining Nature and Natural Resource Law Under Climate Change*, 27 YALE J. ON REG. 171 (2010); Robin Kundis Craig, “Stationarity Is Dead” — Long Live Transformation: Five Principles for Climate Change Adaptation Law, 34 HARV. ENVTL. L. REV. 9 (2010); Michael Ilg, *Complexity, Environment, and Equitable Competition: A Theory of Adaptive Rule Design*, 41 GEO. J. INT’L L. 647 (2010); Bradley C. Karkkainen, *Default Rules in Private and Public Law: Extending Default Rules Beyond Purely Economic Relationships: Information-Forcing Environmental Regulation*, 33 FLA. ST. U. L. REV. 861 (2006); J.B. Ruhl & Robert L. Fischman, *Adaptive Management in the Courts*, 95 MINN. L. REV. 424 (2010); J.B. Ruhl, *Law’s Complexity: A Primer*, 24 GA. ST. U. L. REV. 885 (2008); Sandra Zellmer, Essay, *A Tale of Two Imperiled Rivers: Reflections from a Post-Katrina World*, 59 FLA. L. REV. 599 (2007).

¹⁷⁴ In the U.S. domestic law context, an extensive and rapidly growing dynamic federalism literature complements this scholarship through its analysis of how to structure appropriate and effective multi-level governance structures. See Kirsten H. Engel, *Harnessing the Benefits of Dynamic Federalism in Environmental Law*, 56 EMORY L.J. 159, 160 (2006). For Hari Osofsky’s extensive summary and synthesis of this literature in the context of climate change, see Hari M. Osofsky, *Diagonal Federalism and Climate Change: Implications for the Obama Administration*, 62 ALA. L. REV. 237, 269-72, 276, 281 (2011).

¹⁷⁵ See Hari M. Osofsky & Hannah J. Wiseman, *Hybrid Energy Governance*, 2014 U. ILL. L. REV. 1, 1-2.

develop multipolar governance models that include a wide range of stakeholders, which we view as crucial for the Arctic context, given its governance complexity.

This Article builds on these theories and the earlier work of Osofsky and Wiseman to develop a conceptual approach for what we term “hybrid cooperation.” Hybrid cooperation focuses on how a variety of public and private stakeholders — including indigenous peoples and corporations, among others — are actively contributing to new norms and governance structures for Arctic offshore drilling. We focus in particular on three key characteristics that we treat as fundamental to hybrid cooperation:

(1) Hybrid cooperation involves more than one type of key stakeholder.

Hybrid cooperation, whether in the text of a regulation or in the form of an agreement, involves multiple key actors relying on one another or interacting with one another in some fashion. Involving more than one key stakeholder is crucial to hybrid cooperation serving as a mechanism for addressing fragmentation.

(2) Hybrid cooperation bridges the public-private divide.

In order to be hybrid in this model, regulations or institutions must involve both public (or at least quasi-public) and private actors. In most instances, they include some mix of governmental and corporate entities. In one instance, they involve governmentally constituted Alaska Native corporations and transnational corporations.

(3) Hybrid cooperation creates new alignment or coordination.

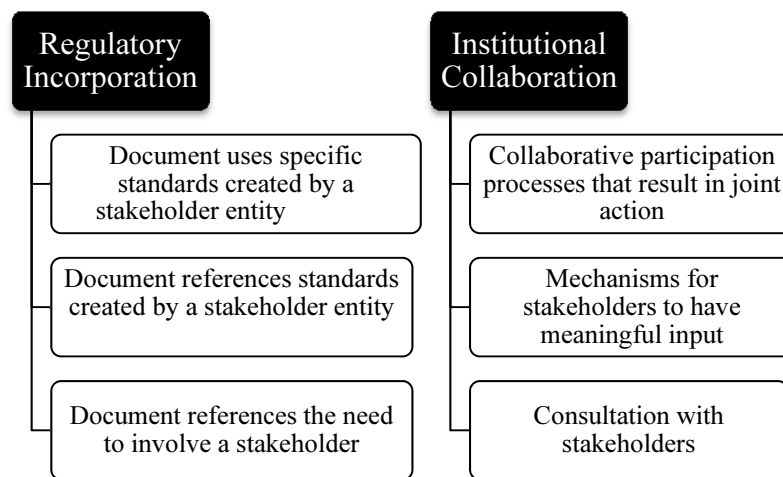
Hybrid cooperation does not require explicitly cooperative behavior, but it must create progress in entities working in a coordinated fashion, whether that entails using one another’s standards or actually working together. This requirement helps to ensure that regulations and institutions categorized in this way actually move cooperation forward.

What sets our idea of hybrid cooperation apart from much of the above scholarly literature is that many of those writings focus on decentralized institutions and processes that include a wide range of stakeholders, without considering regulatory incorporation.¹⁷⁶ Similarly, the scholarship on regulatory incorporation does not tend to focus as much on institution building.¹⁷⁷ We argue that a more inclusive view of hybrid cooperation that includes both forms provides

¹⁷⁶ See *supra* notes 161–67 and accompanying text.

¹⁷⁷ See *id.*

an important mechanism for developing systematic strategies for addressing the governance fragmentation in the Arctic offshore drilling context. The Article adds to the literature on hybrid governance in creating a model of hybrid cooperation that includes not only emerging institutions that bring together non-state actors and varying levels of governments, but also regulatory developments that incorporate rules, regulations, and standards of other entities (standard setting organizations, regional regimes, indigenous legal infrastructures, domestic law, etc.). The following diagram illustrates these two primary categories of hybrid cooperation we examine in the paper, organized from strongest to weakest levels of cooperation.



The sections that follow examine several examples to illustrate how hybrid cooperation is working in practice. Although these two categories are not entirely distinct — regulatory incorporation can create institutions, for example — we have grouped them by what we view as the dominant form that they represent. For regulatory incorporation, Section III.B considers the Arctic Council’s 2015 Framework Plan for Cooperation on Prevention of Oil Pollution from Petroleum and Maritime Activities in the Marine Areas of the Arctic, and PAME’s 2014 Arctic Offshore Oil and Gas Guidelines: System Safety Management and Safety Culture. The section also dissects the Obama Administration’s 2015 proposed Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf and proposed blowout preventer regulations. Each of these developments provides examples of strong regulatory incorporation, in which standards created by industry organizations or standard setting bodies are directly

incorporated into the documents. The section also highlights the Obama Administration's inclusion of Arctic Council approaches in its Arctic drilling regulations, and efforts across the documents to reference the involvement of key stakeholders.¹⁷⁸

With respect to institutional collaboration, Section III.C considers three examples: the Arctic Inupiat Offshore, LCC ("AIO"), Regional Citizens Advisory Councils ("RCACs"), and the Arctic Waterways Safety Committee ("AWSC"). AIO is a new company that brought together Alaska Native corporations, the Arctic Slope Regional Corporation and six North Slope village corporations in anticipation of Shell Oil's Chukchi Sea drilling project. Shell Oil and AIO "entered into a binding agreement that will allow AIO the option to acquire an interest in Shell's acreage and activities on its Chukchi Sea leases. This interest will be managed by AIO."¹⁷⁹ The agreement largely focuses on shared economic benefits, but also provides opportunities for Alaska Native input into resource management in this context. Although this particular collaboration is obviously significantly undermined in the near term by Shell Oil's decision to pull out of the Chukchi Sea, it provides an interesting model for collaboration between Alaska Native corporations and transnational oil and gas corporations. The other two examples involve federally-created entities that bring stakeholders together to provide input into safety. RCACs were formed in the aftermath of the *Exxon Valdez* spill, and focus on spill prevention and responses in two communities. AWSC was constituted by the Coast Guard, and allows diverse stakeholders to provide input into waterway transport safety.¹⁸⁰

The Article's approach acknowledges that cooperation is not always achieved through explicit agreements among key stakeholders, in part because there is simply too much simultaneous activity for full coordination and in part because the existing governmental structures often limit participation. The participatory processes taking place under the auspices of the Arctic Council, described in Section III.B.1, are the closest to the fullest form of hybrid cooperation in the Arctic offshore oil and gas contexts. Although the Arctic Council gives greater status to nation-states than other participants, its working groups often involve private actors and they always involve the six

¹⁷⁸ See *infra* Part III.B.

¹⁷⁹ Press Release, Arctic Slope Reg'l Corp., ASRC, North Slope Village Corporations and Shell Announce Historic Venture (July 31, 2014) [hereinafter ASRC Press Release], available at <http://www.asrc.com/PressReleases/Pages/Arctic-Inupiat-Offshore.aspx>.

¹⁸⁰ See *infra* Part III.C.3.

permanent indigenous representatives.¹⁸¹ Even there, though, the proceedings do not fully encapsulate the many activities described in Part II and all of the key actors.¹⁸²

Moreover, the multi-stakeholder processes at the Arctic Council represent only a small fraction of the diverse types of collaboration emerging in the Arctic, a few of which are explored by this Part. These individual examples of hybrid cooperation are important because they collectively help to constitute more integrated regional governance amid complexity and fragmentation. In the context of Arctic offshore energy governance, we are witnessing the early onset and creation of new norms for offshore oil and gas development. These norms are being structured by Arctic Council efforts, pre-existing domestic laws, Arctic regional-level knowledge exchange regarding these domestic rules and procedures, U.S. and global responses by governmental, inter-governmental, and nongovernmental entities to the BP *Deepwater Horizon* disaster and the earlier *Exxon Valdez* spill, and broader transitions in the energy system and in understandings of the Arctic.¹⁸³

¹⁸¹ See *supra* Part II.B.

¹⁸² Working Group Management Boards generally include representatives from Arctic Members States' national governmental agencies and Permanent Participant representatives. *Working Groups*, ARCTIC COUNCIL, <http://www.arctic-council.org/index.php/en/about-us/working-groups> (last updated Sept. 10, 2015). Representative of observer states and organizations participate to some extent, as do invited experts and guests. *Id.* In addition, the Permanent Participant structure does not provide full representation of Arctic indigenous peoples. Although the Ottawa Declaration establishing the Arctic Council allows for additional Permanent Participants, it requires that these "organizations of Arctic indigenous peoples" have a "majority Arctic indigenous constituency" that either represents "a single indigenous people resident in more than one Arctic state" or "more than one Arctic indigenous people resident in a single Arctic state." Arctic Council, Declaration on the Establishment of the Arctic Council, Ottawa, Canada, Sept. 19, 1996, art. 2, available at https://oarchive.arctic-council.org/bitstream/handle/11374/85/00_ottawa_decl_1996_signed%20%284%29.pdf?sequence=1&isAllowed=y. These requirements mean that it would be difficult for all Arctic indigenous peoples with their diversity of viewpoints will be fully represented through the Permanent Participant structure. For an analysis of participation gaps faced by indigenous peoples in international law and the extent to which the Permanent Participant structure serves as a model, see Timo Koivurova & Leena Heinämäki, *The Participation of Indigenous Peoples in International Norm-making in the Arctic*, 42 POLAR RECORD 101 (2006).

¹⁸³ Generally speaking, the Arctic is increasingly understood as a political rather than solely physical region. This emerging understanding includes the recognition that the Arctic is inhabited by many indigenous and other communities, and accompanying that recognition is the fact that there are many well-established governance mechanisms already in place. SHADIAN, ARCTIC SOVEREIGNTY, *supra* note 67, at 85-88, 196.

The following sections demonstrate how hybrid cooperation has been operationalized at multiple scales and in different contexts. The case studies demonstrate that fundamentally fragmented governance structures in the Arctic offshore drilling context may be mitigated by these types of regulatory approaches and institutions. Although each example represents only one aspect of regulatory governance in this context, they collectively provide models for how greater cooperation can be achieved moving forward. The examples described in the following sections thus form part of a mosaic of hybrid Arctic energy “cooperations” — a developing, interconnected web-like governance system where no one authority dominates.¹⁸⁴ A nascent regional governance approach is emerging as multiple institutions begin simultaneously to create regulations and varying forms of soft law (from best practices and standards to recommendations) and these regulations and soft law tools themselves directly borrow from one another.

B. Regulatory Incorporation

This section explores three examples of transnational and national regulatory efforts including standards by or inclusion of other key stakeholders. The first involves cooperation built into Arctic Council documents regarding offshore oil and gas safety. The second two consider ways in which federal regulations emerging with respect to offshore drilling generally and in the Arctic context in particular incorporate efforts by transnational entities and standard setting bodies. The incorporation of these participatory processes and public and private transnational regulatory mechanisms exemplifies the mix of explicit and implicit cooperation being built into regional planning and domestic laws in this context.

1. Arctic Council Framework Plan and Working Group Guidelines

The Arctic Council, as discussed in Part II, provides numerous ways for key actors to participate, especially through permanent participant status for representatives of indigenous peoples and the working groups. These opportunities do not generally include, though, direct participation by specific local indigenous communities, or other Arctic

¹⁸⁴ The idea of a mosaic is borrowed from Oran Young 2005. Not referring specifically to offshore oil and gas development, Young’s article discusses the post-Cold War regional governance changes in the Arctic which he refers to as an emerging mosaic. See Oran R. Young, *Governing the Arctic: From Cold War Theater to Mosaic of Cooperation*, 11 *GLOBAL GOVERNANCE* 9, 9-10 (2005).

subnational regions, governments, or institutions. However, in the Arctic Council's latest efforts to cooperate in the area of preventing oil pollution disasters through the 2015 Framework Plan for Cooperation on Prevention of Oil Pollution from Petroleum and Maritime Activities in the Marine Areas of the Arctic ("2015 Framework Plan"), there is a more concerted effort to include key stakeholders.

The recognition of the hybrid quality of efforts to address offshore drilling safety begins with the declarations at the beginning of the plan. A series of declarations acknowledges the important roles of the International Maritime Organization; "indigenous peoples, communities, and local and regional authorities"; several Arctic Council working groups that include diverse stakeholders; "the World Meteorological Organization; the International Hydrographic Organization, specifically, the Arctic Regional Hydrographic Commission; and the Intergovernmental Oceanographic Commission."¹⁸⁵ The agreement reinforces its incorporation of key actors in its statement of its objective: "to strengthen cooperation, including exchange of information, among the Participants in the field of prevention of marine oil pollution in order to protect the Arctic marine environment."¹⁸⁶

More importantly, these key actors are also integrated into the implementation provisions. For example, in Section 1.6.2, the Framework Plan explicitly focuses on private sector cooperation: "The Participants intend — where possible, and in accordance with their national legislation (laws and regulations) and, as appropriate, policies — to cooperate with the private sector in order to improve standards and best practices for the prevention of the pollution of the Arctic marine environment by oil."¹⁸⁷ In numerous sections, the Framework Plan references standard setting and the need to cooperate and assess standards, which at times explicitly mentions "industry standards."¹⁸⁸

The 2015 Framework Plan builds on the ongoing efforts of the PAME working group, which involves a broader group of stakeholders in its processes than the Council meetings themselves. As discussed in Part II, PAME has been developing offshore oil and gas safety guidelines for a number of years. Its 2014 Arctic Offshore Oil and Gas Guidelines: System Safety Management and Safety Culture ("2014 Guidelines") contain numerous provisions that involve cooperation

¹⁸⁵ ARCTIC COUNCIL, FRAMEWORK PLAN FOR COOPERATION, *supra* note 98.

¹⁸⁶ *Id.* § 1.1.

¹⁸⁷ *Id.* § 1.6.2.

¹⁸⁸ *Id.* § 3.2.5; *see also id.* § 2.2.

among industry operators and regulators; include indigenous peoples in risk management efforts; and incorporate the work of standard setting organizations.

With respect to industry, one of the 2014 Guidelines' recommendations regarding the development of Arctic standards and best practices is for private industry and public regulators to "work together to initiate, implement, monitor, and continuously improve standards and best practices for safety management systems and safety culture in Arctic offshore oil and gas operations."¹⁸⁹ The document also focuses on safety management and culture, noting that "regulators must define and communicate expectations regarding positive safety culture and require operators to establish, implement, and improve their safety culture."¹⁹⁰ Recommended actions include requiring "operators to have a verifiable process to improve safety culture through constant monitoring and assessment and the use of leading indicators" and "to designate a responsible and accountable person (preferably the CEO) for their safety culture."¹⁹¹

The 2014 Guidelines specifies nine safety management categories¹⁹² and its explication of those categories often includes direct references to the interactions between industry and regulators. For example, with respect to the category of continuous improvement, the guidelines state: "Continuous improvement in offshore performance should be seen as a collaborative activity requiring cooperation and actions by both industry and regulators."¹⁹³ Similarly, most of the recommended actions for risk assessment rely upon operators providing information to regulators.¹⁹⁴ And collaborative approaches for management of

¹⁸⁹ ARCTIC COUNCIL, ARCTIC OFFSHORE OIL AND GAS GUIDELINES: SYSTEM SAFETY MANAGEMENT AND SAFETY CULTURE 13 (Mar. 2014), available at <http://oaarchive.arctic-council.org/bitstream/handle/11374/418/Systems%20Safety%20Management%20and%20Safety%20Culture%20report.pdf>.

¹⁹⁰ *Id.* at 19.

¹⁹¹ *Id.* at 19-20.

¹⁹² These categories include: (1) continuous improvement, (2) risk assessment/hazard identification, (3) management of change, (4) training and competence for the Arctic, (5) accountability and responsibility, (6) operating procedures, (7) quality assurance/mechanical integrity, (8) documentation and reporting, and (9) communications. See *id.* at 21-34.

¹⁹³ *Id.* at 22. The 2014 Guidelines also state: Continuous improvement also should involve "open and frequent communication with the operator about how to improve their performance when deficiencies are identified." *Id.*

¹⁹⁴ Some examples include: (1) "Requir[ing] operators to assess risk in offshore Arctic areas on an ongoing basis. Factors include: Geology in the well including shallow gas, permafrost and methane hydrates; Weather, sea, ice; and Improvement in

change, in addition to having regulators require operators to take a variety of safety steps, include a mutual improvement process: “Regulators and operators must constantly seek to improve their approach to the ‘Management of Change’ through hazard identification, risk analysis/assessment and better handling of any changes to the drilling plan during the operational phase.”¹⁹⁵

The Guidelines also directly acknowledge the important role of indigenous peoples in helping to ensure safe operations and the need to incorporate evolving standards created by multiple public and private entities. For example, the operating procedures section notes: “Consultation with local and indigenous communities with respect to weather, sea state, ice, temperature and sensitive ecological conditions can also provide a valuable additional source of information for assessing overall safety and environmental risk.”¹⁹⁶ That section also references standard setting by the ISO, new U.S. standards, and an Arctic Council taskforce as important in the context of establishing operating procedures.¹⁹⁷

Both the 2015 Framework Plan and 2014 Guidelines could go further, however, in how they incorporate key actors into implementation. Indigenous peoples, for example, are only mentioned directly in the declarations and not in the implementation sections of the 2015 Framework Plan. Yet even with these limitations, they serve as a helpful example of how international agreements among nation-states and more informal work taking place under them can acknowledge and include important non-nation-state actors, something that numerous agreements in multiple contexts are increasingly doing.¹⁹⁸ This incorporation of stakeholders helps to acknowledge the complex nature of governance in this context and encourage needed cooperation.

the management of change.” *Id.* at 24. (2) “Requir[ing] the operator to regularly assess risk relevant to operating in Arctic conditions in order to inform the process of improving regulations, standards and industry guidance.” *Id.* (3) “Require the operator to assess risks associated with cold environment technologies so that safety performance can be improved before breakdowns or accidents happen.” *Id.*

¹⁹⁵ *Id.* at 26-27.

¹⁹⁶ *Id.* at 30.

¹⁹⁷ *Id.*

¹⁹⁸ For example, the agreements made at the Conferences of the Parties under the United Nations Framework Convention on Climate Change increasingly include subnational actors in their provisions. Osofsky, *Rethinking*, *supra* note 168.

2. Proposed Rule on Arctic Offshore Drilling

The Obama Administration's Arctic-specific drilling rule proposed by the BSEE in February 2015 mentions the Arctic Council and efforts by standard setting bodies in multiple places. Its references to the Arctic Council arise in its discussion of the National Strategy for the Arctic Region ("National Arctic Strategy") issued by President Obama in May 2013. The proposed rule explains that the "National Arctic Strategy is an example of the types of action the U.S. is taking to implement its obligations under international agreements, such as the Arctic Council's Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic."¹⁹⁹ Of particular significance is that in this context the United States treats the Arctic Council agreement as an international agreement, acknowledging obligations for the United States despite the body's soft law status.

The proposed rule also addresses many recommendations made in recent reports on OCS oil and gas activities, including ones by the Arctic Council. Examples include:

the Arctic Council, Arctic Offshore Oil and Gas Guidelines (2009); the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling (2011); Ocean Energy Safety Advisory Committee Recommendations (2013); DOI's 60-Day Report (2013); the Working Group's report entitled, "Managing for the Future in a Rapidly Changing Arctic, A Report to the President" (March 2013); the National Arctic Strategy (May 2013); and the Arctic Council, Arctic Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture (March 2014).²⁰⁰

Article 4 of the Arctic Council's Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic is specifically mentioned in the proposed rule, which notes that "for 'areas of special ecological significance,' each party 'shall establish a minimum level of pre-positioned oil spill combating equipment, commensurate with the risk involved, and programs for its use.'"²⁰¹

In addition, the new § 250.473(a) is interlinked with Arctic Council approaches in its requirement "that all equipment and materials proposed for use in exploratory drilling operations on the Arctic OCS

¹⁹⁹ Arctic Drilling Rule, *supra* note 8, at 10.

²⁰⁰ *Id.* at 33-34.

²⁰¹ *Id.* at 89.

be rated or de-rated for service under conditions that could be reasonably expected during operations.”²⁰² The new requirement is based on recommendations from a 2009 Arctic Council report.²⁰³

Beyond harmonizing the U.S. approach with that of the Arctic Council, the proposed rule explicitly incorporates standards for transnational industry and standard setting bodies. For example, the proposed rule would add subsection (h)(89) to existing § 250.198 to incorporate the American Petroleum Institute (“API”) proposed draft Recommended Practice (“RP”) 2N, *Recommended Practice for Planning, Designing, and Constructing Structures and Pipelines for Arctic Conditions*, Third Edition as a voluntary consensus standard.

This API document — which is virtually identical to a standard previously issued by the International Organization for Standardization (ISO), “Petroleum and Natural Gas Industries Arctic Offshore Structures,” First Edition (2010) (ISO 19906) — would be appropriate for certain aspects of drilling operations, such as accounting for the severe weather and thermal effects on structures, maintenance procedures, and safety.²⁰⁴

Paragraph (g) of § 250.470 would require operators to “explain how they utilized API RP 2N, Third Edition, in planning their Arctic OCS exploratory drilling operations.”²⁰⁵

The BSEE is seeking comments concerning incorporation of API RP 2N and is also considering ISO 19906 and 19905-1 as alternatives.²⁰⁶ It indicates in the proposed rule that:

ISO 19905-1 may be better suited than API RP 2N (or ISO 19906) to guide structural components for jack-up rigs. The API RP 2N (or ISO 19906) and ISO 19905-1 documents together would provide the most comprehensive structural requirements for the use of a jack-up rig in Arctic conditions.²⁰⁷

²⁰² *Id.* at 100.

²⁰³ “The Arctic Council made similar recommendations for equipment and materials in its 2009 report on Arctic oil and gas operations.” *Id.* at 101.

²⁰⁴ *Id.* at 66.

²⁰⁵ *Id.* at 77, 85.

²⁰⁶ *Id.* at 88.

²⁰⁷ *Id.* at 89.

This consideration of multiple entities' efforts in this context represents an interesting example of how regulations can use and evaluate industry standards.

3. Proposed Rule on Blowout Preventer Systems and Well Control

Efforts to incorporate industry standards and involve industry are not limited to the Arctic offshore drilling regulatory context. The Obama Administration's December 2014 proposed regulations on Blowout Preventer Systems, which are key spill containment mechanisms that failed during the BP *Deepwater Horizon* spill, demonstrate similar dynamics with respect to offshore drilling more broadly in U.S. domestic law.

Many standards in the proposed rule are based on API ones.²⁰⁸ The proposed rule explicitly incorporates API Standard 53 — Blowout Prevention Equipment Systems for Drilling Wells;²⁰⁹ API Recommended Practice 2RD — Design of Risers for Floating Production Systems and Tension-Leg Platforms;²¹⁰ API Specification Q1 — Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry;²¹¹ API Specification 6A — Specification for Wellhead and Christmas Tree Equipment;²¹² American National Standards Institute ("ANSI")/API Specification 11D1 — Packers and Bridge Plugs;²¹³ ANSI/API Specification 16A — Specification for Drill-through

²⁰⁸ See Blowout Preventer Rule, *supra* note 152, at 12. Some of the API standards may be accessed for free and some which require a fee. If API standards are incorporated into the final rule, the public could inspect or obtain the documents through the BSEE or the National Archives and Records Administration ("NARA"). *Id.*

²⁰⁹ "This standard is to provide requirements for the installation and testing of blowout prevention equipment systems whose primary functions are to confine well fluids to the wellbore, provide means to add fluid to the wellbore, and allow controlled volumes to be removed from the wellbore." *Id.* at 13.

²¹⁰ "This document addresses structural analysis procedures, design guidelines, component selection criteria, and typical designs for all new riser systems used on Floating Production Systems (FPSs and Tension-Leg Platforms (TLPs))." *Id.* at 14.

²¹¹ "This specification establishes the minimum quality management system requirements for organizations that manufacture products or provide manufacturing-related processes under a product specification for use in the petroleum and natural gas industry." *Id.*

²¹² "This specification defines minimal requirements for the design of valves, wellheads and Christmas tree equipment that is used during drilling and production operations." *Id.* at 14-15.

²¹³ "This specification provides minimum requirements and guidelines for packers and bridge plugs used downhole in oil and gas operations." *Id.* at 15.

Equipment;²¹⁴API Specification 16C — Specification for Choke and Kill Systems;²¹⁵API Specification 16D — Specification for Control Systems for Drilling Well Control Equipment and Control Systems for Diverter Equipment;²¹⁶ANSI/API Specification 17D — Design and Operation of Subsea Production Systems — Subsea Wellhead and Tree Equipment;²¹⁷ and API Recommended Practice 17H — Remotely Operated Tools and Interfaces on Subsea Production Systems.²¹⁸

In addition to its incorporation of API standards, the proposed rule also references the importance of stakeholder participation. For instance, the proposed rule indicates that the BSEE recognized that it was important to collect the best ideas on the prevention of well-control incidents and blowouts to assist in the development of this proposed rule. The rule explicitly states that these ideas “include the knowledge and skillset that industry has, and BSEE wants to benefit from that experience to improve the safety of all operations on the OCS.”²¹⁹ To that end, the “BSEE hosted a public offshore energy forum that brought together Federal decision-makers, industry, academia, and other stakeholders to discuss additional steps that BSEE and the industry might take to continue to improve the reliability and safety of BOPs” and “[d]iscussion panels consisted of representatives from government organizations, trade associations, equipment manufacturers, offshore operators, consultants, training companies,

²¹⁴ “This specification defines requirements for performance, design, materials, testing and inspection, welding, marking, handling, storing and shipping of BOPs and drill-through equipment used for drilling for oil and gas.” *Id.*

²¹⁵ “This specification was formulated to provide for safe and functionally interchangeable surface and subsea choke and kill systems equipment utilized for drilling oil and gas wells.” *Id.* at 16.

²¹⁶ “This specification establishes design standards for systems that are used to control BOPs and associated valves that control well pressure during drilling operations.” *Id.* at 17.

²¹⁷ “This specification provides specifications for subsea wellheads, mudline wellheads, drill-through mudline wellheads and both vertical and horizontal subsea trees.” *Id.* at 17-18.

²¹⁸ “This recommended practice has been prepared to provide general recommendations and overall guidance for the design and operation of remotely operated tools (ROT) comprising ROT and ROV tooling used on offshore subsea systems. ROT and ROV performance is critical to ensuring safe and reliable deepwater operations and this document provides general performance guidelines for the equipment.” *Id.* at 18. The proposed rule also mentions incorporation of standards in the copyright context, noting that “[w]hen a copyrighted technical industry standard is incorporated by reference into our regulations, BSEE is obligated to observe and protect that copyright.” *Id.* at 11.

²¹⁹ *Id.* at 22.

and others.”²²⁰ Finally, the proposed rule notes that “in several sections of the proposed regulations, BSEE would require third-party verification of the design, maintenance, inspection, testing, and repair of BOP systems and equipment by a BSEE-approved entity.”²²¹

Although the Arctic Council documents reference collaboration much more directly than the U.S. regulations do, the domestic regulatory incorporation of specific API standards and Arctic Council agreements helps to harmonize safety efforts across institutions in important ways. This form of regulation does, however, have its limits. Under U.S. law, some types of regulatory incorporation — particularly ones that allow private institutions to write standards directly rather than ones like these in which the government uses specific privately-created standards — will run up against constitutional constraints.²²² More broadly, as discussed in more depth in Section III.D, public institutions will have to be careful that privately created standards actually serve the public interest. And the types of cooperation among entities included in both the Arctic Council and U.S. regulatory efforts do not always translate into more than surface inclusion.²²³ Despite these limits, though, these three examples demonstrate the ways in which fragmented institutions are bringing their efforts together in written documents that guide them.

²²⁰ *Id.* at 22-23.

²²¹ *Id.* at 29.

²²² See *Dep't of Transp. v. Ass'n of Am. R.Rs.*, 135 S. Ct. 1225, 1231 (2015) (clarifying the constitutional limits on delegation to private entities); see also Jody Freeman, *The Private Role in Public Governance*, 75 N.Y.U. L. REV. 543, 581, 584-85 (2000) (“[T]he federal government thus retains considerable flexibility to make substantial delegations of its responsibilities, and even of functions closely associated with core sovereign powers, to private parties To enforce the nondelegation doctrine using the traditional rationale would require the Court first to find that core governmental functions do exist and then to distinguish them from peripheral functions in a principled way, which would be a rather formalistic undertaking.”). For analysis of ways in which governmental agencies increasingly contract out traditional functions to private entities, see Jody Freeman, *The Contracting State*, 28 FLA. ST. U. L. REV. 155, 155-214 (2000).

²²³ See *infra* Part III.D. Peter Strauss has explored the transparency and intellectual property concerns that can arise when government incorporates private standards. See Peter Strauss, *Incorporating by Reference: Knowing the Law in the Electronic Age*, 39 ADMIN. & REG. L. NEWS 36, 36 (2014) (analyzing the implications of a change in regulations governing “incorporation by reference”); Peter Strauss, *Private Standards Organizations and Public Law*, 22 WM. & MARY BILL RTS. J., 497, 518-37 (2013) (exploring issues with the Office of the Federal Register’s approach to incorporation by reference).

C. Institutional Collaboration

Emerging hybrid cooperation in the Arctic is not simply taking place through agreements, guidelines, and regulations. New institutional forms are developing that help bring together key stakeholders, and other more long-standing ones also have a role to play in offshore oil and gas safety as drilling moves forward. This Section explores three examples of collaboration through institutions: Arctic Inupiat Offshore, LLC (“AIO”); Regional Citizens Advisory Councils; and the Arctic Waterways Safety Committee.

1. Arctic Inupiat Offshore, LLC

The Arctic Inupiat Offshore, LLC provides a particularly interesting example of cooperation in this context because it involves two sets of key stakeholders not always included fully in Arctic Council and governmental regulatory efforts — a transnational oil corporation and Alaska Native corporations. In July 2014,

Arctic Slope Regional Corporation (ASRC) and six (6) North Slope village corporations . . . joined together to create a new company known as the Arctic Inupiat Offshore, LLC (AIO). AIO and Shell Gulf of Mexico Inc. (Shell) . . . entered into a binding agreement that will allow AIO the option to acquire an interest in Shell’s acreage and activities on its Chukchi Sea leases. This interest will be managed by AIO.²²⁴

According to the agreement, Shell will assign to AIO an overriding royalty interest in oil and gas produced from specific Chukchi Sea leases. AIO also would have the option to participate in project activities by acquiring a working interest at the time Shell makes the decision to proceed with development and production. In addition, “Shell and AIO will hold quarterly meetings to exchange information and address regional and development issues.”²²⁵ Although Shell Oil has indicated that it will not pursue Chukchi Sea drilling for the foreseeable future, limiting the current practical impact of the agreement, it serves as an interesting example of hybrid cooperation.

Unlike the co-management governance arrangements that were put into place following the land claims agreements in Alaska,²²⁶ AIO is a

²²⁴ ASRC Press Release, *supra* note 179.

²²⁵ *Id.*

²²⁶ For an expanded discussion of Arctic co-management with a particular focus on the whaling context, see Jessica M. Shadian, *Of Whales and Oil: Inuit Resource*

direct collaboration with industry without government oversight, intervention, or mandate. Thus, Alaska Native corporations not only gain economically from industry profit, but they are also partners with industry in the exploration and development of its oil and gas in that area. According to Ukpeaġik Inupiat Corporation president and CEO, Anthony E. Edwardsen, who was designated to serve as Chairman of AIO,

Our values teach us that we achieve success by putting the needs of our community at the center of all that we do. It is important that our community has a seat at the table to represent the subsistence and economic needs of our shareholders. Through AIO we will have meaningful input into this process while providing benefits back to our shareholders.²²⁷

More specifically, according to Olgoonik Corporation, the AIO-Shell agreement aimed at accomplishing four particular goals for the Alaska Native corporations participating.

Creating Alignment

Together, we will work to advocate for best practices from Shell to ensure the subsistence and economic needs of our people are addressed.

A Seat at the Table

This agreement gives us a strong, unified position on development and subsistence matters — we are active participants in the decisions impacting our communities.

Planning our Future

OCS development is occurring. This investment allows us to . . . share in the rewards, and not just the risks, of OCS development.

Economic Stability

Responsible resource development translates into economic resources — sustainable employment and contracting opportunities for our people and region.²²⁸

Governance and the Arctic Council, 49 POLAR REC. 392, 394-99 (2013).

²²⁷ ASRC Press Release, *supra* note 179.

²²⁸ AIO *Quick Facts*, OLGOONIK, <http://www.olgoonik.com/arctic-inupiat-offshore> (last visited Feb. 23, 2016).

This view of the agreement as creating an opportunity for multi-stakeholder interaction is not simply held by the Alaska Native participants. Pete Slaiby, vice president of Shell Alaska at the time of the agreement, explained that: “The agreement is about more than spreading the benefits of offshore development. It’s really about what it’s going to take to move us forward collaboratively. And it will take all of us working together to move us forward in the Arctic.”²²⁹ Or as Rex A. Rock, Sr., ASRC president and chief executive officer who will also serve as president of AIO put it: “this arrangement balances the risk of OCS development borne by our coastal communities with the benefits intended to support our communities and our people.”²³⁰

Although this agreement did not include state or federal governmental entities directly, elected officials praised the joint venture. Alaska Gov. Sean Parnell lauded the creation of AIO and said “Shell’s partnership with the Alaska Native corporations that will provide a greater voice and opportunity for the people in the region and a seat at the development table.”²³¹ U.S. Sen. Lisa Murkowski, R-Alaska, conveyed a similar sentiment: “This announcement ensures that the people of the North Slope Borough share directly in the oil and gas bounty off of their coast. It gives locals a say in what happens near their communities. I think that’s a wise decision on Shell’s part.”²³² Although the Shell Oil pullout prevents an analysis in the near term of how the agreement will play out in practice in the management of offshore drilling in the Chukchi Sea, its approach and the reactions of leaders to it suggest that it serves as a promising model for the future.

²²⁹ Yereth Rosen, *Shell, Native Corporations Unveil Joint Venture in Chukchi Sea Leases*, ARCTIC NEWSWIRE (July 31, 2014), <http://www.adn.com/article/20140731/shell-native-corporations-unveil-joint-venture-chukchi-sea-leases>.

²³⁰ Kristen Nelson, *ASRC, Shell Form JV: Arctic Slope Regional Corp., 6 North Slope Village Corporations, Create AIO*, PETROLEUM NEWS (Aug. 10, 2014), <http://www.petroleumnews.com/pntruncate/798469612.shtml>.

²³¹ *Id.* He added that: “This establishes a very positive precedent in Alaska’s Outer Continental Shelf, showing strategic partnership among North Slope communities and Shell, both of which understand the importance of developing Alaska’s offshore oil and gas resources.” *Id.*

²³² *Id.* U.S. Sen. Mark Begich, D-Alaska, similarly expressed his excitement over seeing Alaska Native corporations “take a stake in responsible development in their backyard.” *Id.* He said “it’s good to see Shell partner with local communities and corporations. Hopefully, we’ll see this partnership pay off in the very near future.” *Id.*

2. Regional Citizens Advisory Councils

Unlike the new collaborations described in the sections that precede and follow this one, RCACs have been a fixture in Alaska since soon after the *Exxon Valdez* oil spill.²³³ Although they, like the Arctic Waterways Safety Committee described in the following section, are focused on waterway safety and pollution and thus primarily relevant to the shipping aspect of offshore drilling, their longer tenure provides an opportunity to assess the possibilities and limitations of multi-stakeholder institutions in fostering collaboration.²³⁴

In the aftermath of the *Exxon Valdez* spill, there were calls for a broader set of stakeholders to participate in decision-making around oil tanker safety and spill management. The Oil Pollution Act of 1990, which was passed in response to the spill, attempted to address that concern by providing a statutory basis for two RCACs, one in the Prince William Sound region and the other in the Cook Inlet region. The statute included guidelines for their membership to include key diverse constituencies. A settlement with Exxon helped to fund them.²³⁵

²³³ See NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, REPORT TO THE PRESIDENT, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING 268-69 (2011) [hereinafter NAT'L COMM'N REPORT]; Zygmunt J.B. Plater, *Learning from Disasters: Twenty-One Years After the Exxon Valdez Oil Spill, Will Reactions to the Deepwater Horizon Blowout Finally Address the Systemic Flaws Revealed in Alaska?*, 40 ENVTL. L. REP. 11041, 11045-46 (2010) [hereinafter *Learning from Disasters*], available at <http://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=1327&context=lsfp> (citing Jim Carlton, *Bill Includes Citizens Oil Panel for Gulf, Arctic Coasts*, WALL ST. J. ONLINE (Aug. 2, 2010), <http://www.wsj.com/articles/SB10001424052748703292704575393492820269842>); Harlan Kirgan, *Biloxi Beach Event to Call for Citizen Group to Monitor Oil and Gas Activities in Gulf of Mexico*, GULFLIVE.COM (June 24, 2011, 6:56 AM), http://blog.gulflive.com/mississippi-press-news/2011/06/biloxi_beach_event_to_call_for.html.

²³⁴ This section draws from prior work of Hari Osofsky on RCACs, at times in collaboration with Hannah Wiseman. See Osofsky & Wiseman, *supra* note 175, at 20-31; Osofsky, *Multidimensional Governance*, *supra* note 32, at 1127-28. However, it provides original analysis of them in the context of emerging offshore Arctic drilling.

²³⁵ See Plater, *Learning from Disasters*, *supra* note 233, at 11046 (citing Oil Pollution Act of 1990, 33 U.S.C. § 2732(d) (2006)); see also Zygmunt J.B. Plater, *Facing a Time of Counter-Revolution — The Kepone Incident and a Review of First Principles*, 29 U. RICH. L. REV. 657, 700-01 (1995) [hereinafter *The Kepone Incident*]; William H. Rodgers, Jr., *The Most Creative Moments in the History of Environmental Law: "The Whats,"* 2000 U. ILL. L. REV. 1, 22-23; George Busenberg, *Citizen Advisory Councils and Environmental Management in the Marine Oil Trade* 32 (1997) (unpublished manuscript), available at <http://www.circac.org/wp-content/uploads/CACEnvironMg.pdf> (studying the two advisory councils' impacts on policy change); *About Us*, *supra* note 136; *Who We Are*, COOK INLET REGIONAL CITIZENS ADVISORY COUNCIL, <http://www.circac.org/who-we-are> (last visited Apr. 22, 2012).

The Cook Inlet RCAC includes thirteen members from local governments, Alaska Native groups, and others harmed by the *Exxon Valdez* spill. It has worked on improving spill prevention and response for the Inlet, including water pollution monitoring. The Prince William Sound RCAC also involves multiple stakeholders with a similar focus. However, its structure is somewhat different. Although it was created through the OPA, this RCAC has funding from and a contractual relationship with the Alyeska Pipeline Service Company, which operates the Valdez terminal and the trans-Alaska pipeline.²³⁶ Both RCACs have been involved in a number of oil spill response research initiatives.²³⁷

Assessments of the RCACs' work indicate that these types of institutions can serve as an important form of hybrid cooperation. For instance Professor George Busenberg's study of them explains that: "the councils have operated as institutional learning arrangements (by promoting the application of new ideas and information to policy decisions in this system)."²³⁸ His study suggests that the RCAC's capacities varied based on their funding, but that each of them influenced policy through their own work and through collaborations with other institutions.²³⁹

Others have raised concerns with RCACs that potentially apply to the other institutional arrangements discussed in this Part as well. In particular, Zygmunt Plater has criticized RCACs' lack of subpoena power and the dependence on annual funds negotiations with industry, as well as co-opting of board members.²⁴⁰ Especially because

²³⁶ See Plater, *Learning from Disasters*, *supra* note 233, at 11046; see also Plater, *The Kepone Incident*, *supra* note 235 at 700-01; Rodgers, *supra* note 235, at 22-23; Busenberg, *supra* note 235, at 32; *About Us*, *supra* note 136; *Who We Are*, *supra* note 235; *History of the Council*, PRINCE WILLIAM SOUND REGIONAL CITIZENS' ADVISORY COUNCIL, <http://www.pwsrca.org/about/history/> (last visited Apr. 22, 2012).

²³⁷ *Oil Spill Response Gap*, PRINCE WILLIAM SOUND REGIONAL CITIZENS' ADVISORY COUNCIL, <http://www.pwsrca.org/programs/oil-spill-response/oil-spill-response-gap/> (last visited Mar. 17, 2016); *Oil Spill Prevention and Response*, COOK INLET REGIONAL CITIZENS' ADVISORY COUNCIL, <http://www.circac.org/what-we-do/oil-spill-prevention-response/> (last visited Mar. 17, 2016).

²³⁸ See Busenberg, *supra* note 235, at 18-19.

²³⁹ See *id.* at 17-20.

²⁴⁰ See Plater, *Learning from Disasters*, *supra* note 233, at 11042-46. Plater's subsequent article that builds on this shorter piece provides more detailed analysis of citizen's councils, praising their accomplishments and analyzing challenges that they have faced. See Zygmunt J.B. Plater, *The Exxon Valdez Resurfaces in the Gulf of Mexico . . . and the Hazards of "Megasytem Centripetal Di-Polarity"*, 38 B.C. ENVTL. AFF. L. REV. 391, 409-15 (2011). For analysis of RCACs that summarizes the additional scholarly literature, see Mackenzie M. Consoer, Risk Governance Within Complex

so many of the entities and rules discussed are drawing from efforts by interested corporations, they are at some risk of regulatory capture (in which private interests overtake public ones). While these limitations do exist, RCACs serve as an important example of the ways in which institutional innovation can provide important spaces for key stakeholders to collaborate.

3. Arctic Waterways Safety Committee

Arctic offshore drilling developments are expected to result in increased use of the waterways. The U.S. Committee on the Maritime Transportation System's report, *A 10-Year Projection Of Maritime Activity in the U.S. Arctic Region*, indicates for example that:

The preliminary revised draft OCS exploration plan submitted by Shell to the U.S. Bureau of Ocean Energy Management (BOEM) lists the vessels and the expected activity for the proposed exploration. Many of the 22 support vessels such as tugs, anchor handlers, and ice management vessels would remain near the drill ship, contributing to on-site activity. However, offshore supply vessels are anticipated to make up to 30 round trips to Kotzebue and/or Dutch Harbor.²⁴¹

While Arctic offshore drilling provides an opportunity for economic development and greater energy independence, the increased usage of Arctic waterways raises a number of concerns for the variety of stakeholders who make daily use of and rely on these waterways for other activities.

For example, many communities in the OCS depend upon a subsistence lifestyle. George Noongwook is a whaling captain from Savoonga, Alaska, Chair of the Alaska Eskimo Whaling Commission, and also an alternate Chair of the Arctic Waterways Safety Committee ("AWSC"). Mr. Noongwook explains, "We don't get much food from the store. We get most of our food from the ocean — whales, walrus, and fish. This is how we feed our children, our families, and our elders."²⁴² Maintaining a subsistence lifestyle in the face of the

and Uncertain Environments: A Retrospective Analysis of the Regional Citizens' Advisory Councils in Alaska (May 8, 2012) (unpublished M.S. thesis, University of Minnesota) (on file with authors).

²⁴¹ THE INT'L COUNCIL ON CLEAN TRANSP., A 10-YEAR PROJECTION OF MARITIME ACTIVITY IN THE U.S. ARCTIC REGION 25 (2015), available at http://www.cmts.gov/downloads/CMTS_10-Year_Arctic_Vessel_Projection_Report_1.1.15.pdf.

²⁴² *Alaska Eskimo Whaling Commission Defends Bowhead Quota*, IWC: THE WORLD IS

anticipated growth in maritime travel is a principal concern for many communities.²⁴³

To address these concerns “the AWSC was established in October 2014 as a self-governing multi-stakeholder group focused on creating or documenting best practices to ensure a safe, efficient, and predictable operating environment for all users of the arctic waterways.”²⁴⁴ Committee members are a wide array of Arctic maritime users and stakeholders and “fall under three categories: Subsistence Hunters, Industry, and Other representatives. Each category has five seats, each with a vote in decisions made by the organization.”²⁴⁵ Committee members include Mr. Noongwook with whaling expertise and an understanding of traditional knowledge, advocacy group representatives, mayors, “offshore oil and gas developers, and tug and barge operators.”²⁴⁶

“The mission of the AWSC is to provide a proactive forum for identifying, assessing, planning, communicating, and implementing measures that enhance safe, secure, efficient and environmentally sound maritime operations in the U.S. Arctic waters.”²⁴⁷ The committee’s

WATCHING (July 3, 2012), <https://iwcblogger.wordpress.com/2012/07/03/alaska-eskimo-whaling-commission-defends-bowhead-quota>.

²⁴³ See Francesca Fenzi, *Municipalities, Subsistence Hunters Join Forces to Establish Arctic Waterway Safety Commission*, KNOM RADIO MISSION (Nov. 4, 2014), <http://www.knom.org/wp/blog/2014/11/04/municipalities-subsistence-hunters-join-forces-to-establish-arctic-waterway-safety-committee/#more-12721> (describing the members and goals of AWSC).

²⁴⁴ *Our Work*, ARCTIC WATERWAYS SAFETY COMMITTEE, <http://www.arcticwaterways.org/attorneys-1.html> (last visited Jan. 22, 2016). In 2014, the Wildlife Conservation Society received a \$101,237.95 grant from the National Fish and Wildlife Foundation’s Alaska Fish and Wildlife Fund to develop a Waterway Safety Committee for the protection of marine mammals and subsistence activities (grant ID 45438). See *2014 Alaska Fish and Wildlife Fund Grant Awards*, NAT’L FISH & WILDLIFE FOUND., <http://www.nfwf.org/afwf/Documents/2014%20AFWF%20Funded%20Projects.pdf> (last visited Oct. 14, 2015). “Support for the Alaska Fish and Wildlife Fund is provided by the U.S. Fish and Wildlife Service, Bureau of Land Management, USDA Forest Service, National Oceanic and Atmospheric Administration, ConocoPhillips Alaska, Shell, Donlin Gold LLC, NOVAGOLD Resources, and community service payments from court settlements from various federal pollution law violations.” *Alaska Fish and Wildlife Fund*, NAT’L FISH & WILDLIFE FOUND., <http://www.nfwf.org/afwf/Pages/home.aspx> (last visited Oct. 14, 2015).

²⁴⁵ *Our Work*, *supra* note 244.

²⁴⁶ Carey Restino, *Committee Begins Work on Arctic Waterway Safety*, ARCTIC SOUNDER (Mar. 27, 2015), http://www.thearcticsounder.com/article/1513committee_begins_work_on_arctic_waterway.

²⁴⁷ *Arctic Waterways Safety Committee Presentations*, INST. NORTH, <https://www.institutenorth.org/news/entry/arctic-water-ways-safety-committee-presentations> (last visited Jan. 22, 2016) (follow “Marine Exchange of Alaska” hyperlink).

purpose is to “bring together local marine interests in the Alaskan Arctic in a single forum, and to act collectively on behalf of those interests to develop best practices to ensure a safe, efficient, and predictable operating environment for all current and future users of the waterway.”²⁴⁸ Its focus is to ensure “communication between members, improving the safety of the Arctic Maritime Transportation System, and generating consensus between AWSC members on issues impacting the Arctic Maritime Transportation System.”²⁴⁹ According to AWSC Bylaws, these goals will be achieved by “[f]acilitat[ing] the continued safe and efficient economic development, commerce, and subsistence practices that are vital to local economies” and “[a]ct[ing] as a resource at the request of governmental bodies and individual legislators regarding issues related to marine operational and environmental safety.”²⁵⁰ Ultimately, AWSC will create best management plans that address the diverse interests in Arctic waterways.

Most relevant for this Article, the AWSC aims to balance the diverse interests in the Arctic waterways in the face of increased maritime travel, due in part to Arctic offshore drilling. “This committee would give various stakeholders a forum to solve differences in the Arctic waterways without involving regulatory intervention from federal authorities therefore avoiding a drawn out bureaucratic process.”²⁵¹

The Prevention Division of the U.S. Coast Guard initiated the formation of the AWSC by holding the first meeting with representatives from a number of different stakeholder groups. The idea came from similar committees developed in Puget Sound, Washington, Los Angeles, California, and southeast Texas.²⁵² While the U.S. Coast Guard envisioned the AWSC and helped with the formation, the AWSC is now an independently functioning institution. The first formal meeting was held in March 2015 in Juneau and the second took place in June 2015 at the Dena’ina Center in Anchorage. All meetings are open to the public.²⁵³ From the start, the AWSC has sought to involve a broad range of stakeholders: “While the Coast

²⁴⁸ *Safe and Responsible Marine Practices in the Arctic*, ARCTIC WATERWAYS SAFETY COMMITTEE, <http://www.arcticwaterways.org> (last visited Jan. 24, 2016).

²⁴⁹ Diana Honings, *A Framework for a Safer Arctic*, COAST GUARD ALASKA (Sept. 5, 2014), <http://alaska.coastguard.dodlive.mil/2014/09/a-framework-for-a-safer-arctic>.

²⁵⁰ ARCTIC WATERWAYS SAFETY COMM., BYLAWS § II.5, II.7, available at <http://nebula.wsimg.com/5acd1bcd24462dfe3a1179128c6c2f31?AccessKeyId=4913A243119CE1325FB9&disposition>.

²⁵¹ Honings, *supra* note 249.

²⁵² *See id.*

²⁵³ *See id.*

Guard is providing a framework for this maritime committee, the committee will be established based solely on the collective group of stakeholders to include representatives from local and tribal governments, subsistence hunter co-management groups, advocacy organizations, the maritime industry and community members.”²⁵⁴

The AWSC is already communicating concerns over the changing conditions of the Arctic waterways and the need for balancing diverse interests with politicians. For example, the AWSC met with Senator Donald Olson to convey the need for and emerging collaboration between locals and new economic interests that are coming in.²⁵⁵

Although the AWSC only addresses one aspect of offshore drilling risks — those created by vessel transport — its institutional structure and approach provides another example of hybrid cooperation. Like the agreements more specific to offshore oil and gas safety emerging from the Arctic Council and the other institutions described in this Part, the AWSC provides mechanisms for needed interaction crucial to multi-stakeholder cooperation.

At the same time, although all three institutions represent innovative institutional mechanisms for creating hybrid cooperation, fragmentation remains between these institutions and other aspects of Arctic regional governance. For example, these institutions are not integrated into the Arctic Council’s efforts (for example, the establishment of the Arctic Coast Guard Forum in October 2015) to include stakeholders as it shapes regional policies for Arctic offshore oil and gas development.²⁵⁶ In addition, while it seems likely that the

²⁵⁴ *Id.*

²⁵⁵ See Sen. Donald Olson, *Arctic*, ULU NEWSL. (Mar. 25, 2015), http://alaskasenate.dems.com/senator/olson/032515_newsletter.htm (“This week in Arctic Policy we had visitors from the Arctic Waterways Safety Committee come testify. They told of the melting ice and the devastating effects that it created but they also told of the new opportunities that are created with the melting ice: new waterways that we couldn’t travel through before, new scientific studies that are being done, and international interest in water routes and resources. However, with all of these new interests and happenings in our waters they told of the collaboration that is needed between the locals who already use the water and the new traffic of people that are coming and bringing in new economic opportunity. They explained further that they have been collaborating with other organizations to develop different routes for new vessel travel to reduce travel time for the organization while keeping the hunting waters safe. Those who were present in the meeting from the district were: *Charlie Brower* from Barrow, *Vera Metcalf* from Nome, *George Noongwook* from Savoonga, *Willie Goodwin* from Kotzebue, *Wendie Schaeffer* from Kotzebue, *Arnold Brower, Jr.* from Barrow, *Jack Omelak* from Nome, and *Mayor Denise Michels* from Nome.”).

²⁵⁶ See Arctic Coast Guard Forum Members, Joint Statement of the Intent to Further Develop Multilateral Cooperation of Agencies Representing Coast Guard Functions (Oct.

AWSC, like the RCACs, will have influence over time in some of the same ways Busenberg noted in that context, a key question regarding both sets of institutions, however, is whether they will effect U.S. domestic policy or Arctic regional policy more broadly. And, as explored more in the next section, all three of the institutions face risks of private capture — particularly the AIO-Shell Oil collaboration (or future collaborations framed similarly) with its economic development orientation and corporate involvement.²⁵⁷

D. Benefits and Limitations of Hybrid Cooperation

The implicit and explicit cooperation analyzed in this Part represents only a small fraction of the governance efforts taking place around Arctic offshore drilling. The Part focuses on the U.S. context and a representative selection of regulatory and institutional developments. But these agreements, rules, and institutions serve as helpful examples for evaluating mechanisms for achieving greater harmonization and inclusion of key stakeholders in this complex regulatory environment.

This Section's assessment builds on the prior work of Hari Osofsky and Hannah Wiseman in *Hybrid Energy Governance* evaluating the success of hybrid institutions in the broader U.S. energy governance context.²⁵⁸ That Article suggests that evaluations of the success or failure of governance innovation should focus on both substantive and structural aspects. In other words, assessment should include whether governance innovation achieves the goals that it was set up to accomplish substantively and addresses underlying governance problems in the process.²⁵⁹ Translating that idea into this context, we ask: Do these examples (1) substantively have the potential to make offshore drilling safer and (2) structurally address the governance problems identified in Part II and help to develop regional Arctic energy governance? Our answer to both of these questions is a

30, 2015), available at http://arctic-council.org/eppr/wp-content/uploads/2015/06/2015_11_05_ACGF_Joint-Statement_Final_Approved.pdf (establishing Arctic Coast Guard Forum); Ernie Regehr, *The Arctic Coast Guard Forum: Advancing Governance and Cooperation in the Arctic* (Nov. 12, 2015) (Simons Foundation Briefing Paper), available at http://www.thesimonsfoundation.ca/sites/all/files/The%20Arctic%20Coast%20Guard%20Forum-advancing%20governance%20and%20cooperation%20in%20the%20Arctic%20-%20DAS%2C%20November%2012%202015_4.pdf (describing Arctic Coast Guard Forum).

²⁵⁷ See *infra* Part III.D.

²⁵⁸ See Osofsky & Wiseman, *supra* note 175, at 56-57.

²⁵⁹ See *id.*

tentative “yes,” with the caveat that most of these regulations and institutions are too new to yield clear results.

1. Substantive Assessment

With respect to offshore drilling safety, each of the examples has the potential to help with spill prevention and/or response, but they have not been fully tested due to how new they are and the limited U.S. Arctic offshore drilling to date. With respect to the regulations, as this section explores, the Arctic Council’s 2015 Framework Plan for Cooperation on Prevention of Oil Pollution and Offshore Oil and Gas Guidelines and the U.S. federal regulations implement some of the recommendations of the National Commission on the *Deepwater Horizon* Oil Spill and Offshore Drilling in the ways in which they frame the governmental-corporate interactions and bring together different types of standards. The institutions similarly provide opportunities for substantive progress through the processes they create among key stakeholders. Although neither of these qualities guarantee better drilling safety, they are both promising as explored below.²⁶⁰

The Arctic Council’s 2015 Framework Plan, as described in Section III.B.1, contains specific language about relevant collaboration with industry, but by its nature, does not fill in the details. However, the 2014 Offshore Guidelines are far more specific, and seem designed to address some of the safety culture problems that led to the BP *Deepwater Horizon* spill. In particular, the National Commission on that spill found that systemic regulatory failures caused the spill, and proposed a consideration of a more “proactive, risk-based performance approach” modeled on the “safety case” strategy used in the North Sea.²⁶¹ The 2014 Guidelines’ inclusion of specific provisions on safety culture provides an opportunity to test this recommendation in the Arctic context. Moreover, the Guidelines’ delineation of safety management categories that include industry-regulatory interaction and a role for indigenous peoples and their knowledge has the potential to help harmonize safety efforts across nation-states and corporate and indigenous stakeholders.²⁶² The new U.S. regulatory efforts regarding Arctic offshore drilling and blowout preventers similarly implement the Commission’s recommendation to update

²⁶⁰ See NAT’L COMM’N REPORT, *supra* note 233, at 269.

²⁶¹ *Id.* at 252.

²⁶² See *supra* Part III.A.

regulation, and do so in a way that reflects both governmental and industry efforts in the aftermath of the 2010 spill.²⁶³

The three institutions described in Section III.C — AIO, RCACs, and AWSC — each have the potential to advance safety (with that potential somewhat realized in the more long-standing RCACs) through the way in which they involve key stakeholders in decision-making related to safety. AIO focuses on shared economic benefits for indigenous peoples by bringing Alaska Native corporations to the table as full participants. AIO was also structured to provide an opportunity for them to help shape the development in ways that could lessen risk of harm to Alaska Native communities.²⁶⁴ The RCACs, through their decades of experiment and assessment, have brought key stakeholders together to produce recommendations about how to limit risks.²⁶⁵ Finally, AWSC already seems to be making constructive interventions on various aspects of transportation safety.²⁶⁶

Despite these indicators of these institutions' capacity to contribute to spill prevention and response, it remains unclear how each of them will cooperate with more formal channels of policy such as BSEE at a U.S. federal level and the Arctic Council at a regional level. Such interconnection is important to ensuring that their efforts and aims are carried through into practice. In order for them to be maximally effective, their institutional collaboration should help foster the other form of hybrid cooperation, regulatory incorporation, with their work being brought into the formal structures and soft law standards for Arctic offshore energy governance. Overall, while only time will tell if the newer regulatory and institutional innovations described in this Part will realize their promise, they seem designed to address important safety concerns in the way in which they harmonize efforts among key stakeholders.

2. Structural Assessment

With the same caveat as in the previous section that it is too early to know how these developments will play out over time, the examples of hybrid cooperation that this Part explores all seem to decrease the fragmentation analyzed in Part II. Each of them brings together key

²⁶³ See NAT'L COMM'N REPORT, *supra* note 233, at 252; *supra* Part II.B.

²⁶⁴ See *supra* Part III.A.

²⁶⁵ See *supra* Part III.C.2.

²⁶⁶ See *supra* Part III.C.3.

stakeholders and regulatory approaches in ways that make Arctic offshore drilling governance more coherent.

When the Arctic Council and U.S. federal government use standards created by transnational industry and standard-setting entities, they ensure that corporations engaging in offshore drilling have a clear and consistent set of standards to follow.²⁶⁷ This harmonization — so long as the standards are well designed and appropriate — helps reduce costs, improve safety, and decrease confusion.

Similarly, when key stakeholders work together in institutions like the AIO, RCACs, and AWSC, they create a coherency across the diversity of participants in different aspects of Arctic offshore drilling. The more well-established RCACs provide an example of this structural inclusion of stakeholders leading to harmonized approaches.²⁶⁸

However, for both types of hybrid cooperation, there is a risk that private and public interests may not align (or have equal enough financial means for stakeholders to represent their interests sufficiently).²⁶⁹ When industry-developed standards are used and corporate participants are included, their know-how can be incorporated, but as noted above in the discussion of the specific examples, a risk of regulatory capture exists. Participation in regulatory development and emerging institutions needs to be assessed over time to make sure that their processes include all stakeholders in a meaningful way.

Specifically, stakeholder participation should amount to real input into regulatory processes (not merely symbolic forms of consultation carried out to meet regulatory demands). Multi-stakeholder processes in institutions do not always translate into regulatory or project input, which increases the risk that resulting standards will be dominated by the most powerful special interests, in this case oil and gas industry ones.²⁷⁰ For example, a number of Alaskan Inupiat politicians, aboriginal consultants and academics have raised the concern that U.S. and Canadian consultation processes with indigenous peoples are often burdensome without having clear influence on the resulting

²⁶⁷ See *supra* Parts III.A., III.B.

²⁶⁸ See *supra* Part III.C.

²⁶⁹ See BEST PRACTICES IN ECOSYSTEM-BASED OCEANS MANAGEMENT IN THE ARCTIC 112 (Alf Håkon Hoel ed., 2009), available at http://www.pame.is/images/03_Projects/EA/EA/BePOMAr.pdf; Bradley Karkkainen, *Marine Ecosystem Management & A "Post-Sovereign" Transboundary Governance*, 6 SAN DIEGO INT'L L.J. 113, 124 (2004).

²⁷⁰ See Osofsky & Wiseman, *supra* note 175, at 61-64.

regulations. They argue for further assessment of these processes' influence.²⁷¹ Similar assessments are needed with respect to this Article's case studies.

However, despite these limitations, the examples of hybrid cooperation explored in this Article have the potential to help address safety and governance concerns in needed ways. They are certainly not a panacea, but they serve as important and promising developments in the complex and emerging regulatory governance of Arctic offshore drilling. The conclusion that follows considers whether these instances of hybrid cooperation, when combined, have the potential to evolve into or assist the development of a more integrated regional Arctic offshore oil and gas governance system.

CONCLUSION

This Article has three core conclusions about the current state of and future possibilities for energy governance in the Arctic. First, the complex, multilevel, multi-actor regulatory efforts in the context of Arctic offshore drilling create a major regulatory challenge. Arctic offshore drilling safety is hard to address fully through treaties and national regulations because many key stakeholders are taking measures to address safety that are not fully captured in those processes.²⁷²

Second, Arctic Council agreements, U.S. federal laws, and emerging Arctic institutions at multiple levels are bringing these diverse streams together. Hybrid collaboration is emerging across governance scales, with different variations of the public and private stakeholders it includes. This Article's case studies provide examples of some of the forms that such convergence can take. Although they range from the U.S. federal government incorporating standards created by transnational industry and standard-setting bodies to Alaska Native

²⁷¹ See Henry P. Huntington, Aqqaluk Lynge, Jimmy Stotts, Andrew Hartsig, Louie Porta & Chris Debicki, *Less Ice, More Talk: The Benefits and Burdens for Arctic Communities of Consultations Concerning Development Activities*, 6 CARBON & CLIMATE L. REV. 33 (2012).

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²⁷² See *supra* Part II.

corporations cooperating with a multi-national oil and gas corporation, they all have a core function in common. These efforts at regulatory incorporation and new institutional collaborations are decreasing fragmentation in ways that have the potential to make Arctic offshore drilling safer.²⁷³

Third, despite these promising examples of hybrid cooperation, a major challenge remains for achieving coherent regional governance of offshore drilling. It is unclear whether this mosaic of emerging regulatory and institutional interconnections will be adequate to bring together key actors and initiatives. Arctic Council efforts, for example, do not yet integrate those of RCACs or of the more recently created AIO and AWSC. The experiences of the *Exxon Valdez* and BP *Deepwater Horizon* spill indicate, though, that such integration could serve a critical role for local communities who have served and would like to serve as first responders²⁷⁴ and have traditional knowledge that could assist with detecting and monitoring environmental changes.²⁷⁵ Greater regional coherence is also needed because a major oil spill in the Arctic would likely have transboundary impacts due to the physical geography of its seas, broader ocean, and coastline and the proximity of drill sites to national borders.²⁷⁶

In the final analysis, the efforts at regulatory integration and institutional collaboration analyzed in this Article may collectively serve to plant the seeds of more coherent Arctic energy governance. These iterations of cooperation in and among a variety of institutions are helping to develop new norms for how to operate in the Arctic. For example, regional and national governance bodies incorporate parallel government standards while key actors from those public institutions interact with multi-stakeholder bodies that are working towards better protocols. Further research is needed into how these norms are established and then reified through formal policy, especially as the newer regulations are tested and institutions mature. Moreover, this concept of hybrid cooperation has possibilities for understanding emerging governance in other complex areas with significant regulatory and institutional overlap, such as humanitarian crisis management, transnational investment, and climate change.

²⁷³ See *supra* Part III.

²⁷⁴ See *supra* note 140 and accompanying text.

²⁷⁵ Local indigenous hunters in Arctic coastal communities spend substantial time out on the land and in the water. These hunters are the ones who can see shifting ice flows, emerging weather patterns, etc.

²⁷⁶ See *supra* Part III.D.

Effective governance in this context is challenging, and existing and nascent institutional structures are trying to respond to that challenge. Even if these instances of hybrid cooperation are not comprehensive enough to include all key stakeholders or address all fragmentation, they serve as an important example of possible pathways forward in this context and other complex governance contexts. If multiple institutions can create needed interweaving of regulation and stakeholders, they can develop a web of collaboration that is itself hybrid and can constructively address governance concerns.