

ASSERTING TREATY RIGHTS TO HARNESS THE WIND ON THE GREAT LAKES

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INTRODUCTION

Wind energy is a booming business in America today. As policymakers push alternative energy agendas, industry and government agencies want the process of siting and permitting wind farms to be shorter and more efficient. The significant delays of the country's first offshore wind energy project, Cape Wind, is a glaring example of what needs be avoided.¹ As a result, the federal government and states have partnered to facilitate development of offshore wind resources in the Atlantic and the Great Lakes. In the rush to develop, important stakeholders have been left out of the discussions—Great Lakes treaty tribes. This paper discusses the legal framework emerging for Great Lakes wind energy permitting, and the legal challenges opponents may raise in resisting development of offshore wind energy. More importantly, I argue that treaty tribes, Michigan treaty tribes in particular, could assert stakeholder status in the development of Great Lakes wind resources.

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¹ Originally proposed in 2001, Cape Wind has been mired in litigation and regulatory review ever since. The struggle is ongoing. Opponents of the project include the Wampanoag Tribe of Gayhead (Aquinnah), whose complaint is discussed *infra*, and the Alliance to Protect Nantucket Sound, an umbrella organization covering numerous groups individually opposing the project, such as residents, fishermen, towns, and environmental groups. The delays have threatened the financing of the project and increased overall costs, threatening the viability of the project itself. See Tom Zeller Jr., *Cape Wind: Regulation, Litigation and The Struggle To Develop Offshore Wind Power In The U.S.*, HUFFINGTON POST (February 23, 2013, 10:41 AM), http://www.huffingtonpost.com/2013/02/23/cape-wind-regulation-liti_n_2736008.html (last visited Dec. 30, 2013) and Gale Courey Toensing, *Cape Wind: Justice Department Urges Swift Lawsuit Resolution Before Tax Breaks Expire*, INDIAN COUNTRY TODAY MEDIA NETWORK (April 25, 2013), <http://indiancountrytodaymedianetwork.com/2013/04/25/cape-wind-justice-department-urges-swift-lawsuit-resolution-tax-breaks-expire-149020> (last visited Nov. 24, 2013).

These tribes could do this not only because their treaty rights will be affected, but also because tribes could consider Great Lakes wind energy a natural resource reserved to them by treaty. Asserting a reserved right in the production and transmission of energy generated from wind resources on Lake Michigan would expand treaty rights and further affirm and enhance tribal sovereignty.

The first section of this article provides an overview of wind energy development in the United States and introduces the subject of offshore wind energy on the Great Lakes. In the second section, I discuss the emerging regulatory framework for offshore wind energy development generally. The third section discusses the legal challenges to wind farms, which provide recourse to tribes to protect their interests in the Great Lakes from negative impacts due to development. In section four, I present an overview of Indian treaties and treaty rights. Then, in section five, a close examination of the treaty rights reserved on Lake Michigan by Michigan treaty tribes. Lastly, in section six, I apply these recognized treaty rights and build an argument for asserting treaty rights to harness the wind on the Great Lakes.

I. OVERVIEW OF WIND ENERGY DEVELOPMENT IN THE UNITED STATES

This section discusses the growth of the wind energy industry, the reasons for its favored position in federal energy policy, and notes the development of wind energy resources on tribal lands. Furthermore, this section introduces federal support of offshore wind energy development in general and on the Great Lakes.

Since the first wind farms were built in the California deserts in the 1980s, the wind energy industry has grown significantly. In the past four years, wind energy production has more than doubled and in 2012 wind energy became the leading source of new energy generated in the United States². There are over 60,000 megawatts (MW) of installed wind power capacity, generated by 45,000 utility-scale turbines. This is enough

² *Reports Show Record High U.S. Wind Energy Production and Manufacturing*, U.S. DEP'T OF ENERGY, (Aug. 6, 2013, 12:00PM), <http://energy.gov/eere/articles/reports-show-record-high-us-wind-energy-production-and-0> (last visited Nov. 24, 2013).

electricity to power 15 million American homes. Thirty-eight states have wind power generating facilities. Texas leads the way in generation, with more than twice the output of second-place California.³ Industry analysts estimate that the United States has enough onshore wind energy resources to power the entire country ten times over, and enough offshore resources to power it thirteen times over.⁴

A. *Wind Energy as a Leading Policy Choice*

The phenomenal growth of wind energy is a result of the United States need for energy independence and energy security. President Obama's proposed Clean Energy Standard seeks to generate 80 percent of the country's electricity from clean energy, largely wind, by the year 2035.⁵ Toward that end, the Department of the Interior is committed to issuing permits for 10,000 MW of renewable power generation on public lands and offshore waters by the end of 2012.⁶ While the federal government has used direct investment and tax incentives to promote its goals, many states are using the Renewable Portfolio Standard (RPS) to achieve the same ends. An RPS obligates power companies in a state to provide a set portion of their electricity sales from renewable energy sources. Around the Great Lakes, Michigan and Wisconsin are using the RPS to meet their goal of 10 percent of energy from renewable sources by 2015; Ohio has a goal of 12.5 percent by 2025, Illinois of 25 percent by

³ AMERICAN WIND ENERGY ASSOCIATION, <http://www.awea.org/resources/statefactsheets.aspx?itemnumber=890> (last visited Nov. 24, 2013).

⁴ *Id.* See also, *Offshore Wind Energy*, BUREAU OF OCEAN ENERGY MGMT. <http://www.boem.gov/Renewable-Energy-Program/Renewable-Energy-Guide/Offshore-Wind-Energy.aspx> (last visited Nov. 24 2013).

⁵ *Blueprint For A Secure Energy Future*, THE WHITE HOUSE, (March 30, 2011), http://www.whitehouse.gov/sites/default/files/blueprint_secure_energy_future.pdf (last visited Nov. 24, 2013). See also U.S. DEP'T OF ENERGY, 20% WIND ENERGY BY 2030: INCREASING WIND ENERGY'S CONTRIBUTION TO U.S. ELECTRICITY SUPPLY (2008), available at <http://www1.eere.energy.gov/wind/pdfs/41869.pdf> (last visited Dec. 30, 2013) (hereinafter U.S. DEP'T OF ENERGY, WIND ENERGY BY 2030).

⁶ *Id.* at 36.

2025, New York of 25 percent by 2013, and Pennsylvania of 18 percent by 2020. Indiana has no RPS program.⁷

Wind energy is favored because it is clean energy, domestically produced, and entirely renewable and sustainable. Environmentalists who support wind energy (and not all do) point out that wind power requires no fuel, does not release greenhouse gases or other pollutants, does not consume water, generates no hazardous waste, and carries no threat of disastrous spills.⁸ Industry advocates add that it has become cost-competitive due to advances in technology offers the advantage of predictable costs—because it is untethered to volatile fuel prices—and is supporting job growth.⁹

B. Wind Energy on Tribal Lands

Wind energy is also in full development on tribal lands.¹⁰ The Navajo Nation is constructing an 85 MW wind project at the Big Boquillas Ranch. Located within Navajo lands, its purpose is to deliver energy to customers on and off the reservation.¹¹ For the project, they have partnered with Edison Mission of Irvine, California, who owns 49 percent of the venture (the remaining ownership stake is with the tribe).¹² Tribal energy projects are not only a matter of economic development or diversification; in many parts of Indian country, they are for the purpose of building infrastructure. On the Navajo Nation reservation, for instance,

⁷ *Renewable Portfolio Standards*, M.J. BECK CONSULTING LLC, http://mjbeck.emtoolbox.com/?page=Renewable_Portfolio_Standards (last visited Nov. 24, 2013).

⁸ Ronald H. Rosenberg, *Diversifying America's Energy Future: The Future of Renewable Wind Power*, 26 VA. ENVTL. L.J. 505, 522-24 (2008).

⁹ U.S. DEP'T OF ENERGY, WIND ENERGY BY 2030, *supra* note 5, at 107-110.

¹⁰ See generally PETER MEISEN, GLOBAL ENERGY NETWORK INSTITUTE, RENEWABLE ENERGY ON TRIBAL LANDS, *available at* <http://www.geni.org/globalenergy/research/renewable-energy-on-tribal-lands/Renewable-Energy-on-Tribal-Lands.pdf> (last visited Nov. 24, 2013). The Department of Energy also maintains a Tribal Energy Program, which provides financial and technical assistance for renewable energy projects on tribal lands; see *Tribal Energy Program*, U.S. DEP'T OF ENERGY, <http://apps1.eere.energy.gov/tribalenergy/index.cfm> (last visited Nov. 24, 2013).

¹¹ Alastair Lee Bitsoi, *Wind Project Holds Promise for Tribe*, NAVAJO TIMES (Aug. 4, 2011), <http://navajotimes.com/news/2011/0811/080411wind.php> (last visited Nov. 24, 2013) (hereinafter NAVAJO TIMES, *Wind Project*).

¹² *Id.*

there are an estimated 16,000 homes without access to electricity.¹³ Eventually, the Navajo Nation plans to expand the Big Boquillas Ranch facility to a 200 MW capacity, and develop wind energy (as well as solar energy) at another site.¹⁴ While the project is not intended to address infrastructural issues directly, using revenue from the project to fund rural electrification is one of its goals.¹⁵

The Navajo are not alone. In Maine, the Passamaquoddy Tribe of Indian Township and Pleasant Point has partnered with a Midwest energy company to build a wind farm at a decommissioned United States Air Force radar site that they plan to purchase.¹⁶ The Cheyenne and Arapaho, as well as several other tribes in Oklahoma, either have or are building facilities.¹⁷ In September of 2012, the Senate Indian Affairs Committee approved the Indian Tribal Energy Development and Self-Determination Act Amendments of 2011.¹⁸ One of the goals of the legislation is to facilitate Secretarial approval of energy projects, including wind, on Indian lands.¹⁹

C. Federal Support of Offshore Wind Energy Development

Even greater enthusiasm is held for the development of America's offshore wind energy resources. Offshore wind is a superior resource

¹³ NAVAJO TRIBAL UTIL. AUTHORITY, <http://www.ntua.com/> (last visited Nov. 24, 2013).

¹⁴ NAVAJO TIMES, *Wind Project*, *supra* note 11.

¹⁵ Terry W. Battiest, NAVAJO NATION RENEWABLE ENERGY INITIATIVES 17 *available at* http://www4.nau.edu/tribalclimatechange/resources/docs/res_830BattiestNavajo.pdf (last visited Nov. 24, 2013). The report notes that the Nation is planning to use small scale solar units to provide off-grid residential power in some locations.

¹⁶ Sharon Kiley Mack, *Passamaquoddy Tribe Plans \$120M Wind Farm In Washington County*, BANGOR DAILY NEWS (Jan. 26, 2012, 5:20 PM), <http://bangordailynews.com/2012/01/26/business/passamaquoddy-tribe-plans-120m-wind-farm-in-washington-county/> (last visited Nov. 24, 2013).

¹⁷ *Cheyenne and Arapaho Tribes Purchase Wind Turbines to Power Reservation*, INDIAN COUNTRY TODAY MEDIA NETWORK (Apr. 27, 2011), <http://indiancountrytodaymedianetwork.com/article/cheyenne-and-arapaho-tribes-purchase-wind-turbines-to-power-reservation-29819> (last visited Nov. 24, 2013).

¹⁸ *Senate Indian Affairs Committee Approves Indian Energy Bill*, INDIANZ (Sept. 20, 2012), <http://www.indianz.com/News/2012/007159.asp> (last visited Nov. 24, 2013).

¹⁹ *Barrasso Indian Tribal Energy Bill Moves Forward*, JOHN BARRASSO, (Sept. 13, 2012), http://barrasso.senate.gov/public/index.cfm?FuseAction=PressOffice.PressReleases&ContentRecord_id=c143f275-b7f0-89f7-87cc-2790fef2fa9 (last visited Nov. 24, 2013).

because there are steadier winds and higher wind speeds across open water than over land, which leads to increased generating capacity.²⁰ Offshore siting would place generating facilities closer to population centers (our largest cities are coastal), which reduces transmission costs.²¹ Additionally, engineers can scale-up offshore projects (larger turbines and larger wind farms) because they do not compete for land.²² However, offshore wind farms have higher construction and maintenance costs, and the technology for operation in marine environments is not as advanced.²³ While there is currently no offshore wind generation in the United States, the country's first offshore lease was issued in 2010, for the Cape Wind facility on Nantucket Sound.²⁴ The facility will consist of 130 turbines with a combined generating capacity of 420 MW.

In 2010, the Secretary of the Interior launched the Smart From The Start initiative, which was intended to facilitate siting, leasing, and construction of new projects.²⁵ It does so by identifying "wind energy areas" along the Outer Continental Shelf (OCS), and launching environmental assessments (EAs) evaluating the impact of authorizing leases and approving site assessment plans in those areas, so that a more efficient permitting process can unfold.²⁶

In 2011, Secretary of the Interior Ken Salazar and Secretary of Energy Steven Chu released their joint plan to develop 10 gigawatts of offshore wind capacity by 2020 and 54 gigawatts by 2030.²⁷ This plan comes with funding to incentivize development, and a promise of

²⁰ U.S. DEP'T OF ENERGY, A NATIONAL OFFSHORE WIND STRATEGY: CREATING AN OFFSHORE WIND ENERGY INDUSTRY IN THE UNITED STATES 6-7 (2011), *available at* http://www1.eere.energy.gov/wind/pdfs/national_offshore_wind_strategy.pdf (last visited Nov. 24, 2013) (hereinafter NATIONAL OFFSHORE WIND STRATEGY).

²¹ *Id.* at 6.

²² *Id.*

²³ *Id.* at 7.

²⁴ CAPE WIND, <http://www.capewind.org/article26.htm> (last visited Nov. 24, 2013).

²⁵ SMART FROM THE START FACTSHEET, DEP'T OF INTERIOR, *available at* <http://www.doi.gov/news/pressreleases/upload/02-07-10-wea-fact-sheet.pdf> (last visited Nov. 24, 2013).

²⁶ *Id.*

²⁷ NATIONAL OFFSHORE WIND STRATEGY, *supra* note 20 at iii.

removing obstacles in the path of development.²⁸ The major obstacles to wind energy include a need for developments in technology and infrastructure, a lack of data on environmental impacts for such projects, and an absence of regulatory framework.²⁹

These initiatives were followed by the Department of Energy's Offshore Wind Innovation and Demonstration Initiative (OSWInD), which seeks to "[r]educ[e] the cost of energy through technology development to ensure competitiveness with other electrical generation sources [and r]educ[e] deployment timelines and uncertainties limiting United States offshore wind project development," in both the Atlantic Ocean and the Great Lakes.³⁰ The hope is to avoid delays similar to those faced by the Cape Wind project by, among other things, promoting public acceptance of the wind farms, initiating the public consultation process, and accelerating and streamlining the permitting process.³¹

A streamlined permitting process can be achieved by increasing coordination and data sharing between agencies, reducing the regulatory burden for projects facing similar questions, developing best management practices for siting, and identifying needed regulatory reforms and statutory amendments.³² With respect to environmental assessments, OSWInD intends a coordinated data gathering effort to reduce duplicative assessments by interested parties and agencies. In doing so, they recognize that the development of offshore wind energy will require much original research that is likely to be time consuming and expensive.³³

D. Developing Wind Energy on the Great Lakes

While other Atlantic projects are being discussed, government and industry are eyeing the Great Lakes as the next area for major development. The State of Michigan, for instance, established the Michigan Great Lakes Wind Council as an advisory body to make

²⁸ *Id.*

²⁹ *Id.* at 10.

³⁰ *Id.* at 14.

³¹ *Id.* at 27.

³² *Id.* at 29.

³³ *Id.* at 17.

recommendations related to offshore wind development in Michigan.³⁴ The Public Service Commission of Wisconsin has studied the feasibility of wind energy development on Lakes Michigan and Superior,³⁵ and the Great Lakes Commission has explored the issue for Michigan and Wisconsin.³⁶ These initial studies indicated a need for partnering between states and federal agencies. In 2012, a collaborative framework was established through a Memorandum of Understanding (MOU) signed by five states and ten federal agencies.³⁷ (Noticeably absent from the MOU is the State of Wisconsin.) The MOU created the Great Lakes Offshore Wind Energy Consortium, an entity whose purpose is to “support the efficient, expeditious, orderly and responsible review of proposed offshore wind energy projects in the Great Lakes by enhancing coordination among federal and Great Lakes state regulatory agencies.”³⁸ It anticipated a “regulatory roadmap” within fifteen months of the signing.³⁹

II. THE REGULATORY FRAMEWORK

As the many initiatives discussed above attest, wind energy projects face great regulatory uncertainty. Numerous state and federal entities have authority over siting and permitting of offshore wind facilities, yet no clear regulatory framework exists. Furthermore, the regulatory

³⁴ *REPORT OF THE MICHIGAN GREAT LAKES WIND COUNCIL*, GREAT LAKES WIND COUNCIL 1 (Sep. 1, 2009) available at http://www.michigan-glowcouncil.org/GLOW%20Report%209-1-09_FINAL.pdf (last visited Dec. 20, 2013).

³⁵ PUBLIC SERVICE COMMISSION OF WISCONSIN, *HARNESSING WISCONSIN'S ENERGY RESOURCES: AN INITIAL INVESTIGATION INTO GREAT LAKES WIND DEVELOPMENT 9* (2009) available at <http://psc.wi.gov/renewables/documents/WOWreport11509.pdf> (last visited Nov. 24, 2013) (hereinafter *HARNESSING WISCONSIN'S ENERGY RESOURCES*).

³⁶ LESLIE GARRISON, GREAT LAKES COMMISSION, *PREPARATION FOR OFFSHORE WIND IN LAKE MICHIGAN: INFORMATION SOLICITATION OPTIONS FOR MICHIGAN AND WISCONSIN 2* (2009) available at http://wiki.glin.net/download/attachments/950462/Information-Solicitation-Options-Offshore-Wind-Lake-Michigan_FINAL.pdf?version=1 (last visited Dec. 20, 2013) (the report indicates that Lake Michigan has the greatest wind resources).

³⁷ Memorandum of Understanding Among The White House Council on Environmental Quality to Create a Great Lakes Offshore Wind Energy Consortium to Coordinate Issues of Regional Applicability for the Purpose of Promoting the Efficient, Expeditious, Orderly and Responsible Evaluation of Offshore Wind Power Projects in the Great Lakes 1 (2012) available at http://www1.eere.energy.gov/wind/pdfs/great_lakes_offshore_wind_energy_consortium_mou.pdf (last visited Dec. 30, 2013) (hereinafter MOU).

³⁸ *Id.*

³⁹ *Id.*

framework developing for the Atlantic coastal waters cannot simply be transplanted to the Great Lakes. In this section, I discuss the regulatory framework emerging for offshore wind energy development, focusing on permitting agencies and environmental review. I first discuss regulations for offshore development in ocean waters because these are expected to provide the model for regulation of the Great Lakes.

A. Regulation of Federal Ocean Waters: A Model for the Great Lakes

In 2009, The Department of the Interior's Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) finalized regulations for the issuance of leases for renewable energy on the OCS.⁴⁰ BOEMRE serves as the lead agency in permitting offshore wind energy projects on the OCS.⁴¹ The Energy Policy Act of 2005 authorized the Secretary of the Interior to grant leases on the OCS for alternative energy projects.⁴² The Secretary delegated this authority to BOEMRE, which promulgated regulations.⁴³ Leases may be issued to any person, corporation, or government demonstrably capable of "constructing, operating, maintaining, and decommissioning" an alternative energy project on the OCS.⁴⁴

BOEM⁴⁵ uses a competitive bidding process to grant leases, initiated by publishing a request for interest in the Federal Register.⁴⁶ Two kinds of leases may be issued, a 25-year commercial lease for the generation and transmission of electricity, and limited leases, which allow

⁴⁰ Hanna Conger, *A Lesson From Cape Wind: Implementation of Offshore Wind Energy in the Great Lakes Should Occur Through Multi-State Cooperation*, 42 LOY. U. CHI. L.J. 741, 758 (2011).

⁴¹ A NATIONAL OFFSHORE WIND STRATEGY, *supra* note 20, at 10.

⁴² Energy Policy Act of 2005, Pub. L. No. 109-58 119 Stat, 594 § 388 (2005). See 30 C.F.R. § 285.100 (2011).

⁴³ *Id.*

⁴⁴ Conger, *supra* note 40, at 762.

⁴⁵ On October 1, 2011, BOEMRE, formerly the Minerals Management Service (MMS), was replaced by the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE). The former is involved in renewable energy development.

⁴⁶ 30 C.F.R. § 285.201 (2013).

only research, data collection, and testing at a site for a five-year period.⁴⁷ After the granting of a lease, developers must submit extensive plans to BOEM prior to construction. BOEM uses these plans to assess whether the project will conform to applicable law, not interfere with other uses of the OCS, and confirm compliance with environmental regulations.⁴⁸

BOEM's regulations were promulgated for OCSLA, and the federally controlled waters of the Atlantic, and therefore do not extend to state-controlled bottomlands, like those of the Great lakes. This regulatory uncertainty is expected to be addressed by the Great Lakes Offshore Wind Consortium, which will, in the least, facilitate coordination among the federal and state agencies that may participate in the permitting, and the extensive environmental review that must take place.⁴⁹ But exactly who would control the permitting process is yet to be determined.

B. Federal Statutes and Agencies Implicated in Offshore Wind Energy Permitting

The United States Army Corps of Engineers (USACE) has authority under § 10 of the Rivers and Harbors Act to issue permits for construction in navigable waters of the United States.⁵⁰ USACE also has authority under the Clean Water Act to issue permits for dredging and filling of any United States waters, including the Great Lakes.⁵¹ Wind farm construction would entail these activities, so these Acts could be used to regulate and permit wind farm development in the Great Lakes. However, states with Great Lakes bottomlands have significant authority to govern their coastlines and water; in fact, they have greater control over their waters and coastlines than ocean-bordering states do over theirs.⁵² This is because Great Lakes states control the water all the way to the Canadian border. In other words, there is no point at which the Great Lakes become

⁴⁷ Conger, *supra* note 40, at 762.

⁴⁸ *Id.*

⁴⁹ MOU, *supra* note 37.

⁵⁰ 33 U.S.C. § 403 (2006); *see also* Conger, *supra* note 40 at 781.

⁵¹ 33 U.S.C. § 1344 (2006).

⁵² Katherine Saks, *Great Lakes, Great Potential: Examining the Regulatory Framework for Wind Farms in the Great Lakes*, 35 CAN.-U.S. L.J. 209, 233 (2011).

federal waters. States also have approval authority under the Clean Water Act for projects impacting their water quality.⁵³

A *National Offshore Wind Strategy* lists the statutes and agencies involved in offshore wind permitting.⁵⁴ First and foremost of these is the National Environmental Policy Act (NEPA).⁵⁵ NEPA requires that federal agencies prepare an Environmental Impact Statement (EIS) for any “major federal action significantly affecting the quality of the human environment,” both immediately and cumulatively.⁵⁶ The environmental effects to be considered in an EIS include impacts on social, cultural, and economic resources, as well as natural resources.⁵⁷ The preparation of the EIS is the only enforceable duty under NEPA; no substantive environmental obligations are imposed.⁵⁸ NEPA ensures that an agency contemplating action will have environmental data to consider, including all reasonable alternatives to the proposed action. But it does not mandate that those environmental factors identified in reports actually guide decision making, merely that the agency take a “hard look” at environmental consequences before taking major action.⁵⁹ Other values or factors, perhaps non-environmental ones, could be more influential in decision making.⁶⁰

⁵³ 33 U.S.C. § 1342 (b) (2006).

⁵⁴ A NATIONAL OFFSHORE WIND STRATEGY, *supra* note 20, at 11-12. The statutes and agencies are: National Environmental Policy Act of 1969, Endangered Species Act of 1973, Marine Mammal Act of 1972, Magnuson-Stevens Fishery Conservation and Management Act, Marine Protection, Research, and Sanctuaries Act of 1972, National Marine Sanctuaries Act, Coastal Zone Management Act of 1972, National Historic Preservation Act of 1966, Federal Aviation Act of 1958, Federal Power Act, Ports and Waterways Safety Act, Rivers and Harbors Act of 1899, Outer Continental Lands Act of 1953, Clean Water Act, and Clean Air Act. Not all will be discussed here.

⁵⁵ 42 U.S.C. § 4321 (2006). Binding regulations concerning NEPA were issued by the Council on Environmental Quality (CEQ), 40 C.F.R. 1500 (2013).

⁵⁶ 42 U.S.C. § 4332 (2013); “cumulative impact” is defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” 40 C.F.R. § 1508.7 (2013).

⁵⁷ 40 C.F.R. § 1508.14 (2013).

⁵⁸ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989).

⁵⁹ *Id.*

⁶⁰ *Id.*

Under any agency's NEPA plan, a lead federal agency in an action impacting the human environment must coordinate with other federal agencies that have jurisdiction or special expertise.⁶¹ For offshore wind projects, this would require coordination with the many agencies already listed on the MOU creating the Great Lakes Offshore Wind Energy Consortium: the White House Council on Environmental Quality (CEQ), the Department of Energy, the Department of Defense, the EPA, the Army, the Coast Guard, Fish and Wildlife Service, Federal Aviation Administration, National Oceanic and Atmospheric Administration, and the Advisory Council on Historic Preservation.⁶² Additionally, executive order 13175 requires that all federal policies having tribal implications be developed in meaningful consultation with tribes.⁶³ The particular environmental impacts that would need to be addressed in an EIS covering an offshore wind facility are discussed in the next section.

Offshore wind projects will also be subject to the Coastal Zone Management Act (CZMA).⁶⁴ CZMA encourages coordination and cooperation between local, State, and Federal agencies with responsibilities over ocean and Great Lakes coastal areas.⁶⁵ Its most significant feature is the empowerment of local knowledge and local concerns in environmental policy.⁶⁶ Under CZMA, States can create "management programs," which identify "objectives, policies, and standards to guide public and private uses of lands and waters in the coastal zone."⁶⁷ They must include the views of local governments and other interested parties⁶⁸ and federal agencies "principally affected."⁶⁹ The

⁶¹ 42 U.S.C. § 4332 (2006). See also 40 C.F.R. §§ 1501.5-1501.6 (2013).

⁶² MOU, *supra* note 37.

⁶³ Exec. Order No. 13175, 65 Fed. Reg. 218, 67249 (2000). An example of agency implementation of this order available at <http://www.epa.gov/tp/consultation/plan-action.htm> (last visited Nov. 24, 2013).

⁶⁴ 16 U.S.C. §§1451-66 (2006) (CZMA is administered by the National Oceanic and Atmospheric Administration).

⁶⁵ 16 U.S.C. § 1452 (2006).

⁶⁶ Holly Doremus, *Through Another's Eyes: Getting the Benefit of Outside Perspectives in Environmental Review*, 38 B.C. ENVTL. AFF. L. REV. 247, 258 (2011), available at <http://lawdigitalcommons.bc.edu/ealr/vol38/iss2/3> (last visited Nov. 24, 2013).

⁶⁷ 16 U.S.C. § 1453 (12) (2006).

⁶⁸ 16 U.S.C. § 1455 (d)(1) (2006).

⁶⁹ 16 U.S.C. § 1456 (b)(2006); further requirements at 16 U.S.C. § 1455 (d)(2) (2006).

Secretary must then approve the state management programs. After they are approved, any federal action in the area must be “consistent” with state management programs.⁷⁰ Offshore wind facilities are likely to invoke CZMA concerns because the construction and operation of the facilities involves both onshore and offshore activities.

Next, environmental review for offshore wind energy projects may also be required under the Endangered Species Act, the Migratory Birds Treaty Act, the National Historic Preservation Act, The Magnuson-Stevens Fishery Conservation and Management Act and the Clean Air Act. This legislation is relevant because of the wide range of specific environmental hazards that wind turbines pose, many of which are not well understood. The Endangered Species Act, 16 U.S.C. §§ 1531-1544, is intended to ensure that federal agency actions do not destroy endangered and threatened species, or their critical habitat.⁷¹ The ESA makes it illegal to “take” —meaning to harass, harm, pursue, wound, or kill—a listed (protected) species.⁷² The Secretary may grant exceptions to the ESA, allowing for incidental takes under certain conditions.⁷³ As a result of ESA requirements, wind turbines on the Great Lakes will likely require the issuance of an incidental take permit for listed birds in the region.⁷⁴ Similarly, because the Great Lakes are significant migratory routes, the Migratory Bird Treaty Act will need to be considered.⁷⁵ It prohibits the taking of listed migratory birds without federal authorization.⁷⁶ Such authorization can come in the form of permits, or compliance with regulations—hunting regulations, for instance.⁷⁷ Through the operation of

⁷⁰ 16 U.S.C § 1456 (c)(1)(A) (2006)(“[e]ach Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs.”).

⁷¹ 16 U.S.C. §§ 1531-1543 (2006).

⁷² 16 U.S.C. §§ 1532 (19) (20); “Harm” here includes “significant habitat modification or degradation where it actually kills or injures wildlife.” *Babbitt v. Sweet Home Chapter of Communities for a Great Or.* 515 U.S. 687 (1995).

⁷³ 16 U.S.C. § 1539 (2006).

⁷⁴ The Bald Eagle Protection Act may also be implicated in Great Lakes Wind farms for the same reasons as the ESA. 16 U.S.C. § 668 (2006).

⁷⁵ 16 U.S.C. §§ 703-712 (2006).

⁷⁶ *Id.*

⁷⁷ *Id.*

NEPA, ESA, Migratory Birds Act, and the Fish and Wildlife Coordination Act,⁷⁸ the United States Fish and Wildlife Services (USFWS) will be implicated in the permitting process for all wind energy development. In anticipation, guidance is being developed by USFWS.⁷⁹

Finally, the National Historic Preservation Act⁸⁰ requires federal agencies to consider the impact of federal action on historic and cultural resources eligible for listing in the National Register of Historic Places, and requires that the Advisory Council on Historic Preservation be given a reasonable opportunity to comment on such undertakings.⁸¹ The NHPA supplements NEPA, which includes protections for cultural resources, and similarly requires only the consideration of impacts by an agency, including the consideration of alternatives to avoid or mitigate the adverse impacts, and the processes of community consultation.⁸²

C. State Agencies Implicated in Great Lakes Offshore Wind Energy Permitting

In Michigan, legislators intend to establish a wind energy regulatory program under Part 324 of the Natural Resources and Environmental Protection Act of 1994.⁸³ This program, to be situated within the Michigan Department of Environmental Quality, will manage leasing of bottomlands and handle the permitting of offshore wind energy projects in Michigan Great Lakes waters.⁸⁴ However, much of this may be conditioned upon the Great Lakes MOU (*supra*). The State of Wisconsin, which is not a signatory to the MOU, anticipates that regulatory participation at the state level would implicate the Public Service Commission of Wisconsin, the

⁷⁸ 16 U.S.C. §§ 661-667(e) (2006).

⁷⁹ See *generally Wind Energy Development Information*, U.S. FISH & WILDLIFE SERVICES, <http://www.fws.gov/windenergy/> (last visited Nov. 24, 2013).

⁸⁰ 16 U.S.C. § 470 (2006).

⁸¹ *Id.*

⁸² *Id.*

⁸³ MICH. COMP. LAWS § 324.101(1994).

⁸⁴ MICH. COASTAL MGMT. PROGRAM OFFICE OF THE GREAT LAKES DEP'T OF ENVTL QUALITY, SECTION 309 ASSESSMENT AND FIVE-YEAR STRATEGY FOR COASTAL ZONE MANAGEMENT PROGRAM ENHANCEMENT FISCAL YEARS 2012-2016, 43 (2011), *available at* <http://coastalmanagement.noaa.gov/mystate/docs/mi3092011.pdf> (last visited Nov. 24, 2013).

Wisconsin Department of Natural Resources, and Wisconsin's Indian Tribes.⁸⁵

III. CHALLENGES TO WIND FARMS

Currently, there is no anticipated role for tribes in the emerging regulatory framework, except by the State of Wisconsin.⁸⁶ However, two avenues for asserting stakeholder status and preserving, or even enhancing, treaty rights exist. These are: (1) legal battles to protect tribal interests from negative impacts due to offshore wind energy development; and (2) asserting treaty rights to wind. The first of these options will be discussed in this section.⁸⁷

Despite widespread support, wind energy has been criticized on a number of grounds. Opponents of onshore wind projects have relied on tort claims such as nuisance, zoning and FAA violations, improper permitting challenges, and violations of the public trust to ground claims seeking injunctions against particular wind farms.⁸⁸ More rarely, actions challenging onshore wind farms have alleged violations of the Endangered Species Act, the Migratory Birds Act, NHPA, the Federal Land Policy Management Act (FLPM), and CZMA.⁸⁹

Offshore wind energy development faces similar opposition. The Cape Wind Project has been delayed for over a decade by litigation from alliances of local residents.⁹⁰ These allegations are poignant because wind energy facilities can cover large areas of land and water—from thousands of acres to tens of square miles—even though their actual

⁸⁵ HARNESSING WISCONSIN'S ENERGY RESOURCES, *supra* note 35, at 131-132 ("it would be necessary to consult with Wisconsin's Indian tribes on any regulatory decisions related on off-shore wind projects that could affect tribal lands, rights or interests, such as fishing rights in Lake Superior").

⁸⁶ *Id.*

⁸⁷ Here, my intent is to merely survey the types of claims typically made against wind farms; I do not attempt a comprehensive review of potentially applicable case law.

⁸⁸ Eric M. Larsson, *Cause of Action to Challenge Development of Wind Energy Turbine or Wind Energy Farm*, 50 CAUSES OF ACTION 2d 1 (2012).

⁸⁹ *Id.*

⁹⁰ Such opposition is often called NIMBY (Not In My Back Yard) opposition and is based on aesthetics and impacts on property values. See Conger, *supra* note 40, at 753.

footprint is quite small, and because turbine towers can be seen from great distances.⁹¹

A. Zoning and Public Utility Permitting Challenges to Wind Farms

Zoning and public utility permitting challenges have been a primary cause of action for local residents attempting to prevent the development of wind farms, and even test turbines⁹² In general, a challenge based on zoning or improper utility permitting must show that the permitting body erred in applying its own regulations to an application.⁹³ In doing so, plaintiffs must overcome the significant deference a court will give to an administrative body's interpretation of its own rules and findings and show that the agency's determinations are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law" under the Administrative Procedure Act (APA).⁹⁴ When wind energy facilities already exist, plaintiffs have relied on nuisance law to recover damages for harms caused by them.⁹⁵ The types of harms attributed to wind energy generation include: noise, vibration, shadow flicker or strobe effect (where the shadow of the rotating blades cause rapid changes in light intensity), aesthetics, emotional injury, and diminished property values.

B. Alleged Violations of Environmental Law

While there is established case law in these areas, it may not be applicable in challenges to offshore wind development. Instead, plaintiffs

⁹¹ Offshore wind turbines have tower heights greater than 200 feet and rotor diameters of 250 to 430 feet. The maximum height can, therefore, approach 500 feet. Even larger turbine designs are contemplated. *Offshore Wind Energy*, BUREAU OF OCEAN ENERGY MGMT. <http://www.boem.gov/Renewable-Energy-Program/Renewable-Energy-Guide/Offshore-Wind-Energy.aspx> (last visited Nov. 24 2013).

⁹² Larsson, *supra* note 88 at § 12.

⁹³ *Id.*

⁹⁴ 5 U.S.C. § 706(2)(A) (2006).

⁹⁵ Larsson, *supra* note 88, § 15. To establish a prima facie case in nuisance, the plaintiff must show that "(1) the plaintiff had a private interest in land; (2) the defendant interfered with or invaded the plaintiff's interest by conduct that was (a) negligent, or (b) intentional and unreasonable, or (c) abnormal and out of place in its surroundings; (3) the defendant's conduct resulted in a condition that substantially interfered with the plaintiff's private use and enjoyment of the land; and (4) the nuisance caused injury to the plaintiff." *Id.*

would likely attack new projects by alleging violations of environmental law. As noted above, NEPA does not create a private right of action; rather, an agency's alleged noncompliance with NEPA is a final agency action reviewable under the APA.⁹⁶ Litigation typically challenges the adequacy of an EIS, or the decision not to issue one, but not an agency's failure to comply with an EIS, as there is no cause of action to enforce an agency's compliance with any EIS.⁹⁷

An offshore wind farm will be open to challenges to environmental review because projects will need to undertake significant review of impacts on air and water quality, fish and wildlife, coastal, marine, and seafloor habitats, terrestrial habitats (due to the use of onshore staging and lay down areas during construction), visual resources/ view shed, the acoustic environment, fisheries, cultural resources, socioeconomic conditions, land use concerns, and possibly more.⁹⁸ Experience with onshore wind farms have shown that turbines pose a danger to birds and bats through collisions and in promoting avoidance behavior that can disrupt feeding, reproduction, and migration.⁹⁹ Because of such disruptions, an additional cause of action may lie in the Endangered Species Act's citizen suit provision.¹⁰⁰ Fish are also likely to be impacted by the development of offshore wind farms. Turbine foundations and power transmission lines disturb the substrate (usually temporarily), which has the potential to affect aquatic habitat.¹⁰¹ Such impacts, if significant, could be felt by commercial, recreational, and treaty fishermen.¹⁰² Beyond these anticipated concerns are a host of unknowns. The novelty of offshore wind energy, especially in the Great Lakes, means that extensive environmental assessment needs to be done, which presents many possibilities for litigation challenging the assessments.

⁹⁶ DANIEL R. MADELKER, NEPA LAW AND LITIGATION § 4:1 (2012).

⁹⁷ *Id.* at § 4:8.

⁹⁸ HARNESSING WISCONSIN'S ENERGY RESOURCES, *supra* note 35, at 79-104.

⁹⁹ *Id.* at 79.

¹⁰⁰ 16 U.S.C. § 1540 (g) (2006); *Babbitt v. Sweet Home Chapter of Communities for a Great Or.*, 515 U.S. 687 (the Court upheld the Secretary's inclusion of significant habitat modification impairing essential behavioral patterns within the definition of "harm" to an endangered or threatened species).

¹⁰¹ HARNESSING WISCONSIN'S ENERGY RESOURCES, *supra* note 35, at 85-88.

¹⁰² *Id.* at 89.

Offshore wind farms may also face some of the less common allegations made against onshore facilities. In *Flint Hills Tallgrass Prairie Heritage Foundation v. Scottish Power. PLC*,¹⁰³ the plaintiffs based their challenge on the Migratory Bird Treaty Act (MBTA). The court held that the plaintiffs failed to state a cause of action under federal law because they did not establish that the MBTA created a private right of action.¹⁰⁴

The Endangered Species Act of 1973, however, authorizes citizen suits.¹⁰⁵ In *Animal Welfare Institute v. Beech Ridge Energy LLC*, several nonprofit organizations sued the developers of a wind energy project, alleging that the project would “take” endangered Indiana bats in violation of the ESA.¹⁰⁶ The court there enjoined the operation of wind turbines at all times the bats were not hibernating, at least until the defendants acquired a take permit.¹⁰⁷ Opponents of a coastal wind farm in Texas brought another challenge, under CZMA.¹⁰⁸ The court rejected plaintiffs’ claims that they could force Texas agencies to conduct a consistency review and allow public participation before allowing a private wind energy project to proceed.¹⁰⁹

C. Challenges Based on Cultural Resource Protection Laws

While tribes could challenge wind energy development under any of the above causes of action, they may also allege violations of statutory requirements to protect cultural resources. For example, in 2012, the Quechan Tribe of the Fort Yuma Indian Reservation filed suit against the Bureau of Land Management (BLM) to stop the development of a 112-

¹⁰³ *Flint Hills Tallgrass Prairie Heritage Found. v. Scottish Power. PLC*, WL 427503 (D. Kan. 2005).

¹⁰⁴ *Id.* at 4. *Sierra Club v. Martin*, 933 F. Supp. 1559, 1567 (N.D. Ga. 1996) (while MBTA does not grant a private cause of action, it can be enforced through the APA); *Sierra Club v. Martin*, 110 F. 3d 1551, 1555 (11th Cir. 1997)(however, MBTA has been held to not apply to the federal government).

¹⁰⁵ 16 U.S.C. § 1540 (g) (2013).

¹⁰⁶ *Animal Welfare Inst. v. Beech Ridge Energy LLC*, 675 F. Supp. 2d 540, 560 (D. Md. 2009).

¹⁰⁷ *Id.* at 581.

¹⁰⁸ *Coastal Habitat Alliance v. Patterson*, 385 Fed. Appx. 358 (2010).

¹⁰⁹ *Id.* at 361.

turbine wind farm in the California Desert Conservation Area (CDCA), an area managed by the BLM.¹¹⁰ The Secretary of the Interior approved a 10,000 acre right-of-way in the CDCA for the construction of the Ocotillo Wind Energy Facility (OWEF), an action the Tribe argued violates the APA, NEPA, the National Historic Preservation Act (NHPA), and the Federal Land Policy Management Act (FLPM).¹¹¹ The Tribe sought a temporary restraining order enjoining defendants from authorizing any ground disturbing activities in the OWEF area.

The Tribe argued that its traditional territory, including the OWEF Project Area, is integral to its identity and ceremonial practices; that damage to cultural resources or the landscape “contributes to the destruction of the Tribe’s culture, history, and religion,” and that “[i]njury to the Tribe’s cultural resources causes injury to the Tribe and its people.”¹¹² The Final Environmental Impact Statement for OWEF identified archaeological sites, traditional use areas, burial sites, and trail segments, which the Tribe alleged constituted a Traditional Cultural Property eligible for inclusion in the National Register of Historic Places. The Tribe also claimed an interest in the “quality of the land, water, air, flora, and fauna within the Tribe’s traditional territory,” especially noting a concern for the habitat of the Flat tailed Horned lizard, it being a creature central to the Tribe’s Creation Story.¹¹³ Finally, the Tribe alleged that the Project would degrade the scenic value of the area and destroy the viewsheds to sacred mountains.

The court denied the motion on grounds that a memorandum of understanding between the California State Historic Preservation Office, the Advisory Council on Historic Preservation, the BLM, the Army Corps of Engineers, and Ocotillo Express LLC, would assure compliance with state law safeguarding archaeological resources and NAGPRA provisions protecting burials.¹¹⁴

¹¹⁰ *Quechan Tribe of the Fort Yuma Indian Reservation v. Dep’t of the Interior*, 3:12-cv-01167-WQH-MDD (S.D. Cal. 2011).

¹¹¹ *Id.*

¹¹² *Id.* at 8.

¹¹³ *Id.*

¹¹⁴ *Id.* at 11 (the case is currently on appeal in the Ninth Circuit).

Another cultural resource challenge comes from the Cape Wind litigation. In 2011, the Wampanoag Tribe of Gay Head (Aquinnah), a federally-recognized tribe based on Martha's Vineyard, filed suit against the BOEMRE over their approval of the Cape Wind Energy Project in Nantucket Sound. The Tribe sought declarative and injunctive relief, specifically a declaration that defendants approved the Project in violation of NEPA, the NHPA, and the APA, and an injunction requiring defendants to withdraw the Record of Decision and prepare a Supplemental Environmental Impact Statement.¹¹⁵

The Tribe objected to any alteration of the eastern viewshed across Nantucket Sound.¹¹⁶ They alleged that construction and operation would make "cultural heritage, spiritual ceremonies, and day-to-day practices, such as subsistence fishing off the coast of Martha's Vineyard, nearly impossible and will irreparably intrude into sites of cultural and spiritual significance that the Tribe wishes to remain undisturbed."¹¹⁷ The Wampanoag refer to themselves as "The People of the First Light" and argue that from time immemorial, they have engaged in traditional and customary religious practices that include ceremonies at dawn as the sun rises over the horizon across Nantucket Sound. The Wampanoag believe that these ceremonies are essential to the proper conduct of their religion, and are a significant identifying aspect of the Tribe.

Additionally, they argued that Nantucket Sound and its landforms bear a significant relation to Moshop, a cultural icon for the tribe. Oral history about Moshop, his relationship to the Tribe, and his creation of the Sound and the islands have been an integral part of Wampanoag culture for generations and comprise a key part of the Tribe's cultural identification as a distinct Indian people. The Wampanoag also have subsistence rights in the Sound, and have cultural affiliation with submerged archaeological resources on the seabed of Horseshoe

¹¹⁵ Wampanoag Tribe of Gay Head (Aquinnah) v. Bromwich, Case 1:11-cv-01238-RMU 27 (D. D.C. 2011).

¹¹⁶ *Id.*

¹¹⁷ *Id.* at 2.

Shoal.¹¹⁸ This case has since been merged with other actions against the Cape Wind Project.

Both the Quechan and Wampanoag complaints illustrate the importance of cultural resources in environmental review. Around the Great Lakes, the numerous Anishinabek tribes may raise similar issues against wind farms sited offshore. The waters contain unknown numbers of historic and archaeological sites, ranging from ice-age habitation sites to modern shipwrecks, all of which would be eligible for listing on the National Registry of Historic Places. These sites would likely be detected during an archaeological survey for a project's EIS, then mitigation measures imposed (salvage or avoidance), and the mitigation upheld by the courts¹¹⁹. A court's treatment of tribal claims of adverse impacts to traditional cultural properties—sites important to a community's historically rooted beliefs, customs, and practices—and culturally significant viewsheds is less predictable. Many tribes will be able to demonstrate a spiritual connection to the Great Lakes. But, as noted *supra*, while an agency must prepare and take a "hard look" at an EIS, it need not follow the recommendations within it. And if an agency decides not to base a siting or permitting decision on cultural property considerations, a court would likely defer to the agency's decision.

D. Challenges Under the Public Trust Doctrine

Finally, offshore wind farm opponents could challenge development under the public trust doctrine. This doctrine provides that submerged lands are preserved for public use—for navigation, commerce, fishing, or recreation—by the state, and that the state must protect the public's right to these uses of the waters.¹²⁰ The public's interests include "commercial and recreational navigation, natural scenic beauty, protection of fish and wildlife, preservation of aquatic habitat, protection of water quality, and

¹¹⁸ *Id.*

¹¹⁹ This was the case in *Quechan Tribe of the Fort Yuma Indian Reservation*, *supra* note 110, in which the court noted that the BLM archaeologist's mitigation measures were adequate to protect the sites.

¹²⁰ BLACK'S LAW DICTIONARY 859 (1991). See also *Ill. Cent. R.R. Co. v. Ill.* 146 U.S. 387 (1892) (the Court applied the public trust doctrine to prevent the transfer of reclaimed Lake Michigan bottomland to a private railroad company, explaining that the land was inalienable unless made as a grant that would improve the public's use of the land).

other uses.”¹²¹ Plaintiffs using the public trust doctrine to challenge onshore wind farms have argued that wildlife is a public trust resource and that the killing of birds by wind turbines, constitutes a violation of that trust.¹²²

Some of the opponents to Cape Wind have also alleged that the project violates the public trust. In *Alliance to Protect Nantucket Sound v. Energy Facilities Siting Board*, local residents argued that the local agency that granted Cape Wind a permit had no authority to consider issues related to the public trust, an argument that the court rejected.¹²³ Offshore wind farms will have to contend with each state’s own public trust doctrine.¹²⁴ Michigan’s Supreme Court has recently reaffirmed its adherence to the doctrine as applied to the Great Lakes:

Under longstanding principles of Michigan’s common law, the state, as sovereign, has an obligation to protect and preserve the waters of the Great Lakes and the lands beneath them for the public. The state serves, in effect, as the trustee of public rights in the Great Lakes for fishing, hunting, and boating for commerce or pleasure.¹²⁵

A challenge to a wind energy project on Michigan’s Great Lakes based on public trust doctrine would need to show that the proposed action is likely to impair the public’s rights in one of these areas. The same arguments made in challenging environmental review of offshore wind projects, *supra*, could be made in an action alleging violation of the public trust; *i.e.* that turbines pose threats to wildlife, fisheries, and other environmental hazards that the state has a duty to protect.

¹²¹ HARNESSING WISCONSIN’S ENERGY RESOURCES, *supra* note 35, at 111.

¹²² *Center for Biological Diversity, Inc. v. FPL Group, Inc.*, 166 Cal. App. 4th 1349, 1359 (1st Dist. 2008).

¹²³ *Alliance to Protect Nantucket Sound v. Energy Facilities Siting Bd.*, 932 N.E.2d 787, 676-677 (Mass. 2010)(the court held that the legislature had properly delegated authority to administer public trust rights when it authorized the siting board to issue licenses for structures in the Commonwealth’s tidelands).

¹²⁴ Conger, *supra* note 40, at 757-58.

¹²⁵ *Glass v. Goeckel*, 473 Mich. 667, 678-79 (Mich. 2005) (footnote omitted).

E. Challenges Alleging Violations of Treaty Rights

Treaty rights are discussed more fully below. But note that because of the potential environmental threats posed by wind farms, a cause of action may exist to challenge a state's ability to issue wind energy permits because they could affect the exercise of treaty rights. Violations of treaty rights are actionable in federal courts.¹²⁶ But exactly what actions have violated treaty rights is a legal determination. Courts have recognized that states have a duty to protect natural resources so that tribes can exercise their treaty rights, or manage natural resources in a manner that does not interfere with treaty rights. In a sub-proceeding of *United States v. Washington*, tribes and the United States sued to compel the State of Washington to repair or replace culverts blocking salmon from returning to their spawning grounds.¹²⁷ The Tribes alleged that the culvert problem so degraded fish habitat as to impair their exercise of treaty rights. Moreover, they argued that the Stevens Treaties imposed a duty upon the State to maintain fish habitat such that no diminishment of the harvest occurs. While the court granted the Tribes' motion, it stopped short of supporting the idea that the Treaties imposed an environmental servitude on the territory; the court said that "the Treaties do impose a duty upon the State to refrain from building or maintaining culverts in such a manner as to block the passage of fish upstream or down, to or from the Tribes' usual and accustomed fishing places," but this does not impose an affirmative duty on the State to do all it can to protect fish runs.¹²⁸

The existing and novel challenges to wind farms will apply to offshore wind energy projects, and tribes may use these theories to protect existing treaty rights in Great Lakes waters as wind energy is developed there. Treaty tribes around the Great Lakes have varying, but enforceable interests in the waters that must be considered when regulations for wind energy are promulgated.

¹²⁶ See STEPHEN L. PEVAR, *THE RIGHTS OF INDIANS AND TRIBES* 56 (2012).

¹²⁷ *United States v. State of Washington*, CV 9213RSM, 2007 WL 2437166 at *1 (W.D. Wash. Aug. 22, 2007).

¹²⁸ *Id.* at 10.

IV. TREATIES AND TREATY RIGHTS

This section provides an overview of treaties and treaty rights. I discuss four topics within this area of law, because these are necessary to understand how off reservation treaty rights have been secured for the Great Lakes. Additionally, these four topics would be implicated in any exercise of treaty rights in this region. These topics are tribal sovereignty, the reserved rights doctrine, the Indian Canons of Construction, and treaty abrogation.

A. *Treaty-Making and Tribal Sovereignty*

Sovereignty is most basically defined as “the inherent right or power to govern.”¹²⁹ The present right of tribes to govern their members and territories flows from a historical and preexisting independence and right to self-government that has survived, albeit in diminished form, through centuries of contact with Euro-American society.¹³⁰ Colonial governments interacted with native nations on a government-to-government basis—that is, by engaging in diplomatic relations, making treaties, and respecting the right of tribes to govern their internal matters themselves.¹³¹ The principle that Indian tribes are sovereign nations was first articulated in *Worcester v. Georgia*, in which the Court described the Indian nations as “distinct, independent political communities, retaining their original natural rights, as the undisputed possessors of the soil, from time immemorial.”¹³² This sovereignty is not a power delegated by Congress, but one that stems from indigenous political power predating European colonization.¹³³ While not originating with Congress, tribal sovereignty is nonetheless subject to Congressional limitation, as a consequence of their inclusion within the United States.¹³⁴ In the Court’s words, Indian tribes are “domestic, dependent nations,” nations whose sovereignty may be extinguished at any time by (express) act of

¹²⁹ WILLIAM CANBY JR., *AMERICAN INDIAN LAW IN A NUTSHELL* 76 (2009).

¹³⁰ COHEN’S HANDBOOK OF FEDERAL INDIAN LAW § 4.01 [1] [a] at 207(2012) [hereinafter COHEN’S HANDBOOK].

¹³¹ PEVAR, *supra* note 126, at 5-6.

¹³² *Worcester v. Georgia*, 31 U.S. 515, 559 (1832).

¹³³ COHEN’S HANDBOOK, *supra* note 130 at 207.

¹³⁴ *Id.*

Congress.¹³⁵ Today, it is understood that “Indian tribes still possess those aspects of sovereignty not withdrawn by treaty or statute, or by implication as a necessary result of their dependent status.”¹³⁶

The United States continued the practice of sovereign-to-sovereign treaty making from the time of the founding until 1871, when treaty making officially ended.¹³⁷ By this time, the United States had entered into hundreds of treaties with Indian tribes,¹³⁸ all of which, until expressly abrogated by Congress, are the supreme law of the land.¹³⁹ Peacemaking was certainly a goal in many treaties, but extinguishment of aboriginal title was the federal government’s primary objective.¹⁴⁰ Most Indian treaties were treaties of cession, in which the tribe ceded part of its territory to the United States for consideration, usually in the form of annuities, provisions, protection (peace) and other land.¹⁴¹ What a tribe held on to—what it reserved—was its reservation.

B. The Reserved Rights Doctrine

In addition to reserving a portion of its land in a treaty, tribes often reserved the rights of hunting, fishing, and gathering in the *ceded* territory. Concomitant with aboriginal title—their undisputed possession of the soil recognized in *Worcester v. Georgia*—are usufruct rights. Many tribes relied heavily on hunting, gathering, and fishing.¹⁴² The Court recognized this in *United States v. Winans*, where it noted that these rights “were not much less necessary to the existence of the Indians than the atmosphere they breathed.”¹⁴³ Indians reserved such rights in treaties because their livelihoods depended on the natural resources existing in large areas, and they knew that the small reservations of land they were withholding for

¹³⁵ *Cherokee Nation v. Georgia*, 30 U.S. 1, 17 (1831).

¹³⁶ *United States v. Wheeler*, 435 U.S. 313, 323 (1978).

¹³⁷ COHEN’S HANDBOOK, *supra* note 130, § 1.03[9] at 70 (although the United States could no longer enter into treaties with tribes, the treaty process was simply replaced with agreements, statutes, and executive orders).

¹³⁸ PEVAR, *supra* note 126, at 46.

¹³⁹ COHEN’S HANDBOOK, *supra* note 130, § 18.07 at 1190.

¹⁴⁰ *Id.*

¹⁴¹ *Id.* §§ 1.02-1.03 at 8-71.

¹⁴² COHEN’S HANDBOOK, *supra* note 130, § 18.01 at 1154.

¹⁴³ *United States v. Winans*, 198 U.S. 371, 381 (1905).

habitation would not support them. This fact was recognized by United States treaty negotiators, who often yielded to the Indians' needs on this point by conceding a reservation of treaty rights on ceded lands. Thus, the issue of off-reservation treaty rights involves the conflict of three facts: (1) the treaty rights are rights to natural resources on lands that the Indians have willfully alienated in exchange for consideration; (2) after alienation, these lands were purchased by white settlers who believed them to be unencumbered; and (3) the land is not Indian land but land over which states have clear regulatory authority.¹⁴⁴

In conflicts over treaty rights, courts rely on the reserved rights doctrine. This doctrine was articulated most precisely in *Winans*, in which the Court, ruling on treaty fishing rights in Washington State, said that the treaty with the Yakima Indians “was not a grant of rights to the Indians, but a grant of rights from them—a reservation of those not granted.”¹⁴⁵ That is, as expressed above, Indian treaties do not describe what the United States is granting the tribe, but rather what the Indians are granting the United States and the tribe reserves that what is not expressly granted.¹⁴⁶ The reserved rights doctrine has been a pivotal factor in major treaty rights cases¹⁴⁷ and would certainly be implicated in any attempt to assert treaty rights to harnessing the wind. Rights to specific natural resources need not be enumerated in treaties.¹⁴⁸ However, many treaties do impose geographic and other limitations on the exercise of treaty rights.¹⁴⁹

¹⁴⁴ Treaty rights have been likened to easements running with burdened land. See COHEN'S HANDBOOK, *supra* note 130, § 18.02 at 1157 (citing *United States v. Winans*, 198 U.S. 371, 381 (1905)). On tribal land, treaty rights are not at issue because “[t]ribes generally retain exclusive rights to the use of land within their territories, unless those rights have been abrogated by treaty or statute.” COHEN'S HANDBOOK, *supra* note 130, § 17.01 at 1106.

¹⁴⁵ *United States v. Winans*, 198 U.S. 371, 381 (1905).

¹⁴⁶ See also *Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n*, 443 U.S. 658 (1979); *Minnesota v. Mille Lacs Band of Chippewa Indians*, 526 U.S. 172 (1999).

¹⁴⁷ See Karen Ferguson, *Indian Fishing Rights: Aftermath of the Fox Decision and the Year 2000*, 23 AM. INDIAN L. REV. 97, 1998.

¹⁴⁸ COHEN'S HANDBOOK, *supra* note 130, § 18.04 [2] [a] at 1164; and § 18.04 [2] [e] at 1169.

¹⁴⁹ *Id.* at § 18.04 [2] [e] at 1169-1174.

C. *The Indian Canons of Construction*

Another principle of treaty interpretation that would certainly arise is that of the Indian Canons of Construction. These canons are court-made guidelines that trace back to the Cherokee Cases.¹⁵⁰ There, the Court explained that the plenary power of the federal government to control Indian affairs comes with a corollary trust responsibility to act in the Indians' best interests.¹⁵¹ But more popularly the canons are thought to protect Indian interests by recognizing that most, if not all, Indian treaties were negotiated in a context of significant power imbalances.¹⁵² The Indian Canons of Construction are that: (1) treaties, agreements, statutes and executive orders are to be liberally construed in favor of the Indians; (2) all ambiguities are to be construed in favor of the Indians; (3) treaties and agreements are to be construed as the Indians would have understood them at the time of signing (which requires looking at the broad historical context of the treaty signing); and (4) tribal property rights and sovereignty are preserved unless Congress' intent to the contrary is clear and unambiguous.¹⁵³

Courts have applied the Indian canons of construction in a long line of treaty rights cases in Washington, Wisconsin, and Michigan.¹⁵⁴ These cases have upheld off reservation treaty fishing rights as well as rights to other kinds of natural resource procurement. Any attempt at expanding treaty rights would necessarily involve recourse to the Indian Canons of Construction to interpret applicable treaty provisions.

¹⁵⁰ Cherokee Nation v. Georgia, 30 U.S. 1, 17 (1831); Worcester v. Georgia, 31 U.S. 515 (1832); see also COHEN'S HANDBOOK, *supra* note 130, § 2.02 [2] at 116-118.

¹⁵¹ See also United States v. Kagama, 118 U.S. 375, 384 (1886) (“[t]hese Indian tribes are the wards of the nation. [...] From their very weakness and helplessness [...] there arises the duty of protection, and with it the power. This has always been recognized by the Executive and by Congress, and by this court, whenever the question has arisen.”).

¹⁵² PEVAR, *supra* note 126, at 51.

¹⁵³ COHEN'S HANDBOOK, *supra* note 130, § 2.02 [1] at 113-114.

¹⁵⁴ Karen Ferguson, Indian *Fishing Rights: Aftermath of the Fox Decision and the Year 2000*, 23 AM. INDIAN L. REV. 97, 142 (1998). See also COHEN'S HANDBOOK, *supra* note 130, § 18.02 at 1156.

D. Treaty Abrogation

Finally, in interpreting treaties, courts must consider whether the treaty in question has been abrogated. The reduction or termination of treaty rights, or any aspect of sovereignty, is within the broad plenary power of Congress over Indian affairs.¹⁵⁵ However, in recognition of tribal sovereignty and the United States' trust responsibility under existing treaties with Indian tribes (principles reflected in the canons of construction, *supra*), legislation abrogating treaties or diminishing tribal lands or sovereignty must be clear in expressing the intent of Congress to do so.¹⁵⁶ This can be evidenced by an express statement of abrogation or by implication when it is clear that "Congress actually considered the conflict between its intended action on the one hand and Indian treaty rights on the other and chose to resolve that conflict by abrogating the treaty."¹⁵⁷ Treaties may be abrogated in whole or part; therefore, an attempt to assert treaty rights to harness the wind in ceded territory could fail despite the reservation of hunting and fishing rights if it is determined that Congress intended the right to be extinguished.

V. TREATY RIGHTS ON LAKE MICHIGAN

To take advantage of the most productive wind resources on the Great Lakes, developers would need to construct wind farms on waters that are part of the territory ceded by the Ottawa and Chippewa Indians of Michigan. The continued existence of treaty rights in these waters was upheld in *United States v. Michigan*.¹⁵⁸ In this section, I discuss the relevant treaties and major decisions affecting treaty rights on these waters. More importantly, I extract and describe the test used in *United States v. Michigan*. This test would be applied in any attempt by Michigan treaty tribes to assert a treaty-based right to harness wind on the ceded waters of Lake Michigan.

¹⁵⁵ Lone Wolf v. Hitchcock, 187 U.S. 553, 566 (1903).

¹⁵⁶ COHEN'S HANDBOOK, *supra* note 130, § 18.07 [1] at 1190.

¹⁵⁷ United States v. Dion, 476 U.S. 734, 738-740 (1986).

¹⁵⁸ United States v. Michigan, 471 F. Supp. 192, 205 (W.D. Mich. 1979).

Between 1785 and 1871, the United States entered into forty-four treaties with the Ottawa and Chippewa Indians of Michigan.¹⁵⁹ The most important of these were the Treaties of July 6, 1820, 7 Stat. 207, March 28, 1836, 7 Stat. 491 (known as the Treaty of Washington), and July 31, 1855, 11 Stat. 621 (also called the Treaty of Detroit). These treaties cover the primary land cessions of the Ottawa and Chippewa Indians—amounting to about a third of what is now the State of Michigan and including much of the Great Lakes. The land claims deriving from these treaties were litigated through the Indian Claim Commission and settled by the Michigan Indian Land Claims Settlement Act.¹⁶⁰ The claims of reserved treaty rights were decided in *United States v. Michigan* (called the Fox decision after its author, Judge Noel Fox) and several subsequent negotiated Decrees coming from that court.¹⁶¹

In the Upper Great Lakes, treaty rights had been greatly eroded away.¹⁶² By the middle of the 20th century, Ottawa and Chippewa Indians lived in largely unrecognized bands, with diminished reservations, and under State attempts to regulate their fishing.¹⁶³ In 1973, Michigan treaty Tribes and the United States sought to enjoin the State of Michigan from interfering with the Indians' treaty rights to fish in the Great Lakes.¹⁶⁴ These waters are part of the territory ceded in the Treaty of 1836. This treaty states, in pertinent part, that “[t]he Indians stipulate for the right of hunting on the lands ceded, with the other usual privileges of occupancy, until the land is required for settlement.”¹⁶⁵

The central issue before the court was whether the Indians could fish in the Great Lakes free from state interference because they had reserved that right in the Treaty of 1836; in other words, whether such

¹⁵⁹ 26 Ind. Cl. Comm. 538, 544 (1971).

¹⁶⁰ See Ind. Cl. Comm. Consolidated Dockets Nos. 18E and 58; Michigan Indian Land Claims Settlement Act, Pub. L. No. 105-143 (1997).

¹⁶¹ *United States v. Michigan*, 471 F. Supp. 192 (W.D. Mich. 1979); 2000 Consent Decree; 2007 Inland Consent Decree.

¹⁶² See MATTHEW L.M. FLETCHER, *THE EAGLE RETURNS: THE LEGAL HISTORY OF THE GRAND TRAVERSE BAND OF OTTAWA AND CHIPPEWA INDIANS* (2012).

¹⁶³ *Id.* at chapter 5.

¹⁶⁴ *United States v. Michigan*, 471 F. Supp. 192, 203 (W.D. Mich. 1979).

¹⁶⁵ Treaty of Washington, art. XII, March 28, 1836, 7 Stat. 495.

fishing is one of the “usual privileges of occupancy.”¹⁶⁶ The court answered the treaty fishing rights issue in the affirmative, largely by reliance on the reserved rights doctrine but also on the Indian canons of construction. In applying the reserved rights doctrine, the Fox court construed the Treaty of Washington to reserve fishing rights in the waters of the Great Lakes despite there being no grant of those rights to the Ottawa and Chippewa Indians, nor even any explicit reservation of them in the treaty itself:

[T]he reserved right to fish in the ceded waters of the Great Lakes rests on its implied reservation from the grant of land from the Indians to the United States and also on Article Thirteenth. The right is implied because it was never explicitly ceded away by the Indians; thus, they retained it. The reason it was not granted was because the Indians were too heavily dependent upon fish as a food source and for their livelihood to ever relinquish this right.¹⁶⁷

This dependency was revealed by the intense historical investigation undertaken by the court, guided by the Indian canon of construction, which demanded that treaties be construed as the Indians would have understood them at the time of signing.¹⁶⁸

Liberal use of reserved rights doctrine could, in theory, present unlimited opportunity for tribes to claim reserved rights. To reign in tribal claims to treaty rights, the court noted that “[i]n order for the right to exist in the first instance, it must be shown that the Indians were in fact using the resource, i.e., that they exercised this right, subsumed within their larger, aboriginal right to their land and water.”¹⁶⁹ The “factual predicate” for reserved rights, “is the documented historic, ethnohistoric, anthropologic and archaeological evidence proving” them.¹⁷⁰ In this case,

¹⁶⁶ Two other issues were considered: whether any reserved rights were abrogated by the Treaty of 1855, and whether the treaty deprives the State of all authority to regulate the exercise of treaty rights, specifically Indian fishing in the Great Lakes.

¹⁶⁷ *United States v. Michigan*, 471 F. Supp. 192, 259 (W.D. Mich.1979).

¹⁶⁸ *Id.* at 253.

¹⁶⁹ *Id.* at 213.

¹⁷⁰ *Id.*

this meant that ethnohistorical evidence of subsistence and commercial fishing was a prerequisite to showing the reserved right. It would seem that the court established a test for determining whether an activity is included as one of the “usual privileges of occupancy” under Article Thirteenth of the Treaty of 1836. If a plaintiff tribe can demonstrate, through ethnohistorical evidence, that a particular right was exercised during treaty times, then it is one of the usual privileges of occupancy.

Here, the court held that the Tribes did make this showing—plaintiffs’ experts demonstrated that Indians had fished the Great Lakes waters for subsistence purposes for centuries, and had, at the time of the treaty, been involved in commercial fishing to trade for European goods, which they were dependent on by then. Therefore, the Tribes “possessed an aboriginal right to fish in those waters for subsistence and commercial purposes.”¹⁷¹ Furthermore, the court stated, this reserved right to fish is not restricted in any way; it “is not affected by the passage of time or changing conditions.”¹⁷² This means that the right is not limited to any kind of fish, or methods, and can grow with the commercial market.¹⁷³

Expert witnesses also attested that the phrase “usual privileges of occupancy,” which appears in other treaties, was included to assure the Indian signatories that they could continue to live in the manner they were accustomed to.¹⁷⁴ The court pointed to a letter written by Indian agent and treaty negotiator Henry Schoolcraft to his superiors explaining that “Article Thirteenth would allow the Indians to continue to use all of the land and water resources of the ceded area”¹⁷⁵ The court then stated that the usual privileges of occupancy “includes the use of *all natural resources* for economic and ceremonial purposes and for travel.”¹⁷⁶

¹⁷¹ *Id.* at 278.

¹⁷² *Id.* at 260.

¹⁷³ See also *United States v. Winans*, 198 U.S. 371, 381 (1905)(in which the Supreme Court similarly held that in exercising treaty rights, Indians are not limited to the technology that they had at the time of the treaty).

¹⁷⁴ *United States v. Michigan*, 471 F. Supp. 192, 235 (W.D. Mich.1979).

¹⁷⁵ *Id.* at 236.

¹⁷⁶ *Id.* at 235 [emphasis added].

This broad reservation of rights to natural resources was conditioned only by the phrase “until required for settlement.” Plaintiffs’ experts testified that the Indians would have understood this to mean that they could use the ceded land until white settlers occupied it—meaning indefinitely, with the further understanding that some of the lands would never be settled because they were unsuitable for farming. Therefore the court held that “until required for settlement” meant “as long as Indians lived in Michigan.”¹⁷⁷ Regarding “settlement” itself, the meaning of this term was not determined. Historical materials presented by plaintiffs’ experts indicated that “settlement” was used in its “normal” sense, but the court noted that since the Great Lakes waters cannot be “settled,” the limitation will never impact fishing there.¹⁷⁸ Importantly, *United States v. Michigan* demands that as long as these treaty tribes live in Michigan, they have reserved treaty rights to any and all natural resources of the ceded waters of Lake Michigan, which they may use for subsistence, ceremonial, or commercial purposes.

VI. ASSERTING TREATY RIGHTS TO HARNESS THE WIND ON THE GREAT LAKES

As the regulatory gap in Great Lakes wind energy development closes, treaty tribes should assert their status as stakeholders in the process. Offshore wind energy poses specific threats to fisheries and navigation, and presents a range of environmental unknowns that could affect the exercise of treaty fishing rights in the Great Lakes. For this reason alone, tribes should not wait until regulations are in place and environmental review underway to consider the impacts of offshore wind energy on their treaty rights.

But treaty tribes should be seen as more than just interested parties in the regulatory development and environmental review processes. Tribes are sovereigns and should have equal standing in the MOU forming the Great Lakes Offshore Wind Energy Consortium. Reserved treaty rights not only allow for natural resource procurement in the ceded territory but also allow tribes to regulate the hunting, fishing, and gathering activities of

¹⁷⁷ *Id.* at 235, 238.

¹⁷⁸ *Id.* at 279. See also COHEN’S HANDBOOK, *supra* note 130, § 18.04[2][e] at 1173.

tribal members in the ceded territories while preventing states from interfering with the exercise of those rights.¹⁷⁹ Courts have upheld tribal jurisdiction over the exercise of treaty rights in ceded territories.¹⁸⁰ The significance of this should not be underestimated. Essentially, it means that there would be a further regulatory gap if treaty rights to wind were recognized because states would be unable to impose their regulations on tribal wind projects. Currently, the Court recognizes state regulation of tribal members' exercise of off reservation treaty rights only in the interest of conservation. In *Settler v. Lameer*, a Yakima citizen challenged his prosecution by the tribe for violations of tribal fishing regulations off the reservation, in ceded territory.¹⁸¹ The court affirmed the tribe's civil jurisdiction over the matter, stating "the regulation of these activities with respect to off-reservation fishing is within the scope of the rights retained by the Yakima Nation in the Treaty of 1855."¹⁸² The court held that the inability of the state to exercise jurisdiction over this violation of tribal law stemmed from the limitation on state regulation of treaty rights laid down by the Supreme Court in *Minnesota v. Mille Lacs Band of Chippewa Indians*.¹⁸³ There the Court said that states may only impose "reasonable and necessary nondiscriminatory regulations on Indian hunting, fishing, and gathering rights in the interest of conservation."¹⁸⁴ If a treaty right to wind is established, infringing upon the exercise of it under the guise of conserving the wind may be a difficult basis for state regulation.

¹⁷⁹ COHEN'S HANDBOOK, *supra* note 130, § 18.04 [1] at 1163; *United States v. Michigan*, 471 F. Supp. 192, 274 (W.D. Mich. 1979) (as incorporated by the Fox court: "[b]oth [treaty tribes'] treaty rights include the power to regulate their members so long as they are fishing under tribal regulation and in the area ceded by the Treaty of 1836. Both tribes presently exercise that power and regulate the fishing activities of their members. This regulation preempts any state authority to regulate the fishing activity of the tribal members.").

¹⁸⁰ COHEN'S HANDBOOK, *supra* note 130, § 6.01 [5] at 503, § 7.02[1] [c] at 603.

¹⁸¹ *Settler v. Lameer*, 507 F.2d 231 (9th Cir. 1974).

¹⁸² *Id.* at 238.

¹⁸³ *Minnesota v. Mille Lacs Band of Chippewa Indians*, 526 U.S. 172 (1999).

¹⁸⁴ *Id.* at 205 (citing *Puyallup Tribe v. Department of Game of Wash.*, 391 U.S. 392, 398 (1968)).

A. *Wind as a Natural Resource*

Beyond safeguarding existing rights and asserting a seat at the table, Great Lakes treaty tribes should take the opportunity to expand their treaty rights by claiming the right to harvest wind energy as a right reserved by treaty. There are two goals for such an assertion of rights. First, tribes would have a greater stake in the development of offshore wind energy and would be in a better position to stop agency action adverse to their interests. Second, tribes could develop wind energy themselves. They could do this because the Fox court determined that the “usual privileges of occupancy” includes the use of all natural resources in the ceded territory for economic purposes (and the Great Lakes include a good deal of ceded territory). However, this hinges on a determination of wind as a natural resource, which is a determination that a state legislature or a court needs to make. One possibility, in Michigan, would be to interpret existing legislation as already including wind as a natural resource. The Michigan Environmental Protection Act (MEPA)¹⁸⁵ grants a cause of action for the protection of the air, water, and other natural resources from pollution, impairment, or destruction.¹⁸⁶ The Natural Resources and Environmental Protection Act (NREPA)¹⁸⁷ regulates the use of natural resources in Michigan.¹⁸⁸ Both MEPA and NREPA recognize air as a natural resource, but it is not clear if wind should be equated with air in this manner and be considered a natural resource under these statutes.

Alternatively, tribes could look to how the nature of wind, as a natural resource and as a property interest attached to or severable from the land, is being determined judicially and legislatively. The question of what property rights regime will be applied to wind is unsettled. As wind power has become a marketable commodity like minerals or gas, the practice in some areas has been to follow the mineral model and treat the

¹⁸⁵ MICH. COMP. LAWS §§ 324.1701-324.1706 (1994).

¹⁸⁶ 9 Mich. Civ. Jur. Environmental Protection § 4.

¹⁸⁷ MICH. COMP. LAWS § 324.101 (1994).

¹⁸⁸ 9 Mich. Civ. Jur. Environmental Protection § 1.

rights to harvest the wind as severable from the surface estate.¹⁸⁹ However, other courts have rejected the analogy and applied the rule of capture to wind.¹⁹⁰ Under this theory, wind has no value until reduced to possession.¹⁹¹ In *Romero v. Bernell*, the court explained “[w]ind is never embedded in the real estate; rather, it is more like water or wild animals which traverse the surface and which do not belong to the fee owner until reduced to possession.”¹⁹² What counts as possession of wind is theorized as requiring “that it be focused on driving the fins of a wind [turbine] which turn a generator and ultimately generates electricity.”¹⁹³ But before capture and possession, wind, as with wild animals, may be considered the property of the state. Currently, states are experimenting with legislative efforts regarding wind capture. While some states have crafted a property rights scheme for harnessing the wind, in the form of wind easements, most states have preferred to use programs of incentives and zoning restrictions to regulate the industry.¹⁹⁴

B. Asserting Treaty Rights to Wind Using the Fox Test

Another option for tribes would be to argue for the determination to be made using the Fox test. The Fox court, like other courts interpreting treaty rights, understood that the sum total of reserved treaty rights was not contained in the text of treaties or court decisions on the issues before

¹⁸⁹ K.K. DuVivier, *Animal, Vegetable, Mineral—Wind? The Severed Wind Power Rights Conundrum*, 49 WASHBURN L.J. 69 (2009); see also Lisa Chavarria, *Wind Power: Prospective Issues*, 68 TEX. B.J. 832 (Oct. 2005).

¹⁹⁰ The capture rule, most famously described in *Pierson v. Post*, 3 Cai. R. 175 (N.Y. 1805), states that wild animals, in their natural habitats, are unpossessed until captured. The first person to kill or capture a wild animal acquires title to it. The principle was traditionally applied to underground oil and gas because they were, like wild animals, free to move about until “captured” by a person, who then becomes the owner. The common law of capture, as pertaining to oil and gas, has been superseded by statute.

¹⁹¹ *Romero v. Bernell*, 603 F. Supp. 2d 1333 (D.N.M. 2009) (citing *Contra Costa Water Dist. v. Vaquero Farms*, 68 Cal. Rptr. 2d 272 (Cal. Ct. App. 1997)) (“[t]he right to ‘harvest’ wind energy is, then, an inchoate interest in the land which does not become ‘vested’ until reduced to ‘possession’ by employing it for a useful purpose. Only after it is reduced to actual wind power can wind energy then be severed and/or quantified.”).

¹⁹² *Id.*

¹⁹³ Terry E. Hogwood, “Against the Wind,” Oil, Gas and Energy Resources Law Section Report Vol. 26, Number 2, at 6 (December 2001).

¹⁹⁴ Alexandra B. Klass, “Property Rights on the New Frontier: Climate Change, Natural Resource Development, and Renewable Energy,” 38 ECOLOGY L.Q. 63, 106-110 (2011).

it. Instead, the court envisioned a process—a test—for determining what future activities may be construed as the exercise of treaty rights. The Fox test begins by assuming that all rights to exploit natural resources in the ceded territory were included within “the usual privileges of occupancy” and thus reserved by tribes, which limits this set by imposing the predicate that the right must have existed at the time of the treaty. By this logic, contemporary tribes can engage in commercial fishing because their ancestors were engaged in commercial fishing at the time of the treaty, and not simply because their ancestors fished in the past. It would seem that the Fox test would require a tribe to show that, at the time of the treaty, it was engaged in practices that harnessed the wind. Evidence of sailing or windmill use would suffice, but these are not technologies indigenous to the Americas. If it were shown that Great Lakes tribes had adopted these technologies, or others involved in harnessing the wind, then the Fox test would likely be met, as the adoption of Western practices was used to establish treaty rights in *United States v. Michigan*.

After categorizing the harnessing of wind as a treaty right, one must determine whether these treaty rights have been abrogated. Therefore, as regulations are promulgated to develop wind energy on the Great Lakes, the question becomes: is there anything in the emerging regulations that expressly or impliedly states Congress’ intent to abrogate the treaties? As noted above, courts have required a clear and unequivocal expression by Congress to find abrogation. This means that as states formulate a regulatory framework for their waters, they may be incapable of unilaterally foreclosing a possible wind estate for treaty tribes.

C. *Regulating Off Reservation Tribal Wind Projects*

If a treaty right to harness the wind on the Great Lakes were successfully advanced, then the question arises as to how to exercise the right. Who would regulate tribal wind farms in ceded waters? The state would unquestionably have the authority to regulate wind energy projects, and applicable federal law would still be in force. But tribal members exercising treaty rights off reservation are under the jurisdiction of their

tribe.¹⁹⁵ In the treaty fishing rights context, the problem of regulation has been addressed by the use of state-tribal compacts and agreements, and with the practice of co-management.¹⁹⁶ In both the Pacific Northwest and the Great Lakes, tribal-state cooperation in regulating treaty fishing has led to the protection of tribal interests, state interests, and the interests of commercial and recreational fishers. It has also led to the avoidance of costly and protracted litigation. Such compacts demonstrate that tribal development of offshore wind resources need not be exclusive of state and private development. However, if treaty rights to wind are never asserted, tribes will be sidelined as development proceeds without them.

CONCLUSION

Wind energy is a rapidly growing industry, and the centerpiece of many strategies for clean, renewable energy. But, currently, wind energy projects face great regulatory uncertainty. Additionally, there is no anticipated role for tribes, except as parties whose interests may be affected. As a framework for offshore wind energy development in the Great Lakes emerges, treaty tribes, Michigan treaty tribes in particular, should assert stakeholder status not only to protect their interests but also to participate as sovereigns in the regulatory process. Moreover, Michigan treaty tribes could assert a reserved right to the production and transmission of energy generated from wind resources on Lake Michigan as an expansion of recognized treaty rights. Such an assertion would further affirm and enhance tribal sovereignty.

¹⁹⁵ See *id.* at n.204.

¹⁹⁶ COHEN'S HANDBOOK, *supra* note 130, § 18.08 at 1200.