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## ARTICLES

# GREAT LAKES OFFSHORE WIND: AN ANALYSIS OF COASTAL MANAGEMENT PLANNING TOOLS

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Abstract

The disruptive effects of climate change are intensifying. At the United Nations COP28 in December 2023, the international community agreed: energy systems must transition away from the use of fossil fuels. There is time pressure to move fast to avert further climate chaos. In the United States, individual states have adopted renewable and clean energy goals, signaling their efforts to decarbonize energy systems. Many states see offshore wind energy as an important contributor to those goals, and the industry expanded quickly off the ocean coasts during the Biden-Harris Administration. In the early days of the Trump Administration, the federal government announced it is reversing its support for offshore wind, which will reverberate along the ocean coastal states.

The Great Lakes region presents a different context. The Great Lakes states have not been as influenced by federal offshore wind policy; they were neither spurred to action nor should they be thwarted by changes at the federal level. This is due in part to the federal leasing agency not having the same jurisdiction and authority in the Great Lakes as it has in the oceans. The onus for offshore wind in the Great Lakes rests upon Great Lakes states because they are trustees of the public lakebed and have exclusive jurisdiction over lakebed leasing.

The National Renewable Energy Laboratory assessed that five of the eight Great Lakes states have offshore wind energy potential that exceeds the amount of electricity they consume. Modeling of how the

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Great Lakes states reach 95% decarbonized electricity by 2050 identified Great Lakes offshore wind as a critical piece of the puzzle.

If Great Lakes states are interested in capturing that wind energy potential, a first step is to engage in planning to evaluate the environmental, social, and financial costs and benefits of this resource. We examine two case studies of offshore wind development in state waters: Icebreaker Wind in Ohio and Block Island Wind in Rhode Island. Through these case studies, we explore existing coastal zone management tools for states to use for offshore wind planning. We then examine regional collaborations for offshore wind management in the Great Lakes and the Atlantic coast regions. Regional collaboration is an opportunity to promote information exchange, data sharing, and streamlined regulatory processes, which are particularly important in the Great Lakes region because states are responsible for managing the Great Lakes as public trust resources with broadly shared benefits. We offer recommendations for how to use existing planning tools to explore the offshore wind potential of the Great Lakes.

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# Great Lakes Offshore Wind: An Analysis of Coastal Management Planning Tools

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## INTRODUCTION

The detrimental effects of anthropogenic climate disruption are already impacting the world, including the United States.[1] Finally, in 2023, there was an international consensus on the need to stop producing and burning the fossil fuels that are at the heart of disrupting global ecosystems. The United Nations Climate Change Conference (COP28) produced an agreement calling for "[t]ransitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner."[2] Deep decarbonization of the global economy is necessary to avert further destruction, which will continue to have increasingly disproportionate

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[1] Melissa K. Scanlan, PROSPERITY IN THE FOSSIL-FREE ECONOMY 9 (2021). *See, e.g.*, Earth Science Communications Team at NASA's Jet Propulsion Laboratory, *The Study of Earth as an Integrated System,* NASA GLOBAL CLIMATE CHANGE: VITAL SIGNS OF THE PLANET (last updated Apr. 20, 2023), https://climate.nasa.gov/nasa_science/science/; *see also* Sami Sparber, *At Least 57 People Died in the Texas Winter Storm, Mostly from Hypothermia*, THE TEXAS TRIB. (Mar. 15, 2021); *see also* Lauren Sommer*, Here's How Climate Change Fueled the Los Angeles Fires*, NPR (Jan. 29, 2025), https://www.npr.org/2025/01/29/nx-s1-5273676/la-fires-climate-change-rainfall-extreme-weather.

[2] U.N. Framework Convention on Climate Change, *Outcome of the First Global Stocktake*, draft decision FCCC/PA/CMA/2023/L.17, at 5 (Dec. 13, 2023), https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf. *See also* U.N. Climate Change, Press Release, *COP28 Agreement Signals "Beginning of the End" of the Fossil Fuel Era* (Dec. 13, 2023), https://unfccc.int/news/cop28-agreement-signals-beginning-of-the-end-of-the-fossil-fuel-era.

impacts on the communities least responsible for the harm.[3] One of the most effective pathways to deep decarbonization is the energy transition.[4] This transition—away from carbon and other greenhouse gas-emitting fossil fuels like coal, oil, and natural gas, and towards renewable, carbon-free energy sources like wind and solar energy—is already in motion.[5]

Such a fundamental shift poses its own new challenges. As transportation, heating, and other sectors electrify, rising electricity demand will compound the need for additional renewable, carbon-free electricity generation capacity.[6] Further, the explosion of data centers driven by the Artificial Intelligence industry is expected to require massive amounts of new electricity.[7] Energy efficiency can help lower total electricity demand, and storage solutions can make renewables more flexible to meet that demand.[8] Ultimately, however, the energy transition requires new sources of carbon-free electricity to be added to the grid.[9]

Wind is a renewable resource that does not emit carbon dioxide or other greenhouse gases as it generates electricity.[10] In 2022, the United States had land-based installed wind capacity of over 144 gigawatts

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[3] ALLISON R. CRIMMINS ET AL., U.S. GLOB. RSCH. PROGRAM, FIFTH NATIONAL CLIMATE ASSESSMENT, ch. 1, at 19 (2023), https://doi.org/10.7930/NCA5.2023. *See also* Scanlan, *supra* note 1, at 11. *See also* Monica Samayoa, *Report: Climate Change Is Making Health Problems Worse for Portland Area Residents*, OR. PUB. BROAD. (Nov. 4, 2021), https://www.opb.org/article/2021/11/04/report-climate-change-is-making-health-problems-worse-for-portland-area-residents/.

[4] Scanlan, *supra* note 1, at 146.

[5] *Id.* at 147.

[6] *See id.* at 149.

[7] Dara Kerr, *Artificial Intelligence's Thirst for* Electricity, NPR (July 10, 2024), https://www.npr.org/2024/07/10/nx-s1-5028558/artificial-intelligences-thirst-for-electricity. "Google says its total greenhouse gas emissions climbed nearly 50% over five years, mostly due to electricity that powers AI data centers." *Id.* "One query to ChatGPT uses approximately as much electricity as could light one lightbulb for about 20 minutes." *Id. But see, e.g.,* Christa Marshall,*'Game Changer'? What 'DeepSeek' AI Means for Electricity*, E&ENEWS (Jan. 29, 2025), https://www.eenews.net/articles/game-changer-what-deepseek-ai-means-for-electricity/. "The emergence of Chinese artificial intelligence company DeepSeek is challenging conclusions about future electricity demand because of data centers . . . . DeepSeek says its model uses roughly 10 to 40 times less energy than similar U.S. AI technology." *Id.*

[8] Scanlan, *supra* note 1, at 148; Lauren Sommer, *California Just Ran on 100% Renewable Energy, but Fossil Fuels Aren't Fading Away Yet*, NPR (May 13, 2022), https://www.npr.org/2022/05/07/1097376890/for-a-brief-moment-calif-fully-powered-itself-with-renewable-energy.

[9] Scanlan, *supra* note 1, at 147; *see also* CRIMMINS ET AL., *supra* note 3, at 15.

[10] *See, e.g.,* U.S. WIND ENERGY TECH. OFF., U.S. DEP'T OF ENERGY, HOW WIND CAN HELP US BREATHE EASIER (Aug. 24, 2023), https://www.energy.gov/eere/wind/articles/how-wind-can-help-us-breathe-easier.

(GW), or about 10% of total generation for the year.[11] While Europe and China have aggressively installed wind turbines offshore,[12] offshore wind remains a largely untapped resource for the United States.[13] In 2021, President Joe Biden and Secretary of the Interior Deb Haaland, in collaboration with several other federal departments, announced their goal to increase installed offshore capacity to 30 GW by 2030.[14] To implement this goal, the 2022 Inflation Reduction Act included several provisions related to funding offshore wind development.[15] A federal shift in priorities arrived in January 2025, when President Donald Trump disparaged the offshore wind energy industry and instituted a review of offshore wind leasing and permitting.[16] Simultaneously, he issued an executive order to prohibit further expenditures under the Inflation Reduction Act.[17]

Nonetheless, the National Renewable Energy Laboratory (NREL) estimates the United States has a couple thousand gigawatts of offshore

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[11] RYAN WISER ET AL., U.S. DEP'T OF ENERGY, LAND-BASED WIND MARKET REPORT: 2023 EDITION, at vii (2023), https://www.energy.gov/sites/default/files/2023-08/land-based-wind-market-report-2023-edition.pdf.

[12] *See, e.g.,* GLOB. WIND ENERGY COUNCIL, GLOBAL OFFSHORE WIND REPORT 2023 7 (2023), https://gwec.net/wp-content/uploads/2023/08/GWEC-Global-Offshore-Wind-Report-2023.pdf; *see also* Shotaro Tani, *China Drives Asian Lead in Global Offshore Wind as Europe Loses Top Spot*, FIN. TIMES (Aug. 28, 2023), https://www.ft.com/content/cb2581c1-6e2d-4868-ac73-c3d8657d403a.

[13] WALTER MUSIAL ET AL., U.S. DEP'T OF ENERGY, OFFSHORE WIND MARKET REPORT: 2023 EDITION, at 1 (2023), https://www.energy.gov/sites/default/files/2023-09/doe-offshore-wind-market-report-2023-edition.pdf [hereinafter MUSIAL ET AL., OFFSHORE WIND MARKET REPORT 2023]. *See also* Justine Calma, *Offshore Wind Potential in the U.S. Is Huge but Untapped*, THE VERGE (Aug. 1, 2023), https://www.theverge.com/2023/8/1/23815450/us-offshore-wind-potential-berkley-report. Although many projects are now in the development pipeline, the industry is facing challenges like inflation and supply chain issues. *See, e.g.,* Miriam Wasser, *Offshore Wind in the U.S. Hit Headwinds in 2023. Here's What You Need to Know*, NPR (Dec. 27, 2023), https://www.npr.org/2023/12/27/1221639019/offshore-wind-in-the-u-s-hit-headwinds-in-2023-heres-what-you-need-to-know.

[14] FACT SHEET: BIDEN ADMINISTRATION JUMPSTARTS OFFSHORE WIND ENERGY PROJECTS TO CREATE JOBS (Mar. 29, 2021), https://www.presidency.ucsb.edu/documents/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-create-jobs.

[15] Inflation Reduction Act, Pub. L. No. 117-169, 136 Stat. 1818 (2022).

[16] Temporary Withdrawal of All Areas on the Outer Continental Shelf from Offshore Wind Leasing and Review of the Federal Government's Leasing and Permitting Practices for Wind Projects, Memorandum, 90 Fed. Reg. 8363 (Jan. 20, 2025), https://www.govinfo.gov/content/pkg/FR-2025-01-29/pdf/2025-01966.pdf.

[17] Unleashing American Energy, Exec. Order No. 14,154, 90 Fed. Reg. 8353, 8354-55 (Jan. 20, 2025), https://www.govinfo.gov/content/pkg/FR-2025-01-29/pdf/2025-01956.pdf.

wind energy potential.[18] In the Great Lakes specifically, NREL estimates 160 GW of fixed-bottom resource potential and 415 GW of floating wind potential.[19] In fact, NREL asserts that five of the eight Great Lakes states have offshore wind potential greater than the amount of electricity they consume.[20] Average wind speeds across most of the surface area of the Great Lakes are at least 8.5 meters per second,[21] which is greater than the average wind speeds over most land across the states in the region.[22] However, there is no installed, operational offshore wind capacity on the Great Lakes. Looking at the oceans, as of 2023, the United States had less than 1 GW of operational offshore wind energy installed.[23]

NREL's preliminary modeling of the role of offshore wind in decarbonization efforts estimated that 40 GW of Great Lakes offshore wind would be added to the grid to achieve a 95% decarbonization scenario in the Great Lakes states by 2050. [24] However, many assumptions, uncertainties, and challenges remain. To actualize this model, there are a wide variety of technological, supply chain, ecological, and legal puzzles to solve, as the model acknowledges significant challenges in all these areas.[25]

Even if this technology can be built in the Great Lakes region, evaluating whether and how to introduce this change in use to the lakes requires a supportive legal framework for thorough planning, lakebed auctioning and leasing, and regulation. We focus in this article on one

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[18] WALTER MUSIAL ET AL., NAT'L RENEWABLE ENERGY LAB'Y, 2016 OFFSHORE WIND ENERGY RESOURCE ASSESSMENT FOR THE UNITED STATES, at 4-5 (2016), https://www.nrel.gov/docs/fy16osti/66599.pdf [hereinafter MUSIAL ET AL., 2016 OFFSHORE WIND ASSESSMENT]. *See also* Umed Paliwal et al., *2035 and Beyond: Abundant, Affordable Offshore Wind Can Accelerate Our Clean Electricity Future* ii, 3 (2023), https://2035report.com/offshorewind/.

[19] WALTER MUSIAL ET AL., NAT'L RENEWABLE ENERGY LAB'Y, GREAT LAKES WIND ENERGY CHALLENGES AND OPPORTUNITIES ASSESSMENT, at vi (2023), https://www.nrel.gov/docs/fy23osti/84605.pdf [hereinafter MUSIAL ET AL., GREAT LAKES CHALLENGES AND OPPORTUNITIES ASSESSMENT].

[20] *Id.* at 18, 20, T.3. Note that this estimate uses "a capacity density of 5 MW/km$^2$ throughout the U.S. waters of the Great Lakes, with no excluded areas other than a minimum distance of 3 miles from shore." *Id.* at 18. The "values are a useful comparison for estimating the total opportunity by state for Great Lakes wind energy but are subject to many sources of uncertainty, including the extent of the area in which offshore wind energy development may be permitted or prohibited, changing demand for electricity, and possible delivery of Great Lakes wind energy across state boundaries." *Id.* at 18-19.

[21] *Id.* at 18. Wind speed data referenced occurs at 140 meters above ground level. *Id.*

[22] *U.S. Wind Power Resource at 100-Meter Hub Height*, WINDEXCHANGE, https://windexchange.energy.gov/maps-data/324 (last visited Jan. 31, 2025).

[23] MUSIAL ET AL., 2016 OFFSHORE WIND ASSESSMENT, *supra* note 18, at 1.

[24] MUSIAL ET AL., GREAT LAKES CHALLENGES AND OPPORTUNITIES ASSESSMENT, *supra* note 19, at xii-xiii.

[25] *Id.*

piece of the legal puzzle: coastal planning, which should precede any auctioning, leasing, or permitting for Great Lakes offshore wind. Unlike on the oceans, the federal Bureau of Ocean Energy Management (BOEM) does not have a role in planning, evaluating, and auctioning leases for offshore wind on the Great Lakes. Because the Great Lakes states have exclusive jurisdiction over lakebed leasing, they were neither spurred to action by President Biden's support for offshore wind, nor should they be thwarted by President Trump's opposition to offshore wind. There is currently no regional body active on this issue either, so this leaves many complex questions to a fragmented state-by-state approach.

States in the region have been exploring offshore wind options for these inland seas for over a decade. Despite the coordination efforts of the Great Lakes Commission's Wind Collaborative between 2008 and 2013, the region has not developed a legal framework for efficient offshore wind planning, auctioning, leasing, and permitting. One project, Ohio's Icebreaker Wind in Lake Erie, which was proposed to be sited eight miles off the coast from the city of Cleveland, made progress towards deployment as the first freshwater project in North America.[26] However, at the end of 2023, the developers paused the project indefinitely, citing economic difficulties due to delays in construction caused by permitting and litigation.[27]

In a related article, we wrote about jurisdiction over the Great Lakes and recommended how to approach potential auctioning and leasing of the lakebed as a public trust resource for offshore wind to promote net-positive environmental, social, and financial benefits.[28] We also recommended that a regional body or individual states engage in wind, spatial, and environmental planning to map the optimal and off-limits sites prior to opening any lease areas to auctions.[29]

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[26] Despite similar interest in Canada prior to 2011, Ontario instituted a moratorium on offshore wind development. The Canadian Press, *Ont. Declares Moratorium on Off-Shore Wind Farms*, CBC (Feb. 11, 2011), https://www.cbc.ca/news/canada/toronto/ont-declares-moratorium-on-off-shore-wind-farms-1.1063557; The Canadian Press, *Ontario Signals Offshore Wind Moratorium Will Continue for Years*, CBC (Feb. 13, 2017), https://www.cbc.ca/news/canada/windsor/offshore-wind-moratorium-lake-erie-1.3979878.

[27] Port of Cleveland, Press Release (Dec. 8, 2023), https://www.portofcleveland.com/challenges-delays-lead-to-pause-on-lake-erie-wind-turbine-project/; *see also* Nicole Pollack, *Only Permitted Great Lakes Offshore Wind Farm Put on Hold*, INSIDE CLIMATE NEWS (Dec. 8, 2023), https://insideclimatenews.org/news/08122023/icebreaker-offshore-wind-halted-ohio/.

[28] Andrian Lee, Melissa K. Scanlan & Cora L. Sutherland, Great Lakes Offshore Wind: Creating a Legal Framework for Net Positive Environmental, Social, and Financial Benefits, 5.2 Notre Dame J. on Emerging Techs. 102, 149 (2024).

[29] *Id.*

In this article, we build on those recommendations and evaluate the adaptiveness of existing coastal zone management legal tools for states to engage in local and regional offshore wind planning in the Great Lakes. In Section I, we describe the jurisdiction of freshwater coastal states over submerged lands in the Great Lakes. We then discuss coastal zone management tools and opportunities by exploring the scope of the coastal zone and the National Coastal Zone Management Program under the Coastal Zone Management Act (CZMA).[30] Under the CZMA's National Coastal Zone Management Program, two legal tools are available to individual states for their involvement in offshore wind regulation and planning: states' coastal management programs and Special Area Management Plans (SAMPs). States may seek grants for these planning efforts through the Coastal Zone Enhancement Program. Additionally, under a regional partnerships law,[31] states are encouraged to coordinate planning efforts across regions.

After laying the legal foundation, we apply those coastal management tools to the offshore wind context in Section II. We compare different uses of CZMA tools in Ohio and Rhode Island to illustrate the impacts of the different approaches on project siting and development. We conclude that the best available planning tool for offshore wind development by individual states is a thorough SAMP like Rhode Island's. For added context and to emphasize the opportunity at hand, we identify the various clean, renewable, and alternative energy goals of the Great Lakes states. Then, we explore the possibility of regional planning for Great Lakes offshore wind. We highlight examples from two regional partnerships on the Atlantic coast and how they are coordinating offshore wind efforts. We conclude Great Lakes states should collaborate regionally to facilitate efficient offshore wind development processes. Creating a Great Lakes regional partnership or revitalizing prior coordination efforts for offshore wind development would support cohesive information gathering, enable regional planning to implement decarbonization goals, and position the region for future funding and development opportunities at the federal level.

## I. LEGAL FOUNDATION

The Great Lakes are multinational waters with special

[30] Coastal Zone Management Act, 16 U.S.C.A. §§ 1451-67 (West, Westlaw through Pub. L. 117-57).

[31] 16 U.S.C. § 1468. *See* James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, Pub. L. No. 117-263, 136 Stat. 2395, 3961-65 (2022). Chapter 33 of Title 16 of the U.S. Code otherwise comprises the Coastal Zone Management Act of 1972.

jurisdictional considerations that differ from the oceans. First, this section establishes the important distinction of submerged lands jurisdiction in the Great Lakes. Second, this section lays out the National Coastal Zone Management Program, tools, and funding provisions of the CZMA for individual coastal states. Finally, this section describes the creation and operation of regional ocean and Great Lakes partnerships to advance offshore wind planning.

### A. Great Lakes States Have Jurisdiction over Submerged Lands

The 1953 Submerged Lands Act defines "lands beneath navigable waters" and clarifies the extent of coastal states' jurisdiction over such lands.[32] Lands beneath navigable waters include the beds and banks of navigable water bodies in the state. Ocean coastal states have jurisdiction over submerged lands extending from shore three miles into the ocean.[33] Beyond three miles, the federal government has jurisdiction moving out towards sea, all the way to the edge of the exclusive economic zone 200 miles from shore. [34] In contrast, Great Lakes states have title to submerged lands of the Great Lakes—and associated natural resources—beyond three miles.[35]

Under the Submerged Lands Act, a Great Lakes state's jurisdiction extends out toward the center of the lake up to the boundary with a neighboring state or Canada.[36] State jurisdiction includes the right to manage, lease, and use those lands and natural resources consistent with the public trust doctrine.[37] In the offshore wind context, Great Lakes states' lakebed jurisdiction means the federal government has no role in planning, auctioning, and leasing offshore wind resources, unlike the

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[32] Submerged Lands Act of 1953, 43 U.S.C.A. §§ 1301-1315 (West, Westlaw through Pub. L. 118-57).
[33] *Id.* § 1312.
[34] 33 C.F.R. § 2.30 (West, Westlaw through Dec. 9, 2021).
[35] Under the federal Equal Footing Doctrine, the Great Lakes states entered the Union on equal footing with the original thirteen states, and the federal government transferred title to the submerged lands beneath all navigable waters within their boundaries. PPL Montana, LLC v. Montana, 132 S. Ct. 1215, 1226-27 (2012); Shively v. Bowlby, 152 U.S. 1, 57-58 (1894); *see also* Hardin v. Jordan, 140 U.S. 371, 381 (1891); *see generally*, Melissa K. Scanlan, *Shifting Sands: A Meta-theory for Public Access and Private Property Along the Coast*, 65 South Carolina Law Rev 295 (2013); Kenneth K. Kilbert, *The Public Trust Doctrine and the Great Lakes Shores*, 58 CLEV. ST. L. REV. 1 (2010).
[36] 43 U.S.C.A. § 1312.
[37] 43 U.S.C.A. § 1311; Ill. Cent. R.R. v. Illinois, 146 U.S. 387, 435 - 437 (1892). Under the Submerged Lands Act, the meaning of natural resources includes oil, gas, minerals, and marine life. 43 U.S.C.A. § 1311(e). Oil and gas drilling is not permitted in the Great Lakes, per the Energy Policy Act of 2005. 42 U.S.C.A. § 15941 (West, Westlaw through Pub. L. 118-106).

dominant federal role over the oceans.

Currently, no government entity is engaged in the coordinated planning and mapping of wind energy areas for the Great Lakes. On the oceans, a first step in developing offshore wind is for BOEM to work with states, Tribes, and local partners to explore optimal sites with the least conflicts and identify "wind energy areas" on maps.[38] These become the areas BOEM later opens to auction off leases. If existing laws are not adaptable enough to cover this need in the Great Lakes region, new laws may be necessary to authorize planning for Great Lakes offshore wind. However, we see existing laws, which already authorize planning in the Great Lakes, that can be used to evaluate offshore wind. Next, we examine those laws.

### B. Coastal Zone Management

Congress passed the CZMA in 1972 to, among other things, address a lack of adequate protection and consistent management of coastal resources by the coastal states and local governments.[39] The National Oceanic and Atmospheric Administration (NOAA), housed in the U.S. Department of Commerce,[40] administers the CZMA.[41] Congress set a national policy to "encourage and assist" states to effectively manage the coastal zone through funding, individual management programs, and regional partnership opportunities.[42] Further, Congress set a "national objective of attaining a greater degree of energy self-sufficiency" and funding related to "energy activity in or affecting the coastal zone."[43]

Great Lakes states may be able to leverage their coastal management authority to plan for and coordinate offshore wind development both individually and in collaboration with other states in the region. State-level coastal zone management is facilitated by the CZMA,[44] and regional coordination efforts have been pushed by state governors. In 2022, Congress further encouraged such efforts through funding for regional partnerships tucked into a national defense

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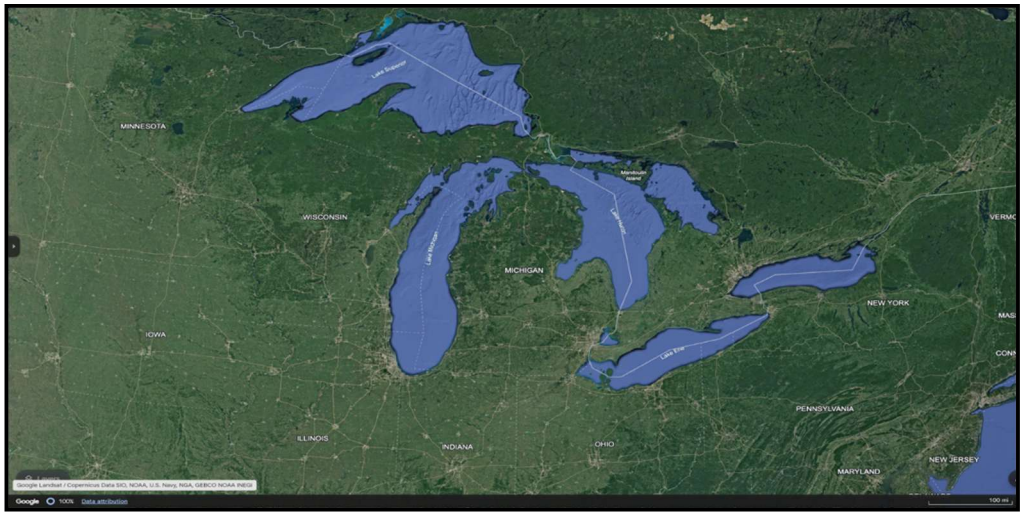
[38] What Is a Wind Energy Area (WEA)?, BUREAU OF OCEAN MGMT., https://www.boem.gov/renewable-energy/state-activities/what-wind-energy-area-wea (last visited Jan. 17, 2024).
[39] 16 U.S.C.A. § 1451(h), (i).
[40] *Bureaus and Offices*, U.S. DEP'T OF COM., https://www.commerce.gov/bureaus-and-offices (last visited Apr. 17, 2023).
[41] *Coastal Zone Management Act*, NOAA OFFICE FOR COASTAL MGMT., https://coast.noaa.gov/czm/act/ (last visited Nov. 27, 2023).
[42] 16 U.S.C.A. § 1452(2).
[43] 16 U.S.C.A. § 1451(j).
[44] 16 U.S.C.A. §§ 1451-67.

authorization.[45]

The policy goal of the CZMA is to preserve or improve the national coastline by encouraging states to manage their coasts congruous with the national policy set forth in the Act and by encouraging cooperation between national, state, and local bodies of government.[46] The scope of the CZMA depends on the boundaries of the "coastal zone."[47] As defined by the CZMA, the coastal zone includes the water and submerged lands along the shoreline of the coastal states, including wetlands and beaches.[48] For ocean states, the coastal zone extends from shore to the outer boundary of the state ownership of submerged lands,[49] which is three miles.[50] For Great Lakes states, the coastal zone extends out from a state's shore to the international boundary with Canada, or to the boundary of a neighboring state's coastal zone.[51]

Image 1. State Submerged Lands Jurisdiction Boundaries.[52]




[45] 16 U.S.C. § 1468. *See* James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, Pub. L. No. 117-263, 136 Stat. 2395, 3961-65 (2022).
[46] 16 U.S.C. § 1452.
[47] 16 U.S.C. § 1453(1).
[48] 16 U.S.C. § 1331(e); Outer Continental Shelf Lands Act of 1953, 43 U.S.C.A. §§ 1331-1356c (West, Westlaw through Pub. L. 117-169).
[49] 16 U.S.C. § 1453(1).
[50] 43 U.S.C. § 1312. Two exceptions are Texas and the Gulf Coast of Florida, which have three leagues, or about 10 miles, of submerged lands jurisdiction. United States v. Louisiana, 363 U.S. 1, 65, 129 (1960). *See also* National Centers for Environmental Information, *Marine Jurisdictions,* GULF OF MEXICO DATA ATLAS, https://www.ncei.noaa.gov/maps/gulf-data-atlas/atlas.htm?plate=Marine%20Jurisdictions (last visited Jan. 18, 2024).
[51] 16 U.S.C. § 1453(1).
[52] GOOGLE EARTH, https://earth.google.com/web/@46.36213891,-85.02807779,369.53122881a,2840652.55846649d,30y,-0h,0t,0r (last visited Jan. 11, 2024).

The coastal zone also reaches inland from the shore "to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters."[53] Coastal states have the authority to define that inland boundary.[54] States may draw the inland boundary with an eye towards controlling land uses with direct and significant impacts on coastal waters or to control areas vulnerable to rising sea levels.[55]

The CZMA established the National Coastal Zone Management Program, which is a voluntary program between states and the federal government. The CZMA empowers state management and applies to freshwater coastal states. After coastal states create and seek approval for a state management program, the Secretary of Commerce will approve or deny a state's plan based on whether the program meets necessary criteria listed in the CZMA.[56] For example, the state must include a planning process for energy facilities likely to be placed in or have an impact on the coastal zone.[57]

All eight of the Great Lakes states participate in the National Coastal Zone Management Program.[58] Once a state's management program is approved by the Secretary of Commerce, federal agency actions in or affecting the coastal zone must be consistent with that state management program's enforceable policies "to the maximum extent practicable," determined through the consistency review process.[59] The National Coastal Zone Management Program also includes the Coastal Zone Enhancement Program, which supports and encourages coastal states to improve their coastal management programs every five years.[60] State management tools and funding opportunities are explored below.

1. Management Tools

The CZMA describes two types of management tools: state

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[53] 43 U.S.C.A. § 1331(e).
[54] *Id.*
[55] 16 U.S.C. § 1453(1). Lands over which the federal government has exclusive control or holds in trust are excluded from the coastal zone for the purposes of the CZMA. *Id.*
[56] 16 U.S.C.A. § 1455(d).
[57] *Id.* § 1455(d)(2)(H).
[58] All eligible states and territories other than Alaska participate in the program. *Coastal Zone Management Programs*, NOAA OFFICE FOR COASTAL MGMT., https://coast.noaa.gov/czm/mystate/ (last visited Nov. 27, 2023).
[59] 16 U.S.C. § 1456(c)(1)(A).
[60] 16 U.S.C. § 1456b; *see also The Coastal Zone Enhancement Program*, NOAA OFFICE FOR COASTAL MGMT., https://coast.noaa.gov/czm/enhancement/ (last visited Nov. 30, 2023).

management programs and special area management plans (SAMPs).[61] These tools work together. States participate in the National Coastal Zone Management Program by creating a dynamic state management program,[62] whereas states may or may not create and implement a SAMP. Over time, states may improve their management programs through the Coastal Zone Enhancement Program or Section 309 enhancement grants, discussed below.

While management programs are comprehensive policy statements states prepare and adopt,[63] SAMPs are comprehensive plans with detailed criteria and mechanisms for implementing natural resource protection in specific geographies within the coastal zone.[64] Management programs include but are not limited to "comprehensive statement[s] in words, maps, illustrations, or other media of communication, prepared and adopted by the state . . . setting forth objectives, policies, and standards to guide public and private uses of lands and waters in the coastal zone."[65] SAMPs are "comprehensive plan[s] providing for natural resource protection and reasonable coastal-dependent economic growth containing a detailed and comprehensive statement of policies; standards and criteria to guide public and private uses of lands and waters; and mechanisms for timely implementation in specific geographic areas within the coastal zone."[66]

To approve a management program, the Secretary of Commerce must find that the state management program includes nine specific elements,[67] one of which clearly relates to energy planning and could encompass offshore wind. The state management program must: identify the coastal zone boundary;[68] define permissible land and water uses in the coastal zone;[69] inventory areas of particular concern;[70] identify how the state will exert control over land and water uses in the coastal zone;[71] create broad priority use guidelines;[72] describe the organizational

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[61] *Id.* § 1453.
[62] National Oceanic and Atmospheric Administration, *Coastal Zone Management Act Program Changes*, COASTAL ZONE MGMT. ACT PROGRAM CHANGE PORTAL, https://coast.noaa.gov/czmprogramchange/#/public/home (last visited Nov. 30, 2023) ("State programs are not static – laws and issues change.").
[63] 16 U.S.C. § 1453(12).
[64] *Id.* § 1453(17).
[65] *Id.* § 1453(12).
[66] *Id.* § 1453(17).
[67] *Id.* § 1455(d)(2).
[68] *Id.* § 1455(d)(2)(A).
[69] *Id.* § 1455(d)(2)(B).
[70] *Id.* § 1455(d)(2)(C).
[71] *Id.* § 1455(d)(2)(D).
[72] *Id.* § 1455(d)(2)(E).

structure for implementing the program;[73] define "beach" and create a planning process for protection and access of beaches and other areas;[74] *create a planning process for energy facilities in or affecting the coastal zone;*[75] and create a planning process to evaluate and address shoreline erosion.[76]

All eight Great Lakes states have state management programs,[77] but none have exercised their authority to create a SAMP to plan for offshore wind.[78] Looking to ocean coasts, Rhode Island has used the SAMP process to consider offshore wind opportunities in the Atlantic Ocean. We discuss Rhode Island's approach below in the state

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[73] *Id.* § 1455(d)(2)(F).
[74] *Id.* § 1455(d)(2)(G).
[75] *Id.* § 1455(d)(2)(H).
[76] *Id.* § 1455(d)(2)(I).
[77] *Coastal Zone Management Programs*, NOAA OFFICE FOR COASTAL MGMT., https://coast.noaa.gov/czm/mystate/ (last visited Nov. 27, 2023).
[78] *See, e.g.*, ILL. COASTAL MGMT. PROGRAM, SECTION 309 ASSESSMENT AND STRATEGY 2016-2020, at 47 (2015), https://dnr.illinois.gov/content/dam/soi/en/web/dnr/cmp/documents/section309/icmpsection309planfinal.pdf; IND. DEP'T OF NAT. RES., IND. LAKE MICH. COASTAL PROGRAM ENHANCEMENT STRATEGY 2021-2025, at 59-62 (2021), https://www.in.gov/dnr/lake-michigan-coastal-program/files/lm-IN-Sect-309-plan-2021-2025.pdf; MICH. DEP'T OF ENV'T, GREAT LAKES, AND ENERGY, SECTION 309 ASSESSMENT AND ENHANCEMENT STRATEGY, 2021-2025, at 38-39 (2020), https://cms2.revize.com/revize/claytownship/wrd-cm-strategy-2021-2025_706895_7.pdf; MINN.'S LAKE SUPERIOR COASTAL PROGRAM, SECTION 309 ASSESSMENT AND STRATEGIES FOR 2011-2015, at 38-40 (2010), https://files.dnr.state.mn.us/waters/lakesuperior/coastalenhancement/309as2011.pdf; N.Y. STATE COASTAL MGMT. PROGRAM, 309 ASSESSMENT AND STRATEGIES 2021-2025, at 70, 72, 80-87, 102 (2020), https://dos.ny.gov/system/files/documents/2021/06/nys-2021-5-yr-assessment-and-strategy.pdf. Although New York State has not developed an offshore wind SAMP, the report did identify "there are opportunities to explore SAMP[s] for offshore ocean and Great Lakes uses such as wind energy development." *Id.* at 87; *See also id.* at 156. The report identified non-SAMP planning tools related to energy development, like the New York Great Lakes Action Agenda, which was not characterized as a 309 or coastal zone management driven change. *Id.* at 72, 96. Also, the Department of State's 2013 Offshore Atlantic Ocean Study. *Id.* at 92. A third example is the New York State Energy Research and Development Authority's New York State Offshore Wind Master Plan, released in 2018, which was also not characterized as a 309 driven change. *Id.* at 113. "There was no 309 focused on offshore wind in 2015-2019 but the CZM program has been heavily involved in identifying potentially eligible sites for project development and in the review of proposed projects." *Id.* at 102. OHIO DEP'T OF NAT. RES. OFFICE OF COASTAL MGMT., OHIO COASTAL MGMT. PROGRAM ASSESSMENT AND MULTI-YEAR STRATEGY 2021-2025, at 49-50 (2020), https://ohiodnr.gov/static/documents/coastal/technical-resources/OhioDNR-OCM_Sec309Enhancement_2021-2025AssessmentFinalApproved.pdf; PA. DEP'T OF ENV'T PROT., SECTION 309 ASSESSMENT AND STRATEGY OF PA.'S COASTAL RESOURCES MANAGEMENT PROGRAM, at 87-89 (2023), https://www.dep.pa.gov/Business/Water/Compacts%20and%20Commissions/Coastal%20Resources%20Management%20Program/Pages/Program-Reference-Documents.aspx; WIS. DEP'T OF ADMIN., WIS. COASTAL MGMT. PROGRAM, NEEDS ASSESSMENT AND STRATEGY 2021-2025, at 44-45 (2020), https://doa.wi.gov/DIR/Coastal_Needs-Assessment-2021-2025.pdf.

comparisons to better evaluate the utility of a SAMP for offshore wind.

2. Funding for Coastal Management

States participating in coastal management under the CZMA may access federal funds to carry out this planning. The CZMA includes two primary funding provisions applicable to these state management tools: Section 306 and Section 309. Section 306 Administrative Grants are available to help coastal states administer their state management programs.[79] Section 309 Coastal Zone Enhancement Program grants support changes to state management programs in pursuit of coastal zone enhancement objectives.[80] Section 306 provides a larger pool of funds, but states are required to match funds. Fewer dollars are available under Section 309, and states must prioritize one or more coastal zone enhancement objectives to access funding, but there is no matching requirement. Thus, there are benefits and barriers to receiving funding under both provisions.

To be eligible for Section 306 Administrative Grants, a state must receive approval of its management program from the U.S. Secretary of Commerce.[81] In addition to receiving the Secretary's approval, states must follow applicable rules and regulations and collaborate with federal and state agencies, local governments, regional organizations, and other public or private interested parties,[82] hold public hearings in developing the program,[83] and partially or equally match federal contributions,[84] among other things.[85]

By comparison, Section 309 Coastal Zone Enhancement Grants are available to support the attainment of one or more coastal zone enhancement objectives, [86] including the objective to prepare and implement SAMPs for important coastal areas,[87] and the objective to adopt procedures and enforceable policies to help facilitate energy project siting and other energy activities.[88] States may participate in the enhancement program through Assessment and Strategies Reports,

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[79] *Id.* § 1455(a).
[80] *Id.* § 1456b(b).
[81] *Id.* § 1455(b).
[82] *Id.* § 1455(d)(1).
[83] *Id.* § 1455(d)(4).
[84] *Id.* § 1455(a). For programs approved after 1990, the required matching ratio of federal-to-state funds starts at 4:1 and transitions to 1:1 over several years.
[85] *Id.* § 1455(d).
[86] *Id.* § 1456b(b)(1).
[87] *Id.* § 1456b(a)(6).
[88] *Id.* § 1456b(a)(8).

which occur on a five-year cycle.[89]

Section 309 funds may be more desirable and act as a motivator for a state to create a SAMP or improve their state management program because this does not require matching funds. Nothing prohibits states from receiving both Section 309 and Section 306 funds simultaneously.[90] In Fiscal Year 2020, all eight Great Lakes states were awarded funding under both Section 306 and Section 309, with one exception: Minnesota did not receive Section 309 funding.[91] Of the eight Great Lakes states, all but Illinois and Minnesota have participated in the 2021–2025 Assessments and Strategies period of the Section 309 Coastal Zone Enhancement Program. [92] Though some Great Lakes states have discussed offshore wind in their Section 309 Assessments, to date none have used this program directly for Great Lakes offshore wind planning.[93]

3. Regional Partnerships

In 2022, Congress enacted a regional partnerships law as an addition to the Coastal Zone Management chapter of the U.S. Code.[94] Under the statute, coastal states and Tribes are encouraged to form partnerships with other states and Tribes that share a common ocean,

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[89] *The Coastal Zone Enhancement Program*, NOAA OFF. FOR COASTAL MGMT., https://coast.noaa.gov/czm/enhancement/ (last visited Nov. 30, 2023); 16 U.S.C. § 1456b(f). Fewer funds are available under Section 309 Coastal Zone Enhancement Grants than under Section 306 Administrative Grants because the total amount of funds available under Section 309 must fall between ten and twenty percent of the total amount of funds available under Section 306, with a maximum cap of ten million dollars.

[90] *See* 16 U.S.C. § 1456b(b)(2)(A).

[91] Memorandum from Laura Petes, Manager, Coastal Communities Program, to Paul M. Scholz, Chief Financial/Chief Administrative Officer, National Ocean Service, FY 2020 Funding Guidance and Allocations, Coastal Zone Management Act Sections 306/306A and 309, at 5 (Feb. 24, 2020), https://coast.noaa.gov/data/czm/media/fy20-funding-guidance.pdf; 16 U.S.C. § 1455a. Awards under Sections 306 and 306A are grouped together in the preceding document. Section 306A governs the coastal resource improvement program.

[92] *The Coastal Zone Enhancement Program*, NOAA OFFICE FOR COASTAL MGMT., https://coast.noaa.gov/czm/enhancement/ (last visited Nov. 30, 2023).

[93] *See, e.g.*, OHIO DEP'T OF NAT. RES. OFF. OF COASTAL MGMT., OHIO COASTAL MGMT. PROGRAM ASSESSMENT AND MULTI-YEAR STRATEGY 2021-2025, at 54 (2020), https://ohiodnr.gov/static/documents/coastal/technical-resources/OhioDNR-OCM_Sec309Enhancement_2021-2025AssessmentFinalApproved.pdf; N.Y. ST. COASTAL MGMT. PROGRAM, 309 ASSESSMENT AND STRATEGIES 2021-2025, at 70, 99, 102, 113 (2020), https://dos.ny.gov/system/files/documents/2021/06/nys-2021-5-yr-assessment-and-strategy.pdf.

[94] 16 U.S.C. § 1468; *see* James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, Pub. L. No. 117-263, 136 Stat. 2395, 3961-65 (2022). Chapter 33 of Title 16 of the U.S. Code otherwise comprises the Coastal Zone Management Act of 1972.

coast, or watershed, or that would otherwise contribute to the goals and priorities of the partnership.[95] Regional partnerships serve a variety of functions, including promotion of coordination between government agency actions across federal, state, and Tribal government partners to address priority coastal issues,[96] develop and implement coordinated action plans, [97] engage with stakeholders on issues that require intergovernmental solutions,[98] and develop and provide information on cross-jurisdictional issues,[99] among other things.[100]

The regional partnerships law designates four groups as Regional Ocean Partnerships: the Gulf of Mexico Alliance, the Northeast Regional Ocean Council, the Mid-Atlantic Regional Council on the Ocean, and the West Coast Ocean Alliance.[101] Although there is no designated Great Lakes regional partnership, any future partnership between Great Lakes states may be referred to as either a Regional Coastal Partnership" or a Regional Great Lakes Partnership," for the same purposes as Regional Ocean Partnerships.[102]

Although states may form regional partnerships regardless of Congressional action, the law benefits states by creating a structure for partnering and access to federal funding for this work. Congress authorized over $10 million annually for fiscal years 2023–2027 for the Regional Ocean Partnerships.[103] The funds are to be distributed evenly among the partnerships.[104] An additional $1 million annually for fiscal years 2023–2027 is available for distribution to Tribes to support participation or engagement with the partnerships. [105] Beyond those express funds, additional funding may be granted to the partnerships by the head of any other federal agency. [106] Regional partnerships are empowered to give grants or make contracts to develop and execute

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[95] 16 U.S.C. § 1468(b)(1)(A)-(C).
[96] *Id.* § 1468(d)(1).
[97] *Id.* § 1468(d)(2).
[98] *Id.* § 1468(d)(4).
[99] *Id.* § 1468(d)(6).
[100] *Id.* § 1468(d).
[101] *Id.* § 1468(b)(3); *Id.* § 1486(b)(3)(A) (The Gulf of Mexico Alliance includes Alabama, Florida, Louisiana, Mississippi, and Texas.); *Id.* § 1486(b)(3)(B) (The Northeast Regional Ocean Council includes Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island.); *Id.* § 1486(b)(3)(C) (The Mid-Atlantic Regional Council on the Ocean includes New York, New Jersey, Delaware, Maryland, and Virginia.); *Id.* § 1486(b)(3)(D) (The West Coast Ocean Alliance includes California, Oregon, Washington, "and the coastal Indian Tribes therein.").
[102] 16 U.S.C. § 1468(b)(4).
[103] *Id.* § 1468(j)(1).
[104] *Id.* § 1468(j)(2).
[105] *Id.* § 1468(j)(3).
[106] *Id.* § 1468(h).

cooperative management strategies to more effectively manage common coastal areas, among other purposes.[107]

Regional partnerships must satisfy coordination, governance, and reporting requirements. Regional partnerships must maintain a mechanism to coordinate, consult, and engage with the federal government, Tribes, nongovernmental entities, and other federally mandated regional entities.[108] Each regional partnership must submit an assessment report to Congress and the NOAA Administrator before December 2027.[109] The report must include the status of partnership work, the effectiveness of the partnership and its strategies in supporting group priorities for the region, how group efforts support or enhance federal and state conservation efforts under Title 16, recommendations to improve group efforts and collective strategies for conservation purposes, and how funds were distributed for each fiscal year.[110] Two Regional Ocean Partnerships working on offshore wind are explored below: the Mid-Atlantic Regional Council on the Ocean and the Northeast Region Ocean Council.

## II. COASTAL MANAGEMENT TOOLS APPLIED TO OFFSHORE WIND PLANNING: COMPARISONS AND RECOMMENDATIONS

This section reviews the wind project process and the use of CZMA tools in two states that present divergent approaches: Ohio and Rhode Island. The comparison will illustrate SAMPs as a better tool than broad state coastal management programs for offshore wind planning and management in the Great Lakes states. Next, this section will look to the former Great Lakes Commission Wind Collaborative and two existing Regional Ocean Partnerships to examine how states collaborate with each other, federal agencies, and other stakeholders to approach offshore wind development cohesively. We conclude that one or more regional partnerships would be particularly effective for thoughtful and efficient offshore wind planning across the Great Lakes.

### A. Individual State Tools for Offshore Wind Planning: Case Studies

Through the National Coastal Zone Management Program of the

[107] *Id.* § 1468(f)(1), (f)(2)(C)(ii).
[108] *Id.* § 1468(e)(1).
[109] *Id.* § 1468(g)(1).
[110] *Id.* § 1468(g)(2).

CZMA, states have an opportunity to improve the planning and regulatory process for offshore wind development, especially in the Great Lakes. Offshore wind projects available for case study in the U.S. are limited, but we examine two here: the Icebreaker Wind project in Ohio and the Block Island Wind project in Rhode Island. Both the Icebreaker Wind project and the Block Island Wind project originated in 2009,[111] yet they followed very different trajectories, and only one is operational. The Icebreaker Wind project developer announced an indefinite pause to the project in December 2023,[112] while the Block Island Wind project has been operating since December 2016.[113]

Comparison of the two case studies suggests Great Lakes states have an opportunity to maximize planning, management, and funding for offshore wind projects under the CZMA through the SAMP process. In addition, state renewable energy goals are a driving factor for successful wind projects in state waters. As all eight Great Lakes states have renewable energy goals, and five states have commitments to reach 100% clean or renewable energy sources within a few decades,[114] utilizing existing legal authority under the CZMA and SAMP planning opportunities is critical.

The Ohio project did not engage a SAMP, faced fluctuating renewable energy goals, confronted significant litigation disputes, and in 2023, was paused indefinitely. In contrast, the Rhode Island project engaged the SAMP process under the CZMA, was driven in conjunction with state renewable energy goals, faced less delay because there were fewer litigation challenges, and in 2016, became operational. Despite the Block Island project's location in the Atlantic Ocean, where the federal government has a dominant role in offshore wind, the Rhode Island SAMP is an especially useful tool for Great Lakes states to review because it shows state-led offshore wind planning within state waters.

1. Ohio's Icebreaker Project

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[111] Port of Cleveland, Press Release (Dec. 8, 2023), https://www.portofcleveland.com/challenges-delays-lead-to-pause-on-lake-erie-wind-turbine-project/; *In re* Proposed Town of New Shoreham Project, 25 A.3d 482, 488 n.4 (R.I. 2011).

[112] Port of Cleveland, Press Release (Dec. 8, 2023), https://www.portofcleveland.com/challenges-delays-lead-to-pause-on-lake-erie-wind-turbine-project/.

[113] *Block Island Wind Farm*, R.I. COASTAL RES. MGMT. COUNCIL, http://www.crmc.ri.gov/windenergy/dwblockisland.html (last visited Jan. 18, 2024); Anmar Frangoul, *America's First Offshore Wind Farm Is Up and Running*, CNBC, https://www.cnbc.com/2016/12/13/americas-first-offshore-wind-farm-is-up-and-running.html (last updated Dec. 13, 2016); Steve LeBlanc, *Feds Approve Offshore Wind Farm South of Rhode Island and Martha's Vineyard*, WBUR (Aug. 22, 2023), https://www.wbur.org/news/2023/08/22/revolution-wind-farm-new-england.

[114] See Table 1 below.

The Ohio Icebreaker Wind project made the most progress towards Great Lakes offshore wind deployment thus far. Despite having received all approvals and survived court challenges, in December 2023, after years of delays, the Lake Erie Energy Development Corporation (LEEDCo) announced the project s indefinite pause.[115] The trajectory of this project is important to understand, as many anticipated this would be the first offshore wind turbine built on Great Lakes lakebed. In addition, interest in Great Lakes offshore wind development continues, and understanding the first major attempt can benefit future projects.

a. Project Description, Litigation, and Renewable Goal

Developers launched efforts to permit Ohio s Icebreaker project in 2009.[116] The state of Ohio granted a lease in 2014 for the submerged lands of Lake Erie where the project was to be located.[117] Two years later, the U.S. Department of Energy awarded the project grant money to use a particular engineering technology to complete the project.[118] But in October 2023, LEEDCo requested termination of the Department of Energy funding award.[119]

The Icebreaker project acquired multiple state and federal permits, including an Ohio Power Siting Board permit[120] and a Finding of No Significant Impact" under the National Environmental Policy Act (NEPA) in 2018.[121] Icebreaker completed the interconnection process of

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[115] Port of Cleveland, Press Release (Dec. 8, 2023), https://www.portofcleveland.com/challenges-delays-lead-to-pause-on-lake-erie-wind-turbine-project/.
[116] *Id.*; *see also* WIND ENERGY TECH. OFF., DE-EE0006714 FINAL REPORT, U.S. DEP'T OF ENERGY OFFICE OF SCI. & TECH. INFO., at 4 (Apr. 9, 2018), https://www.osti.gov/servlets/purl/1435170.
[117] WIND ENERGY TECH. OFF., DE-EE0006714 FINAL REPORT, U.S. DEP'T OF ENERGY OFFICE OF SCI. & TECH. INFO., 6 (Apr. 9, 2018).
[118] *Id.*
[119] Wind Energy Tech. Off., *History of Offshore Wind Advanced Technology Demonstration Projects*, U.S. DEP'T OF ENERGY, https://www.energy.gov/eere/wind/history-offshore-wind-advanced-technology-demonstration-projects [https://web.archive.org/web/20241003081302/https://www.energy.gov/eere/wind/history-offshore-wind-advanced-technology-demonstration-projects] (last visited Dec. 20, 2023).
[120] Ohio Power Siting Board, *OPSB Approves Construction of Lake Erie Wind Power Project*, https://opsb.ohio.gov/wps/portal/gov/opsb/news/opsb-approves-construction-of-lake-erie-wind-power-project (last visited Dec. 20, 2023).
[121] Off. of NEPA Pol'y & Compliance, *EA-2045: Lake Erie Energy Development Corporation 's Project Icebreaker, an Offshore Wind Advanced Technology Demonstration Project, Offshore Cleveland, Ohio, in Lake Erie*, U.S. DEP'T OF ENERGY, https://www.energy.gov/nepa/ea-2045-lake-erie-energy-development-corporations-project-icebreaker-offshore-wind-advanced (last visited Dec. 20, 2023).

the regional transmission operator, PJM, to ensure the project could connect to the grid.[122]

The Ohio Power Siting Board s initial grant of a site permit included a condition that significantly limited the allowable times of operation by prohibiting generation during the evening between March and November.[123] LEEDCo appealed that decision, and the Ohio Power Siting Board granted a revised permit without the conditional language.[124]

Two Ohio residents, backed by coal industry funding,[125] appealed the Ohio Power Siting Board permit all the way to the Ohio Supreme Court, where they lost.[126] The opponents argued that the Ohio Power Siting Board lacked sufficient evidence to make environmental impact determinations and violated the public trust doctrine by issuing the permit.[127] In August 2022, the Ohio Supreme Court upheld the Ohio Power Siting Board s permit.[128] The Court held that the Board relied on sufficient evidence for the impact determination and that the Board was correct to determine it did not have jurisdiction over the public trust doctrine challenge.[129]

In a second case, two bird conservation nonprofits asserted claims against the U.S. Department of Energy (DOE) and Army Corps of Engineers (Corps) related to Icebreaker.[130] The DOE was involved in the Lake Erie pilot project because Icebreaker was selected as a recipient for partial funding.[131] First, plaintiffs asserted that the DOE violated NEPA for failure to prepare an Environmental Impact Statement in its NEPA

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[122] *Id.* at 6.
[123] Ohio Power Siting Board, *OPSB Approves Construction of Lake Erie Wind Power Project*, *supra* note 120.
[124] *In re* Application of Icebreaker Windpower, Inc., 169 Ohio St. 3d 617, 619-620 (Ohio 2022). Ohio Power Siting Board, *OPSB Rules on Applications for Rehearing in Lake Erie Wind Farm Case, Removes Modified Turbine Feathering Requirement* (Oct. 8, 2020) https://opsb.ohio.gov/news/opsb-rules-on-applications-for-rehearing-in-lake-erie-wind-farm-case-removes-modified-turbine-feathering-requirement.
[125] James F. McCarthy, *Big Coal Joins Fight Against Lake Erie Green Energy Wind Turbines*, THE PLAIN DEALER via CLEVELAND.COM (Aug. 5, 2018), https://www.cleveland.com/metro/2018/08/big_coal_joins_fight_against_l.html.
[126] *In re* Application of Icebreaker Windpower, Inc., 169 Ohio St. 3d 617, 618 (Ohio 2022).
[127] *Id.*
[128] *Id.*
[129] *Id.* at 621, 631.
[130] Am. Bird Conservancy v. Granholm, 2023 U.S. Dist. LEXIS 170978, Civil Action No. 19-3694 (D.D.C. Sept. 26, 2023), *vacated as moot*, 2024 U.S. Dist. LEXIS 15540, Civil Action No. 19-3694, at *3 (D.D.C. Jan. 16, 2024) (holding case moot after Icebreaker developer's announcement in December 2024 to indefinitely pause the project, with no indication that it will resume).
[131] Am. Bird Conservancy, 2023 U.S. Dist. LEXIS 170978, at *1.

review.[132] Second, plaintiffs asserted that the Corps violated the Clean Water Act when it granted the Section 404 permit for the project.[133] The Court dismissed the NEPA claim for lack of standing.[134] The Court entered summary judgment on the Clean Water Act claim, holding that the Corps was not arbitrary and capricious when it issued the Section 404 permit for the project.[135]

Renewable energy goals in the state of Ohio fluctuated in the early stages of the Icebreaker project. A year before project initiation, in 2008, Ohio passed the Advanced Energy Portfolio, requiring 12.5% of electricity to come from renewable energy sources by 2024.[136] Then, while the project was working its way through regulatory approvals, in 2014, the state passed another law to freeze renewable energy standards for two years.[137] Currently Ohio s renewable energy standard requires only 8.5% renewable energy by 2026, which is one of the least aggressive renewable goals of the Great Lakes states.[138]

b. CZMA Role

Ohio created and received approval for its Coastal Management Program in 1997, and revised the program in 2007.[139] The revised program document does not contemplate offshore wind directly, but it does outline the energy facility planning process.[140] The energy facility planning process considers energy related facilities likely to be located in or that may significantly affect the coastal area, including, but not limited to, a process for anticipating and managing the impacts from such."[141]

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[132] *Id.* at *2.
[133] *Id.* at *8-9.
[134] *Id.* at *10.
[135] *Id.* at *20, *22.
[136] S.B. 221, § 4928.64, 127th Gen. Assemb. (Ohio 2008), http://archives.legislature.state.oh.us/BillText127/127_SB_221_EN_N.pdf.
[137] S.B. 310, 130th Gen. Assemb. (Ohio 2014), http://archives.legislature.state.oh.us/BillText130/130_SB_310_EN_N.pdf. *See also* John Funk, *Ohio Renewable Energy and Efficiency Rules Frozen for Two Years as Gov. John Kasich Signs Legislation*, THE PLAIN DEALER via CLEVELAND.COM, https://www.cleveland.com/business/2014/06/ohio_renewable_energy_and_effi.html#:~:text=COLUMBUS%2C%20Ohio%20--%20Gov.,help%20customers%20use%20less%20electricity (last updated Jun. 13, 2014).
[138] OHIO REV. CODE ANN. § 4928.64(B)(2) (2023).
[139] NOAA & OHIO DEP'T OF NAT. RES., COMBINED COASTAL MANAGEMENT PROGRAM AND FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE STATE OF OHIO (2007), https://ohiodnr.gov/wps/portal/gov/odnr/discover-and-learn/safety-conservation/about-ODNR/coastal-management/ohio-coastal-mgmt-program/ohio-coastal-mgmt-program-document.
[140] *Id.* at Part II, 5-121.
[141] *Id.* at Part II, 10-1.

Energy facilities include electric generating plants and transmission facilities, and the types of facilities listed are not exhaustive.[142] Further, Ohio has not created a SAMP related to offshore wind energy. Thus, when developers initiated the Icebreaker project, it was against the backdrop of Ohio not identifying or planning for offshore wind through its coastal management program.

The Ohio Department of Natural Resources (DNR) did create offshore wind suitability maps of Ohio state waters in Lake Erie around 2009, and updated them in 2011.[143] Chief of the Office of Coastal Management in the Ohio DNR characterized the creation of the suitability maps as stemming from the Ohio DNR s responsibilities under the CZMA and the public trust doctrine.[144] Siting for the Icebreaker project used the suitability maps, which restricted a good portion of public trust lands and pushed the project eight miles offshore to avoid wildlife and navigation impacts.[145]

Further, Ohio participates in the Section 309 Enhancement program, which requires assessments every five years to comply with funding requirements.[146] Although Ohio s Section 309 assessment for the 2021–2025 period did not seek funding for Icebreaker planning or management, the assessment did discuss the project.[147] The assessment considers offshore wind briefly in both the Great Lakes Resources" and the Energy and Government Facility Siting" priority enhancement categories. The Great Lakes Resources category is labeled high priority for the 2021–2025 planning period, but primary reasons for that label do not include Icebreaker or offshore wind energy.[148] The Energy and Government Facility Siting category is of medium priority for the 2021-2025 period, but the document explicitly mentions offshore wind

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[142] *Id.* at Part II, 10-1 to 10-2.
[143] Phone conversation between Cora Sutherland, Water Policy Specialist at the Center for Water Policy, and Ohio Department of Natural Resources Chief of the Office of Coastal Management (Oct. 11, 2023) (on file with author).
[144] *Id.*
[145] Phone conversations between Cora Sutherland, Water Policy Specialist at the Center for Water Policy, and Ohio Department of Natural Resources Chief of the Office of Coastal Management (Oct. 4, 2023, and Oct. 11, 2023) (on file with author).
[146] 16 U.S.C.A. § 1456b (West, Westlaw Edge through Pub. L. 118-106); *see also The Coastal Zone Enhancement Program*, NOAA OFF. FOR COASTAL MGMT., https://coast.noaa.gov/czm/enhancement/ (last visited Nov. 30, 2023).
[147] OHIO DEP'T OF NAT. RES., OHIO COASTAL MANAGEMENT PROGRAM ASSESSMENT AND MULTI-YEAR STRATEGY 2021-2025, at 75 (approved by NOAA July 30, 2020), https://ohiodnr.gov/static/documents/coastal/technical-resources/OhioDNR-OCM_Sec309Enhancement_2021-2025AssessmentFinalApproved.pdf.
[148] *Id.* at 54.

projects like Icebreaker as an area of opportunity.[149] Ohio declined to engage in a SAMP due to a lack of interest at state and local levels.[150]

Ultimately, the delayed-to-a-halt Icebreaker project raises questions as to whether more thorough planning efforts are necessary for an offshore wind project to succeed in the Great Lakes. Although Icebreaker led the charge on Great Lakes offshore wind energy for a time, the project did not make it across the finish line and faces an uncertain future. Although Ohio had a renewable energy goal at the start of the project, the state has been inconsistent in this policy, suspending the goal while the Icebreaker sought permits, and then reducing the goal significantly.

While the Ohio DNR did create wind suitability maps in service of its public trust duties, and possibly motivated by the coastal management program, and considered factors like navigation and bird migration pathways, it did not engage in planning for offshore wind using a SAMP. Legal challenges before administrative agencies and state and federal courts contributed to the project's delays and eventual loss of momentum. Despite the pause on Icebreaker in 2023 and related uncertainties, there is continued interest in Great Lakes offshore wind energy in other states.[151] The next case study suggests a pathway for future attempts to avoid such issues and resultant delays through thorough planning and environmental review prior to development.

### 2. Rhode Island's Block Island Project

Although Rhode Island is an ocean state, the Block Island Wind project is sited in state waters within three miles of the coastline.[152] Therefore, the Block Island Wind project is the ideal case study from the ocean context for Great Lakes states. In addition, it was relatively efficient and managed to overcome barriers, unlike the infamous Cape

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[149] *Id.* at 64-65.
[150] *Id.* at 50.
[151] Jenny Whidden, *State Legislation Could Help Put the Great Lakes' First Offshore Wind Farm in Chicago*, DAILY HERALD (Jan. 6, 2024), https://www.dailyherald.com/20240106/news/state-legislation-could-help-put-the-great-lakes-first-offshore-wind-farm-in-chicago/. *But see* Gregory Bacon, *County Opposes Lake Erie Wind Turbines*, POST-JOURNAL (Jan. 24, 2025), https://www.post-journal.com/news/top-stories/2025/01/county-opposes-lake-erie-wind-turbines/; CHAUTAUQUA CNTY. LEGISLATURE, N.Y., RES. NO. 25-25 *Opposition to Lake Erie Wind Turbines and Authorize Necessary Steps to Protect the County's Interest* (Jan. 22, 2025), https://chqgov.com/sites/default/files/document-files/2025-01/PFLEG12225%20-%20Prefile.pdf.
[152] TETRA TECH EC, INC., BLOCK ISLAND WIND FARM AND BLOCK ISLAND TRANSMISSION SYSTEM ENVIRONMENTAL REPORT / CONSTRUCTION AND OPERATIONS PLAN, at 1-1 (Sept. 2012), https://tethys.pnnl.gov/sites/default/files/publications/BlockIsland_2012.pdf.

Wind project off the coast of Massachusetts.[153] Despite federal involvement in the project through BOEM, the state largely drove the process for Block Island Wind. Block Island Wind required many federal permits[154] as well as a state assent and federal consistency concurrence under the CZMA.[155]

a. Project Description, Litigation, and Renewable Goal

The Rhode Island Coastal Resources Management Council granted the submerged lands lease for the Block Island Wind project in 2014.[156] Construction on the project began in 2015,[157] and the 30 MW facility started operating in December 2016.[158]

The Block Island Wind project faced legal challenges, though not for the project's siting or environmental reviews.[159] In 2009, the Rhode Island legislature created a new law requiring electric companies to request renewable energy project proposals from developers annually.[160] As directed by the statute, the utility company National Grid opened a solicitation and received a proposal from wind energy developer Deepwater Wind for a pilot project to serve the Town of New Shoreham on Block Island.[161] The parties submitted a Power Purchase Agreement to the Rhode Island Public Utilities Commission (PUC), which denied the

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[153] Lauren Perkins, Comment, *Hope on the Horizon for Offshore Wind Development? An Examination of the Regulatory Framework Rhode Island Navigated to Make the Nation's First Offshore Wind Farm a Reality, and the Implication for California's Ability to Adopt a Similar Approach under the Coastal Zone Management Act*, 9 SAN DIEGO J. CLIMATE & ENERGY L. 265, 268 (2018).
[154] TETRA TECH EC, INC., *supra* note 152, at 1–8 to 1–9.
[155] *Id.*
[156] RI Coastal Res. Mgmt. Council, *CRMC Council Approves Final DWW Permits*, http://www.crmc.ri.gov/news/2014_1117_dww.html (last visited Dec. 20, 2023).
[157] *See* Alex Kuffner, *First Foundations Bound for R.I.*, THE PROVIDENCE J., https://www.providencejournal.com/story/news/environment/2015/06/30/first-foundations-bound-for-r/34036624007/ (last updated June 29, 2015); *see also* Mark Del Franco, *Block Island Wind Farm Kicks Off 2016 Construction*, N. AM. WIND POWER (Mar. 22, 2016), https://nawindpower.com/block-island-wind-farm-kicks-off-2016-construction.
[158] RI Coastal Res. Mgmt. Council, *Block Island Wind Farm*, http://www.crmc.ri.gov/windenergy/dwblockisland.html (last visited Jan. 18, 2024); Anmar Frangoul, *America's First Offshore Wind Farm is Up and Running*, CNBC, https://www.cnbc.com/2016/12/13/americas-first-offshore-wind-farm-is-up-and-running.html (last updated Dec. 13, 2016).
[159] *In re* Proposed Town of New Shoreham Project, 25 A.3d 482, 482 (R.I. 2011).
[160] *Id.* at 490. Also, in 2009, the state of Rhode Island and Deepwater Wind created a Joint Development Agreement, which, as "a creature of the executive branch," the Rhode Island Supreme Court did not examine in the case cited herein, though the court noted the agreement "played some role in spurring the legislation." *Id.* at 488 n.4.
[161] *Id.* at 490-91.

Power Purchase Agreement for failing to be "commercially reasonable" under the statutory definition.[162] In response, the Rhode Island legislature amended the 2009 renewable energy projects statute to create a stronger policy lever in support of a Block Island pilot project.[163] Thereafter, in 2010, the Rhode Island PUC approved an amended Power Purchase Agreement between offshore wind energy developer Deepwater Wind and utility National Grid.[164]

In one case, two electric customers in Rhode Island challenged the PUC's approval of the 2010 amended Power Purchase Agreement between Deepwater and National Grid.[165] The Supreme Court of Rhode Island affirmed the PUC's approval of the Power Purchase Agreement in July 2011.[166] In a later case, the Supreme Court of Rhode Island affirmed the PUC's decision that the statute enabling the wind project did not require the cost of the interconnection and backup facilities to be socialized across the state.[167] The court dismissed a third case for filing after the statute of limitations had run. In that case, the plaintiffs were challenging their electricity bill costs.[168]

While there were legal controversies around the project, they were resolved sooner and did not raise environmental conflicts and extensive challenges to permit terms.[169] A goal of effective planning is to identify areas that present the least conflicts with users and the environment, and the lack of litigation over coastal resource conflicts is noteworthy.

In 2004, Rhode Island's first renewable energy goal was to achieve 3% electricity from renewable resources by 2007, then increase an additional 0.5% for years 2008, 2009, and 2010.[170] The law was

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[162] *Id.* at 492-93.
[163] *Id.* at 494, 495.
[164] *Id.* at 498.
[165] *Id.* at 485-86. The parties challenging the amended PPA "quarrel[ed] with the [PUC]'s approval . . . in almost every regard," including by challenging a statutory factor requiring agreements to be likely to provide environmental benefits. *Id.* at 506-7. The challengers argued that the PUC erred in finding that environmental benefits factor was met based on a larger argument that the PPA failed to include provisions for the installation of a transmission cable from Block Island to the mainland. *Id.* at 526. In other words, they argued, the PUC could not assume that the transmission cable would be built due to the lack of installation provisions in the agreement. *Id.* The court rejected this argument and held the PUC did not err in finding the PPA was likely to provide environmental benefits. *Id.*
[166] *Id.* at 486.
[167] *In re* Block Island Power Company, 288 A.3d 589, 590 (R.I. 2023).
[168] Riggs v. Curran, 863 F.3d 6, 8 (1st Cir. 2017).
[169] In Rhode Island, the legal challenges were resolved by 2017, or within eight years of 2009. In contrast, Ohio lawsuits did not resolve until 2023, or 14 years after 2009.
[170] R.I. Pub. Laws 2004, ch. 04-199 § 1 (amended 2016 and 2022). The 2004 law also required additional 1% increases for years 2011, 2012, 2013, and 2014; and 1.5% increases for years 2015, 2016, 2017, 2018, and 2019. *Id.*

amended in 2016 and 2022, and current renewable energy standards in Rhode Island require 100% of electricity demand to come from renewable energy sources by 2033.[171]

b. CZMA Role: Ocean SAMP

In 2010, Rhode Island completed an Ocean SAMP in part for offshore wind planning. None of the other ten states associated with existing BOEM outer continental shelf leases for offshore wind projects reported a SAMP related to offshore wind.[172] The most the other ocean coastal states have done is discuss SAMPs as a valuable tool for planning for offshore wind, without using it for this purpose.[173] For example, New York suggested "there are opportunities to explore SAMPs for offshore" wind on the ocean and the Great Lakes.[174]

The Rhode Island Coastal Resources Management Council (Council) has the authority to "grant licenses, permits and easements for the use of coastal resources" in state waters.[175] The Council also has the authority to plan for energy facilities in the coastal zone under the Council's 1978 Energy Amendments.[176] In addition, the Council must create a planning process to consider which sites are suitable for energy projects and to manage projects and associated impacts in or affecting the coastal zone.[177]

The CZMA identifies SAMPs as "effective tools" for state coastal programs "to meet the [mandate] to uphold all applicable sections of [the

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[171] R.I. Gen. Law § 39-26-4(a)(14) (2022).
[172] *See Lease and Grant Information*, BUREAU OF ENERGY OCEAN MGMT., https://www.boem.gov/renewable-energy/lease-and-grant-information. The states are California, Delaware, Maryland, Massachusetts, New Jersey, New York, North Carolina, Rhode Island, Texas, and Virginia.
[173] *See, e.g.*, NEW JERSEY COASTAL MANAGEMENT PROGRAM, SECTION 309 ASSESSMENT AND STRATEGY SUMMARY DOCUMENT, at 3 (2011), https://www.nj.gov/dep/cmp/docs/new-309-assessment-and-strategy-summary-2011-15.pdf. "The Coastal Management Office has determined that comprehensive Coastal and Marine Spatial Planning / Ocean SAMP will be the best way to address and manage the growing interest in energy development in coastal and offshore waters."
[174] N.Y. STATE DEP'T OF STATE, NEW YORK STATE COASTAL MANAGEMENT PROGRAM: 309 ASSESSMENT AND STRATEGIES 2021-2025, at 87 (May 15, 2020), https://dos.ny.gov/system/files/documents/2021/06/nys-2021-5-yr-assessment-and-strategy.pdf.
[175] R.I. COASTAL RES. MGMT. COUNCIL, RHODE ISLAND OCEAN SPECIAL AREA MANAGEMENT PLAN ch. 8, at 76 (2010), https://seagrant.gso.uri.edu/oceansamp/pdf/samp_crmc_revised/RI_Ocean_SAMP.pdf [hereinafter R.I. OCEAN SAMP] (quoting R.I. Gen. Law § 46-23-6(4)(iii)).
[176] R.I. OCEAN SAMP ch. 8, at 8. The 1978 Energy Amendments "apply federal regulations governing approved coastal management programs (15 CFR 923 *et. seq.*)."
[177] R.I. OCEAN SAMP ch. 8, at 8.

CZMA]." [178] In addition to CZMA requirements, the Ocean SAMP declares that it supports the Coastal Resources Management Council's fulfillment of "public trust responsibilities" over state submerged lands by creating policies and standards for thorough review of proposed offshore development.[179]

The Council created the Ocean SAMP in part to create "a comprehensive management and regulatory tool" for siting offshore renewable energy projects.[180] The Ocean SAMP considers sea level rise, climate change, renewable energy, and cultural resources.[181] The SAMP has built-in flexibility and resilience because the planners considered the effects of climate change with each step of the SAMP process.[182] The Council later used this Ocean SAMP to review and approve the Block Island Wind project.

Rhode Island's early renewable energy goals and desire for offshore wind energy also aligned with the creation of the Ocean SAMP.[183] Although the Ocean SAMP considers a variety of issues in the coastal zone, a large focus is the potential for offshore wind energy in state waters because the state identified the need to diversify and decarbonize its energy mix in order to meet the renewable goals set in state law.[184] The Ocean SAMP resource assessment identified offshore

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[178] R.I. OCEAN SAMP ch. 1, at 13.
[179] R.I. OCEAN SAMP ch. 1, at 13, 17.
[180] R.I. OCEAN SAMP ch. 1, at 11 (2010). The four objectives of the project were: "1) Streamline cumbersome federal and state permitting processes and establish a more cost-effective permitting environment for investors; 2) Promote a balanced approach to considering the development and protection of ocean-based resources; 3) Complete the necessary studies to yield the most accurate and current ocean-based scientific data and technologies to build knowledge critical for supporting the permitting process; and 4) Foster a well-informed and committed public constituency." *Id*. The Ocean SAMP asserts the objectives were satisfied by: "developing an offshore development regulatory framework; developing policies that both protect natural resources and manage existing and potential future uses; supporting new scientific research of the study area; and facilitating a rigorous stakeholder process." *Id*. at 12. Rhode Island's Section 309 Assessment in 2015 and 2020 did not request funding related to offshore wind development. R.I. COASTAL RES. MGMT. COUNCIL, PROGRAM ASSESSMENT AND STRATEGY FOR ENHANCEMENT, at 61 (Sept. 2020) http://www.crmc.ri.gov/strategicplanning/CZMA_Section309_Sep2020.pdf; R.I. COASTAL RES. MGMT. COUNCIL, PROGRAM ASSESSMENT AND STRATEGY FOR ENHANCEMENT, at 57 (Feb. 2015), http://www.crmc.ri.gov/strategicplanning/CZMA_Section309_Feb2015.pdf.
[181] 650-20 R.I. Code R. §§ 05-3, 05-4, 05-8 (West, Westlaw Edge through Nov. 30, 2021).
[182] Jennifer McCann et al., *The Rhode Island Ocean Special Area Management Plan: Managing Ocean Resources Through Coastal and Marine Spatial Planning: A Practitioner's Guide*, at 48 (Monica Allard-Cox, ed., 2013), http://www.crmc.ri.gov/samp_ocean/reports/Ocean_SAMP_Practioners_Guide.pdf.
[183] *Id*. at 7.
[184] R.I. OCEAN SAMP ch. 8, at 8.

wind as the greatest potential renewable energy source in the state.[185]

The Ocean SAMP serves as a broad planning tool rather than as a rigorous vetting of any particular project.[186] Thus, any specific project that comes after a SAMP will still receive all required assessment by state and federal agencies, like environmental review under NEPA, for example.[187] However, the Council notes that the SAMP process could incentivize utility-scale offshore wind energy and expedite permitting and review processes.[188] In addition, once a SAMP has been approved by NOAA, the SAMP becomes part of the state's coastal management program and therefore informs any future consistency review determinations under the CZMA.[189]

NOAA approved Rhode Island's Ocean SAMP in May 2011.[190] The Ocean SAMP contains both general policies and regulatory standards. The general policies are not enforceable for federal consistency review purposes under the CZMA and therefore cannot serve as the basis of the state's concurrence or objection to federal consistency review. [191] However, the general policies are enforceable against offshore development proposed and permitted in state waters.[192] By contrast, the regulatory standards are enforceable for both federal consistency review and state waters permitting purposes.[193] Thus, the regulatory standards serve as the foundation for any state concurrence or objection in a federal consistency review determination.[194]

The Block Island Wind project case study supports the Council's assertion that an Ocean SAMP may incentivize and expedite offshore wind development. The Ocean SAMP identified the area south of Block Island as the best potential area for offshore wind development in state waters by overlaying various suitability factors like wind speed, ocean floor depth, vessel frequency, construction challenge level, incompatible uses, and other factors.[195] There were no litigation-based delays due to coastal resource conflicts.

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[185] *Id.* at 33.
[186] *Id.* at 8-9.
[187] *Id.* at 8-9.
[188] *Id.* at 54.
[189] *Id.* at 54-55.
[190] *Ocean SAMP Management Plan Updates*, R.I. COASTAL RES. MGMT. COUNCIL, https://seagrant.gso.uri.edu/oceansamp/.
[191] R.I. OCEAN SAMP ch. 11, at 5.
[192] *Id.*
[193] *Id.*
[194] *Id.*
[195] *Id.*

### 3. Recommendation: Invest in Thorough Planning Up Front for Long-Term Impact

The CZMA offers a helpful planning tool for Great Lakes states that choose to pursue offshore wind energy projects. Great Lakes states should follow Rhode Island's approach to offshore wind planning under the CZMA with a Great Lake(s) SAMP. There are three primary benefits Great Lakes states stand to gain from investing in a thorough planning process like Rhode Island's Ocean SAMP: progress on clean energy goals, increased stakeholder engagement, and consideration of climate change. Alternatively, if Great Lakes states deem a SAMP beyond their administrative capacity, they can look to Ohio as an example of state responsibilities for offshore wind development under the CZMA and the public trust.

First, Great Lakes states could use the SAMP process to efficiently progress towards their clean and renewable energy goals. Five of the eight Great Lakes states have established 100% clean energy targets, and all eight of the Great Lakes states have some type of renewable energy goal, as shown in Table 1 below. Minnesota, for example, has had a renewable energy standard since 2007.[196] That state has focused on developing a strong land-based wind resource, but has a way to go to achieve their overall goal.[197] Michigan passed a 100% clean energy standard in late 2023,[198] and NREL projects that Michigan's offshore wind potential exceeds its electricity demands.[199]

Comparing Ohio's Icebreaker project and Rhode Island's Block Island project suggests the regulatory process for offshore wind is more likely to be efficient and effective if preceded by a SAMP, which could incorporate state renewable energy goals. In Rhode Island, the SAMP was prompted by state interest in decarbonization.[200] Similarly, if Great

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[196] In 2007, Minnesota legislated 25% of retail electricity sales to be sourced from renewable energy sources by 2025. N.C. Clean Energy Tech. Ctr., *Renewable Energy Standard*, DATABASE OF STATE INCENTIVES FOR RENEWABLES & EFFICIENCY (DSIRE), https://programs.dsireusa.org/system/program/detail/2401 (last updated Nov. 18, 2024).

[197] In 2022, wind energy provided 23% of Minnesota's electricity generation. *Minnesota: Profile Analysis*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/state/analysis.php?sid=MN (last updated Sept. 19, 2024) (citing U.S. EIA, Electricity Data Browser, Net generation for all sectors, Minnesota, Annual, 2001-23).

[198] 2023 Mich. Pub. Acts 235 § 51(1)(a)-(b).

[199] MUSIAL ET AL., GREAT LAKES CHALLENGES AND OPPORTUNITIES ASSESSMENT, *supra* note 19, at 20, tbl.3. The National Renewable Energy Laboratory estimates Michigan has 390 GW of Great Lakes Wind Resource Capacity, and a potential annual energy production of 1,877% of the state's current electric consumption. *Id.*

[200] McCann et al., *supra* note 182, at 7.

Lakes states choose to pursue the large offshore wind resource in the region to meet their goals, CZMA tools could be used to identify and evaluate the costs and benefits of implementing the goals through offshore wind development.

| **Table 1. Energy Goals[201] in Great Lakes States[202]** | | | |
|---|---|---|---|
| **State** | **Type** | **To reach what?** | **Benchmarks** |
| Illinois | Statute | Clean energy[203] | 100% by 2050[204]<br>50% by 2040<br>40% by 2030[205] |
| Indiana | Statute, voluntary available to public utilities[206] | Clean energy | 10% by 2025 |
| Ohio | Statute[207] | Renewable energy | 8.5% by 2026 |
| Pennsylvania | Executive Order[208] | Reduced net greenhouse gas | 26% by 2025<br>80% by 2050 |

[201] This table includes a mixture of renewable portfolio standards, clean energy standards, executive order targets, and other goals. Renewable portfolio standards (RPS) are "binding requirement[s] on retail electric suppliers to procure a minimum percentage of generation from eligible sources of renewable electricity." GALEN BARBOSE, BERKELEY LAB, U.S. STATE RENEWABLES PORTFOLIO & CLEAN ELECTRICITY STANDARDS: 2023 STATUS UPDATE, at 7 (June 2023), https://eta-publications.lbl.gov/sites/default/files/lbnl_rps_ces_status_report_2023_edition.pdf. Clean energy standards (CES) are "[s]imilar to an RPS, but target is based on a broader set of eligible technologies; may not (yet) have a defined implementation/enforcement mechanism." *Id*.

[202] *See* Johanna Neumann, *States Can Lead the Way Toward a Future Powered by 100% Clean, Renewable Energy*, ENV'T AM. tbl.1, https://environmentamerica.org/articles/states-can-lead-the-way-toward-a-future-powered-by-100-clean-renewable-energy/ (last updated June 20, 2024); *Table of 100% Clean Energy States*, CLEAN ENERGY STATES ALLIANCE, https://www.cesa.org/projects/100-clean-energy-collaborative/guide/table-of-100-clean-energy-states/ (last visited Jan. 18, 2024).

[203] 20 ILL. COMP. STAT. 3855/1-5(1.5) (2023). Clean energy is defined as "energy generation that is 90% or greater free of carbon dioxide emissions." 20 ILL. COMP. STAT. 3855/1-10 (2023).

[204] 20 ILL. COMP. STAT. 3855/1-5(1.5) (2023).

[205] 20 ILL. COMP. STAT. 3855/1-75(c)(1)(B) (2023).

[206] IND. CODE § 8-1-37-12(a) (2023). The definition of "clean energy resource" includes nuclear energy, coal bed methane, and "clean coal," among others. IND. CODE § 8-1-37-4(a)(18), (12), (17); § 8-1-8.8-2(1)(A).

[207] OHIO REV. CODE ANN. § 4928.64(B)(2) (2023). Eligible renewable energy sources are listed in § 4928.01, and include "methane gas emitted from an abandoned coal mine," among other things. § 4928.01(A)(37)(a). The Ohio Public Utilities Commission has the authority to classify any new technology as a qualifying renewable resource. § 4928.64(A)(2).

[208] Commonwealth Leadership in Addressing Climate Change and Promoting Energy

| | | | |
|---|---|---|---|
| | | emissions | |
| Pennsylvania | Statute[209] | Alternative energy | 18% by 2021 |
| Michigan | Statute[210] | Clean energy[211]<br><br>Renewable energy[212] | 100% by 2040<br>80% by 2035<br><br>60% by 2035<br>50% by 2030 |
| Minnesota | Statute | Carbon-free electricity[213]<br><br>Renewable electricity[214] | 100% by 2040<br>90% by 2035<br><br>55% by 2035 |

Conservation and Sustainable Governance, Pa. Exec. Order No. 2019-01 (Jan. 8, 2019), https://www.oa.pa.gov/Policies/eo/Documents/2019-01.pdf. The Pennsylvania Climate Change Act of 2008, 71 PA. STAT. AND CONS. STAT. ANN. § 1361.1 (West 2023), does not set a renewable portfolio standard for Pennsylvania. It does, however, require the Pennsylvania Department of Environmental Protection to create and update every three years a Climate Action Plan. *Id.* § 1361.7. The 2021 Climate Action Plan identifies 18 strategies, some related to electricity generation, that will help Pennsylvania achieve the goals identified by executive order. *Pennsylvania Climate Action Plan*, DEPARTMENT OF ENVIRONMENTAL PROTECTION, https://www.dep.pa.gov/Citizens/climate/Pages/PA-Climate-Action-Plan.aspx (last visited Jan. 17, 2024).

[209] Alternative Energy Portfolio Standards Act, 73 PA. CONS. STAT. § 1648.3(b)(1), (c)(4). Eight percent of electricity must come from Tier I alternative energy sources, e.g., solar, wind, biomass. § 1648.3(b)(1), § 1648.2. Ten percent must come from Tier II alternative energy sources, e.g., "waste coal." § 1648.3(c)(4), § 1648.2. A 2008 law requires the Public Utility Commission to increase Tier I requirements "to reflect any new biomass energy or low-impact hydropower resources that qualify as a Tier I alternative energy source" under that law. 66 PA. CONS. STAT. § 2814(c) (2023). "Alternative energy sources" include solar, wind, biogas and landfill methane, waste coal, coal mine methane, among other things. § 1648.2.

[210] Clean and Renewable Energy and Energy Waste Reduction Act, 2023 Mich. Pub. Acts 235 (effective Feb. 27, 2024).

[211] 2023 Mich. Pub. Acts 235 § 51(1)(a)-(b) (effective Feb. 27, 2024) (to be codified at MICH. COMP. LAWS § 460.1051(1)(a)-(b)). Clean energy is defined as electricity or steam generated (i) without emitting greenhouse gases, including nuclear, (ii) by natural gas "and uses carbon capture and storage that is at least 90% effective," (iii) by a "combined cycle power plant fueled by natural gas" that receives Public Service Commission approval by 2030, or (iv) by a resource the Public Service Commission defines as a clean energy system. 2023 Mich. Pub. Acts 235 § 3(i)(*i*)-(*iv*).

[212] 2023 Mich. Pub. Acts 235 § 28(1)(b)-(c).

[213] MINN. STAT. § 216B.1691(2g)(1)-(3) (2023). "'Carbon-free' means a technology that generates electricity without emitting carbon dioxide." MINN. STAT. § 216B.1691(1)(b). By 2030, public utilities must generate or procure 80% of electricity from carbon-free energy sources, and other electric utilities must meet 60% carbon-free. § 216B.1691(2g)(1).

[214] MINN. STAT. § 216B.1691(2a)(5) (2023). "Eligible energy technology" includes biomass and does not include nuclear energy. § 216B.1691(1)(c).

| | | | |
|---|---|---|---|
| New York | Statute[215] | Reduced electricity sector greenhouse gas emissions<br><br>Renewable electricity | 100% by 2040<br>40% by 2030<br><br>70% by 2030 |
| Wisconsin | Executive Order[216] | Carbon-free electricity | 100% by 2050 |
| Wisconsin | Statute[217] | Renewable | 10% by 2015 |

Second, the SAMP process would better engage a multitude of stakeholders and their interests. Both projects faced legal challenges, but Block Island successfully reached the operating stage and did not face challenges related to coastal resources that had been evaluated in the SAMP. Legal challenges in Rhode Island centered on the financial terms of the Power Purchase Agreement and interpreting which costs utilities were responsible for covering in the project. In contrast, legal challenges in Ohio questioned the completeness of environmental reviews for the project and the public trust responsibilities of the state. In turn, the SAMP made siting the Block Island project more efficient.[218]

Third, Great Lakes states should weave considerations of climate change, its impacts, and communities' adaptability in the face of those impacts throughout a SAMP and the SAMP creation process. Because the impacts of climate change are intensifying, [219] it would be a detriment to offshore wind planning and any SAMP in general to fail to include such considerations in the planning process. Failure to assess climate impacts could shorten the lifetime of the wind facility due to changing conditions,

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[215] 2019 N.Y. Sess. Laws ch. 106 (S.B. 6599) (1)(12)(d) (McKinney). The New York goal requires "reducing 100% of the electricity sector's greenhouse gas emissions by 2040." *Id.*

[216] By executive order, Wisconsin Governor Tony Evers created the Office of Sustainability and Clean Energy and directed it to achieve 100% carbon-free electricity by 2050. Relating to Clean Energy in Wisconsin, Wis. Exec. Order No. 38 (Aug. 16, 2019), https://evers.wi.gov/Documents/EO%20038%20Clean%20Energy.pdf.

[217] WIS. STAT. § 196.378(2)(a)(1). "Renewable resource" includes biomass, "[s]ynthetic gas created by the plasma gasification of waste," and others. § 196.378(1)(h)(1)(g), (h). The Public Service Commission has the authority to determine whether other resources qualify as "renewable," so long as those resources are not "conventional." § 196.378(4), (1)(h)(2). Conventional resources are defined as coal, oil, nuclear, or natural gas "except for natural gas used in a fuel cell." § 196.378(1)(b).

[218] McCann et al., *supra* note 182, at 50.

[219] *See, e.g.*, World Meteorological Org., Press Release, *WMO Confirms that 2023 Smashes Global Temperature Record*, WORLD METEOROLOGICAL ORG. (Jan. 12, 2024), https://wmo.int/media/news/wmo-confirms-2023-smashes-global-temperature-record?utm_source=Linkedin&utm_medium=Infographic&utm_campaign=StateOfClimate&utm_id=StateOfClimate.

which harms the immediate environment and wastes physical and financial resources.

Rhode Island's Ocean SAMP is more tailored to offshore wind development than Ohio's revised coastal management program, but creating a detailed SAMP is a large undertaking. An alternative is for Great Lakes states to look to Ohio as an example of the state moving forward without the thorough planning provided by a SAMP. The Ohio DNR created wind suitability maps for Lake Erie[220]—which informed the site selection for the Icebreaker project—as part of their CZMA and public trust responsibilities. The downsides of the Ohio approach, of course, are evident in the failure to establish an operational project due to too much legal friction.

### B. Regional Partnerships as Tools to Promote Multi-State Collaboration and Coordination in Offshore Wind Planning

Current collaborative efforts among Great Lakes states illustrate the willingness and capability of states to work intensively to build shared governance over the Great Lakes on various issues. At the same time, efforts to focus on Great Lakes offshore wind fizzled out over a decade ago. This section discusses the Great Lakes Commission's work on regional water issues, including offshore wind. Then we assess two of the four existing regional ocean-based offshore wind partnerships to highlight the formation, structure, purposes, and activities of the groups related to harnessing offshore wind energy. Finally, this section explores how a regional partnership could benefit Great Lakes states for the purpose of offshore wind energy planning and development.

#### 1. Great Lakes Basin Cooperative Efforts

The Great Lakes Commission is a binational partnership between eight U.S. states and two Canadian provinces that has been working for the protection of the Great Lakes.[221] Established in 1955 through the

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[220] *See* Ohio Dep't of Nat. Res. Off. of Coastal Mgmt., *Wind Turbine Placement Favorability Analysis* (last updated Apr. 22, 2009), https://www.energy.gov/sites/prod/files/2017/08/f35/EA-2045_Appendix_C_Favorability_Analysis_Map.pdf.

[221] *About Us*, GREAT LAKES COMM'N, https://www.glc.org/about/ (last visited Nov. 28, 2023). In 1955, five Great Lakes states created the Commission through the Great Lakes Basin Compact. *About Us: Governing Documents*, GREAT LAKES COMM'N, https://www.glc.org/about/documents (last visited Nov. 28, 2023) [hereinafter *About*

Great Lakes Basin Compact, the primary focus of the Commission is tied to its legal charge in Article I of the Compact, which ranges from the orderly use and conservation of water resources in the Basin to the balance between industrial, commercial, agricultural, recreational, and other uses of Basin resources.[222]

The Commission fosters cooperation between state and provincial governments in the region. Offshore wind development could be consistent with several themes throughout the Commission's 2023 federal priorities agenda. [223] For example, one priority is data collection,[224] which is a useful element of regional ocean partnerships and would be an important component of collaboration on offshore wind. Similarly, the Commission's 2023-2027 Strategic Plan contains goals and actions compatible with the coordination of any offshore wind developments that might arise in the region, like resilient infrastructure, ecosystems protections, and the collaboration necessary to achieve such goals.[225]

Given this alignment, it is not surprising that the Commission managed the Great Lakes Wind Collaborative, which was active between 2008 and 2013.[226] The primary objective of the Collaborative was to provide a cooperative forum for offshore wind stakeholders to identify and address issues. [227] In service of that objective, the Collaborative focused on four primary functions: information exchange, research and

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*Us: Governing Documents*]. *See also* Great Lakes Basin Compact, Pub. L. No. 90-419, art. I (1), (4), 82 Stat. 414 (1968), https://www.glc.org/wp-content/uploads/GLC-Great-Lakes-Basin-Compact-2019.pdf. The remaining three Great Lakes states subsequently joined, and all eight state legislatures enacted the Compact. *About Us: Governing Documents*. The U.S. Constitution requires Congress to consent to agreements between states. Compact Clause, art. 1 §10, cl. 3. *See also* Stephen P. Mulligan, *Interstate Compacts: An Overview*, at 1 (2023), https://crsreports.congress.gov/product/pdf/LSB/LSB10807. Congress granted consent in 1968. *About Us: Governing Documents*.

[222] Great Lakes Basin Compact, Pub. L. No. 90-419, art. I (1), (4), 82 Stat. 414 (1968), https://www.glc.org/wp-content/uploads/GLC-Great-Lakes-Basin-Compact-2019.pdf.

[223] Great Lakes Comm'n, *2023 Federal Priorities*, https://www.glc.org/wp-content/uploads/GLC-Federal-Priorities-2023-FINAL.pdf (last visited Dec. 20, 2023).

[224] *Id.* at 1, 3.

[225] Great Lakes Comm'n, *Strategic Plan for the Great Lakes Commission 2023 – 2027*, at 4, 8, 9 (March 2023), https://www.glc.org/wp-content/uploads/2023-2027-GLC-Strategic-Plan-Final.pdf.

[226] *Great Lakes Wind Collaborative: Project Archive*, GREAT LAKES COMM'N, https://www.glc.org/work/glwc (last visited Jan. 11, 2024); phone conversation between Cora Sutherland, Water Policy Specialist at the Center for Water Policy, and Great Lakes Commission Senior Advisor for External Relations (Jan. 25, 2024) (on file with author).

[227] Great Lakes Wind Collaborative, *Prospectus*, at 6 (2011), https://www.glc.org/wp-content/uploads/2016/10/2011-glwc-prospectus.pdf.

policy development, education and outreach, and facilitation and consensus building.[228]

In 2010, the Collaborative, the U.S. Department of Energy, and the White House Council on Environmental Quality hosted a workshop, resulting in a draft Memorandum of Understanding to Improve U.S. Federal and State Coordination for the Development of Offshore Wind Energy in the Great Lakes.[229] In 2012, five Great Lakes states and multiple federal agencies signed a Memorandum of Understanding to create a Great Lakes Offshore Wind Energy Consortium.[230] The Memorandum identifies the authority allowing each entity to join and outlines the responsibility of each participant.[231] The Memorandum identified that the Consortium would expire or be subject to renewal after five years,[232] and there is no indication that the Consortium was renewed.

The Great Lakes Wind Collaborative also published multiple reports on scientific and regulatory aspects of offshore wind development.[233] The Collaborative created a Great Lakes Wind Atlas, an interactive map tool for assessing wind development.[234] In July 2011, the Collaborative published *Best Practices for Sustainable Wind Energy Development in the Great Lakes Region*, with 18 recommendations grounded in illustrative case examples.[235] The Collaborative asserted that renewable portfolio standards can drive wind development "without compromising environmental and other regulatory concerns."[236]

The *Best Practices* report also included recommendations for

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[228] *Id.* at 7.
[229] Great Lakes Wind Collaborative, *Best Practices for Sustainable Wind Energy Development in the Great Lakes Region*, at 63 (July 2011), https://www.glc.org/wp-content/uploads/2016/10/2011-wind-bp-toolkit.pdf [hereinafter *Best Practices*].
[230] GREAT LAKES OFFSHORE WIND ENERGY CONSORTIUM PARTICIPANTS, MEMORANDUM OF UNDERSTANDING 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, at 1 (2012), https://www.glc.org/wp-content/uploads/2016/10/GreatLakes-OffshoreWindEnergyConsortium-MOU-FINAL.pdf. Participants included Minnesota, Illinois, Michigan, Pennsylvania, New York, White House Council on Environmental Quality, Department of Energy, Department of Defense, Department of the Army, Advisory Council on Historic Preservation, Coast Guard, Environmental Protection Agency, Fish and Wildlife Service, Federal Aviation Administration, and National Oceanic and Atmospheric Administration. *Id.* at 1.
[231] *Id.* at 3.
[232] *Id.* at 9.
[233] *See Library: Great Lakes Wind Collaborative: Project Archive*, GREAT LAKES COMM'N, https://www.glc.org/work/glwc (last visited Jan. 19, 2024).
[234] *Id.* The tool is no longer supported or updated.
[235] *Best Practices, supra* note 229.
[236] *Id.* at 11. The Collaborative defines renewable portfolio standards as "renewable energy purchase mandates." *Id.*

streamlined, coordinated regulatory policies in the region. One benefit of such coordination is to avoid delays and legal challenges:

> The Great Lakes region is in a high state of uncertainty regarding how an offshore wind proposal is to be pursued and what is necessary to ensure it complies with regulatory and non-regulatory review requirements. The result is a regulatory quagmire that has the potential for unnecessary duplication, *protracted timelines, and litigation* when decisions are made. A clear process or roadmap is needed that sets out which agencies must or should be consulted, the information those agencies require, and the timing of those reviews.[237]

An additional benefit of coordination in the region is thorough fulfillment of states' public trust duties over the submerged lands of the Lakes. The Collaborative suggested permitting policies and lakebed leasing "should be structured to ensure a fair price for the lease or permit and ensure that the offshore wind project has a public benefit."[238] We explored permitting, leasing, the public trust, and revenues in a related article.[239] Worth emphasizing here is that the public trust imposes on Great Lakes states "an affirmative duty . . . to protect their publicly-owned submerged lands and other trust resources, and also creates a legal basis for citizens and environmental groups to challenge a state's decision" as a violation of public trust duties.[240] Indeed, the Icebreaker project's site permit in Ohio was challenged in part as a violation of the public trust, as described above.

The region would benefit from the Great Lakes Commission reviving the Wind Collaborative to coordinate planning efforts to assess whether and how to move forward on the modeling from the National Renewable Energy Laboratory about harnessing the power of Great Lakes wind resources. Regional ocean partnerships and their work on offshore wind may offer some additional, more recent examples for the Great Lakes.

### 2. Existing Regional Partnerships on Ocean Offshore Wind

This section will highlight two regional partnerships funded by the

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[237] *Id.* at 60 (emphasis added).
[238] *Id.* at 63.
[239] Andrian Lee, Melissa K. Scanlan & Cora L. Sutherland, Great Lakes Offshore Wind: Creating a Legal Framework for Net Positive Environmental, Social, and Financial Benefits, 5.2 Notre Dame J. on Emerging Techs. 102, 102 (2024).
[240] *Best Practices, supra* note 229, at 64.

Regional Ocean Partnerships statute of 2022: the Mid-Atlantic Regional Council on the Ocean and the Northeast Regional Ocean Council.[241]

The Mid-Atlantic Regional Council on the Ocean was first established in 2009 via agreement between the governors of the five member states: New York, New Jersey, Delaware, Maryland, and Virginia.[242] The Management Board is made up of coastal program managers or policy advisors, with representation from all five member states.[243] The Chair rotates among states every two years.[244]

Renewable energy is one of the group's four shared regional priorities.[245] A major project of the collaborative is an online data portal with information pertinent to uses and resources of the ocean.[246] The purpose of the data portal is to make such information easily accessible to various ocean stakeholders and improve planning and decision-making related to the ocean.[247] Regional offshore wind development is one such use for the data portal.[248]

The Mid-Atlantic Regional Council on the Ocean has a working group dedicated to coordination on offshore wind activities, like information exchange, transmission, and data collection.[249] That working group, the Mid-Atlantic Offshore Wind Regional Collaborative, is led by both state coastal managers and federal agency partners.[250] Members of the working group represent various state and federal agencies, plus a university partner.[251] The Mid-Atlantic Offshore Wind Regional Collaborative created a 2023 work plan and published a

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[241] 16 U.S.C. § 1468(b)(3)(B)-(C).
[242] *About: MARCO Overview*, MID-ATLANTIC REG'L COUNCIL ON THE OCEAN, https://www.midatlanticocean.org/about/overview/ (last visited Nov. 10, 2023) [hereinafter *MARCO Overview*].
[243] *About: Management Board*, MID-ATLANTIC REG'L COUNCIL ON THE OCEAN, https://www.midatlanticocean.org/about/management-board/ (last visited Nov. 10, 2023).
[244] *Id.*
[245] *MARCO Overview*, *supra* note 242.
[246] *About the Portal*, MID-ATLANTIC OCEAN DATA PORTAL, https://portal.midatlanticocean.org/about-us/ (last visited Nov. 10, 2023).
[247] *Id.*
[248] *Shared Regional Priorities: Renewable Energy*, MID-ATLANTIC REG'L COUNCIL ON THE OCEAN, https://www.midatlanticocean.org/home/shared-regional-priorities4/renewable-energy/ (last visited Nov. 10, 2023).
[249] *Offshore Wind Regional Collaboration*, MID-ATLANTIC REG'L COUNCIL ON THE OCEAN, https://www.midatlanticocean.org/offshore-wind-regional-collaboration/ (last visited Nov. 10, 2023).
[250] Current leadership of the working group consists of a New Jersey state coastal manager, a New York state coastal manager, a NOAA Fisheries representative, and a BOEM representative. *Id.*
[251] MARCO, OWRC WORK GROUP: WORK PLAN AND PROGRESS REPORT, at 1 (2023), https://www.midatlanticocean.org/wp-content/uploads/2023/09/Offshore-Wind-Regional-Collaboration-2023-Mid-Year-Progress-Report.pdf [hereinafter MARCO, OWRC Work Plan].

progress report assessing the work plan through the first half of 2023.[252] An objective of the working group is to provide a forum for collaborators to share information, discuss future activities, and engage with stakeholders.[253]

The Northeast Regional Ocean Council was established in 2005 by the governors of the six member states: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. [254] The Executive Committee includes a State Co-Chair and a Federal Co-Chair, which rotate among member states and federal agencies every 1.5 years.[255] Ocean planning is one of the group's three issue areas of focus and therefore makes up one of the three standing committees.[256]

The ocean planning committee, called Northeast Ocean Planning, maintains an ocean data portal.[257] Like the Mid-Atlantic group's ocean data portal, Northeast Ocean Planning's data portal is intended to serve various planning needs in the ocean, including offshore wind development.[258] In addition to the data portal, a primary function of Northeast Ocean Planning was to create the New England Ocean Plan.[259] The Ocean Plan summarized ocean planning processes, identified information needs, and outlined implementation strategies.[260]

Together, the Mid-Atlantic and Northeast regional councils host the Regional Wildlife Science Collaborative for Offshore Wind.[261] The mission of the Regional Wildlife Science Collaborative for Offshore Wind is "[t]o collaboratively and effectively conduct and coordinate relevant, credible, and efficient regional monitoring and research of wildlife and marine ecosystems that supports the advancement of environmentally responsible and cost-efficient offshore wind power development

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[252] *Id.*
[253] *Id.* at 2.
[254] *About*, NE. REG'L OCEAN COUNCIL, https://www.northeastoceancouncil.org/about/ (last visited Nov. 10, 2023).
[255] *NROC Overview*, NE. REG'L OCEAN COUNCIL, https://www.northeastoceancouncil.org/about/nroc-overview/ (last visited Nov. 10, 2023).
[256] *Id.*
[257] NE. OCEAN PLANNING, https://neoceanplanning.org/ (last visited Nov. 10, 2023). *See also* NE. OCEAN DATA, https://www.northeastoceandata.org/ (last visited Nov. 10, 2023).
[258] NE. OCEAN DATA, https://www.northeastoceandata.org/ (last visited Nov. 10, 2023).
[259] *About*, NE. OCEAN PLANNING, https://neoceanplanning.org/about (last visited Nov. 10, 2023). The Plan was created in response to Executive Order 13547, the Obama Administration's National Ocean Policy. *Id.* The Plan was certified by the Obama Administration in 2016. *Id.*
[260] *Northeast Ocean Plan*, NE. OCEAN PLANNING, https://neoceanplanning.org/plan/ (last visited Nov. 10, 2023).
[261] *RWSC*, NE. OCEAN PLANNING, https://neoceanplanning.org/rwsc/ (last visited Nov. 10, 2023).

activities in U.S. Atlantic waters."[262] The Mid-Atlantic and Northeast regional councils have also collaborated on offshore wind transmission to better understand the existing framework and challenges.[263]

### 3. Recommendation: Initiate Regional Collaboration Now to Be Well-Positioned for Near-Future Great Lakes Offshore Wind Opportunities

Though the CZMA offers individual coastal states in the Great Lakes region several avenues for offshore wind planning and regulation, Great Lakes states should also consider regional collaboration to prepare for future offshore wind development opportunities. States might mobilize an existing collaborative effort like the Great Lakes Commission, which could restart its former Wind Collaborative. Alternatively, states could form a new body. A Great Lakes regional partnership might be created for each of the five Great Lakes, as one regional partnership with all eight Great Lakes states, or in some other combination as Great Lakes states see fit. Southern Lake Michigan presents a particularly strong geographic motivator for regional management due to the close, angular in-lake boundaries that could cause conflicts between Wisconsin, Illinois, Indiana, and Michigan.[264]

A Great Lakes regional partnership offers multiple benefits for offshore wind planning and development. Collaboration, coordination, and data and information sharing are especially valuable benefits of a regional partnership. Partner states could replicate the Great Lakes Wind Atlas interactive map or create a Great Lakes data portal, similar to those of the Mid-Atlantic and Northeast regional groups, to promote the efficient assessment of offshore wind viability and to identify information gaps to prioritize moving forward.

In addition, a Great Lakes regional partnership could have accessed federal funds supporting partnership activities. Congress previously appropriated $10 million annually to regional ocean

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[262] *About*, REG'L WILDLIFE SCI. COLLABORATIVE FOR OFFSHORE WIND, https://rwsc.org/about/ (last visited Nov. 10, 2023).

[263] *Offshore Wind Transmission*, NE. OCEAN PLANNING, https://neoceanplanning.org/planning-issues/offshore-transmission/ (last visited Nov. 10, 2023). Regional partnerships like the Northeast Regional Ocean Council are voluntary rather than regulatory, and their collaborative efforts on "regional data, science, and studies" assist "resource managers" in operating "their own programs with an eye towards coordinated and consistent application." Email conversation between Cora Sutherland, Water Policy Specialist at the Center for Water Policy, and Rhode Island Coastal Resources Management Council Executive Director (Jan. 22, 2024) (on file with author).

[264] Whidden, *supra* note 151.

partnerships for each fiscal year 2023-2027.[265] The Inflation Reduction Act of 2022 appropriated $100 million for convening stakeholders and conducting planning and analysis of interregional transmission for offshore wind.[266] Despite President Trump's executive order to prohibit further spending under the IRA,[267] regional collaboration and planning efforts would position Great Lakes states to be ready for future opportunities if federal priorities again shift in favor of offshore wind.

In that case, regional relationships could be ready and prepared to foster cooperation between state agencies and federal agencies, Tribes, non-governmental groups like university and research entities, and other stakeholders. As Great Lakes state governments have multiple agencies involved in potential offshore wind projects, regional partnerships would also promote intrastate agency collaboration. Similarly, regional partnerships would allow state agencies to exchange strategies with their counterparts in other states.

Without a regional approach, there is a greater risk that a neighboring state with a federally approved coastal management program would request consistency review with their applicable enforceable policies, even for a project located in another state's coastal zone.[268] Given Illinois' interest in locating offshore wind in southern Lake Michigan, [269] for example, the time is ripe for a regional collaboration to develop consistent policies for these shared water resources.

## CONCLUSION

As trustees for the Great Lakes with jurisdiction over leasing the lakebed, Great Lakes states are at the center of decision-making about potential offshore wind development in the region. The National Renewable Energy Laboratory's wind potential modeling presents the eight Great Lakes states with an outsized opportunity to decarbonize

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[265] 16 U.S.C. § 1468(j)(1).
[266] Inflation Reduction Act, Pub. L. No. 117-169, 136 Stat. 1818, 2048 (Aug. 16, 2022); *see also* MUSIAL ET AL., GREAT LAKES CHALLENGES AND OPPORTUNITIES ASSESSMENT, *supra* note 19, at 89.
[267] Unleashing American Energy, Exec. Order No. 14,154, 90 Fed. Reg. 8353, 8354-55 (Jan. 20, 2025), https://www.govinfo.gov/content/pkg/FR-2025-01-29/pdf/2025-01956.pdf.
[268] MUSIAL ET AL., GREAT LAKES CHALLENGES AND OPPORTUNITIES ASSESSMENT, *supra* note 19, at 89-90.
[269] Lake Michigan Wind Energy Act, 20 ILL. COMP. STAT. 896 (2023); *see also* Illinois Rust Belt to Green Belt Pilot Program Act, H.R. 2132, 103d Gen. Assemb. § 5(13) (Ill. 2023) ("The State seeks a leadership position in the offshore wind industry as it emerges in the Great Lakes.")

their electricity systems through offshore wind energy deployment. However, without the U.S. Bureau of Ocean Energy Management engaging in wind area planning, as it has for ocean waters, the Great Lakes states must take the lead in planning for how and under what circumstances they will allow offshore wind to be developed.

The Coastal Zone Management Act and its Special Area Management Plan (SAMP) tool offer existing legal authority to engage in planning at the state level. Looking to Rhode Island's example, the Rhode Island Ocean SAMP was associated with being able to site, construct, and operate one of the first offshore wind projects in the U.S. Compared to Ohio, which attempted to complete an offshore wind project without the aid of planning through a SAMP, Rhode Island's project was permitted with less delay, without any environmentally based legal challenges, and with ultimate success as an operational wind farm. By creating timely, environmentally sound wind development plans using CZMA authority and tools, states can get closer to achieving their respective clean and renewable energy goals.

On a regional level, states should consider revitalizing the former Great Lakes Wind Collaborative or forming a new regional body. The benefits of regional collaboration include information exchange, data collection, and thorough impacts review for efficient, smart development—not only in each state's respective waters, but for each lake and the region.

The complex multitude of interests implicated in any wind project requires intentional planning ahead of any development. While the need for carbon-free energy is urgent, the Great Lakes states must exercise their trustee role to engage in planning for multiple public use benefits before determining whether offshore wind will be part of the energy mix.