



Verifier's Report

EXECUTIVE SUMMARY



ISSUER

New Jersey Economic Development Authority

OPINION ON

State Lease Revenue Bonds (Offshore Wind Port Project) 2023 Series A (Federally Taxable) (Green Bonds - Climate Bond Certified)

STANDARD AND SECTOR CRITERIA

Climate Bonds Standard Version 3.0 ■ Marine Renewable Energy

PAR

\$160,000,000

KEYWORDS

New Jersey wind port, Atlantic offshore wind, renewable energy, net zero aligned, decarbonizing, clean energy jobs

EVALUATION DATE

December 23, 2022

SUMMARY OF FINDINGS

Kestrel Verifiers is of the opinion that the State Lease Revenue Bonds (Offshore Wind Port Project) 2023 Series A (Federally Taxable) (Green Bonds - Climate Bond Certified) ("2023 Series A Bonds") are impactful, net zero aligned, conform with the Climate Bonds Standard (Version 3.0), and align with the United Nations Sustainable Development Goals as follows:

■ Use of Proceeds

The 2023 Series A Bonds (i) finance a portion of the development and construction costs of the New Jersey Wind Port Project (the "Project") that will support the deployment of offshore wind projects in New Jersey and across the United States Eastern Seaboard and (ii) pay costs of issuance. The Project is expected to support the production of 11 GW of offshore wind power by 2040, enabling the State's pursuit of clean energy goals, and to support planned projects for the production of over approximately 40 GW of offshore wind power across the United States Eastern Seaboard. The 2023 Series A Bonds are the first Climate Bond under the *Marine Renewable Energy* Sector Criteria in the United States.

■ Process for Evaluation and Selection of Projects & Assets

The Project is part of a statewide goal to invest in offshore renewable energy projects and clean energy jobs. New Jersey Statewide executive orders, the New Jersey Offshore Wind Strategic Plan, and stakeholder input guided development of the Project.

■ Management of Proceeds

Bond proceeds will fund Project costs and pay related costs of issuance. In connection with the issuance of the 2023 Series A Bonds, the Authority and the State will enter into two Agreements, a Lease, and a Sublease related to the Project. Proceeds are expected to be spent within 12 months of issuance.

■ Reporting

The Authority will post continuing financial disclosures to the Municipal Securities Rulemaking Board ("MSRB") annually through the Electronic Municipal Market Access ("EMMA") system. Voluntary updates on the Project will be available on the New Jersey Wind Port project website: nj.gov/windport/. Kestrel will provide one Post-Issuance Report.

- **Impact and Alignment with United Nations Sustainable Development Goals**

The 2023 Series A Bonds support UN Sustainable Development Goals 7: *Affordable and Clean Energy*, 8: *Decent Work and Economic Growth*, 9: *Industry, Innovation, and Infrastructure*, 11: *Sustainable Cities and Communities*, and 13: *Climate Action*.

- **Assurance Conclusion**

Based on the Reasonable Assurance procedures we have conducted, in our opinion, the 2023 Series A Bonds conform, in all material respects, with the Climate Bonds Standard, and the bond-financed activities are aligned with the *Marine Renewable Energy Sector Criteria*.



Verifier's Report

Legal Name of Issuer:	New Jersey Economic Development Authority
Issue Description:	State Lease Revenue Bonds (Offshore Wind Port Project) 2023 Series A (Federally Taxable) (Green Bonds – Climate Bond Certified)
Project:	New Jersey Wind Port Project
Standard:	Climate Bonds Standard (Version 3.0)
Sector Criteria:	Marine Renewable Energy
Keywords:	New Jersey wind port, Atlantic offshore wind, renewable energy, net zero aligned, decarbonizing, clean energy jobs
Par:	\$160,000,000
Evaluation Date:	December 23, 2022

CLIMATE BONDS DESIGNATION

The New Jersey Economic Development Authority (the “Authority” or “Issuer”) will issue the State Lease Revenue Bonds (Offshore Wind Port Project) 2023 Series A (Green Bonds - Climate Bond Certified) (“2023 Series A Bonds”) to finance construction of the New Jersey Wind Port Project (the “Project”).

This Verifier’s Report reflects Kestrel Verifiers’ view of the Authority’s projects and financing, allocation and oversight, and conformance of the 2023 Series A Bonds with the Climate Bonds Standard (Version 3.0) and *Marine Renewable Energy* Sector Criteria. In our opinion, the State Lease Revenue Bonds (Offshore Wind Port Project) 2023 Series A (Green Bonds - Climate Bond Certified) are impactful, net zero aligned, and conform with the internationally accepted Climate Bonds Standard (Version 3.0) and the *Marine Renewable Energy* Sector Criteria (Version 1.2).

ABOUT THE ISSUER

The Authority, established in 1974, is a body politic and corporate that exercises certain essential government functions for the State of New Jersey (the “State”), which has approximately 9.2 million residents.¹ The Authority leads development projects across New Jersey and works alongside other State departments and agencies, such as the Office of the Governor, the New Jersey Department of the Treasury, the Department of Transportation, and the New Jersey Board of Public Utilities.² The Authority’s mission is to grow the economy of New Jersey and increase equitable access to opportunities by catalyzing job creation, fostering industry innovation, and investing in community development. A board and executive committee oversee program developments, many of which have become national models for sustainability and

¹ “QuickFacts (2021),” United States Census Bureau, accessed December 9, 2022, <https://www.census.gov/quickfacts/fact/table/NJ,US/PST045221>.

² “Fast Facts About NJWP,” New Jersey Economic Development Agency, December 15, 2021, <https://nj.gov/windport/about/pdf/20211215OSWFastFacts.pdf>.

equitable economic growth. The Authority has key priorities and goals for economic growth, including but not limited to:

- Create job and median wage growth to support New Jersey residents;
- Close racial and gender wage gaps; and
- Incorporate sustainable innovation and design to increase job growth.³

The Authority and the State demonstrate a strong commitment to sustainability and clean energy development. In 2019, the State released the Energy Master Plan which outlines decarbonizing goals, such as reaching 50% clean energy by 2030 and 100% clean energy by 2050. New Jersey is one of six states with an energy storage target of 2,000 megawatts (MW) by 2030.⁴ Aligned with the Energy Master Plan, the State established an ambitious goal of generating 11 gigawatts (GW) of electricity from offshore wind energy by 2040.⁵ Through tax incentives and financing programs, the Authority plans to aid development of offshore wind projects.⁵

CONFORMANCE WITH CLIMATE BONDS STANDARD AND SECTOR CRITERIA

The Authority engaged Kestrel Verifiers to provide an independent verification on alignment of the 2023 Series A Bonds with the Climate Bonds Standard (Version 3.0) and Certification Scheme, and the *Marine Renewable Energy Sector Criteria*. The Climate Bonds Initiative (“CBI”) administers the Standard and Sector Criteria. Additionally, Kestrel Verifiers examined alignment of the 2023 Series A Bonds with the United Nations Sustainable Development Goals (“UN SDGs”).

Kestrel Verifiers is a Climate Bonds Initiative Approved Verifier. The Kestrel Verification Team included environmental scientists, social scientists, and financial professionals. We performed a Reasonable Assurance engagement to independently verify that the bonds meet relevant criteria, in all material respects.

For this engagement, Kestrel Verifiers reviewed the Authority’s bond disclosure documentation, Green Bond Framework, disclosures and documentation pertaining to the allocation and uses of bond proceeds, as well as relevant plans and alignment to the Authority’s overarching climate objectives. We examined public and non-public information and interviewed key staff of the Authority. Our goal was to understand the planned use of proceeds, procedures for managing proceeds, and plans and practices for reporting in sufficient detail to verify the bonds.

Relevant Climate Bonds Sector Criteria and Other Standards

The 2023 Series A Bonds align with the Climate Bonds Standard (Version 3.0) and *Marine Renewable Energy Sector Criteria* (Version 1.2).

Assurance Approach

Kestrel Verifiers’ responsibility was to conduct a Reasonable Assurance engagement to determine whether the 2023 Series A Bonds meet, in all material respects, the requirements of the Climate Bonds Standard. Our Reasonable Assurance was conducted in accordance with the Climate Bonds Standard (Version 3.0) and the *International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information*. See Appendix A for more detail regarding Kestrel Verifiers’ assurance approach. Information relating to this engagement and the Verifier’s and Issuer’s Responsibilities, and Independence and Quality Control are available in Appendix B.

Kestrel Verifiers has relied on information provided by the Authority. There are inherent limitations in performing our assurance; fraud, error or non-compliance may occur and not be detected. Kestrel Verifiers is not responsible or liable for any opinions, findings or conclusions within the information provided by the Authority that are incorrect. Our assurance is limited to the review of the Authority’s policies and procedures that are, in Kestrel’s view, relevant to the key components of the Climate Bonds Standard (Version 3.0).

³ “The State of Innovation: Building a Stronger and Fairer Economy in New Jersey,” New Jersey Economic Development Agency, accessed December 9, 2022, <https://www.njeda.com/economicplan/>.

⁴ “Clean Energy,” New Jersey Economic Development Agency, accessed December 9, 2022, <https://www.njeda.com/clean-energy/>.

⁵ “Offshore Wind,” New Jersey Economic Development Agency, accessed December 9, 2022, <https://www.njeda.com/offshorewind/>.

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Use of Proceeds

Proceeds of the 2023 Series A Bonds will (i) finance a portion of the development and construction costs of the New Jersey Wind Port Project (the “Project”) that will support deployment of offshore wind projects in New Jersey and across the United States Eastern Seaboard and (ii) pay costs of issuance. The Project is expected to support production of 11 GW of offshore wind power by 2040 (which will power approximately 3.6 million homes⁶), will enable the State’s pursuit of clean energy goals, and is the first Climate Bond under the *Marine Renewable Energy Sector Criteria* in the United States.

The New Jersey Wind Port Project

The Authority is leading the financing and development of the Project, which consists of a new purpose-built offshore wind marshalling⁷ and manufacturing port on the eastern shore of the Delaware River at Lower Alloways Creek in Salem County, New Jersey. Upon completion, the 220 acre New Jersey Wind Port (the “Port”) will have capacity to support multiple manufacturing facilities and marshalling for two offshore wind farm developments at a time.⁸ Approximately 112 acres of the Port are located on land leased by the Authority on a long-term basis from PSEG Nuclear LLC (“PSEG”). Pursuant to two Agreements, a Lease, and a Sublease, the State will ultimately sublease the Project to the Authority. The Authority will oversee development of the Project and Port operations.

Site selection for offshore wind projects and supporting infrastructure (such as ports) is dictated by specific requirements related to geography, climate conditions, reliable wind, and access to existing power infrastructure. The selected location for the Port reflects a precise convergence of these factors. The Port will be in marshalling range of several offshore wind projects and lease areas located along the East Coast wind belt. During early planning of the Project, the Authority considered physical climate risk of extreme weather events such as hurricanes, as well as sea level rise and erosion. For example, manufacturing structures will be built, at minimum, five feet above base flood elevations.

Up to seven land parcels will be developed to create the Port.⁸ A majority of 2023 Series A Bond proceeds will finance Phase 1 of the Project and a smaller portion will finance Phase 2 of the Project. Table 1 outlines components of each phase and construction status.

Table 1. Project Phases and Construction Statuses

Project Phase	Components of the Phase	Status & Expected Completion Date
Phase 1	<ul style="list-style-type: none"> ▪ Development of an approximately 30-acre property and adjacent wharf infrastructure for marshalling (i.e. wind turbine staging, final assembly, and transport); ▪ Dredging of an access channel from the Port to the main Delaware River shipping channel, as well as berth pockets able to accommodate jack-up installation vessels; ▪ Development of an approximately 57-acre property (comprising two parcels) for Tier 1 wind component manufacturing (such as blades), connected to the wharf infrastructure by a heavy haul road corridor; ▪ Redevelopment of an approximately 30-acre existing confined disposal facility for dredge placement; ▪ Repurposing of an existing five-acre property with port administration and parking; ▪ Development of on-site power utilities and offsite grid connection. 	<p>Components of Phase 1 are under construction with other components at an early design stage.</p> <p>Phase 1 is expected to be substantially complete by the end of 2025.</p>

⁶ “Fast Facts About NJWP”, New Jersey Economic Development Agency, December 15, 2021, <https://nj.gov/windport/about/pdf/20211215OSWFastFacts.pdf>.

⁷ Marshalling at the Port will comprise component staging, final assembly, and transport of offshore wind turbines.

⁸ “The New Jersey Wind Port – Technical Information for Offshore Wind Developers and Component Manufacturers,” New Jersey Economic Development Agency, accessed December 9, 2022, <https://nj.gov/windport/about/pdf/NJWPTechnicalInformationPackage.pdf>.

Project Phase	Components of the Phase	Status & Expected Completion Date
Phase 2	<ul style="list-style-type: none"> ▪ Development of an approximately 40 to 50-acre property and adjacent wharf infrastructure for marshalling (with dredged berth pockets and turning basin); ▪ Development of an approximately 60 to 70-acre property built for Tier 1 wind component manufacturing, as well as adjacent wharf infrastructure (with dredged berth pockets and turning basin); ▪ Installation of on-site water, wastewater, stormwater, and telecommunications infrastructure; ▪ Development of heavy-haul road corridors connecting parcels and shared wharves. 	<p>Phase 2 components are in preliminary design and planning.</p> <p>Phase 2 is expected to be complete by the end of 2028.</p>

The Authority has taken steps to incorporate best practices for greenhouse gas emissions reductions in building and operating the Project. Project emissions are compliant with the Army Corp of Engineers and the United States Environmental Protection Agency requirements and regulations, and are expected to be low as a result of efficient systems at the Port and partial repurposing of existing greyfields. Additionally, unlike conventional ports which utilize diesel trucks for transport, Port will likely transport most manufactured parts, such as wind turbine rotors and shafts, by sea vessel and potentially electric tugboats. While the Port’s self-propelled modular transporters⁹ may not be electric, the Authority intends to hire crane operators and equipment managers that utilize industry best practices.

Energy efficiency aspects of the Project include, but are not limited to:

- 100% renewable energy sources through local power purchase agreements and/or offset carbon emissions of on-site buildings;
- Electric charging plug-ins for vessels at docks;
- Development of a substation to allow for EV charging;
- Low-impact development stormwater features and stormwater capture for on-site reuse; and
- Beneficial reuse of dredge materials and recycled concrete in coordination with other agencies (such as the State’s Department of Transportation).

At full operation, approximately 1,500 operations and manufacturing jobs will be sustained by the Port, enabling clean energy careers in the region.

Environmental Mitigation & Regulatory Requirements

Kestrel recognizes that development of wind ports and related dredging may have direct and indirect impacts on river, ocean and coastal wetland ecosystems that are not all positive. Offshore wind projects themselves may have negative impacts. Many of these impacts, such as potential loss of biodiversity, are still unknown, but the Authority has undergone a rigorous environmental review process for development of the Port, and taken steps to minimize or mitigate potentially harmful impacts.¹⁰ Parcel A of the Project required 47 permits from 13 different agencies, and other bond-financed parcels will require similar permits. See Appendix C for a select list of environmental permitting and requirements related to the Project.

Development of the Port may also impact surrounding communities with construction noise, traffic, vessel pollution, and potential interference with local marine-related businesses. The Authority has met all regulatory requirements to minimize these kinds of local impacts and has taken steps to facilitate hiring union workers from the surrounding community, which aligns with the Authority’s workforce equity goals.¹¹

Decarbonizing Impact of Renewable Energy Projects

In April 2021, the United States “recognize[d] the role of the broader suite of ocean-based climate solutions, including scaling-up offshore renewable energy and reducing emissions from shipping and ports, in

⁹ Self-propelled modular transporters are motorized vehicles with multi-axle platforms that are capable of lifting, carrying, and setting large and heavy loads.

¹⁰ “Living Resources: Atlantic Sturgeon”, Delaware River Basin Commission, accessed December 9, 2022, <https://www.nj.gov/drbc/basin/living/atlantic-sturgeon.html>.

¹¹ “Fast Facts About NJWP”, New Jersey Economic Development Agency, December 15, 2021, <https://nj.gov/windport/about/pdf/20211215OSWFastFacts.pdf>.

increasing climate ambition and creating jobs.”¹² As such, offshore wind is expanding rapidly as a reliable, cost effective, clean energy source. As of November 2022, there are more than 50 GW of offshore wind farms in operation worldwide.¹³ Kestrel views investment in offshore wind energy—a utility-scale wind power technology—as vital to the transition to the decarbonized economy. Similarly, Kestrel views the New Jersey Wind Port Project, which will facilitate offshore wind projects, as necessary in the pursuit of renewable energy production.

Sector Criteria for Marine Renewable Energy (Version 1.2)

The Project aligns with CBI’s *Marine Renewable Energy* Sector Criteria, as well as the associated Mitigation, Adaptation and Resilience requirements.

Mitigation Component: The Project is 100% dedicated to the development of offshore wind energy projects. The Port intends to use offsite renewable energy sources through local power purchase agreements and/or offset carbon emissions of buildings.

Adaptation and Resilience Requirements: The Project meets Sector Criteria adaptation and resilience requirements. A detailed evaluation of the Authority’s adaptation and resilience performance in relation to the Project is included in Appendix D.

Net Zero Alignment

Bonds are net zero aligned if the financed activities advance goals to reach net zero greenhouse gas emissions by 2050. The Project is enabling development of offshore renewable power, which is crucial to a net zero, clean energy sector in New Jersey. Although biological impacts of offshore wind on marine ecosystems may be somewhat unknown, the transition to a low carbon economy is necessary to slow climate change and prevent catastrophic biodiversity loss. The Project aligns with the New Jersey Energy Master Plan goal to reach 50% clean energy by 2030 and 100% clean energy by 2050.

Process for Project Evaluation and Selection

The New Jersey Wind Port Project advances a statewide goal to invest in offshore renewable energy projects and support green economy jobs.

Governor Murphy signed Executive Order No. 8 in 2018, committing the State to produce a total of 3,500 MW of offshore wind power by 2030. Executive Order No. 307, signed in 2022, increases the target to 11,000 MW of offshore wind power by 2040. The executive orders prompted creation of the Offshore Wind Strategic Plan (“OWSP”) by the State’s Board of Public Utilities in 2020. The OWSP outlines priorities, addresses environmental risk, and details the State’s commitment to develop offshore wind power. The Port enables this long-term offshore wind development endeavor. The Authority completed a detailed feasibility study to select the Project location.¹⁴ Additionally, the Authority continues to involve the community throughout Project development. The New Jersey Wind Port Diversity and Local Engagement Advisory Committee, comprising community and small business representatives, meets monthly to engage with women and minority small businesses in project planning and construction to increase job creation.¹⁵

Management of Proceeds

The 2023 Series A Bonds will finance the costs of the Project and pay related costs of issuance. In connection with the issuance of the 2023 Series A Bonds, the Authority and the State will enter into two Agreements, a Lease, and a Sublease related to the Project. These arrangements will allow the State to sublease the Project to the Authority. The Authority plans to relet and sublease the Project to private sector tenants. Under the Lease, the State will agree to make lease rental payments to the Authority, so that the Authority may pay debt service on the 2023 Series A Bonds and pay rent obligations to PSEG under a Ground Lease.

¹² “The United States if America Nationally Determined Contribution, Reducing Greenhouse Gases in the United States: A 2030 Emissions Target,” United States Government, April 21, 2021, <https://unfccc.int/sites/default/files/NDC/2022-06/United%20States%20NDC%20April%2021%202021%20Final.pdf>.

¹³ “California Offshore Wind Industry Report,” Offshore Wind California, November 2022, <https://www.offshorewindca.org/reports>.

¹⁴ “Fast Facts About NJWP,” New Jersey Economic Development Agency, December 15, 2021, <https://nj.gov/windport/about/pdf/20211215OSWFastFacts.pdf>.

¹⁵ “Clean Energy and Equity”, Office of Climate Action & the Green Economy, State of New Jersey, accessed December 9, 2022, <https://www.nj.gov/governor/climateaction/cleanenergy/>.

Prior to disbursement, proceeds will be held in a project fund overseen by the Trustee and may be invested in the New Jersey Cash Management Fund or short-term funds (such as United States Treasury Obligations). Proceeds are expected to be spent within 12 months of issuance.

Reporting

The Authority will submit annual continuing disclosures to the Municipal Securities Rulemaking Board (“MSRB”) through the Electronic Municipal Market Access (“EMMA”) system so long as the 2023 Series A Bonds are outstanding.

In accordance with the Climate Bonds Standard, Kestrel Verifiers will be engaged to provide one Post-Issuance Report within 24 months of issuance to confirm continued conformance of the 2023 Series A Bonds with the relevant Standards and Criteria.

The Authority intends to provide voluntary Project status updates annually until the Project is complete on the New Jersey Wind Port website: nj.gov/windport/.

IMPACT AND ALIGNMENT WITH UN SDGS

The Project supports and advances the vision of the United Nations Sustainable Development Goals (“UN SDGs”), including:

- Targets 7.1, 7.2, and 9.1 by enabling the expansion of offshore wind energy that will support regional energy demands;
- Target 9.4 by incorporating energy efficient aspects that will minimize greenhouse gas emissions;
- Target 8.2 by providing long-term clean energy jobs at full operation;
- Target 11.6 by increasing the use of renewable energy, which contributes to improved air quality;
- Target 13.2 by featuring renewable energy alternatives to avoid greenhouse gas emissions.

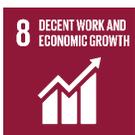
Full text of the Targets for Goals 7, 8, 9, 11 and 13 is available in Appendix E, with additional information available on the United Nations website: un.org/sustainabledevelopment



Affordable and Clean Energy (Targets 7.1, 7.2)

Possible Indicators

- Renewable energy share in the state’s total energy consumption
- Renewable energy produced through offshore wind
- Number of offshore wind projects supported by the Port
- Number of people with access to clean energy services



Decent Work and Economic Growth (Target 8.2)

Possible Indicators

- Number of short-term and long-term clean energy jobs created



Industry, Innovation and Infrastructure (Targets 9.1, 9.4)

Possible Indicators

- Metric tons of avoided greenhouse gas emissions of the Port



Sustainable Cities and Communities (Target 11.6)

Possible Indicators

- Metric tons of avoided greenhouse gas emissions of the Port



Climate Action (Target 13.2)

Possible Indicators

- Metric tons of avoided greenhouse gas emissions of the Port

ASSURANCE STATEMENT AND CONCLUSIONS

Based on the Reasonable Assurance procedures we have conducted, in our opinion, the 2023 Series A Bonds conform, are impactful, net zero aligned, and conform, in all material respects, with the current Climate Bonds Standard, and *Marine Renewable Energy Sector Criteria*. The New Jersey Wind Port Project is a crucial infrastructure investment that will advance the State’s ambitious clean energy goals.

Sincerely,

Melissa Sherwood

Melissa Sherwood, Senior Verifier
 Kestrel Verifiers
 Hood River, Oregon, United States
 December 23, 2022

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ABOUT KESTREL VERIFIERS



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 VERIFIERS™

For over 20 years Kestrel has been a trusted consultant in sustainable finance. Kestrel Verifiers, a division of Kestrel 360, Inc. is a Climate Bonds Initiative Approved Verifier qualified to verify transactions in all asset classes worldwide. Kestrel is a US-based certified Women’s Business Enterprise. For more information, visit kestrelverifiers.com.

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DISCLAIMER

This Opinion aims to explain how and why the discussed financing meets the CBI Climate Bonds Standard based on the information that was provided by the Authority or made publicly available by the Authority and relied upon by Kestrel only during the time of this engagement (December 2022), and only for purposes of providing this Opinion.

We have relied on information obtained from sources believed to be reliable, and assumed the information to be accurate and complete. However, Kestrel Verifiers can make no warranty, express or implied, nor can we guarantee the accuracy, comprehensive nature, merchantability, or fitness for a particular purpose of the information we were provided or obtained.

By providing this Opinion, Kestrel Verifiers is neither addressing nor certifying the credit risk, liquidity risk, market value risk or price volatility of the projects financed by the Climate Bonds. It was beyond Kestrel Verifiers' scope of work to review for regulatory compliance, and no surveys or site visits were conducted by us. Furthermore, we are not responsible for surveillance, monitoring, or implementation of the project, or use of proceeds.

The Opinion delivered by Kestrel Verifiers is for informational purposes only, is current as of the date of issuance, and does not address financial performance of the Climate Bonds or the effectiveness of allocation of its proceeds. This Opinion does not make any assessment of the creditworthiness of the Authority, nor its ability to pay principal and interest when due. This Opinion does not address the suitability of a Bond as an investment, and contains no offer, solicitation, endorsement of the Bonds nor any recommendation to buy, sell or hold the Bonds. Kestrel Verifiers accepts no liability for direct, indirect, special, punitive, consequential or any other damages (including lost profits), for any consequences when third parties use this Opinion either to make investment decisions or to undertake any other business transactions.

This Opinion may not be altered without the written consent of Kestrel Verifiers. Kestrel Verifiers reserves the right to revoke or withdraw this Opinion at any time. Kestrel Verifiers certifies that there is no affiliation, involvement, financial or non-financial interest in the Authority or the projects discussed. We are 100% independent. Language in the offering disclosure supersedes any language included in this Opinion.

Use of the United Nations Sustainable Development Goal (SDG) logo and icons does not imply United Nations endorsement of the products, services, or bond-financed activities. The logo and icons are not being used for promotion or financial gain. Rather, use of the logo and icons is primarily illustrative, to communicate SDG-related activities.



Appendix A.

ASSURANCE PROCEDURES

REQUIREMENT	ASSURANCE PROCEDURES
1. Use of Proceeds	
1.1 Project Documentation	Review documentation of the Nominated Projects assessed as likely to be Eligible Projects, and list of Nominated Projects that Issuer will keep up-to-date during the term of the bond.
1.2 Valuation	Review net proceeds of the bond to ensure they are not greater than the value of the project.
1.3 Multiple Nominations for Certified Debt Instruments	Review Nominated Projects for previous nominations to other Certified Climate Debt Instruments, green bonds, or other designated instruments.
1.3.1 Nominations to Other Debt Instruments	Review Nominated Projects to determine whether certain portions are being financed by separately designated Certified Debt Instruments.
1.3.2 Refunding Existing Certified Climate Debt	Review and confirm whether Nominated Projects have been refinanced by other Certified Debt Instruments or bonds under assessment will refinance existing Certified Debt Instruments.
2. Process for Project Evaluation and Selection	
2.1 Environmental Statement & Process (2.1.1-2.1.4)	Review statement of the climate-related objectives of the bond. Review documentation of the process that the Issuer followed to identify projects and confirm eligibility requirements for inclusion of Nominated Projects in the bond. Review planning documents which establish goals, priorities and potential impact.
2.2 Eligibility (2.2.1-2.2.2)	Review additional documentation Issuer provided on further aspects of identification process including strategic directions and standards. Review the Issuer's environmental and social integrity policy, and/or Green Bond Framework, and confirm its coverage of the Nominated Projects.
2.3 Taxonomy & Technical Criteria	Test Nominated Projects to determine whether they meet the minimum technical requirements of the Climate Bonds Standard and relevant Sector Criteria (Part C: Eligibility of Projects and Assets).
3. Management of Proceeds	
3.1 Documentation of Processes & Procedures	Confirm that the policies, processes and procedures for tracking financial flows of the bond proceeds to the Nominated Projects are in place.
3.1.1 Tracking of Proceeds	Review the allocation of funds to ensure they can be tracked against Nominated Projects.
3.1.2 Managing of Unallocated Proceeds	Review documentation for the management of bond proceeds for funds that are not allocated to a Nominated Project and review eligible temporary investments for unallocated proceeds.
3.1.3 Earmarking Funds	Confirm that the policies, processes and procedures to identify flows of proceeds related to the Bond have been established.
4. Reporting	
4.1 Bond Disclosure Documentation	Review the Issuer's Green Bond Framework and confirm plans to make the document publicly available. Confirm inclusion of necessary information within the Green Bond Framework.
4.1.1 Confirmation of Alignment	In the Green Bond Framework, confirm documentation and review areas of investment align with the Climate Bonds Standard and review statements of alignment with other relevant standards.
4.1.2 Uses of Proceeds	In the Green Bond Framework, confirm documentation and review expected uses of proceeds and the amounts allocated to activities in relevant sectors and subsectors.

REQUIREMENT	ASSURANCE PROCEDURES
4.1.3 Decision-making Process	In the Green Bond Framework, confirm documentation of decision-making processes and positioning in the context of the Issuer’s overarching objectives.
4.1.4 Sector Criteria Assumptions and Methodologies	In the Green Bond Framework, confirm documentation of assumptions and methodologies to evaluate conformance with Sector Criteria.
4.1.5 Temporary Investment Instruments	In the Green Bond Framework, confirm documentation of allowable temporary investment instruments.
4.1.6 Reporting Approach	In the Green Bond Framework, confirm disclosure of intended approach to providing Update Reports and/or undertaking periodic Assurance Engagements during term of bond to reaffirm conformance with the Climate Bonds Standard.
4.1.7 List of Nominated Projects	In the Green Bond Framework, confirm disclosure of list of Nominated Projects likely to be eligible.
4.1.8 Refinancing	In the Green Bond Framework, confirm disclosure of proportion of proceeds for refinancing, if applicable.
4.2 Disclosure Documentation	Confirm incorporation of key information in Disclosure Documentation.
4.2.1 Sector Criteria Disclosure	Confirm “investment areas,” or alignment with the Climate Bonds Taxonomy and relevant Sector Criteria for Nominated Projects.
4.2.2 Temporary Investments	Confirm disclosure of eligible temporary investments for unallocated proceeds.
4.2.3 Verifier	Confirm disclosure of Verifier selected for Pre-Issuance and Post-Issuance Engagements.
4.2.4 Ongoing Reporting	Confirm disclosure of intended ongoing reporting on the Nominated Projects and allocation of proceeds.
4.2.5 CBI Disclaimer	Confirm incorporation of the CBI Disclaimer as provided in the Certification Agreement.



Appendix B.

RESPONSIBILITIES AND QUALITY CONTROL

Verifier's Responsibilities

Kestrel Verifiers' responsibilities for confirming alignment of the 2023 Series A Bonds with the Climate Bonds Standard and *Marine Renewable Energy Sector Criteria* include:

- Assess and certify the Authority's internal processes and controls, including selection process for projects and assets, internal tracking of proceeds, and the allocation system for funds;
- Assess policies and procedures established by the Authority for reporting;
- Assess the readiness of the Authority to meet the Climate Bonds Standard (Version 3.0) and *Marine Renewable Energy Sector Criteria*; and
- Express a Reasonable Assurance conclusion.

Issuer's Responsibilities

Issuer was responsible for providing detailed information and documents relating to:

- The details of the Nominated Projects and Assets and the project selection process;
- Maintaining adequate records and internal controls designed to support the Climate Bond Pre-Issuance Certification process; and
- The collection, preparation, and presentation of the subject matter in accordance with the Climate Bonds Standard and Criteria.

Independence and Quality Control

Kestrel Verifiers provides green, social and sustainability bonds advisory services for corporate and public finance issuers. The Kestrel Verification Team is committed to providing robust, transparent, and accurate verifications. For over 20 years Kestrel has been a trusted advisor to state and local governments, nonprofits, and corporations. Kestrel certifies that there is no affiliation, involvement, financial or non-financial interest in the issuer or the projects discussed. Accredited as an Approved Verifier by the Climate Bonds Initiative, Kestrel is qualified to evaluate bonds against the Climate Bonds Initiative Standards and Criteria.



Appendix C. SELECT PERMITS, LICENSES, & REGULATIONS FOR PARCEL A

Governmental Agency	Permits/ Licenses/ Regulations	Federal/ State/ County
United States Environmental Protection Agency (USEPA)	<ul style="list-style-type: none"> Clean Water Act 	Federal
United States Army Corps of Engineers	<ul style="list-style-type: none"> Rivers and Harbors Act and related regulatory permitting requirements 	Federal
New Jersey Department of Environmental Protection (NJDEP)	<ul style="list-style-type: none"> Coastal Area Facilities Review Act (CAFRA) Waterfront Development Permit Coastal Wetland Permit Freshwater Wetland General Permit No. 7 Freshwater Wetland Individual Permit Tidelands Instrument (License, Lease, or Grant) 	State
USEPA	<ul style="list-style-type: none"> Spill Prevention Control and Countermeasure 	Federal
NJDEP/USEPA	<ul style="list-style-type: none"> Air Quality 	State
Cumberland-Salem SCD	<ul style="list-style-type: none"> Soil Erosion and Sediment Control Plan Approval 	County
United States Coast Guard (USCG)	<ul style="list-style-type: none"> United States Coast Guard Notice Mariners Private Aids to Navigation Approval 	Federal

Appendix D.

CLIMATE BONDS STANDARD MARINE RENEWABLE ENERGY ADAPTATION & RESILIENCE CHECKLIST

ELIGIBLE ASSET

The New Jersey Wind Port is an eligible asset under the *Marine Renewable Energy* Criteria, as an offshore wind asset dedicated to installing and operating offshore wind energy infrastructure, namely, Wind Turbine Installation Vessels (“WTIV”) and jack-up rigs.

CRITERIA

The checklist is a tool to verify the Authority has implemented sufficient processes and plans in the design, planning and decommissioning phases of the Project. The checklist also helps ensure operation and construction of the asset minimizes environmental harm, the asset is appropriately adaptive and resilient to climate change, and supports the adaptation and resilience of other stakeholders in the marine environment.

Adaptation & Resilience Checklist - Section 1: The Issuer understands the climate related risks and vulnerabilities to the asset / site			
<i>(To be completed for all Marine Renewable Energy assets)</i>			
		Proof given	Overall Assessment (Comments)
1.1	Processes are in place (as part of both the asset design and ongoing management) to assess key risks to the assets from a changing climate and its impact on marine conditions	New Jersey Wind Port-Technical Information for Offshore Wind Developers and Component Manufacturers: https://nj.gov/windport/about/pdf/NJWPTechnicalInformationPackage.pdf	During early planning of the Project, the Authority considered physical climate risk of extreme weather events (such as hurricanes), sea level rise, and erosion. All manufacturing structures will be built, at minimum, five feet above base flood elevations. The Project follows the climate information from the Federal Emergency Management Agency (“FEMA”) 100-year flood elevation maps.

Adaptation & Resilience Checklist - Section 2: The Issuer understands the improvements and impacts in the larger context (spatially and temporally) beyond the asset/ site. (i.e. the impacts of their own assets and activities on the broader ecosystem and stakeholders in that ecosystem)			
<i>(To be completed for all Marine Renewable Energy assets)</i>			
		Proof given	Overall Assessment (Comments)
2.1	Processes are in place (as part of both the asset design, ongoing operation and decommissioning) to assess the improvements and impacts the asset has on the resilience of other stakeholders	Various permits and regulations. See Appendix C.	The Authority has followed a rigorous permitting process that ensures the resilience of the Port and mitigates impact on surrounding communities and ecosystems.

Adaptation & Resilience Checklist - Section 3: The Issuer has designed and implemented strategies to mitigate and adapt to these climate risks and vulnerabilities

(To be completed for all Marine Renewable Energy assets)

		Proof given	Overall Assessment (Comments)
3.1	An adaptation plan has been designed and is being implemented to address the risks identified in assessments outlined above	New Jersey Wind Port-Technical Information for Offshore Wind Developers and Component Manufacturers: https://nj.gov/windport/about/pdf/NJWPTechnicalInformationPackage.pdf New Jersey Energy Master Plan: https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf	The Authority's concept design plan incorporated in the New Jersey Wind Port-Technical Information for Offshore Wind Developers and Component Manufacturers document addresses flood risks and outlines operations and management strategies for the Port. Additionally, the New Jersey Energy Master Plan outlines statewide climate change adaptation plans and decarbonizing goals, such as reaching 50% clean energy by 2030 and 100% clean energy by 2050.
3.2	Inspections are carried out regularly and there is a maintenance regime in place for future inspections with evidence that this is adhered to	New Jersey Wind Port-Technical Information for Offshore Wind Developers and Component Manufacturers: https://nj.gov/windport/about/pdf/NJWPTechnicalInformationPackage.pdf	The Authority will be responsible for overall Port operations and management including maintenance of core assets and maintenance of dredging to preserve the channel and berths.

Adaptation & Resilience Checklist - Section 4: Issuer is pursuing strategies that promote resilience and adaptation across the area in which it operates and beyond

(To be completed for all Marine Renewable Energy assets)

		Proof given	Overall Assessment (Comments)
4.1	Issuer is involved in stakeholder engagement and collaboration (e.g. policy development, consultation, collaboration and active engagement with other marine users)	New Jersey Offshore Wind Strategic Plan: https://www.nj.gov/bpu/pdf/Draft_NJ_OWSP_7-13-20_highres.pdf	The Authority engages with townships, nonprofits, and local organizations to involve the community throughout project development. The New Jersey Offshore Wind Strategic Plan discusses the scientific studies, state agency input, industry expertise, and stakeholder input to move New Jersey's offshore wind goals forward, including development of the Port. Additionally, the Project includes development of stormwater filtration systems for parcel buildings, stormwater reuse for on-site non-potable water, and reuse of dredge materials in coordination with other agencies such as the New Jersey Department of Transportation.

Adaptation & Resilience Checklist - Section 5: Issuer is delivering positive impacts (or no harm) in terms of key sustainability indicators

(To be completed for all Marine Renewable Energy assets)

		Proof given	Overall Assessment (Comments)
5.1	The asset or project does not put in jeopardy endangered or at-risk species or habitats or unduly impact ecosystem services. Where there are possible negative impacts to habitats, species, biodiversity, or ecosystem services, mitigation measures are implemented to offset the negative impacts	Ocean Wind 1 Offshore Wind Farm Environmental Impact Statement: https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/OceanWind1-DEIS-Vol1.pdf	The Authority has undergone rigorous environmental review processes and has upheld a strict developmental framework for the Port to minimize potentially harmful impacts on marine ecosystems and conditions. The Authority must follow environmental laws and restrictions related to dredging, such as implementing rigorous observation, training, and reporting processes for dredging crews to mitigate impacts on Atlantic sturgeon. Additionally, the Offshore Wind Environmental Impact Statement addresses mitigation measures the Port must follow.

Adaptation & Resilience Checklist - Section 5: Issuer is delivering positive impacts (or no harm) in terms of key sustainability indicators

(To be completed for all Marine Renewable Energy assets)

		Proof given	Overall Assessment (Comments)
5.2	Waste is responsibly dealt with, including appropriate disposal of construction waste and oil based lubricants, including recycling options where possible. Also, reuse or recycling where possible of equipment after decommissioning	Various permits and regulations. See Appendix C.	The Authority reuses dredge materials (such as concrete) in coordination with other agencies such as the New Jersey Department of Transportation.
5.3	The issuer has recognized and listed the potential risks for accidental site contamination either from leakage of hydraulic fluid (or any other potential pollutant) or from wreckage/debris on the sea bed. Demonstrable steps have been taken to minimize these risks and plans have been made for clean-up should a site contamination event occur	N/A	N/A for the Port
5.4	Decommissioning of the plant is planned in a way that considers the environmental impacts	New Jersey Offshore Wind Strategic Plan: https://www.nj.gov/bpu/pdf/Draft_NJ_OWSP_7-13-20_highres.pdf	The Offshore Wind Strategic Plan describes decommissioning related offshore wind projects and addresses environmental impacts.
5.5	Issuer has plans and processes in place to effectively manage and minimize conflict with other users of the marine and coastal space	New Jersey Wind Port-Technical Information for Offshore Wind Developers and Component Manufacturers: https://nj.gov/windport/about/pdf/NJWPTechnicalInformationPackage.pdf	The Authority signed a land lease with PSEG for the New Jersey Wind Port. The Project was chosen after a 22-month feasibility analysis by the New Jersey Board of Public Utilities and Interagency Taskforce on Offshore Wind (of which the Authority is a member). The site has no overhead restrictions, is far from residential areas, and is close to wind farm lease areas, which will allow it to meet the industry's long-term needs.

Appendix E.

UN SDG TARGET DEFINITIONS

Target 7.1

By 2030, ensure universal access to affordable, reliable and modern energy services

Target 7.2

By 2030, increase substantially the share of renewable energy in the global energy mix

Target 8.2

Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labor-intensive sectors

Target 9.1

Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

Target 9.4

By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

Target 11.6

By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

Target 13.2

Integrate climate change measures into national policies, strategies and planning