

Agenda Item: 8C

STATE OF NEW JERSEY Board of Public Utilities 44 South Clinton Avenue, 1st Floor Trenton, New Jersey 08625-0350

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IN THE MATTER OF DECLARING TRANSMISSION)	ORDER ON THE STATE
TO SUPPORT OFFSHORE WIND A PUBLIC)	AGREEMENT APPROACH (SAA) -
POLICY OF THE STATE OF NEW JERSEY)	PROJECT SCOPE MODIFICATIONS
)	AND COST ADJUSTMENTS
)	
)	DOCKET NO. QO20100630
	,	

Parties of Record:

Brian O. Lipman, Esq., Director, New Jersey Division of Rate Counsel Susan McGill, PJM Interconnection, L.L.C.

Andrew Hendry, Jersey Central Power & Light Company
Michael Donnelly, Atlantic City Electric Company
Matthew Virant, Mid-Atlantic Offshore Development, LLC
Eric Hayes, LS Power Grid Mid-Atlantic, LLC
Shadab Ali, PPL Electric Utilities
Jodi Moskowitz, Public Service Electric and Gas Company
Maria J. Malguarnera, Transource Energy, LLC

BY THE BOARD:

By this Order, the New Jersey Board of Public Utilities ("BPU" or "Board") considers scope changes and cost changes for State Agreement Approach ("SAA" or "SAA 1.0") projects originally approved on October 26, 2022 under this docket, which will result in a cost savings to ratepayers of approximately \$8.2 million.

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I. BACKGROUND AND PROCEDURAL HISTORY

On October 26, 2022, as part of New Jersey's offshore wind ("OSW") coordinated transmission solution under the inaugural SAA, the Board awarded a series of projects ("SAA Projects") to construct the on-shore transmission facilities necessary to deliver OSW generation to New Jersey customers.1

PJM Interconnection, LLC ("PJM") is the regional transmission organization that coordinates the dispatch of wholesale electricity and the operation of the bulk electric system in all or parts of thirteen (13) states and the District of Columbia, including New Jersey. The SAA, as set out in PJM's Operating Agreement, Section 1.5.9(a) of Schedule 6, authorizes states to select and include transmission facilities in the Regional Transmission Expansion Plan ("RTEP") to solve public policy needs identified by each of those states, and to voluntary accept allocation of all associated costs.

The awarded SAA Projects would help the State advance its clean energy targets and were estimated to save ratepayers over \$900 million dollars when compared to an uncoordinated transmission approach.² One (1) of the SAA Projects is Mid-Atlantic Offshore Development, LLC's ("MAOD") and Jersey Central Power & Light Company's ("JCP&L") jointly submitted Larrabee Tri-Collector Solution ("Larrabee Tri-Collector Solution"). The Larrabee Tri-Collector Solution includes a new substation, the Larrabee Collector Station ("LCS"), adjacent to the existing JCP&L Larrabee substation, and sufficient land for the future installation of up to four (4) High Voltage Direct Current ("HVDC" or "DC") converter stations.

The SAA remains an important part of the State's OSW plans, which progressed on January 24, 2024, when the Board issued two (2) orders, collectively awarding a total of 3,742 megawatts ("MW") of new OSW power off the coast of the State.3 The OSW projects awarded on January 24. 2024 will use the SAA Projects to inject their energy into New Jersey's electricity grid.

¹ In re Declaring Transmission to Support Offshore Wind a Public Policy of the State of New Jersey, BPU Docket No. QO20100630, Order dated October 26, 2022 ("SAA Order").

² Id. at 61.

³ In re the Opening of New Jersey's Third Solicitation for Offshore Wind Renewable Energy Certificates (OREC), BPU Docket No. QO22080481, Order dated January 24, 2024 ("Attentive January 24, 2024 Order") (approving the Attentive Energy Two 1,342 MW project proposed by Attentive Energy LLC); In rethe Opening of New Jersey's Third Solicitation for Offshore Wind Renewable Energy Certificates (OREC), BPU Docket No. QO22080481, Order dated January 24, 2024 ("Invenergy January 24, 2024 Order") (approving the Leading Light Wind 2,400 MW project proposed by Invenergy Wind Offshore LLC).

The SAA Order noted that future Board-selected OSW generators that are awarded SAA capability and that will be utilizing the LCS, may be required to construct and maintain their own individual DC converter stations on the MAOD-acquired land.⁴ The Board directed MAOD to coordinate with Board Staff ("Staff") and the future Qualified OSW Projects ("QOWP") with awarded SAA capability to ensure these projects have adequate and equal access to the land as is reasonably necessary to develop their individual projects according to the QOWP's project schedule.⁵ The Board encouraged MAOD to engage with Staff subsequent to the project award to design site layouts on the land that would ensure access to up to four (4) HVDC converters at the LCS site.⁶

In the SAA Order, the Board also recognized that the development of transmission projects requires years of planning and coordination. Further, the Board found that "future revisions to the awarded projects herein under the Larrabee Tri-Collector Solution may be required depending on changed circumstances unknowable as of the time of award. With the appreciation that some flexibility is necessary, the Board retained the right to enter further orders to reflect "significant updates" to the scope, configuration, and/or costs to the awarded SAA Projects on the basis of any future changed circumstances. The Board also authorized Staff to review and accept routine "changes to elements of any awarded projects that would increase the benefits to New Jersey ratepayers," and to notify PJM of same.

⁴ SAA Order at 71. In this context, "SAA Capability" means, as set out in the Federal Energy Regulatory Commission-approved PJM Rate Schedule 49 §1.2, all transmission capability created by the combination of approved packages of separate SAA proposals as studied by PJM, including the capability to integrate resources injecting energy up to their maximum facility output, capability which may become Capacity Interconnection Rights, or "CIRs" (the rights to input generation as a capacity resource into the transmission system at the point of interconnection where the facility connect to the PJM transmission system) through the PJM Interconnection process, and any other capability consistent with studies performed by PJM for the SAA.

⁵ Id. at 71.

⁶ Ibid.

⁷ Ibid.

⁸ Id. at 73.

⁹ <u>Ibid.</u>

¹⁰ Ibid.

On March 6, 2023, the Board opened the application window for the New Jersey Third Offshore Wind Solicitation ("Third Solicitation").¹¹ The Solicitation Guidance Document ("SGD") for the Third Solicitation included specifics regarding the Prebuild infrastructure ("PBI"). The PBI is a concept that requires a single developer to construct the necessary duct banks and access cable vaults for all OSW generator projects that will be utilizing the LCS.¹² The PBI involves only the necessary infrastructure (duct banks and cable vaults) to house the transmission cables, but not the cables themselves.¹³ The PBI will create a cable corridor for four (4) circuits from landfall at the National Guard Training Center to the point of demarcation at the LCS.¹⁴ The Board rejected the PBI bids received during the Third Solicitation and directed Staff to prepare an independent solicitation for the PBI.¹⁵ This action did not change the requirement that any project selected under the Third Solicitation use the PBI and SAA capability.

By Order dated June 29, 2023, the Board issued an order addressing the first round of cost adjustments for the SAA projects. ¹⁶ By the June 29, 2023 Order, the Board approved scope and cost changes resulting in a \$127.34 million cost increase for the SAA. ¹⁷ As explained more fully below, this round of cost adjustments included "the Prebuild Extension Work" to build the unenergized underground infrastructure from the Point of Demarcation to each individual DC converter station within MAOD's LCS parcel. ¹⁸

By Order dated November 17, 2023, the Board opened the PBI Solicitation to request bids to construct the necessary duct banks and cable vaults for four circuits from landfall at the Sea Girt National Guard Training Center to the Point of Demarcation adjacent to the LCS.¹⁹

By Order dated March 20, 2024, the Board addressed the second round of cost adjustments for the SAA Projects.²⁰ The Board-approved cost and scope adjustments resulted in a \$29 million cost decrease to the SAA.

II. STAFF RECOMMENDATION

¹¹ In re the Opening of New Jersey's Third Solicitation for Offshore Wind Renewable Energy Certificates, BPU Docket No. QO22080481, Order dated March 6, 2023 ("March 6, 2023 Order").

¹² SAA Order at 8.

¹³ "Duct banks" are the concrete structure between cable vaults that house the necessary number of physically separate conduits (empty pipes) in which transmission cables can be installed (pulled through, from one point to another). "Cable vaults" are physically-separate, underground vaults (accessible through manhole covers), located at certain distances along the onshore cable route of the PBI, to allow each QOWP to install and maintain its own transmission cables without impacting other QOWPs' transmission cables. SAA Order at 5.

¹⁴ March 6, 2023 Order at 4.

¹⁵ In re the Opening of New Jersey's Third Solicitation for Offshore Wind Renewable Energy Certificates, 6, BPU Docket No. QO22080481, Order dated October 25, 2023.

¹⁶ In re Declaring Transmission to Support Offshore Wind a Public Policy of the State of New Jersey, BPU Docket No. QO20100630, Order dated June 29, 2023 ("June 29, 2023 Order").

¹⁷ Id. at 7.

¹⁸ The Point of Demarcation is in the existing road right of way ("ROW") adjacent to the LCS.

¹⁹ In re the Opening of a Solicitation for a Transmission Infrastructure Project to Support New Jersey's Offshore Wind Public Policy, BPU Docket No. QO23100719, Order Dated November 17, 2023.

²⁰ In re Declaring Transmission to Support Offshore Wind a Public Policy of the State of New Jersey, BPU Docket No. QO20100630, Order dated March 20, 2024.

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The concept of the Prebuild Extension was to obligate MAOD to extend the underground duct banks and necessary cable vaults from the Point of Demarcation, located in the existing ROW adjacent to the LCS parcel, to each individual generators' HVDC/HVAC converter stations on the MAOD parcel. The Point of Demarcation was established because at the time the Third Solicitation, which included the PBI, was issued, the parcel had not yet been acquired by MAOD and the layout design had not been established. Both the Third Solicitation and the PBI Solicitation defined the final cable vaults at the defined Point of Demarcation in the existing ROW adjacent to the LCS parcel. However, in the absence of proposed projects for the PBI it was not possible to know the precise site of each DC converter station. As a result, the Prebuild Extension, as described in the June 29, 2023 Order, was necessary to close the gap between the Point of Demarcation and the previously undefined site of each DC converter station within the LCS parcel.

Accordingly, the June 29, 2023 Order added the Prebuild Extension work to MAOD's scope of work in connection with the LCS. This additional scope included:

1. The un-energized infrastructure from the end of the Prebuild Infrastructure to the direct current converter stations ("Prebuild Extension Work"). More specifically, this work includes the engineering, procurement, and construction of civil work to accommodate four (4) HVDC circuits from the Prebuild Point of Demarcation to each individual generator's DC converter station area within the MAOD parcel awarded under the SAA (each such area, a "Generator Converter Station Area");²¹

The Point of Demarcation in the PBI Solicitation was defined as:

[The] location where the change of ownership occurs between entities for supporting ancillary infrastructure. Conceptually, this location represents the terminus of the Prebuild Infrastructure, which will be at or near the Larrabee Collector Station. The current coordinates for this location, and additional details, are located in the Corridor Details – Larrabee Collector Station section below. The coordinates of the Point of Demarcation are: Latitude: 40°6'56.84"N; Longitude: 74°11'24.72"W.²²

The PBI SGD goes on to say, "The awarded Applicant will coordinate final locations of the Cable Vaults at the point of demarcation with MAOD, the LCS developer, after the Project award." 23

After the PBI SGD was issued, MAOD progressed their project design and established a general arrangement which further defined the locations of the individual DC converter parcels. This layout arrangement was shared with the PBI solicitation applicants to ensure the infrastructure proposed by the PBI bidders aligned with the corresponding converter parcel. Consistent with

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²¹ June 29, 2023 Order at 3. The "Prebuild Point of Demarcation" is the location where the change of ownership occurs between owning entities for an electrical line and/or supporting ancillary infrastructure. Conceptually, this location represents the terminus of the Prebuild Infrastructure, which will be at or near the Larrabee Collector Station. See SGD at A10-1.

²² New Jersey Board of Public Utilities, New Jersey Offshore Wind Prebuild Infrastructure Solicitation Guidance Document, v (Nov. 17, 2023) ("PBI SGD"), available online at https://bpuoffshorewind.nj.gov/prebuild-solicitation/solicitation-documents/Final-Solicitation-Guidance-Document-with-attachments.pdf.

²³ Prebuild SGD at 12.

the PBI SGD, a future PBI developer will coordinate final locations to install their final cable vault on the DC Converter parcels within MAOD's Larrabee Collector Station. This eliminates the need for MAOD's Prebuild Extension scope.²⁴ Therefore, Staff is recommending that the SAA scope be modified to remove the Prebuild Extension.

Since the SAA Order was issued, Staff and PJM regularly meet to discuss ongoing updates related to the awarded projects. As part of these meetings, PJM continues to provide updates to Staff when PJM receives cost estimate adjustments from the awarded SAA projects. PJM has indicated that these updates are not uncommon. In fact, PJM noted that it anticipates future cost estimate adjustments (both increases and decreases) across all the SAA projects, as each project goes through its detailed engineering phase from which it will get more accurate labor and material costs. Further, while typically the Board would not be presented with these common cost estimate adjustments for PJM RTEP projects, the SAA process allows for this additional engagement. Also, unlike standard RTEP projects, Staff separately meets with SAA project developers to discuss the ongoing development of the projects. This close coordination and engagement provides a greater level of transparency than if the project had been awarded under the standard RTEP process. The coordination also ensures that the Board may exercise its retained right to review and approve "significant updates to the scope, configuration and/or cost," and Staff's ability to review and accept routine changes.²⁵

The SAA updates can be categorized by their cost, scope, and allocation adjustments. The removal of the Prebuild Extension is considered a scope decrease which will have associated cost decrease to the SAA 1 project.

While the recommendation here is an overall decrease to the SAA scope of \$8.2 million, Staff appreciates the significance of cost increases and ratepayer impacts. Of critical importance throughout the SAA process was the baseline scenario, or the cost of the transmission facilities that would be necessary to achieve New Jersey's 7,500 MW OSW goal in the absence of the SAA.

As transmission projects develop, it is common, if not expected, for cost estimate adjustments to occur. In fact, PJM typically sees a range of cost estimate adjustments beginning at the time a project is bid into the RTEP until the time of that project's final construction. As such, additional cost estimate adjustments, in addition to the cost estimate adjustments noted herein, may be anticipated in the future. Staff remains committed to closely engaging with PJM and the awarded SAA project developers to ensure all cost estimate adjustments are reasonable, while continuing to prioritize the interests of New Jersey ratepayers.

General Scope and Cost Adjustment

Consistent with the above, the change to the scope of the awarded SAA project ("Scope Change Work") has been identified as follows:

Mid-Atlantic Offshore Development

• Scope Change b3737.22: Scope decrease with associated cost decrease of \$8.2 M.

²⁵ SAA Order at 73. See also PJM Rate Schedule 49, paragraphs 3, 4, 5, and 7.

²⁴ See June 29, 2023 Order at 9.

Explanation of changes for b3737.22 The Prebuild Extension Work is no longer required.

The change described above and shown below results in a net cost decrease of \$8.2 million. SAA 1.0. Staff recommends Board approval.

Project ID	Developer	Change Description	Original (\$M)	Current (\$M)	Change (\$M)
b3737.22	MAOD	Scope Change	\$194.29	\$ 186.09	-\$8.2
				SUM	-\$8.2

Rate Counsel Correspondence

Staff provided the New Jersey Division of Rate Counsel ("Rate Counsel") information on these updates. Rate Counsel did not object to the Board approving these changes, and did not provide any filed commentary in this docket. Rate Counsel continues to request that Staff regularly communicate with Rate Counsel's office to consider the potential ratepayer impact of future changes in cost or scope.

III. DECISION AND FINDINGS

Based on the review of the information presented above and Staff's recommendation, the Board HEREBY APPROVES the scope and cost modification to MAOD's designated scope of work and costs as discussed above and HEREBY DIRECTS MAOD to engage with PJM so that it may take the necessary steps to effectuate such modification. The Board HEREBY FURTHER DIRECTS MAOD to update Staff regularly on the PJM amendment process, including, but not limited to, schedule updates and any cost estimate adjustments.

For the scope-related adjustments, the Board <u>HEREBY ACKNOWLEDGES</u> these adjustments to the SAA 1.0 projects. The Board also <u>HEREBY REAFFIRMS</u> that all of the benefits associated with the Larrabee Tri-Collector Solution are expected to be realized by the residents of New Jersey, and that New Jersey's ratepayers are expected to see a savings of approximately \$900 million as a result of the SAA projects being utilized to achieve New Jersey's OSW public policy.

As stated in the SAA Order and again here, the Board finds that future revisions to the awarded SAA Projects may be required. The Board <u>HEREBY RETAINS THE RIGHT</u> to enter further orders in this docket as deemed necessary to reflect significant updates to the scope, configuration and/or cost of projects on the basis of any future changed circumstances. In addition, should PJM or Staff identify routine changes to elements of any awarded SAA Projects that would increase the benefits to New Jersey ratepayers, the Board <u>HEREBY AUTHORIZES</u> Staff to review and accept these revisions, and notify PJM of the same.

The effective date of this Order is December 18, 2024.

DATED: December 18, 2024

BOARD OF PUBLIC UTILITIES

BY:

CHRISTINE GUHL-SADOVY

PRESIDENT

MICHAEL BANGE COMMISSIONER

DR. ZENON CHRISTODO COMMISSIONER MARIAN ABDOU COMMISSIONER

ATTEST:

SHERRI L. GOLDEN

SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities.

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IN THE MATTER OF DECLARING TRANSMISSION TO SUPPORT OFFSHORE WIND A PUBLIC POLICY OF THE STATE OF NEW JERSEY

DOCKET NO. QO20100630

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