Agenda Date: 7/14/21
Agenda Item: 8B

STATE OF NEW JERSEY

Board of Public Utilities
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CLEAN ENERGY

IN THE MATTER OF THE ACOUSTICAL TESTING PILOT PROGRAM PURSUANT TO N.J.S.A. 48:3-60.3	)	ORDER
	)	DOCKET NOS. QO21010014 et al. (Docket Nos.: QO21050801 through QO21050808, QO21050811)

(SERVICE LIST ATTACHED)

BY THE BOARD:

By this Order, the New Jersey Board of Public Utilities ("NJBPU" or "Board") considers the New Jersey Division of Clean Energy ("Staff") recommendation on the applications received for the Acoustical Testing Pilot Program.

BACKGROUND

On February 9, 1999, the Electric Discount and Energy Competition Act ("EDECA"), L. 1999, c. 23, was enacted. N.J.S.A. 48:3-49 et seq. Among other provisions, EDECA established the Societal Benefits Charge at N.J.S.A. 48:3-60 ("SBC"). The SBC constitutes a per unit charge billed to ratepayers by an electric or gas public utility at a level determined by the Board in accordance with N.J.S.A. 48:3-60. The total amount of the SBC paid by each commercial or industrial ratepayer constitutes its SBC liability, and a portion of those remittances funds clean energy programs. The SBC funds programs for the advancement of energy efficiency ("EE") and renewable energy in New Jersey.

Section 3.1.3 of the 2019 Energy Master Plan ("EMP")[1] recommends that "New Jersey should look to new energy-saving opportunities in complementary sectors, such as the water sector" and observes that "[e]nergy costs associated with running pumps is one of the top three costs for water utilities in New Jersey." Additionally, the EMP notes that "[w]astewater treatment facilities could also be critical in driving energy reductions, as could monitoring and replacement of leaking water supply pipelines."

[1] 2019 New Jersey Energy Master Plan, § 3.1.3, available at https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf.

The Board established fiscal year 2022 ("FY22") for New Jersey's Clean Energy Programs ("NJCEP") and Budgets by Board Order[2] dated June 24, 2021. The NJCEP FY22 budget provided for the funding of numerous EE programs, including an allocation in the amount of $1.5 million in carryforward funding from fiscal year 2021 ("FY21"), to support year one of an Acoustical Testing Pilot Program. The Acoustical Testing Pilot Program encourages the exploration of new energy-saving opportunities in complementary sectors, such as the water sector, and allocates resources to facilitate water utilities purchasing or leasing acoustic monitoring systems that employ permanent leak monitoring technology to enable them to more efficiently and effectively locate water leaks.

DESCRIPTION OF ACOUSTICAL TESTING PILOT PROGRAM

Staff developed the Acoustical Testing Pilot Program application, which was authorized for release by the Board on March 3, 2021. The eligibility requirements for the Acoustical Testing Pilot Program included the following: 1) the applicant must be a water utility duly authorized to conduct business in New Jersey; and 2) the water system to be addressed in the pilot must have greater than 15% Unaccounted for Water ("UAW") or Non-revenue Water ("NRW") on a system-wide basis. While the Acoustical Testing Pilot Program welcomed proposals from all New Jersey water utilities, its evaluation criteria were designed to address water and energy losses in urban and older suburban communities with older infrastructure and that would also result in benefits to overburdened communities.[3] Individual award amounts for the Acoustical Testing Pilot Program were capped at $500,000.

Prior to the receipt of applications, the applicants were given the opportunity to pose questions pertaining to the application and requirements. Staff established April 5, 2021 as the deadline for all questions, and Staff replies were made publicly available.

Nine applications were received by the application deadline of May 17, 2021. Staff conducted an application completeness check and notified applicants with complete applications that their applications had been successfully submitted. Additionally, Staff notified applicants whose applications were missing required information that their applications were administratively incomplete and identified the additional information required. Applicants with incomplete applications were given 10 business days to cure the deficiencies by submitting a supplement containing the information required for the application to be deemed administratively complete. Five applicants successfully submitted administratively complete applications by the cure deadline.

PROGRAM EVALUTION PROCESS

Prior to the receipt of the Acoustical Testing Pilot Program applications, Staff assembled a five-person review team ("Evaluation Team"). The Evaluation Team included Staff from the Clean Energy and Water Divisions, which had support from the Counsel's Office to ensure that the appropriate expertise was brought to the evaluation process. Prior to review of applications, the Evaluation Team specified that projects receiving funding must be deemed viable by the

[2] I/M/O the Clean Energy Programs and Budget for Fiscal Year 2022, Docket No. QO21040720 (June 24, 2021).
[3] See New Jersey's Clean Energy Program™ Fiscal Year 2022 Program Descriptions and Budgets (2021), available at https://njcleanenergy.com/files/file/Library/FY21/DCE%20FY22%20Draft%20Compliance%20Filing%20DRAFT%20FOR%20COMMENTS%2005%2018%2021.pdf.

evaluation committee, as reflected in an application's consistency with the Acoustical Testing Pilot Program objectives and a clear demonstration of an applicant's ability to effectively meet the implementation and reporting criteria.

Each Evaluation Team member reviewed the applications that were deemed administratively complete. The Evaluation Team then met to collectively discuss the applications and review the evaluation criteria. Subsequently, committee members individually evaluated each project based on the following evaluation criteria:

Project Plan and Budget (30 points)
Factors considered:

- Description of the proposed project's objectives, scope, and the current status;
- The merits of applicant's proposal relative to the objectives of the Acoustical Testing Pilot Program; and
- Cost effectiveness of the budget.

Demonstrated Project Feasibility and Commitment (35 points)
Factors considered:

- Presence of evidence of a robust baseline dataset and a clear ability to measure against that baseline in periodic and final reporting; and
- Demonstration of a commitment and possession of sufficient resources to use this pilot to address significant leaks in its water system.

Benefit to Overburdened Communities[4] (20 points)
Factors considered:

- How much of the service area to be addressed qualifies as an overburdened community; and
- The extent to which the project demonstrates potential benefits to overburdened communities.

Novel Use (15 points)
Factors considered:
Whether and to what extent advanced acoustical testing technology has previously been applied by the applicant in their service area(s).

Individual scores for each project were shared with the full Evaluation Team. The Evaluation Team then met to discuss the scores and the subsequent discussion was informed by the expertise of each Evaluation Team member, which resulted in refinement of individual scores. After this meeting, a final average score for each project was calculated from the individual scores for that project. The final average score provided a numerical ranking of each applicant from highest average score to lowest average score.

[4] An overburdened community is defined as any census block group as determined in accordance with the most recent United States Census, in which: (1) at least 35% of the households qualify as low-income households; (2) at least 40% of the residents identify as minority or as members of a State recognized tribal community; or (3) at least 40% of the households have limited English proficiency. N.J.S.A. 13:1D-158.

STAFF RECOMMENDATIONS

As previously mentioned, $1.5 million in funding was authorized for year one of the Acoustical Testing Pilot Program. The Evaluation Team deemed the four highest ranked applications viable based upon the evaluation criteria and recommends that these projects receive the full incentive amount requested in their respective applications. However, incentive funding is not recommended by Staff for the City of Hoboken project, based on the description of the project contained in the application and the energy objectives of this program. Staff recommends that the Board approve the following Acoustical Testing Pilot Program Awards to these four applicants:

Rank	Applicant	Docket NO.	Amount of Recommended Award
1	Trenton Water Works	QO21050803	$433,044.00
2	Township of North Brunswick	QO21050811	$250,502.85
3	Manchester Utilities Authority	QO21050806	$272,449.00
4	Washington Township Municipal Utilities Authority	QO21050804	$171,522.50
Total			**$1,127,518.35**

Summaries of the characteristics of these projects are included as Appendices 1 through 4 attached to this Order. The remaining $372,481.65 will be rolled over into the FY22 budget for use in phase two of the Acoustical Testing Pilot Program.

Staff notes that, in keeping with the objectives of the Acoustical Testing Pilot Program, these projects address water systems that have water losses ranging from 33% to 53% UAW or NRW. Three projects mitigate water and energy losses in urban and older suburban communities and address losses in overburdened communities. A summary of the characteristics of these projects is also provided in Appendices 1 through 4.

DISCUSSION AND FINDINGS

The Board notes that water and energy losses associated with leaking water infrastructure in New Jersey result in tens of billions of gallons and tens of millions of kilowatt-hours of energy lost each year. Advanced acoustic leak detection technology has been successfully employed by water utilities in New Jersey and elsewhere to more efficiently and effectively locate water leaks and thus realize significant water, energy, and cost savings, which if employed in New Jersey could further advance the objectives of the EMP.

The Board has reviewed Staff's recommendations on the Acoustical Testing Pilot Program and **FINDS** that they are consistent with the goals of reducing energy use and water loss as outlined in the EMP.

The Board **AWARDS** incentive funding to those projects recommended by Staff above. The Board **HEREBY DIRECTS** Staff to disburse the incentive awards listed above in accordance with Board policy. The Board further **HEREBY DENIES** without prejudice the remaining applications identified in the attached Appendix 5. Year one of the Acoustical Testing Pilot Program is now closed. The Board notes that applicants not selected to participate in the Acoustical Testing Pilot Program may apply in the next application period without advantage or disadvantage, subject to meeting any requirements set by the Board during the next application period.

The Board **DIRECTS** each awardee to enter into a contract with the Board using the State's Standard Grant Agreement ("Grant Agreement") within 90 days of the effective date of this Order, so as to transfer the incentive funds to the applicant. The Grant Agreement will establish the terms and conditions of the award.

The Board **DIRECTS** that among other things, the Grant Agreement contain a provision that 75% of the award amount to each applicant will be provided upon execution of the Grant Agreement and the remaining 25% of the award will be provided upon submission of the final report for the project and its approval by Staff.

The Board further **DIRECTS** each awardee to submit a quarterly status report to Staff, starting with the first full quarter after the initiation of the project and providing an update on the following: 1) project implementation, including acoustical monitoring system installation, number of leaks detected, a description of corrective actions taken and their associated costs; and 2) an assessment of the improvements realized through implementation of the project relative to the system wide and project specific baselines, including water savings (gallons; % UAW or NRW), energy savings associated with the treatment and distribution of water (kWh), and itemized cost savings ($) related to both of these metrics. All baseline metrics must be from the same reporting period. The Board further **DIRECTS** each awardee to submit a final report 18 months after the initial funding is awarded, defined as when the first payment of the award is disbursed. Final reports shall include: 1) an overview of the project, including a project description; 2) documentation of the project's implementation; 3) a summary and discussion of the data and information included in previous quarterly reports, including a final table of relevant information; 4) a final assessment of the impact of the project, including water (gallons), energy (kWh), and cost savings ($); 5) an estimate of the return on investment for the acoustic system; and 6) a robust summary of the project outcomes, including an assessment of what benefits were realized by overburdened communities, if overburdened communities exist in the applicant's service area.

Additionally, the Board **DIRECTS** that if Staff finds that in review of quarterly status reports or the final report the applicant has not meet the reporting requirements laid out in the application, Staff shall inform the applicant of the deficiencies and allow the applicant to correct the deficiencies within 60 days of receiving Staff's notice, via email. If the deficiencies are not corrected by that time, the remaining 25% of the award will not be released to the applicant.

The Board **DIRECTS** all projects to comply with all applicable local, State, and Federal rules and regulations.

This Order shall be effective on July 14, 2021.

DATED: 7/14/21

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BY:

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SECRETARY

IN THE MATTER OF THE ACOUSTIC TESTING PILOT PROGRAM
PURSUANT TO N.J.S.A. 48:3-60.3

Docket Nos. QO21010014 et al. (QO21050801 through QO21050808; QO21050811)

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Acoustical Testing Pilot Program Applicants
(See attached Appendices)

The Appendices below are organized by Docket Number. The order of the Appendices bears no meaning on the scores received by individual applications.

Appendix 1:

Docket No.	Applicant Name	Contact Name	Contact Email
QO21050803	**Trenton Water Works**	**Noemi de la Puente**	ndelapuente@trentonnj.org

Project Description: The proposed project presents a cogent and comprehensive plan to address leaks in Trenton Water Works (TWW) service area, which had a 2020 UAW estimate of 53%. Funds from the Program would be focused on detecting leaks in overburdened communities in Trenton and Hamilton within TWW's service area. TWW's application indicates that the utility possesses the resources and commitment to repair leaks that are detected. Baseline data of water and energy losses suggest significant water, energy, and cost savings could be realized. Although TWW's application demonstrates a variety of prior efforts to reduce UAW, it has not previously used permanent acoustical leak detection technology.

Appendix 2:

Docket No.	Applicant Name	Contact Name	Contact Email
QO21050804	**Washington Township Municipal Utilities Authority**	**Thomas McAndrew**	tmcandrew@wtmua.org

Project Description: Washington Township Municipal Utilities Authority (WTMUA) which services Washington Township in Morris County has NRW of 48.6% in its most recent water audit (2019). WTMUA has sought to address NRW by contracting with an engineering firm that has employed a variety of strategies not including permanent leak detection technology. Its investigation has isolated one portion of their service area as the region of greatest water loss. The applicant plans to use funds from the Program to acquire permanent leak detection technology and employ it in this portion of its water system. The baseline data provided by the applicant indicate the potential to realize considerable water, energy, and cost savings.

Appendix 3:

Docket No.	Applicant Name	Contact Name	Contact Email
QO21050806	**Manchester Utilities Authority**	**Jerry R. Mitchell**	jerry.mitchell@arcadis.com

Project Description: Manchester Utilities Authority (MUA) services the towns of Haledon and North Haledon and with grant funding plans to apply permanent leak detect technology throughout its service area. Haledon which represents about 60% of their service area is an overburdened community. NRW has been increasing in the applicant's system, averaging 33% over the past 2 years. The applicant has sought to address NRW in its system since 2011 employing a variety of different strategies, but has never implemented permanent leak detection technology. Sound baseline data and analysis provided by the applicant from both the MUA's system and the water commission its contracts with suggests analysis of water and energy savings associated with this project will be robust and that this project has the potential to realize substantive water, energy, and cost savings. The applicant demonstrates possession of the resources and commitment to address leaks that are detected.

Appendix 4:			
Docket No.	**Applicant Name**	**Contact Name**	**Contact Email**
QO21050811	**Township of North Brunswick**	**Justine Progebin**	TWPNBadministration@northbrunswicknj.gov
Project Description: The Township of North Brunswick had an average UAW from 2016 to 2019 of 39%. As part of ongoing efforts to address UAW in the service area, the applicant proposed to use funds to employ permanent leak detection to address water and energy losses in 9 priority areas, one of which they have previously piloted this technology on a limited scale. The applicant provided robust baseline data demonstrating the potential for significant water and energy savings and indicated the possession of the necessary resources to address leaks that are detected through an existing contract with NJ American Water. The Township of North Brunswick provided demographic data demonstrating its status as an overburdened community.			

Appendix 5: Applications Not Selected			
Docket No.	**Applicant Name**	**Applicant Contact**	**Contact Email**
QO21050801	Borough of Netcong	Ralph Blakeslee	rblakeslee@netcong.org
QO21050802	City of Perth Amboy Water Department	Luis A. Perez-Jimenez	lperez@middlesexwater.com
QO21050805	Township of Edison Water Utility	Robert Smith	rsmith@edisonnj.org
QO21050807	City of Hoboken	William B. Lupo	wlupo@hobokennj.gov
QO21050808	Mine Hill Township Water Utility	Sam Morris	MayorSamMorris@MineHill.com