



New Jersey's

cleanenergy
program™

APPLICATION

Issued: March 15th, 2021

New Jersey's Clean Energy Program

Acoustical Testing Pilot Program

APPLICATIONS TO BE SUBMITTED BY

May 15th, 2021; 5:00 PM EST

QUESTIONS TO BE SUBMITTED BY

April 5th, 2021; 5:00PM EST

1. Program Description and Objectives:

- 1.1. In accordance with [New Jersey's 2019 Energy Master Plan](#) Goal 3.1.3, which encourages the exploration of “new energy-saving opportunities in complimentary sectors,” the New Jersey Board of Public Utilities (“NJBP” Division of Clean Energy (“DCE”) is launching a pilot program to enable New Jersey water utility companies (“Water Utilities”) to purchase or lease advanced acoustic monitoring technology to provide permanent leak monitoring of their water system. This pilot program will provide funding on a competitive basis to enable Water Utilities to realize water, energy, and cost savings through a more effective and efficient detection system; thus, enabling them to more expeditiously address leaks in their water systems.
- 1.2. In order to expand the use of permanent leak detection technology in New Jersey, the pilot program welcomes applications from all Water Utilities. However, the pilot program primarily seeks to address water and energy losses in urban and older suburban communities with significant evidence of water leakage that are located in overburdened communities as defined by P.L.2020, c.92.¹ As reflected in the evaluation criteria outlined below, there will be a preference for applications that specifically seek to benefit overburdened communities.

2. Submission Requirements:

- 2.1. Completed applications must be emailed to board.secretary@bpu.nj.gov by 5pm May 15th, 2021.
- 2.2. Completed applications shall be submitted in Microsoft Word format or Adobe PDF format; appendices can include Microsoft Excel format. All formats must be searchable documents.
- 2.3. Questions pertaining to this program shall be addressed to board.secretary@bpu.nj.gov with “Acoustical Testing Pilot Program” referenced on the subject line. Questions should be specific and reference the applicable section of the required application element(s). Questions must be submitted by 5:00pm EST on April 5th, 2021. All questions and answers will be made available to all applicants. Questions will be edited to remove any information that would identify the questioner.

¹ 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.

- 2.4. Confidential treatment of any information on the application or questions submitted must follow the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.

3. Program Eligibility Requirements:

- 3.1. The applicant must be a Water Utility duly authorized to conduct business in New Jersey.
- 3.2. 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.

4. Scope and Funding Availability:

- 4.1. \$1.5 million is budgeted for this pilot program in fiscal year 2021. The pilot program will commence upon NJBPU approval and will last until 18 months after the first disbursement has been issued. Funding for individual projects will be based on the scope and scale of the proposed project. The pilot program seeks to enable Water Utilities to address leaks in a portion of a water system that presents major concerns about water leakage. Funding can only be used for charges associated with the acquisition and installation of a permanent acoustic leak detection system and the associated administrative and project evaluation and verification costs as described below. Individual requests for funding must be less than \$500,000. Applicants shall indicate the anticipated costs for the purchase (or lease) and installation of the permanent leak detection system they propose to employ; providing details in the budget section of the application. Awards will be disbursed in two tranches: 75% will be awarded at project inception and the remaining 25% will be awarded at the completion of the project after approval of the final report. The second disbursement is contingent on the applicant meeting project metrics and reporting requirements described below. All awards are subject to the availability of funding.

5. Application Requirements:

- 5.1. Applications should be submitted in Microsoft Word format or Adobe PDF format to board.secretary@bpu.nj.gov by the application deadline (5pm EST on May 15th, 2021); appendices can include Microsoft Excel file formats. All formats must be searchable documents.

Applications shall be prepared and submitted in the following format:

- 5.2. Applicant information (1 page maximum):
 - 5.2.1. The Water Utility name and address;
 - 5.2.2. The service territory;

- 5.2.3. The applicant's contact name, address, telephone number, and email address;
- 5.2.4. The project name; and
- 5.2.5. The number of customers served.
- 5.3. Project plan which should include (eight pages maximum):
 - 5.3.1. A clear description of the proposed project's objectives, scope, portion of the service territory to be addressed, and the current status of the portion of the water system to be addressed (e.g., estimated age of pipes, pipe material(s), water loss related concerns, opportunities to effectively mitigate leaks, etc.). Please include the age and a description of the water pumping equipment. The applicant must also note whether it has previously implemented permanent acoustic leak detection technology in their water system(s) and if applicable, describe its implementation; and
 - 5.3.2. A justification why the Water Utility, and more specifically, the community proposed for the pilot is a good candidate for funding with regards to the objectives of this pilot program. The explanation should include UAW or NRW and other relevant information, such as the number of water main breaks and frequency of outage or issues with service over the past five years, as available. The applicant must also indicate whether it has received and/or applied for grants or other funding pertaining to acoustic leak detection technology from any other entities.
 - 5.3.3. For applications that include projects in overburdened communities, the application should include a section which details how the proposed project may benefit the community.
- 5.4. Proposed budget (not to exceed the maximum allowable award threshold) (three pages maximum) providing an itemization and justification of specific costs, including quotes from vendors (can be included as appendices), for the following:
 - 5.4.1. The purchase (or lease) of permanent acoustic leak detection equipment;
 - 5.4.2. The installation of the acoustic leak detection technology within the water system, including but not limited to any associated administrative costs, such as software training, software upgrades, and battery replacement;
 - 5.4.3. The administrative overhead related to the implementation of this project (no more than 10% of project budget); and
 - 5.4.4. An evaluation, measurement, and verification of the efficacy of the project (no more than 5% of project budget).
- 5.5. Project feasibility and commitment assessment (five pages maximum):
 - 5.5.1. An explanation along with evidence of the applicant's ability to meet reporting requirements and establish a credible baseline. Baseline data for the water system should include the following for the previous five years, as available (as appropriate, information pertaining to these items can be included as appendices):
 - 5.5.1.1. Report of pumpage (thousands of gallons or cubic feet pumped);

- 5.5.1.2. Reporting of billings (thousands of gallons or cubic feet pumped);
 - 5.5.1.3. Water allocation (millions of gallons/year);
 - 5.5.1.4. Energy and energy costs: total energy (kWh) used for pumping and treatment; total cost of energy (\$); cost of energy per volume pumped (\$/million gallons or cubic feet);
 - 5.5.1.5. Estimated UAW or NRW (%);
 - 5.5.1.6. Water losses (gallons);
 - 5.5.1.7. Energy losses (kWh);
 - 5.5.1.8. The estimated annual cost of those losses (\$); and
 - 5.5.1.9. Any of these metrics or other relevant data specific to the portion of the water system to be addressed in this pilot.
- 5.5.2. The applicant must demonstrate a commitment to address leaks detected in the portion of the water system where the pilot program is implemented by providing a plan for reducing water loss that moves their system as close as possible to compliance (below 15% UAW or NRW) during the 18 month period of the pilot.
- 5.5.3. The applicant must demonstrate possession of sufficient resources and equipment to repair leaks.
- 5.6. The applicant must sign and date the application and provide certification of the application by including the following language: “By signing this application, I certify under oath that the information given in and attached to this application is true, complete, and correct. I am aware and understand that if any information contained in or attached to this application is willfully false, that I am subject to criminal prosecution under N.J.S.A. Section 2C:28-2.”
- 5.7. Appendices (not to exceed 15 pages): The applicant should provide relevant attachments (as available) including:
- 5.7.1. Maps of the water system and proposed focus area of the pilot;
 - 5.7.2. Tabular and graphical water leakage data for the focus area (previous five years);
 - 5.7.3. A list of water main breaks with locational information (previous five years);
 - 5.7.4. A list of prior reported leaks (previous five years); and
 - 5.7.5. Any other information the applicant deems relevant in support of the application.

6. Reporting Requirements:

- 6.1. Progress reports (not to exceed 10 pages; additional appendices to the report are permitted but are themselves not to exceed 10 pages) must be submitted as Microsoft Word or PDF documents; appendices can include Microsoft Excel format. All formats must be searchable documents. Progress reports must be submitted quarterly via email to board.secretary@bpu.nj.gov by 5pm on the final

day of the quarter (i.e., September 30th; December 31st, March 31st; and June 30th) starting with the first full quarter after the initiation of the project. The first quarterly progress report submission should contain information on any activities since the inception of the project, along with the following information which is required for subsequent quarterly progress report submissions:

6.1.1. A narrative update on project implementation, specifically outlining actions taken such as system installation and implementation; number of leaks detected; description of the corrective action taken; costs associated with those actions; and

6.1.2. An assessment of the improvements realized through implementation of the project relative to the systemwide and project specific baseline (as reported in the application, Section 5.5.1) including:

6.1.2.1. water savings (gallons; % UAW or NRW);

6.1.2.2. energy savings (kWh); and

6.1.2.3. associated cost savings (\$).

6.2. Final Report: The submission shall be made within 18 months after initial funding is awarded, defined as when the first payment of an award is disbursed. At the completion of the project, grant recipients must submit a final report (not to exceed 15 pages; additional appendices to the report are permitted but are themselves are not to exceed 15 pages). Final reports must be submitted via email to board.secretary@bpu.nj.gov as Microsoft Word or PDF documents; appendices can include Microsoft Excel format. All formats must be searchable documents. Final reports should include the following:

6.2.1. A general overview of the project including a project description;

6.2.2. Documentation of the project's implementation;

6.2.3. A summary and discussion of the data and information included in previous quarterly reports, including a final table of relevant information;

6.2.4. A final assessment of the impact of the project including water (gallons), energy (kWh), and costs savings (\$);

6.2.5. An estimate of the return on investment for the acoustic system; and

6.2.6. A robust summary of the project outcomes.

7. Evaluation Criteria:

Following the close of the application submission period, each application will be evaluated based on the criteria below.

7.1. Project Plan and Budget (30 points). The application provides a clear and comprehensive presentation of the following:

7.1.1. A description of the proposed project's objectives, scope, and the current status;

7.1.2. The merits of applicant's proposal relative to the objectives of the pilot program; and

- 7.1.3. A budget demonstrating a cost effective approach to project implementation.
- 7.2. **Demonstrated Project Feasibility and Commitment (35 points).** The applicant must:
 - 7.2.1. Provide evidence of a robust baseline dataset and a clear ability to measure against that baseline in periodic and final reporting; and
 - 7.2.2. Demonstrate a commitment and possession of sufficient resources to use this pilot to address significant leaks in its water system.
- 7.3. **Benefit to Overburdened Communities (20 points).** Preference will be given to applications that demonstrate benefits to overburdened communities (as defined above); and
- 7.4. **Novel Use (15 points).** The NJBPU DCE is seeking to expand the use of this novel technology among Water Utilities.

The applicant may be required to provide clarifying information to their application upon request from the NJBPU.

The NJBPU reserves the right to negotiate the scope of work, budget, and funding levels with prospective awardees. Awardees are bound by the Terms and Conditions of all contracts awarded by the State.

8. Awards:

- 8.1. \$1.5 million is budgeted for this pilot program. The number and amount of awards will be determined based on the application evaluation and available funds. Individual award amounts will be less than \$500,000.
- 8.2. Awards will be disbursed in two tranches: 75% of funds will be awarded at project inception and the remaining 25% of funds will be award at the completion of the project. End of project funding is contingent upon the applicant successfully meeting the project metrics (Section 5.5.2) and adhering to reporting requirements (Section 6).
- 8.3. Awardees will be required to sign a grant agreement with the NJBPU in order to transfer funds from the NJBPU to the applicant and to establish the terms and conditions of the award.
- 8.4. All awards are subject to the availability of funding.

9. Confidentiality:

- 9.1. Submitted applications are subject to disclosure under the Open Public Records Act N.J.S.A. 47:1A-1 et seq. Sensitive and trade secret information that the applicant deems confidential should be submitted in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3. After the awards are made, successful applications will be posted on the NJBPU's website.