



**Town of Hull
Sewer Department**

**Request for Proposals
Wastewater Treatment-Innovative Technology Project
Proposals Due: September 4, 2019 11:00 am (EDT)**

August 15, 2019

OVERVIEW

The Town of Hull, Massachusetts has been awarded a grant in the amount of \$140,627 for the piloting of innovative technologies at publicly owned wastewater treatment (“WWT”) districts and authorities in Massachusetts under the Wastewater Treatment Plant Innovative Technology Pilot Program (the “Program”). The Town has teamed with our contract operator, Woodard & Curran and is now seeking proposals to qualify for the grant. The MassCEC grant will allow the Town to implement innovative approaches to demonstrate and determine the real-time plant operations and energy efficiency improvements, including continuous monitoring capabilities. This grant is intended to provide data management for operations savings, efficiencies and improve resiliency for a relatively small wastewater facility. It is also intended for the Town to have live access to the treatment facility process monitoring system.

The successful innovative water technology provider will propose meaningful pilots of commercially available (or near-commercial) innovative technologies. The Project’s goal is to allow for the optimization of operations, allowing for an average of 15 percent reduction in energy use, improving workforce efficiencies, avoiding permit violations and more accurately monitoring and forecasting information for plant flows, rainfall, tidal, and weather information to minimize operational risk.

SCOPE OF WORK

The scope of work below includes, but is not limited to, the minimum expected service by the Provider to satisfy Grant conditions. It is expected that innovative technologies to meet this scope of work and the project goals will be demonstrated as part of the proposal project approach.

- Kick off meeting to review detailed project plan, milestones and deliverables
- Integrate pumping systems design and live data into the Provider system to show pump dashboard, analytics, actual vs design pump curves and other capabilities in the platform. Assess the most optimal pump operation under various dynamic conditions considering actual on the ground equipment condition and inflows
- Assess aeration basin real-time data and lab data for reduction of BOD or CBOD over a period of time taking into consideration DO levels, air flows, transfer efficiencies, blower settings and blower performance. Assess real time performance activated sludge to assess optimal settings for air and blowers, minimize amount of air per lb. of CBOD or BOD removal, maximizing CBOD or BOD reduction across the deck while keeping optimal DO levels. Also provide actual Blower performance relative to design
- Monitor conditions in the collection system for conditions indicative of excessive infiltration and inflow based on historical information on collection system, plant flows, weather, rainfall, tide levels, to assess and identify conditions that lead to collection system capacity overloads. Track collection system flows, wet weather events and

tidal conditions to provide insights on problem areas resulting from high infiltration and inflows (I/I), within the collection system. Provide forecasts on plant influent flows based on forecasted weather patterns

- Review the performance of the two-mode operation of primary and waste activated sludge processing (cold weather and warm weather) to maximize the performance of sludge thickening and reduce the amount of trucking, while keeping the sludge septicity and odor within permissible design levels. Assess the appropriate sludge processing based on conditions in real-time and will provide best plan for sludge disposal.
- Provide an autonomous monitoring system that will alert and notify of conditions throughout the plant and collection system. The alerts such as next day wet weather flow event, low pump efficiency, excessive consumption of air, less than optimal sludge disposal, etc.
- Provide training and adoption tactics to drive use and implementation of the platform as part of day to day management of the utility.

SELECTION CRITERIA

All Proposals must be responsive to the requirements provided in this RFP and will be evaluated on the general criteria below:

Criteria	Sub Criteria
Minimum Threshold	<p>Town of Hull reserves the right to only consider Proposals that, in its sole judgment, meet the following minimum threshold criteria including:</p> <ol style="list-style-type: none"> 1. The Provider is eligible for selection. 2. The Proposal is submitted before the deadline, is complete and responsive to the RFP Proposal requirements. 3. The Provider has designated the required level of Cost-information 4. The Provider plans to carry out a pilot project commensurate with the key performance indicator being energy efficiency. 5. The Provider has demonstrated sufficient time resources and flexibility to conduct the technology pilot. 6. The Provider is in good standing with any other awards received through MassCEC, other state agencies or municipalities/water districts.
Potential of the Proposed Technology	<ol style="list-style-type: none"> 1. Clear identification of why the technology is innovative. 2. Clear understanding of existing alternative solutions/technologies and demonstration that the technology has the potential to be superior. 3. Demonstration of understanding of barriers and risks to technology/project success and proposed methods of addressing such barriers. 4. Demonstration of commercialization potential

	<p>of the proposed technology, including a realistic identification of the addressable market for the product, and how the demonstration project will move potential customers to adopt the proposed solution.</p> <p>5. Clear identification of a go-to-market strategy and a viable, sustainable business model.</p>
Project Projected Benefits	<p>1. The energy efficiency, energy efficiencies, optimization of operations, workforce efficiencies, and other factors to minimize operational risk/benefits that are expected from the successful demonstration of the proposed technology and also from widespread adoption of the proposed technology and the potential of the technology to successfully deliver these benefits.</p> <p>a) A quantification of the estimated energy efficiency</p> <p>b) Baseline energy efficiency metrics from which the proposed technology pilot will improve upon.</p> <p>c) An estimate of the payback of the technology when it reaches the commercialization stage, if applicable.</p> <p>2. The plan for quantifying actual benefits of the demonstration project after its completion.</p> <p>3. Project benefit to the Commonwealth, including but not limited to: job growth, company growth, and energy cost/consumption reduction.</p>
Qualifications	<p>1. Provider has relevant skills, qualifications and experience to support the project.</p> <p>2. Provider has the minimum qualifications described in the Eligibility to manage a water technology pilot to a successful completion.</p> <p>3. Provider has demonstrated a strong track record of conducting previous pilots by providing project close-out reports showing proven experience completing similar projects.</p>
Project Work Plan	<p>1. A clear Project Work Plan and Budget including steps to assess progress and measure success. A strong work plan will include a description of how necessary resources will be mobilized and how the work can be accomplished according to the proposed timeline.</p> <p>2. An estimated timeline that fits the work plan and highlights key project development and deployment milestones.</p> <p>3. Work plan is relevant to the goals of the Program, and achievable within a 12-month span.</p> <p>4. A description of how the Provider intends to demonstrate successful completion of milestones under the WWT Program, including</p>

	(if applicable): a) A detailed performance monitoring and verification plan for assessing the energy savings of the pilot demonstration. b) A clear articulation of project goals and/or design criteria. c) Advancement of technology readiness level of the technology 5. A description of the metrics by which the proposed project will be measured upon completion. 6. An understanding of the concepts and motivators underlying this Program.
Budget	1. Reasonableness of the budget relative to the work plan; cost-effectiveness compared to other similar Applications. 2. Project components reflected in the Provider's proposal are commensurate with the proposed budget 3. Ability to carry out a pilot on time and on budget.

PROJECT PROPOSAL SUBMITTAL REQUIREMENTS (Limit 20 pages via electronic pdf including all attachments). Conciseness and clarity are encouraged.

Project Summary

Provide a brief overview of the proposed WWT technology pilot project, addressing the goal(s) of the project, how this project will advance the Technology and Commercial Readiness Levels, and how this technology could potentially save the Town on future energy costs.

Potential of the Proposed Technology/Project Approach

Provide details regarding the water technology(ies) to be deployed, including the following:

- **A description of the water technology**, including the current state and TRL of the technology as identified by the NYSERDA TRL Calculator. If the technology is commercial, provide information and data showing where in the United States this technology is currently deployed and in use. *Only technologies with a Technology Readiness Level of 6 and above will be considered under this RFP.*
- **A description of how the technology is both innovative and viable**, Including identification of innovative differentiating features vs. competitors or existing solutions. Describe any enhancements that the Provider is suggesting, the value and benefit of each, and expected cost and cost savings if such enhancements are implemented.

Provider Statement of Qualifications

Describe the proposed relationships that will support a technically and economically successful project, including the relevant skills, credentials and experiences of key Applicant Team members. All responses should specifically indicate the Provider's current and historical expertise in conducting a WWT pilot as requested by this RFP.

Identify team members and their roles. Identify the point of contact who will serve as the project manager. For team members, note their relevant skills, credentials and experiences. Identify how the Provider will interact and function with the Woodard & Curran and Hull Team members along with their roles. For key individuals with the Provider, note their relevant skills, credentials and experiences.

Budget Narrative

Include a budget and narrative that provides additional detail on each budget line item included in the Project Work plan and Budget. Describe any subsequent year maintenance costs.

Proposal Due Date

Electronic submission of the Proposals shall be made no later than Wednesday, September 4, 2019 at 11:00 am (Eastern Daylight Time) Address submissions to sewer@town.hull.ma.us

Questions

Questions regarding this RFP should be addressed to John Struzziery, Director of Wastewater Operations, jstruzziery@town.hull.ma.us

GENERAL CONDITIONS

The following Conditions are included in the Town's Agreement with MassCEC and these, as applicable, as well as other provisions required by the Town will be expected as part of any Agreement with the selected Provider.

NOTICE OF PUBLIC DISCLOSURE: As a public entity, the Town of Hull is subject to Massachusetts' Public Records Law, codified at Chapter 66 of the Massachusetts General Laws. Thus, any documentary material, data, or other information received by the Town from a provider is a public record subject to disclosure. Provider shall not send Town any confidential or sensitive information in response to this RFP.

DISCLAIMER & WAIVER AUTHORITY: This RFP does not commit the Town of Hull to award any funds, pay any costs incurred in preparing an Application, or procure or contract for services or supplies. The Town of Hull reserves the right to accept or reject any or all Proposals received, waive minor irregularities in submittal requirements, modify the anticipated timeline, request modification of the Proposal, negotiate with all qualified Providers, cancel or modify the RFP in part or in its entirety, or change the Proposal guidelines, when it is in its best interests.

This RFP has been distributed electronically using the Town of Hull's Sewer Department website. It is the responsibility of Applicants to check the website for any addenda or modifications to an RFP to which they intend to respond. Town of Hull accepts no liability and will provide no accommodation to Providers whom submit a Proposal based on an out-of-date RFP document.

CONTRACT REQUIREMENTS: Upon the Town of Hull and MassCEC's authorization to proceed with the proposal, the Town of Hull and the awarded Provider will execute a contract in a form and content agreeable to the Town of Hull and MassCEC which will set forth the respective roles and responsibilities of the parties.

COMPLIANCE WITH LAWS: Provider agrees to comply with all applicable federal, state, and local statutes, rules, regulations, and permitting requirements, including, but not limited to, all laws promoting fair employment practices or prohibiting employment discrimination and unfair labor practices, and shall not discriminate in the hiring of any applicant for employment nor shall any qualified employee be demoted, discharged, or otherwise subject to discrimination in the tenure, position, promotional opportunities, wages, benefits, or terms and conditions of their employment because of race, color, national origin, ancestry, age, sex, religion, disability, handicap, sexual orientation, gender identity, or for exercising any rights afforded by law.

INDEMNIFICATION:

To the fullest extent permitted by law, Provider shall indemnify and hold harmless the Commonwealth, MassCEC, and each of their respective agents, officers, directors, and employees (together with the Commonwealth and the Town of Hull employees, agents, and representatives, the "Covered Persons") from and against any and all liability, loss, claims, damages, fines, penalties, costs, and expenses (including reasonable attorney's fees), judgments and awards (collectively, "Damages") sustained, incurred, or suffered by or imposed upon any Covered Person resulting from (i) any breach of this Agreement or false representation of Grantee, its employees, agents, or assigns under this Agreement, or (ii) any negligent acts or omissions or reckless misconduct of Provider. Without limiting the foregoing, Provider shall indemnify and hold harmless each Covered Person against any and all Damages that may arise out of or are imposed due to the failure to comply with the provisions of applicable law by Provider or any of its agents, officers, directors, employees, or subcontractors.

In no event shall either Party be liable for any indirect, incidental, special, punitive, or consequential damages whatsoever (including, but not limited to, lost profits or interruption of business) arising out of or related to Provider's, its employees', agents', or assigns performance of the Project under this Agreement.

INSURANCE: Provider shall obtain and maintain through the term of any contract through this RFP appropriate insurance coverage suitable to the Town of Hull. Provider acknowledges the sufficiency of the types and amounts of insurance coverage maintained and the appropriateness of those coverages for the duration of the term. At the Town of Hull and MassCEC's request, Provider will provide the Town of Hull with copies of the certificates of insurance evidencing such coverage. The insurance

requirements for the Project and pursuant to this Agreement are solely the Grantee's responsibility and shall not relieve the Grantee of any responsibility to MassCEC.

The Provider shall obtain and maintain at its own expense until the completion and acceptance of its services under this Contract, the following minimum insurances and limits. The intent of the requirements regarding insurance is to specify minimum coverage and minimum limits of liability acceptable under the Contract. However, it shall be the Provider's responsibility to purchase and maintain insurance of such character and in such amounts as will adequately protect it and the Town from and against all claims, damages, losses and expenses resulting from exposure to any casualty liability in the performance of the work, including and not limited to Professional liability insurance where applicable.

Provider shall be protected by Workers' Compensation Insurance in statutory amounts; General Liability Insurance of \$1,000,000 per occurrence and \$2,000,000 in the aggregate; and Professional Liability Insurance of \$1,000,000 per claim and in the aggregate. Provider shall furnish the Town with certificates of insurance.

Provider shall also maintain an umbrella liability policy of at least \$5,000,000.00. Automobile Bodily Injury Liability, with an individual limit of at least \$500,000.00 and a total limit for any one accident of at least \$1,000,000.00, unless included in other insurance provided under this contract. Automobile Property Damage Liability Insurance, with a limit of at least \$50,000.00 for any one accident, unless included in other insurance provided under this contract.

Provider shall maintain a professional liability insurance policy with a deductible clause in an amount approved by the Town if in the judgment and opinion to the Town the Consultant's financial resources are enough to adequately cover possible liability in the amount of the deductible. The Provider shall submit promptly to the Town upon request as often as quarterly detailed financial statements and any other information requested by the Town to reasonably determine whether the Provider's financial resources are enough to adequately cover possible liability in the amount of the deductible.

The Provider shall furnish to the Town a Certificate of Insurance for Professional Liability Insurance in the amounts called for in this contract.

The Provider shall maintain during the life of this Contract a Valuable Papers Insurance Policy in the minimum amount of the value of this contract for losses on premises at locations where the documents may be kept.

Certificate of Insurance. The Provider shall submit to the Town a Certificate of Insurance outlining insurance coverage with the minimum coverage stipulated above, and such other evidence of insurance requested, with companies authorized to do business in Massachusetts and showing limits no lower than those indicated above, including the Town as an additional insured on the General Liability, Automobile Liability, and Umbrella Liability policies and in such terms and conditions as approved by the Town. The Provider's failure to provide and continue in force and effect and

insurance required under this Contract shall be deemed a material breach of this Contract for which Town, in their sole discretion, may terminate this Contract immediately or on such other terms as it sees fit. All insurance policies maintained by the Provider pursuant to this Contract shall provide that insurance as applying to the Town shall be primary and the Town's own insurance shall be non-contributing. All property damage insurance shall be endorsed with a waiver of subrogation by the insurer as to the Town. Said insurance shall include Contractual Insurance. The terms and conditions of the insurance shall be subject to the approval of the Town.

Additional Insured. Provider shall name the Town as an additional insured on all insurance carried by the vendor, except such insurance for which the Town cannot be an additional insured. Such insurance shall be such that the inclusion of the Town as an additional insured shall not impair by reason thereof the insurance coverage of any claim by the Town against the Provider.

Indemnification. Provider at its expense shall indemnify and hold harmless the Town, its agents, officers and employees from and against all claims, causes of action, and suits, and losses damages, and expenses which are the subject thereof, including attorney's fees and costs of investigation and litigation, arising out of any negligent acts, errors, or omissions of the Provider and/or its subcontractors and their employees, in the performance of this Contract. The foregoing express obligation of indemnification shall not be construed to negate or abridge any other obligation of indemnification running to the Town which would otherwise exist. The Town shall give the Provider prompt and timely notice of any claim, threatened or made, or any lawsuit instituted against it which could result in a claim for indemnification hereunder. The extent of this agreement of indemnification shall not be limited by any obligation or any term or condition of any insurance policy pursuant to this Contract. The indemnification, reimbursement of defense costs and hold harmless rights and obligations shall accrue immediately upon the judicial determination concerning a claim or complaint covered by this agreement, regardless of other claims simultaneously brought, and therefore shall be contingent upon the merits of such claim or questions of fact raised by the claim or complaint. This Section will survive any termination of this contract.

To the extent applicable, the obligations under this clause shall include being responsible for the actual notification of any person or entity or other required actions as may be required under G.L. c. 93H and c. 93I, any other state or federal law and the applicable regulations thereunder pertaining to privacy rights or reimbursing the Town for any costs associated therewith it may incur.

CONTRACTUAL LIABILITY: Agents, officers, officials or employees of the Town shall not be charged personally or held contractually liable by or to the Provider under any term or provision of this Contract or because of any breach thereof or because of its execution or attempted execution.

CONFLICT OF INTEREST: Provider acknowledges that all MassCEC and Town of Hull employees are subject to the Commonwealth's Conflict of Interest statute, codified at M.G.L. c. 268A. 26.

LOBBYING: No FUNDS awarded by this Agreement may be used to pay for or otherwise support any activities intended to influence any matter pending before the Massachusetts General Court or for activities covered by the law and regulations governing “legislative agents” or “executive agents” set forth in the Commonwealth’s Lobbying Law, codified at M.G.L. c. 3, Section 39.

CHOICE OF LAW AND FORUM; ARBITRATION; EQUITABLE RELIEF: This Agreement and the rights and obligations of the Parties shall be governed by and construed in accordance with the laws of the Commonwealth, without giving effect to its conflict of laws principles. Any dispute arising out of or relating to this Agreement or its breach, termination, or invalidity, whether before or after termination of this Agreement, if not resolved by negotiation among the Parties within thirty (30) days after such dispute is raised by either Party in writing, will be settled by binding arbitration by a single arbitrator in accordance with the Commercial Arbitration Rules of the American Arbitration Association then in effect, and judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction over this Agreement. Any such arbitration will be conducted in or near Boston, Massachusetts. The prevailing Party shall be entitled to receive from the other Party its reasonable attorney’s fees and costs incurred in connection with any action, proceeding, or arbitration hereunder. This Section 19 shall not be construed to limit any other legal rights of the Parties. Each Party acknowledges and agrees that any breach or threatened breach of this Agreement by the other Party may result in substantial, continuing, and irreparable damage to the first Party. Therefore, before or during any arbitration, either Party may apply to a court having jurisdiction for a temporary restraining order or preliminary injunction, where such relief is necessary to protect its interests pending completion of the arbitration proceedings.

SEVERABILITY: Each provision of this Agreement shall be treated as a separate and independent clause and any decision from a court of competent jurisdiction to the effect that any clause or provision of this Agreement is null or unenforceable shall in no way impair the validity, power, or enforceability of any other clause or provision of this Agreement.

AMENDMENTS AND WAIVERS: MassCEC may amend Section 15 (without any action by Grantee) to reflect changes in law or MassCEC policies and shall promptly deliver any and all such amendments to Grantee in the manner provided in Section 5. Except as provided in the immediately preceding sentence, no amendments to or modifications of this Agreement, and no waiver of any provision of this Agreement, shall be effective unless the same shall be in writing and shall be signed by each of the Parties. Any waiver by MassCEC of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach of such provision or any other provision of this Agreement. Forbearance or indulgence in any form or manner by a Party shall not be construed as a waiver, or in any way limit the remedies available to that Party.

FORCE MAJEURE: Neither Party shall be liable or responsible to the other Party, nor be deemed to have breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement, when and to the extent such failure or delay is caused by or results from acts beyond the impacted Party's ("Impacted Party") reasonable control, including, without limitation, the following force majeure events ("Force Majeure Events"): (a) acts of God; (b) flood, fire, earthquake, or explosion; (c) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot, or other civil unrest; (d) actions, embargoes, or blockades in effect on or after the date of this Agreement; (e) national or regional emergency; and (f) strikes, labor stoppages or slowdowns. The Impacted Party shall give notice within two (2) days of the Force Majeure Event to the other Party, stating the period of time the occurrence is expected to continue. The Impacted Party shall use diligent efforts to end the failure or delay and ensure the effects of such Force Majeure Event are minimized. The Impacted Party shall resume the performance of its obligations as soon as reasonably practicable after the removal of the cause. If the Impacted Party's failure or delay remains uncured for a period of ten (10) days following written notice given by it under this Section, the other Party may thereafter terminate this Agreement upon fifteen (15) days' written notice.

INDEPENDENT STATUS: Nothing in this Agreement will be construed or deemed to create a relationship of employer and employee, partner, joint venture, or principal and agent between MassCEC and the Town of Hull, its employees, agents, or officers.

COUNTERPARTS: This Agreement may be executed in two or more counterparts, and by the Parties on separate counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

BINDING EFFECT; ENTIRE AGREEMENT: This Agreement shall be binding on the Parties and their respective successors and permitted assigns and shall inure to the benefit of the Parties and their respective successors and permitted assigns. Except as provided in the immediately preceding sentence, nothing in this Agreement shall be construed to create any rights or obligations except between the Parties, and no person shall be regarded as a third-party beneficiary of this Agreement. This Agreement embodies the entire understanding and agreement between the Parties with respect to the subject matter of this Agreement and supersedes all prior oral or written agreements and understandings relating to such subject matter. No statement, representation, warranty, covenant, or agreement of any kind not set forth in this Agreement will affect, or be used to interpret, change, or restrict, the express terms and provisions of this Agreement. Furthermore, neither Grantee's nor any of its subcontractors' provision of services under this Agreement implies, establishes or otherwise creates any rights or expectations of additional contracts with the Town of Hull and MassCEC, whether related or unrelated to the subject matter of this Agreement.