

Test Protocol to Measure Methane Emissions from Regulator Stations and Validate NYSEARCH Reg Stations Emissions Ranking Tool

Local Distribution Company (LDC) members continue to demonstrate their commitment to minimizing natural gas emissions within their system by investigating emissions from regulators used to reduce gas pressure at M&R stations. In an earlier research effort, NYSEARCH has developed a software-based tool to predict emission potential of regulators at these stations. To validate and further improve this tool, NYSEARCH has now begun piloting a test protocol to accurately measure regulator emissions so they can be compared to the predictions of the previously developed tool. The test protocol will give members the ability to conduct these measurements at regulator stations across the country and ultimately provide them with informed emission measurements as well as a tool that will aid them in identifying regulators with higher emission potentials.



Revolutionizing Asset Location: The UTTO vLocate® Mapper

NYSEARCH members have been interested in asset location technology to reduce damage to buried assets, especially with the capability to enhance traditional locating methodologies. The development of a low-cost, high-accuracy GPS tool with the added ability for data capture and precision relocate-ability will provide the industry with several benefits. The development of the UTTO vLocate® Mapper device provides a tool for efficiently constructing as-built data and a simpler approach for asset location.

The project concluded with the NYSEARCH funders conducting field tests with the device and providing feedback on how to improve the features and operation of the device. Based on the NYSEARCH funders' feedback, the advancements to the device included giving the user the ability to capture both 'points/fixtures' and 'lines' from within a single mapping session, adding labels of the features onto the map of the device, allowing users to change the label of a captured fixture/point/line during a session, and providing confirmation that a session was uploaded successfully. These features have been successfully incorporated into the device and the UTTO vLocate® mapper is being commercialized through IPEG Corporation.



Sky-High Innovations: Assessing Bridger-Photonics and Satelytics for Enhanced Aerial Leak Survey Technologies

NYSEARCH is evaluating the capabilities of two emerging aerial leak survey technologies, Bridger-Photonics and Satelytics. Performance evaluations of these technologies are being engaged through statistically designed field testing. The statistical evaluation is targeted to determine the probability of detection (PoD) of leak detection capabilities as well as assess the resulting calculated emission quantification estimates. These emerging technologies may provide additional methods to existing leak detection practices in the gas distribution industry. Some satellite scanning is underway at PG&E and scheduled to be completed in Q1 2024.



Image: Satellite image capture of detected methane leak emission plumes mapped over buildings

December 2023 Meeting Highlights

NYSEARCH Digital Asset Library Demo

Ahra Kwon and Tahiya Choudhury conducted a demonstration of the Digital Asset Library developed with Crane Morley through project T-791. Resources from this project include video, photography, eLearning modules, job aids, Dynamics 365 Guides modules, and more. The NYSEARCH Digital Asset Library could help accelerate the adoption of these technologies through the cost savings, resource access, and best practices. Training workshops for funders involved in the project are scheduled for later this year.

NYSEARCH and its members **celebrated Monsiri (Pom) Jintasawang of SouthWest Gas** on her retirement as she embarks on the next chapter. Pom has been a Gas Industry Advocate, Leader and NYSEARCH member for several years. NYSEARCH congratulates Pom for her vision towards applicable R&D and the many years of commitment to her company and customers in her passionate pursuit of Increased Safety.

Bryon Knoth of National Grid provided a presentation and **tour of the operations of the LNG facility in Holtsville, NY** to the NYSEARCH committee prior to the start of the December NYSEARCH Meeting. Thank you to National Grid for hosting the tour.



Recent Final Reports Released to NYSEARCH Funders

| Project | Title | Project Manager | Issued |
|---------------------|---|-----------------|-----------|
| M2021-003 | Development of Plastic Pipe Fusion Workmanship Acceptance Criteria & Visual Acceptance Tool | Joseph Mallia | Sept 2023 |
| M2016-004 Phase IV | Alternate Crack Sensor | Suzy Chaillou | Nov 2023 |
| M2018-011 Phase III | Advanced Electromethanogenesis for Scaling of Microbial Power | Ahra Kwon | Dec 2023 |
| M2016-002 Phase II | Odor Detection and Recognition Threshold Study | Ahra Kwon | Dec 2023 |