

NGA Spring Conference
Eversource
Leak Management & Significantly
Environmental Grade 3 Leaks

Eversource Profile

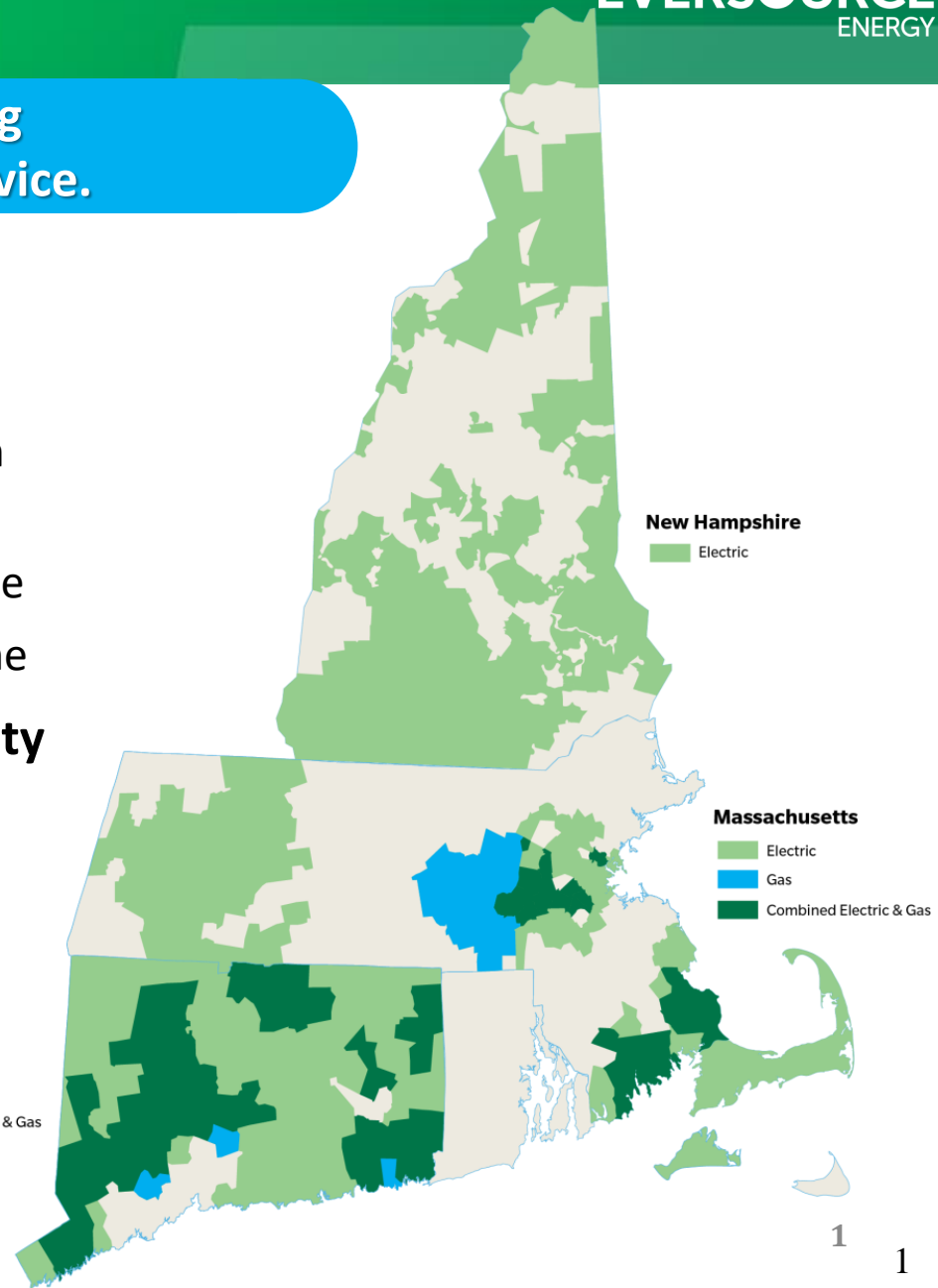
We are one company focused on delivering reliable energy and superior customer service.

- **Safely providing energy to 3.9 million customers in 590 cities and towns**
 - 11,296 miles of natural gas distribution piping
 - 4,500 miles of electric transmission line
 - 72,000 miles of electric distribution line
- **Committed to being a strong community and business partner**

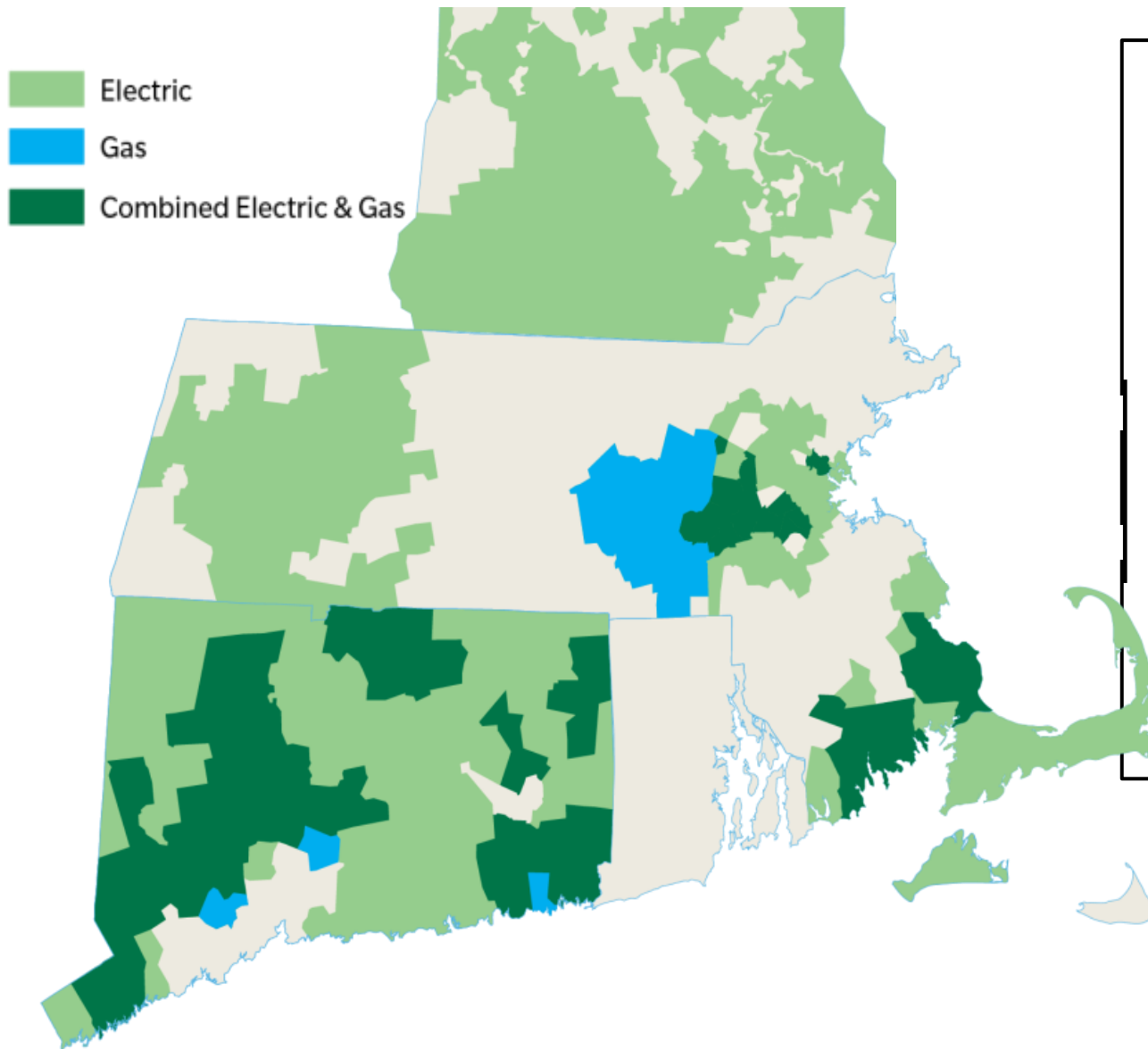
Connecticut
Electric
Gas
Combined Electric & Gas

New Hampshire
Electric

Massachusetts
Electric
Gas
Combined Electric & Gas



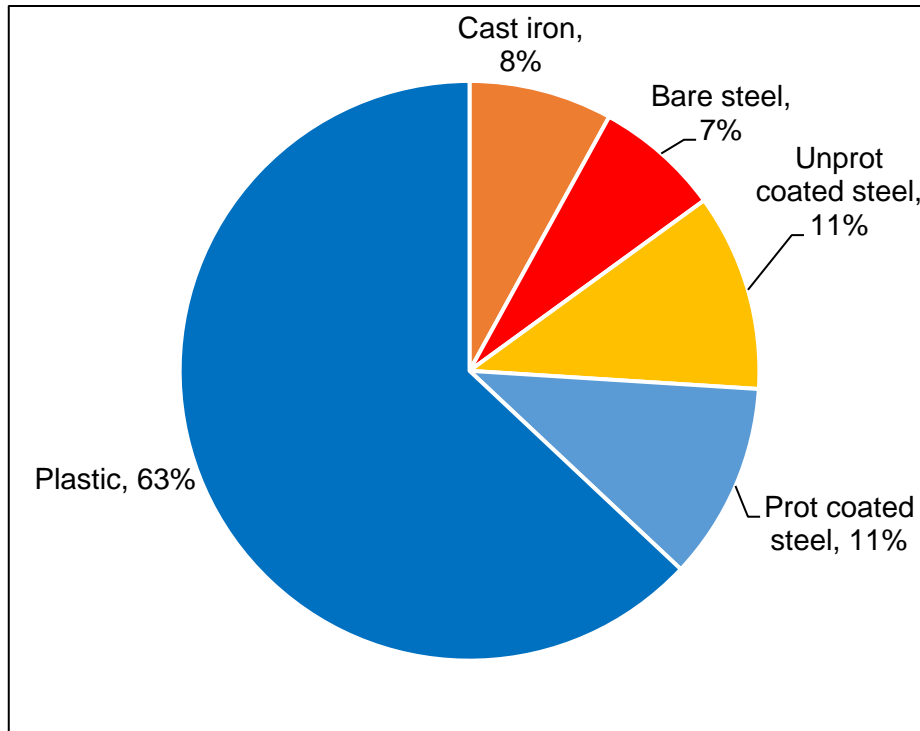
Gas Distribution at a Glance



- **843,000 customers**
 - CT – 229K
 - MA - 614K
- **182 communities**
 - CT – 72
 - MA - 110
- **11,500 miles of gas main**
 - CT – 3,291
 - MA – 8,209
- **63 gate stations**
 - CT – 28
 - MA - 35
- **6.7 Bcf LNG (7 plants)**
 - CT – 1.2 Bcf (1 plant)
 - MA – 5.5 Bcf (6 plants)
 - Lawrence - 0.08 BCF

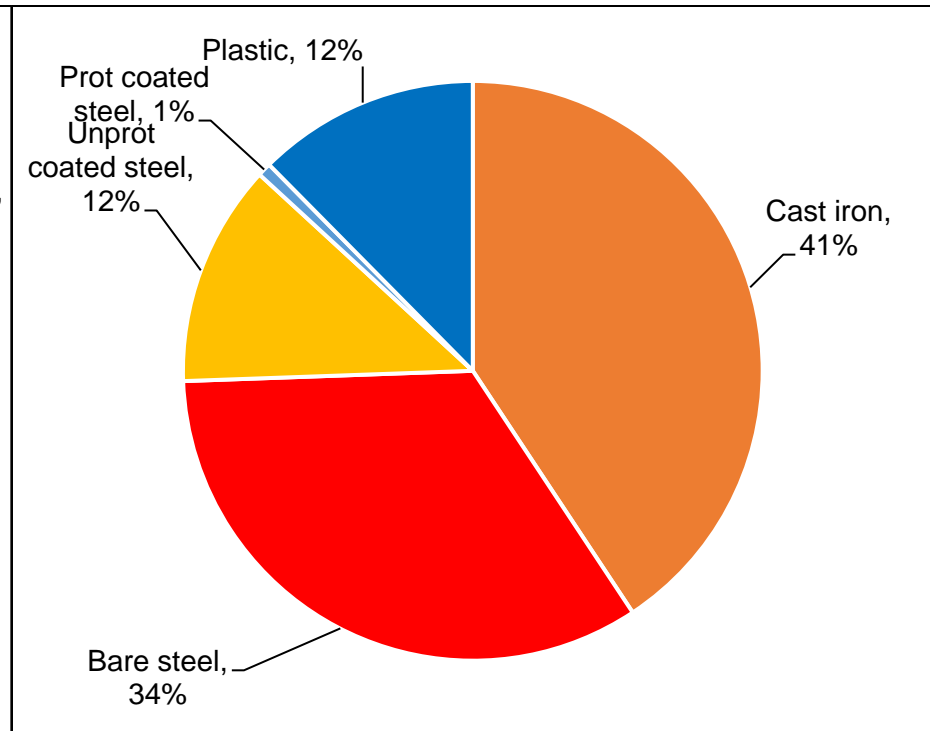
Profile NSTAR Gas Main

2020 Miles of Main



Total Miles of Gas Mains: 3,307

2020 Leaks

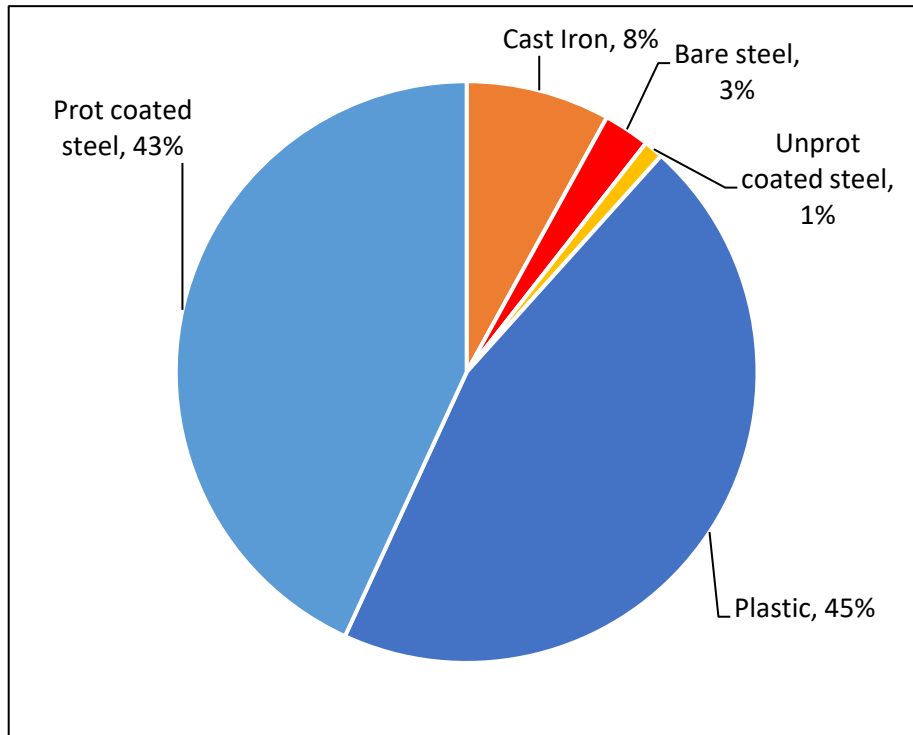


Total Number of Main Leaks: 661

✓ 26% of mains (bare steel, cast iron, unprotected coated steel) cause 87% of the leaks

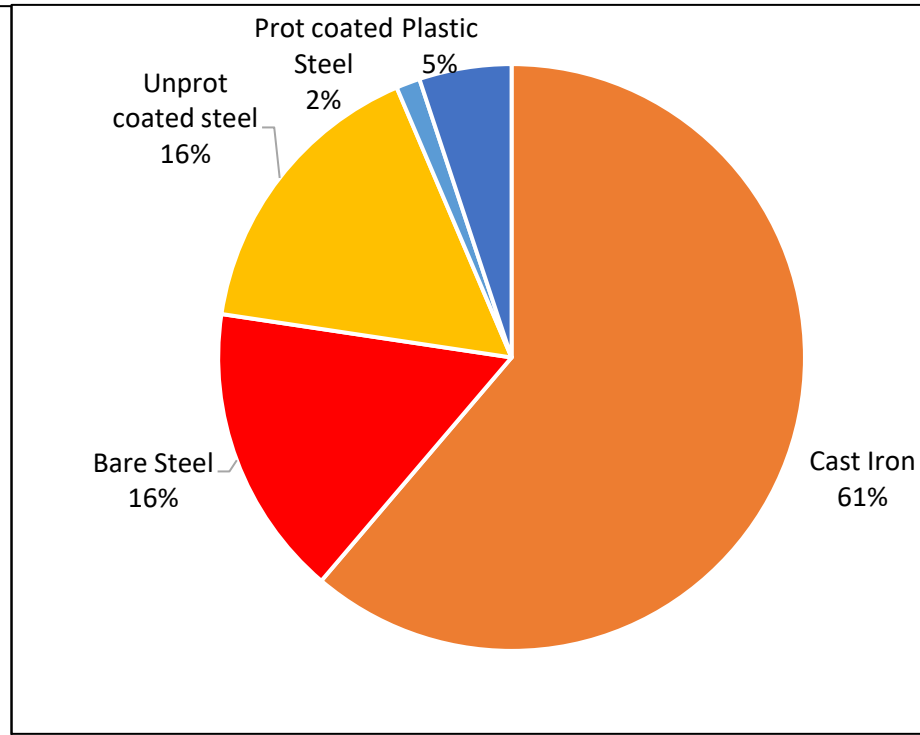
Profile EGMA Gas Main

2020 Miles of Main



Total Miles of Gas Mains: 5,004

2020 Leaks



Total Number of Main Leaks: 1,263

✓ 12% of mains (bare steel, cast iron, unprotected coated steel) cause 93% of the main leaks.

- Customers expect more
- Intense regulatory and political environment
- Special interest groups expressing concerns about fossil fuel usage
- HEET worked with Eversource, NGRID & CMA to get data on Significant Environmental Impact (SEI) leaks
- We need to be on our 'A' game

- Annual Service Quality Report. A Company's annual report which compares its performance in the previous calendar year to the Department's service quality standards, as required by M.G.L. c. 164, § 1I.
- Barhole. A small-diameter hole made in the ground along the route of a gas pipe that is used by the Gas Company to obtain a sub-surface gas-in-air reading.
- Combustible Gas Indicator (CGI). A device used to detect flammable gas-in-air concentrations.
- Flame Ionization Unit (FIU). A device used to detect flammable gas concentrations measured in parts per million.

- FLUXbar. A barhole purger modified to gently vacuum air through a drillhole located over a leak while a CGI measures the percent of gas in that airflow.
- Gas System Enhancement Plan (GSEP). A Gas Company's annual gas system enhancement program plan to replace aging natural gas pipeline infrastructure, pursuant to M.G.L. c. 164, § 145.
- Leak Extent. An area in which a Gas Company has detected positive FIU readings or positive CGI readings surrounded by an area of negative FIU readings or negative CGI readings.
- School Zone. On or within 50 feet of the real property comprising a public or private accredited preschool, accredited Head Start facility, elementary, vocational, or secondary school.

- Grade 1 Leak. A Grade 1 Leak shall be a leak that represents an existing or probable hazard to persons or property. Grade 1 leaks require the immediate commencement of repair and continuous action until the conditions are no longer hazardous, the source of the leak is eliminated, and permanent repairs have been completed. Whenever appropriate and feasible, a Gas Company shall notify the fire department and chief law enforcement officer in each city or town where a Grade 1 Leak is identified.
- Grade 2 Leak. A Grade 2 Leak shall be a leak that is recognized as nonhazardous to persons or property at the time of detection, but justifies scheduled repair based on probable future hazard. The Gas Company shall repair Grade 2 leaks or replace the Pipeline within 12 months from the date the leak was classified. All Grade 2 leaks shall be reevaluated by a Gas Company at least once every six months until eliminated; provided however, that the frequency of reevaluation shall be determined by the location and magnitude of the leakage condition.

- Grade 3 Leak. A Grade 3 Leak shall be a leak that is recognized as nonhazardous to persons or property at the time of detection and can be reasonably expected to remain nonhazardous. The Gas Company shall reevaluate Grade 3 leaks during the next scheduled survey, or within 12 months from the date last evaluated, whichever occurs first, until the leak is eliminated or the Pipeline is replaced. A municipal or state public safety official may request a reevaluation of a Grade 3 leak prior to the next scheduled survey, or sooner than 12 months of the date last evaluated, if the official reasonably believes that the Grade 3 leak poses a threat to public safety. Each Gas Company shall repair or eliminate Grade 3 leaks located on non-GSEP facilities that are initially classified on January 1, 2018 or later, other than those that were designated as environmentally significant in accordance with 220 CMR 114.07(1), within eight years.

- Each Gas Company shall designate Grade 3 gas leaks as environmentally significant if during the initial identification or the most recent annual survey if:
 - the highest barhole reading shows a gas-in-air reading of 50% or higher or
 - the Leak Extent is 2,000 square feet or greater.
- A Gas Company is not precluded from proposing to the Department a more rigorous method of designating environmentally significant Grade 3 leaks based on field data or tested and proven technologies that may become available from time to time. Such proposals shall be submitted to the Department for approval.
- Each Gas Company with a GSEP shall incorporate the environmentally significant Grade 3 identification criteria into its GSEP and report the number of environmentally significant Grade 3 leaks on each length of GSEP-eligible pipe in its annual GREC filing.

Repair or Elimination.

- Each Gas Company shall repair or eliminate environmentally significant Grade 3 gas leaks initially designated on or after January 1, 2018 as set out in 220 CMR 114.07 provided that such repair or elimination does not compromise public safety, as follows:
 - **Barhole**-designated leaks shall be repaired or eliminated **within two years** of initial designation, provided that any such leaks located on a pipe scheduled for repair under the GSEP within five years shall be repaired or eliminated within three years of initial designation;
 - **Leak-extent designated leaks with a Leak Extent between 2,000 and 10,000 square feet** shall be repaired or eliminated **within two years** of initial designation, provided that any such leaks located on a pipe scheduled for repair under the GSEP within five years shall be repaired or eliminated within three years of initial designation; and
 - **Leak-extent designated leaks with a Leak Extent greater than 10,000 square feet** shall be repaired or eliminated **within 12 months** of initial designation, provided that any such leaks located on a pipe scheduled for repair under the GSEP within three years shall be repaired or eliminated within two years of initial designation.

Leak Detection Methodology Used at Eversource

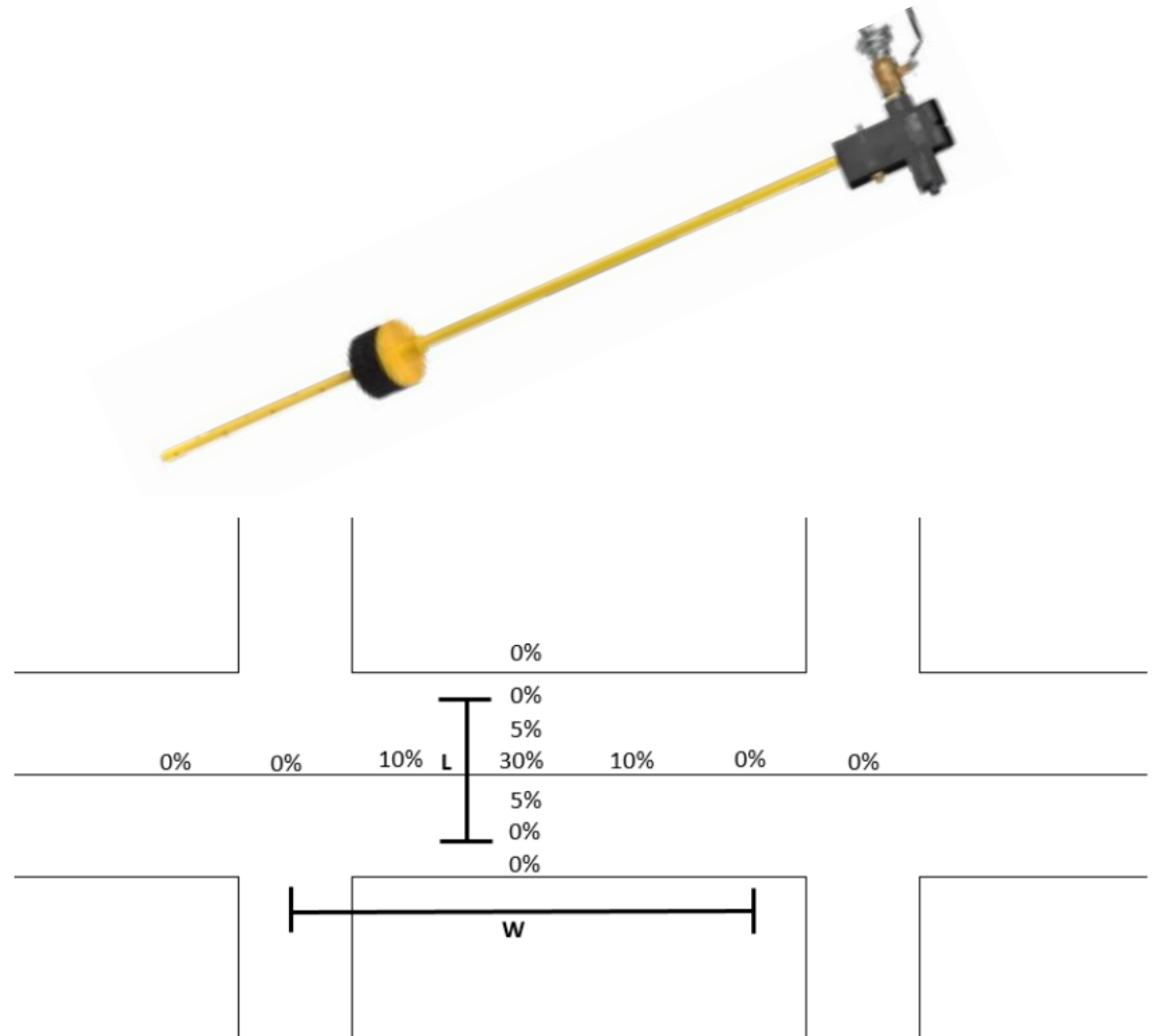


Figure 1 Capturing Leak Extent

Class 3 Super Emitters - 2021

Month	Repaired	Backlog
January	14	22
February	12	29
March	19	46
April	9	44
May	13	63
June	4	54
July	6	81
August	3	88
September	7	100
October	5	121
November	6	134
December	15	155

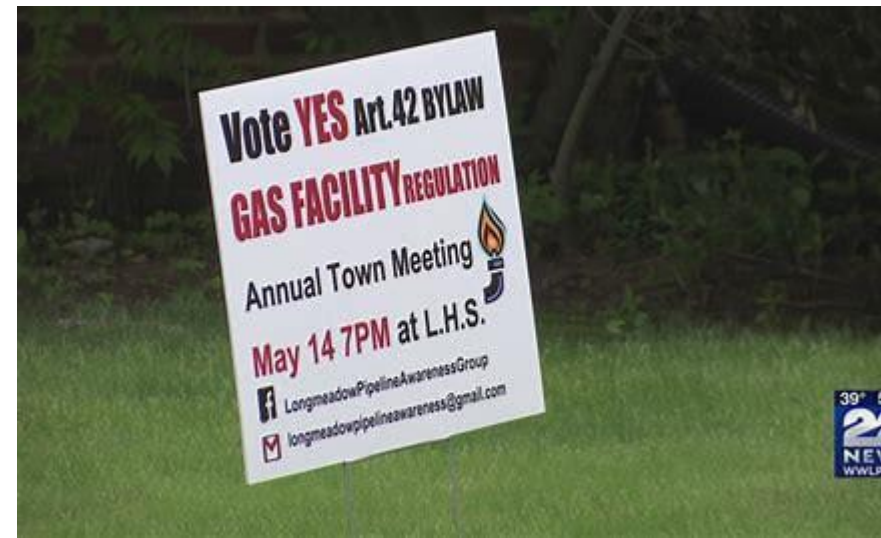
Class 3 Super Emitters

	Leak Count
Class 3 SEI Leaks repaired/eliminated in 2021	37
Class 3 non-SEI leaks repaired/eliminated in 2021	204
Class 3 SEI leaks outstanding at EOY 2021	161
Class 3 SEI leaks scheduled for repair in 2022	102
Class 3 non-GSEP leaks scheduled for repair in 2022	42

	Leak Count
Start of year	521
Class 2 leaks found	2138
Class 2 leaks repaired	2262
End of year	92

The above numbers do not account for leaks eliminated as duplicates, negative reads, reclassification.

- Mothers Out Front
- Heet
- Longmeadow Pipeline Awareness Group
- The Springfield Climate Justice Coalition



Relations with New Lawrence Mayor Start on A High Note

Representatives of the Eversource Gas team met recently with new Mayor Brian DePena in Lawrence, Massachusetts, as well as officials from the city's Engineering and Public Works departments, to welcome the mayor and discuss Eversource's gas activities in the city.

Community Relations Specialist **Kevin Murphy** arranged for and attended the meeting, along with **Mark Gunsalus**, General Manager I&R, Field Engineering & Project Management.

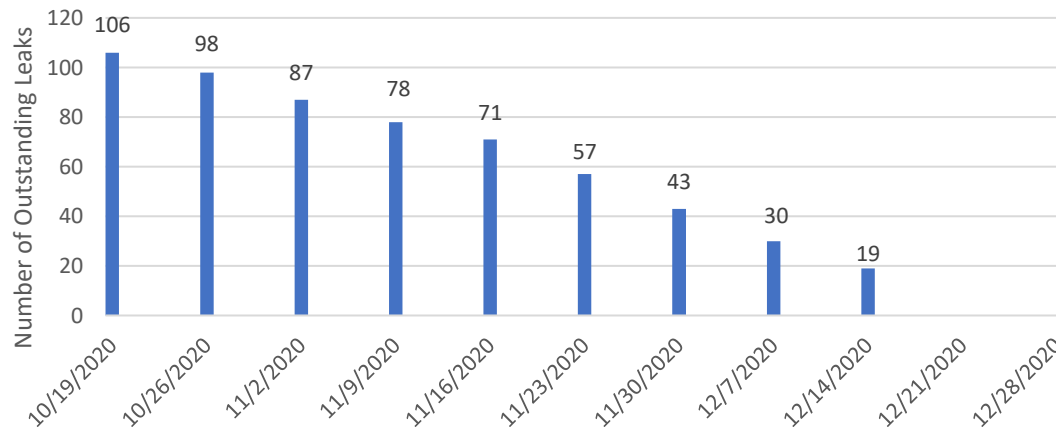


From left, Kevin Murphy, Lawrence Mayor Brian DePena, Mark Gunsalus, and Frank Bonet Rosado, the chief of staff for the mayor.

SPRINGFIELD — Representatives of Eversource met this week with city councilors, saying they are committed to reducing gas leaks in Springfield as begun by its predecessor, Columbia Gas. Councilor Jesse Lederman, chairman of the council’s Sustainability and Environment Committee, said the pledge and the results to date are great news for the city.



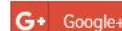
Outstanding Grade 2 Leaks - City of Springfield





Eversource in process of assessing their natural gas services

© Feb. 15, 2021 | Chris Maza
cmaza@thereminder.com



WESTERN MASS. – Having taken over natural gas services in Massachusetts in 2020, Eversource says it is now in the process of assessing the entire delivery system in order to determine the most effective ways to implement upgrades to improve safety and efficient delivery.

Eversource completed its acquisition the asset of Columbia Gas of Massachusetts in a \$1.1 billion deal in October 2020 as part of an order by a federal judge following the 2018 gas explosions in Lawrence, Andover and North Andover that destroyed dozens of homes and killed one person. Columbia Gas was also ordered to pay \$56 million in damages.

Mark Gunsalus, general manager of gas operations for Eversource Energy, explained to Reminder Publishing that the statewide assessment has begun to review the system's safety, including infrastructure and procedures, among other aspects. With that information, Eversource would be able to develop a comprehensive plan for replacement of existing pipes that are out of date as well as strategic upgrades and projects.

"As part of the CMA settlement agreement, there is a component that we will be completing a safety assessment of the system," he said. "That safety assessment is just starting to be developed and looked at. It will be submitted in September of 2021 and that safety assessment is going to look at a lot of different components on the system."

[View Archives](#)

PRESS THE RESET BUTTON WITH LEAH DOROCH



Date: Wednesday, April 20, 2022
Time: 12:00 Welcome & Update
12:15 - 1:15 Presentation,
Q&A, Raffle & Virtual Tour.
RSVP: Mary-Anne Scheib 413-935-1791
or MScheib@JGSLifecare.org
Zoom: After registration, a Zoom
link will be sent.

Ruth's House
Assisted Living Residence



JGS LIFECARE

For more info visit JGSLifecare.org



LOCAL NEWS

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Carbon Neutral by 2030

Our strategy focuses on five key areas:



Our fleet represents 7% of our GHG footprint. We are updating our company vehicle fleet by adding electric and hybrid vehicles and pursuing innovative partnerships.



Methane represents 10% of our GHG footprint. We are reducing methane leaks in our natural gas distribution system by replacing aging pipes and pursuing innovative pilots like geothermal.



Our facilities represent 10% of our GHG footprint. We are reducing our electricity and fuel use at our facilities by upgrading HVAC equipment with more efficient models and replacing lighting with LEDs.



Sulfur hexafluoride (SF₆), a potent greenhouse gas used in electric equipment, represents 4% of our GHG footprint. We are adopting innovative solutions to replace the use of SF₆.



Line loss, one of the industry's greatest challenges, represents 69% of our greenhouse gas (GHG) footprint. We are enabling a cleaner mix of energy in the grid and improving efficiencies in our transmission infrastructure.



08:18

What's the future of gas in Mass.? Utilities and critics have different visions

March 18, 2022

By [Bruce Gellerman](#)



The Dorchester Gas tank in 2021. (Stuart Cahill/MediaNews Group/Boston Herald via Getty Images)

New reports from the state's five investor-owned gas utilities offer roadmaps to the companies' future — and, in many ways, our own.

The plans call for a radical transformation of the Massachusetts energy and heating sector, betting heavily on the successful development of new, clean energy technologies.

- <https://heet.org/wp-content/uploads/2019/04/HEET-Report-of-the-2018-SEI-Field-Trial.pdf>