



**Report from Mothers Out Front / HEET Gas Leaks Summit: *Common Goals, Uncommon Partners*
October 3, 2017**

*"This collaboration is a model for the country. In our increasingly polarized society,
you've shown a new path forward."*

--Maura Healey, Massachusetts Attorney General

Summary:

On October 3 at a summit at MIT, Mothers Out Front and our close ally HEET (www.heetma.org) brought together our region's 3 largest utilities – Eversource, National Grid and Columbia Gas - to tell the story and present the outcomes of our unusual collaboration to develop new accurate and replicable methods for identifying the largest emitting gas leaks in Massachusetts' aged gas distribution system. Our study confirmed other research showing that just 7% of the gas leaks are responsible for an estimated 50% of the methane leakage from gas leaks in Massachusetts – and so there are huge efficiencies in identifying and fixing the largest leaks. Overall, the methane leakage in the gas distribution system causes an estimated 10% of Massachusetts' greenhouse gas emissions.

Background:

Mothers Out Front is in our third year of a highly successful gas leaks campaign in Massachusetts that has both achieved real impact and built organizing power. It began with data. Several studies between 2013 and 2015 highlighted a serious gas leaks problem -- a Boston University study documenting 3,300 leaks in Boston; reports provided by the gas utilities themselves (in response to a 2014 law mandating leak reporting and transparency) showing 20,000 leaks statewide; and a 2015 Harvard University study demonstrating a 2.7% overall methane leakage rate, with \$90M in leaked gas paid for by unwitting consumers. Alarmed by this information, our 16 community teams in Massachusetts began to organize for action. Our members raised broad public awareness about gas leaks via community forums, op-ed pieces, community-wide leak-tagging days, interactive leak-mapping events, a birthday party for Boston's oldest leak (over 30 years old), twitter-storms, and other social media campaigns, garnering extensive media coverage and drawing in new volunteers.

We formed a cross-sectoral alliance, the Gas Leaks Allies, bringing a range of needed skills and expertise from 20 other organizations to the table. We used our growing power to push for and successfully pass specific pieces of state and local legislation, including: local resolutions from 40 cities and towns in support of statewide gas leaks legislation; a City of Boston gas leaks ordinance requiring leaks to be fixed when roads are open for repair and reimburse the city for impact on trees; a state energy bill requiring utilities for the first time to address leaks that have a significant environmental impact not just ones that could explode; and a

gubernatorial executive order laying out a detailed plan to reduce greenhouse gas emissions, including methane from gas leaks.

However, HEET determined that the method for measuring the largest emitting leaks chosen by the Department of Public Utilities in their rulemaking (“Barhole method”) had never been tested for reliability. Moreover, it turned out that *the utilities did not have a proven accurate and cost-effective method for identifying the largest emitting leaks.*

Mothers Out Front and HEET set out to solve this problem by building a unique partnership with the state’s three biggest gas utilities which together serve 95% of gas customers in MA. It began last winter when our organizations teamed up with the utilities to study different technologies and methods for measuring leak size, and identified the most effective ones for identifying and verifying the biggest leaks. Our Gas Leaks Summit shared the story and the outcomes of this collaboration.

Who Came, and What They Said:

The Gas Leaks Summit was attended by over 300 people from 9 states, including utility executives, advocates, scientists, legislators, academics, staff from 8 members of the Massachusetts Congressional delegation, and staff from the MA Attorney General’s office. Massachusetts Attorney General Maura Healey made the closing remarks.

“The technical work was extremely impressive. In the past, I have asked a number of sources for information on GHG emissions associated with gas leaks, and have been impressed by the absence of credible data. The amount of progress you have made in that regard is, as you well know, ground-breaking.

But maybe more important is the model you have shown is possible for collaboration between advocacy groups and the distribution companies. One of the speakers referred to the attribution of positive intent on both sides. The technical work you’ve done and the model you’ve set for collaboration on gas leaks should be a national model but, in some ways, mutual good faith seemed to me the more impressive and important accomplishment. That’s an enormous achievement, which I imagine has taken as much effort as the technical work, and for which you deserve an equal amount of credit.”

*Ann Berwick, former Chair,
Massachusetts Dept of Public Utilities*

William Akley (CEO of Eversource) Steve Bryant (CEO of Columbia Gas) and Marcy Reed (past President of National Grid, MA, now Executive VP of Business Operations, Engineering and Process) spoke about our collaboration, and were joined by other senior executives from their companies.

- Eversource CEO William Akley and Mothers Out Front volunteer team leader Zeyneb Magavi described how they talked about their children at their first meeting, which enabled them to find common aspirations and goals that ensured they keep coming back to the table as they moved forward with a pilot project.
- Other gas company executives talked about how impressed they were by HEET and Mothers Out Front’s desire to understand the science, and said the partnership “challenged us to think about this problem in a fundamentally different way – not just as gas operations decisions, but in the context of public policy.”
- Marcy Reed described a cold December morning when her Twitter feed came alive with photos and tweets from Mothers Out Front members who were out tagging leaks across Boston, some dressed in giant orange suits, calling National Grid out by name. She responded via Twitter that National Grid

was already replacing a lot of pipes and is concerned about safety. Mothers Out Front then followed up to ask for a meeting, and soon the different parties were sitting down together.

Representatives from the utilities, HEET and Mothers Out Front walked through the steps they took to develop and evaluate different technologies and methods – which included an MIT Hack-A-Thon – and shared their findings.

Findings and Action Plan.

The summary findings of our collaboration were two-fold:

- 1) The method of measuring gas leaks recommended by the DPU (the “Barhole” method) was not reliable and should be replaced by using the leak extent, or measuring the total area of gas-saturated ground around a leak.
- 2) The “FluxBar” method to measure the emissions of any given leak, using a modified and improved version of an existing technology, is the most effective method for verifying which are the largest emitting leaks.

We presented a Shared Action Plan, in which the utilities will:

- Switch from the barhole method to leak extent (measuring the square footage of gas-saturated ground) method for identifying leaks.
- Fix leaks over 10,000 sq feet within 12 months.
- Endeavor to fix 2,000 to 10,000 sq feet within 2 years.
- Work with HEET and Mothers Out Front on verification by selecting randomized sample of Grade 3 large volume leaks to measure prior to repair.
- Report annual progress on fixing largest leaks to DPU.
- Collaborate with HEET in year 1 by sharing leak addresses, reports and repair dates of all high emitting leaks so that HEET can randomly survey 100 leaks to ensure consistency across utilities – all using FluxBar data.

The method for identifying and verifying the largest emitting leaks that was developed over the course of our collaboration – using leak extent identification backed up by FluxBar verification – is “very likely to become industry best practice.”

Next Steps, and Impact

We will submit this Shared Action Plan to the DPU. If everything goes according to plan, our collaboration will reduce methane from gas leaks in the next 2 years here in Massachusetts by 50%.

Afternoon Session: Grassroots Organizing and Other Campaign Opportunities

Our morning Summit was followed in the afternoon by a meeting focused on the organizing that has been the foundation of our successful gas leaks campaign. There, we shared the more unvarnished version of the story our gas leaks campaign to date.

Components of a Successful Campaign:

- Science / data – We need to know where the leaks are, and we need to know how much methane leakage they are causing.
- Maps – It is essential to map the leaks, thereby making the invisible visible. People won't fix something they cannot see.
- People power – Teams of mothers across the state have worked on the campaign, showing up at hearings, testifying, rallying, meeting with elected officials and tagging leaks in their communities – using the maps as a key organizing tool.
- Funding – Barr Foundation was a key supporter from the beginning, funding the various pieces of the work.
- Work with Allies – The Gas Leaks Allies group, which has grown to include more than 20 organizations and meets biweekly, has been a key force in the campaign.
- Legal and policy expertise – Working with allies including Conservation Law Foundation and Clean Water Action was essential.
- Health impacts – Where possible, link methane leakage to health impacts.

Other Opportunities

There are several other cities with similarly leaky gas distribution systems, the largest ones being: New York City, Philadelphia, Washington DC, and Baltimore.

New York City

New York City represents a particularly interesting opportunity for Mothers Out Front because we are already organizing in New York State. According to a preliminary study in 2012 by gas leaks expert Bob Ackley, President of Gas Safety USA, there are an estimated 2,000-3,000 leaks in Manhattan alone, leaking an estimated 8 billion cubic feet of methane per year. The gas companies that service NYC – ConEdison and National Grid -- have been slow to repair or replace the pipes, given the expense involved and the lack of incentives or requirements to do so. They also tend to underestimate the scope of the problem (ConEdison's interactive gas leaks map on their website shows a total of only 57 reported leaks in Manhattan).

Breakout sessions focused on Massachusetts, New York and Pennsylvania provided the opportunity for participants to brainstorm and discuss next steps. These conversations are now continuing, as we determine how to move forward with our gas leaks campaign in MA, and explore developing new ones in NYC and Philadelphia.