

JUN 3, 1:34 PM

D.C.'s Climate Change Response Is In The Hands Of An Obscure, Unelected Commission



Jacob Fenston



A power plant in Dickerson, Md.

J. Scott Applewhite / AP Photo

Three individuals appointed by the mayor (and not directly accountable to voters) could stand in the way of the city meeting its climate goals, or they could push the District to take aggressive climate action, according to environmentalists and lawmakers who are urging the D.C. Public Service Commission to take a more proactive role in fighting climate change and cutting greenhouse gas emissions.

The three-member Public Service Commission was created by Congress in 1913. At the time its purview included setting streetcar fares, telegraph rates, and regulating refrigerant pipes feeding the city's ice factories. Over the past century, much of the commission's work has been setting the rates that utilities in the city can charge for electricity and natural gas.

But now, the commission is faced with a much more important task than deciding whether residents will pay \$0.08 per kilowatt hour of electricity or \$0.10 (this was one of its first big disputes with Pepco, [in 1917](#)).

“We have to stop burning fossil fuels. This is a known fact,” says Barbara Briggs, with the D.C. chapter of the Sierra Club. “Combustion energy has to be ended and we need to transition to clean, renewable sources of energy.”

Briggs and other environmentalists say the PSC should be leading that transition away from fossil fuels, and making sure Pepco and Washington Gas are in alignment with the District’s climate goals. These goals, among the most ambitious in the nation, call for cutting greenhouse gas emissions in half, District-wide, by 2032, and going carbon-neutral by 2050. In addition, District law requires that 100% of electricity sold comes from renewable sources, like wind and solar, by 2032.

The debate over the PSC mirrors battles elsewhere in the nation, as regulators and lawmakers struggle with how to adapt energy systems built on fossil fuels to a new era. In California, for example, regulators recently hit pause on [a controversial proposal](#) that would make solar more costly for homeowners. In Florida this year, lawmakers passed a bill that would have gutted the solar industry in the state, according to clean energy advocates. It was vetoed by Gov. Ron DeSantis.

In D.C., the issue of the PSC’s role in climate action came to a head during debate over confirmation of the commission’s next chairperson. At a D.C. Council meeting in late May, a vote to advance the nominee was abruptly shelved, after two council members objected that he didn’t have expertise in clean energy and grid modernization.

The council committee reconvened this week, with more members in attendance, and voted to advance the nominee, Emile Thompson. Two council members, Mary Cheh (D-Ward 3) and Charles Allen (D-Ward 6), voted “present.”

At issue is [legislation](#) the council passed last fall, requiring the next person appointed to the PSC to have “experience in electric grid modernization and renewable energy integration or technology.”

The legislation notes that with the rapid growth of small solar facilities in the District in recent years, the role of the commission “has shifted from overseeing a handful of large, traditional utilities to, in many ways, overseeing the infancy of a rapidly developing competitive market, including developing rules for entry, interconnection, pricing, and fair competition.”

How the commission goes about regulating this nascent clean energy market is “quite literally shaping the grid of the future,” according to the legislation.

Prior to the new legislation, there were very few requirements to qualify for appointment as a commissioner — a nominee simply had to have lived in the District for three years, and not have conflicts of interest with any public utility companies.

Thompson previously served an assistant United States attorney in the U.S. Attorney’s Office for the District of Columbia, and sits on the board of DC Water. He was [appointed to the PSC](#) by Mayor Muriel Bowser last year to finish the term of a previous commissioner, and currently serves as interim chairperson. The D.C. Council is now considering Thompson’s reappointment for another four-year term and permanent designation as chairperson of the PSC.

Thompson argued that his experience with clean energy and grid modernization began when he joined the DC Water board, and that he gained additional experience over the past year on the PSC.

But D.C. Councilmember Charles Allen said ahead of the vote this week that Thompson did not fit the requirement to have grid modernization and clean energy expertise.

“While I’m confident Mr. Thompson has had exposure to these topics in his brief time on the commission, his entire career prior to joining the commission had been in public safety and criminal justice. I would have no problem, for example, voting for him to fill a seat requiring that specific expertise. But I do have trouble accepting that he is an expert on topics that he’s only recently begun exploring,” Allen said.

Allen and Cheh both spoke highly of Thompson, and said they did not want to vote against him, thus voting “present.”

Likewise, environmental and clean energy groups did not oppose Thompson's appointment, but stressed that the commission needs to take a more proactive role in promoting clean energy and the electric grid upgrades that will allow more of it.

"If approved, he will lead the PSC through the most consequential time," said Nicole Rentz, with the Chesapeake Solar & Storage Association, an industry group, speaking during a hearing on Thompson's nomination earlier in May. "In recent months, it's clear the District is at a turning point in the transition to renewable energy, as concerns about the solar interconnection and billing practices of our electric utility have begun to reach a tipping point."

Rentz said solar developers in the city are "facing arbitrary cost delays, barriers and inefficiencies imposed" by Pepco, adding up to an estimated loss of \$1.6 million. She also cited a recent complaint filed with the PSC against Pepco for [allegedly mishandling billing](#) on community solar projects, potentially overcharging thousands of customers.

The PSC should be more proactive, advocates say, in making sure Pepco doesn't get in the way of new solar projects.

Both Pepco and Washington Gas have submitted climate business plans to the PSC, which are currently under review. These plans outline how the utilities aim to meet the District's greenhouse gas reduction and carbon neutrality goals.

Briggs, with the Sierra Club, said the PSC needs to take a careful look at those plans, particularly the [one submitted by Washington Gas](#). Commissioners are faced with "the difficult issue of how to end emissions from fossil fuels by a utility whose primary business is selling fossil fuels," she says.

Natural gas is comprised mostly of methane, a highly potent greenhouse gas, and it contributes to global warming not only when combusted for heating or cooking, but also by leaks throughout the system of underground distribution pipes. Washington Gas is currently working on a 30-year project to replace gas pipes throughout the city, at [a total cost of as much as \\$3 to \\$4.5 billion dollars](#). Briggs says ratepayers will be paying for the project for decades after the city's 2050 goal of carbon neutrality — in other words, paying for fossil fuel infrastructure for years after fossil fuels should have been phased out.

"What Washington Gas would like, they want to keep selling us gas, they want to keep burning gas," Briggs says.

The climate plan submitted by Washington Gas envisions widespread adoption of "renewable" natural gas — methane captured from sources like sewage treatment plants and landfills. But many [environmentalists say](#) it's not truly a clean energy source (it's still methane); it's also too expensive and not abundant enough to replace conventional natural gas, they argue.

Thompson, during a hearing on his nomination, defended his and the commission's work on climate and efforts to cut carbon emissions from District's energy sector. "We fully understand and we feel like we have the authority to begin decarbonization," he said. But he added that some people wanted the commission to take actions outside its power.

"When people begin to say, 'well the commission should say Washington Gas should be prohibited from selling natural gas' — we believe that's not within our purview," Thompson said.

On the topic of Pepco's handling of solar projects in the city, Thompson said the commission is helping speed things up. "Over the past last year, we had the most solar facilities interconnect in the District than we ever have, and this year we're on pace to exceed that already. That doesn't just come from inertia. I think that comes from proactive leadership by the commission."

Thompson's appointment is still pending a vote by the full D.C. Council. There is one other vacancy on the commission.

Opinion | Gas leaks in D.C. threaten health, safety and the climate

By Rosa Lee and Carla Ellern

March 18, 2022 at 10:00 a.m. EDT

Rosa Lee is a member of Varick Memorial AME Zion Church and the Washington Interfaith Network. Carla Ellern is the chair of the Green Committee at Tifereth Israel Congregation. Both participated in the gas-leak-tagging effort documented at beyondgasdc.org.

We are volunteers who led teams from two very different congregations to walk our very different D.C. neighborhoods with a gas leak detector. We were alarmed to discover a common threat: Methane is leaking all over our communities, coming from the very same pipes that bring gas into our homes.

Last April, one of us, Rosa Lee, a retired social worker and mother, led members of Varick Memorial AME Zion Church to test for methane leaks in River Terrace, along the Anacostia River's eastern bank. Almost every block around the church had leaks. Some were big and others were small, but they were nearly everywhere. Gas leaks pose especially serious dangers to the many River Terrace residents who lack good access to transportation and health care.

Nine months later, one of us, Carla Ellern, a landscape architect, mother and chair of Tifereth Israel Congregation's Green Committee, didn't have to go very far to find gas leaking in the Shepherd Park neighborhood, near Rock Creek Park in Northwest D.C. Across the street from the synagogue, families encountered a methane leak that was literally off the charts, registering at the highest level the gas detector was able to measure.

We are not the only concerned D.C. residents who've seen firsthand that gas is leaking in our communities. Over the past year, volunteers have documented nearly 400 gas leaks in all eight D.C. wards. A dozen of these leaks were already at levels that could cause an explosion. And even if they don't, they are spewing methane, a heat-trapping climate polluter, into the atmosphere day after day, month after month.

It has become clear to us that, simply put: Gas leaks. It leaks outside, in every D.C. neighborhood, from crumbling pipes underneath our streets. Gas leaks from its production sites and along hundreds of miles of pipelines, damaging our climate. Methane traps 80 times more heat than carbon dioxide). And methane gas leaks, too, in the places where we live, pray and learn: from stoves in our homes, from furnaces and water heaters in our congregations and schools. Always and everywhere, gas leaks.

It's also clear to us that we're not going to repair or patch our way to a better future. Washington Gas has proposed asking D.C. residents to foot the bill for a \$4.5 billion pipe replacement, locking all of us into years more dependence on this dangerous and climate-polluting fossil fuel. As long as there are gas lines beneath our communities, we can't have a safe or sustainable city.

How can we envision a future D.C. that protects everyone's well-being, indoors and outdoors? To find our way, we call on the legacies of our respective congregations in our neighborhoods. Lee, who has lived in River Terrace for more than 35 years, remembers three decades ago when community leaders in the neighborhood fought to close down the Benning Service Center, which was dumping toxic waste into the Anacostia River. It took years of organizing to remove this source of dangerous pollution from Varick Memorial's community. But we did. Three decades before that, those living in the vicinity of Tifereth Israel came together to form Neighbors Inc., an alliance of D.C. residents that rejected blockbusting and discriminatory real estate practices and succeeded in preserving multiracial neighborhoods in and around Shepherd Park.

We have both learned from our histories that to make things better in D.C., we must come together across our differences to fight for a better future. So, together, we are calling on the D.C. Council to pass legislation that immediately begins the transition off methane gas and toward clean energy. We are connected by something stronger than leaking gas lines. We are connected by a fierce and enduring love for our people, for our neighborhoods and for the city we share.

Hundreds Of Natural Gas Leaks In D.C. Contribute To Climate Change



Jacob Fenston



A volunteer uses a gas leak detector.

Courtesy of Barbara Briggs

If you've ever walked down the street in D.C. and thought you smelled natural gas, you're not imagining things. A new study by a coalition of environmental and religious groups found 389 gas leaks in neighborhoods across the city — more than a dozen of which had gas levels high enough to cause an explosion.

"We have found leaks almost everywhere that we went," says Barbara Briggs, a Quaker climate activist who worked on [the study](#).

Natural gas is mostly methane, a potent greenhouse gas with 80 times more warming power than carbon dioxide, when measured over 20 years. *Burning* natural gas on your stove or furnace releases greenhouse gas emissions, but natural gas can also contribute to climate change by *leaking directly* from pipes on the way to your home — or even [from appliances within your home](#).



Volunteers testing for gas leaks.

Courtesy of Barbara Briggs

Natural gas accounts for 23% of greenhouse gas emissions in D.C., [according to the District Department of Energy and Environment](#). But natural gas emissions are likely much higher when leaks are accounted for, activists say. Leaks from natural gas infrastructure is no small problem — in fact, on a national level, [one recent study](#) found that gas leaks caused enough global warming to negate the emissions reductions of transitioning from coal to natural gas.

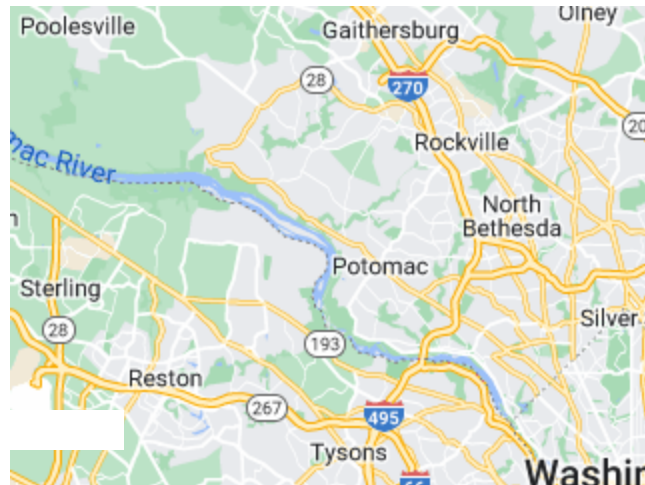
For the study in D.C., volunteers with the Sierra Club, Washington Interfaith Network, Friends Meeting of Washington, and other houses of worship teamed up to test for leaks at gas access caps and other utility manholes around the city. Over the past year, they fanned out to 21 locations across all eight wards in the District, using a handheld industry-grade gas detection meter to check for leaks.

Altogether volunteers spent 25 hours sampling for leaks. The area sampled represents a tiny fraction of the city — meaning the actual number of gas leaks is likely “orders of magnitude higher than the leaks found by the neighborhood researchers,” according to the study.

Volunteers found 14 places had methane levels exceeding 5% air volume — [the minimum level](#) at which gas can ignite.

Gas Leaks in DC ☆

This map was made with Google My Maps. [Create your own.](#)



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A map showing locations where natural gas was detected during sampling. Yellow circles indicate smaller leaks and red circles indicate larger leaks. Map courtesy of the Sierra Club.

The findings echo the results of [a larger study](#) commissioned by DOE last year, in which researchers surveyed 713 miles of D.C. streets with mobile methane monitors, and found more than 3,000 locations with elevated methane levels.

“We have to get off fossil fuels, including gas, and this to our mind, should be a signal,” says Briggs. “It’s time to really make a move and speed up our transition to clean, renewable energy.”

Briggs says D.C. is already on the path toward clean electricity — the District [has a law in place](#) requiring 100% of the electricity used in the city come from clean sources by 2032.

“We have no such pathway for gas,” Briggs says.

Washington Gas would beg to differ; the company has a climate business plan that shows a trajectory toward carbon neutrality by 2050 — in line with the District’s climate goals. The company — whose business model currently relies on selling planet-warming fossil fuels — will get to zero greenhouse gas emissions through a combination of energy efficiency programs, pipe replacement, and transitioning to low-carbon or carbon free gases, such as renewable natural gas, according to the plan.

Washington Gas wants to spend as much as \$4.5 billion over the next three decades upgrading its gas infrastructure through a project called PROJECTpipes, which would help address the leak problem.

“Washington Gas is committed to delivering a safe, reliable, and sustainable system,” said Bernie Taylor, a Washington Gas spokesperson, said in a statement to DCist touting the companies infrastructure investments and climate plan. Taylor urged residents to immediately report any gas smells at 844-WASHGAS (844-927-4427) or by calling 911.

“We respond to odor calls 24/7 to ensure the safety of our customers and communities. We take reports and concerns from the community seriously and will continue doing our part to build a clean, low carbon future,” Taylor said.



Never too young to survey for explosive fossil fuels.

Courtesy of Barbara Briggs

Climate activists are not buying the gas company's carbon-neutrality promises, and say renewable natural gas — methane sourced from biomass and waste — [is not a viable solution](#). And they say rather than spending billions on fossil fuel infrastructure that may soon be obsolete, the money should be spent transitioning to clean electricity, and helping to subsidize that switch for low-and-moderate income residents.

Briggs and other activists plan to testify today at [a D.C. Council oversight hearing](#), urging lawmakers to require the Public Service Commission, which regulates Washington Gas, to develop and implement a plan to end the use of natural gas in the District.

This story was updated because a previous version incorrectly said a Washington Gas spokesperson declined to comment.

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BECOME A MEMBER

Hundreds of gas leaks found in D.C. — some ‘potentially explosive,’ report says

By Justin Wm. Moyer

February 23, 2022 at 2:55 p.m. EST

Volunteers with a coalition of D.C. environmental and religious groups found almost 400 methane leaks throughout the city, including more than a dozen that were “potentially explosive,” according to a report released Wednesday.

The report from Beyond Gas DC — a coalition run by the Sierra Club that includes environmental and religious organizations in the region — came as some D.C. residents testified Wednesday before the D.C. Council’s Committee on Business and Economic Development, urging the city to switch to clean energy sources to protect the planet and public health.

Over the past year, the report said, volunteers measured methane emissions across all eight D.C. wards using an “industry-grade” detector. The volunteers found 389 leaks, according to the report, including 14 leaks at or exceeding 50,000 parts per million — a level the report said was “potentially explosive.”

Many leaks were found near utility access caps, the report said, and the actual number of leaks is likely “many times higher” than what the groups found.

The report concluded that a “gas distribution system across DC with zero leaks is impossible,” and recommended that the city switch from gas to renewable electricity sources. Washington Gas methane accounts for 23 percent of D.C.’s total greenhouse gas emissions, according to the report, which cited a D.C. Department of Energy and Environment estimate that upgrading current pipeline infrastructure will cost up to \$4.5 billion.

“Fixing the leaks we know of is a whack-a-mole approach that will not stop new leaks from forming and eventually being discovered,” the report said. “Instead of spending billions of dollars on fracked gas infrastructure, another approach would be to electrify buildings with highly efficient heating systems using clean energy.”

In a statement, Washington Gas spokesman Bernie Tylor said the company is investing in satellite emissions detection technology, among other diagnostic tools, and a pipeline replacement plan.

“We remain focused on modernizing our infrastructure, increasing energy efficiency in homes and offices, and introducing carbon free fuels as energy options,” Tylor said in the statement. “We take reports and concerns from the community seriously and will continue doing our part to build a clean, low carbon future.”

At the hearing Wednesday, Lara Levison, chair of the Sierra Club's clean energy committee, said she was a Ward 6 resident who participated in the methane metering.

"Methane gas was leaking from almost every manhole and meter cover that we checked," she said. "Most of the amounts we found that day were small, but small leaks add up."

Rosa Lee, a 74-year-old retired social worker, said in an interview with The Washington Post that she has owned her home in Northeast Washington's River Terrace since 1986. She found out about the leak-monitoring program through her church and became an eager participant, helping find some leaks that were severe enough to smell.

"I grew up as a child with a gas stove and never considered there was anything wrong with it or unhealthy," she said. "Once you learn more, you do more with what you know."

What's that smell? Hundreds of gas leaks reported in DC

By Sierra Fox | Published February 24, 2022 | News | FOX 5 DC

New study finds multiple gas leaks around DC

Residents found over 400 gas leaks here in the nation's capital.

WASHINGTON (FOX 5 DC) - You may remember back in December, FOX 5 received a number of reports from viewers concerned about the smell of natural gas in parts of DC and Montgomery County. At the time, no major issues were discovered.

PREVIOUS COVERAGE: Natural gas smell comparative to rotten eggs concerning DMV residents

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Since then, over 50 people who are part of environmental and religious organizations in DC formed Beyond Gas DC. They each got a gas detector to investigate where that rotten egg smell was coming from.

The group found nearly 400 gas leaks all around the nation's capital. When Fox 5 contacted the DC Office of Unified Communications, they said since January 2022 – they have received over 400 calls for the smell of natural gas.

We spoke with two women who took part in the study and say they have been dealing with this their entire lives. Now, they suffer from headaches, dizziness, and even asthma.

"My concern, being a senior citizen, the health issue is a big concern that gas is unhealthy, leaks are unhealthy. This is an older community everyone who lives here has gas in their homes," said Rosa Lee, Volunteer Researcher, Beyond Gas DC Project.

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"Sometimes you can walk in the house, you check and you smell gas, you check and you make sure all the gas is off, but you still smell gas so you know leakage is going on so we know as we burn gas from the stoves that toxic admission is actually polluting the air that we are breathing on the inside," said Michelle Hall, Volunteer Researcher, Beyond Gas DC.

The coalition is made up of over 50 volunteer researchers with the Sierra Club as well as Washington Interfaith Network, Friends Meeting of Washington, and many other faith-based organizations.

Beyond Gas DC teamed up one year ago and spent 25 hours testing leaks at gas access caps and other utility manholes at 21 locations across all eight wards.

"We've been concerned both about the contribution of fossil fuels to our climate and also to the health of DC residents for a number of years," said Barbara Briggs, Coordinator, Beyond Gas DC.

PREVIOUS COVERAGE: Heating bills set to soar this winter as inflation hits energy prices

Out of the 389 gas leaks discovered, 14 were at hazardous levels that could've caused an explosion. While gas leaks cause public safety and health threats,

Beyond Gas DC says there are also climate threats and that's why they want the city to move away from using gas.

"Washington Gas wants to charge DC residents \$5 billion to replace its pipes. The total cost of this according to the DC government would be \$5 billion. DC has committed to be carbon neutral and not burn fossil fuels by 2050 so to spend almost \$5 billion on fossil fuel infrastructure when we want to transition off of fossil fuels in the next 28 years makes no sense," said Mark Rodeffer, Sierra Club.

Washington Gas says they are focused on a pathway forward that modernizes their operations and infrastructure to address gas leaks sending Fox 5 DC this statement:

"Our strategies and plans filed with the DC public service commission will help DC meet its climate goals in a manner that is affordable, reliable, safe, and sustainable."

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As always, Washington Gas encourages anyone who suspects they smell a natural gas odor to immediately call 844-WASHGAS (844-927-4427) and/or 911.

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February 23, 2022

Neighborhood Researchers Find Hundreds of Methane Gas Leaks Across DC

Neighborhood researchers found nearly 400 active methane gas leaks from DC's gas utility across all eight wards of the District of Columbia. Over the past year, volunteers



from DC's environmental and faith communities tested air from vents in utility access caps on DC streets and sidewalks using an industry-grade methane detector, finding hundreds of leaks, including over a dozen at or over the methane concentration at which an explosion is possible.

In about 25 hours, volunteers with the Sierra Club, Washington Interfaith Network, Friends Meeting of Washington, and houses of worship from across the District found 389 leaks. This number

included 14 leaks at or exceeding 50,000 parts per million (5% of air volume), which is the level at which a leak is potentially explosive.

Many leaks were found at gas utility access caps, like the one in the image to the right. The neighborhood researchers also found methane gas in access caps for other underground piping, because gas from damaged pipes migrates through soil to air pockets around electric, water and telecommunications equipment. Researchers from Gas Safety Inc. and Boston University, with extensive





experience in methane detection, have said there is not sufficient organic matter under pavement to produce measurable methane.

The leak detection survey covered a wide sample of neighborhoods across all eight wards. The sampling includes only a small percentage of DC's total gas pipelines, meaning that the actual number of leaks is many times higher than the numbers reported here.¹

Climate Threat

Methane sold by Washington Gas accounts for 23% of the District's total greenhouse gas emissions.² Because gas leaks are approximately double official estimates, emissions from the gas sector are likely much higher.³ When released directly into the atmosphere, methane is 84 to 87 times more powerful than carbon dioxide as a global warming agent.⁴ When combusted, methane gas produces carbon dioxide, the most common greenhouse gas, as well as nitrogen dioxide, a precursor to ozone.⁵

Public Health Threat

Gas appliances fill our homes with many of the same pollutants as car exhaust – carbon monoxide, nitrogen dioxide, particulate matter, and formaldehyde.⁶ Because of this, the air we breathe indoors is often more polluted than outdoor air.⁷ Health impacts stemming from elevated nitrogen dioxide exposure include:

- Aggravated respiratory symptoms and higher susceptibility to lung infections⁸
- 42% increased risk of developing asthma symptoms⁹
- IQ and learning deficits in children¹⁰



¹ Survey locations were chosen to cover wards and neighborhoods across the District. Though locations were not randomly generated, survey sites were chosen without consideration of expected findings.

² [DOEE Greenhouse Gas Inventories](#)

³ [Assessment of methane emissions from the U.S. oil and gas supply chain, Science, July 13, 2018](#)

⁴ [Methane Matters: Scientists Work to Quantify the Effects of a Potent Greenhouse Gas, NASA Earth Observatory, March 8, 2016](#)

⁵ [Air quality and health, World Health Organization, 2022](#)

⁶ [Gas stoves can generate unsafe levels of indoor air pollution, Vox, May 11, 2020](#)

⁷ [Gas Stoves: Health and Air Quality Impacts and Solutions, RMI, 2020](#)

⁸ [Gas Stoves: Health and Air Quality Impacts and Solutions, RMI, 2020](#)

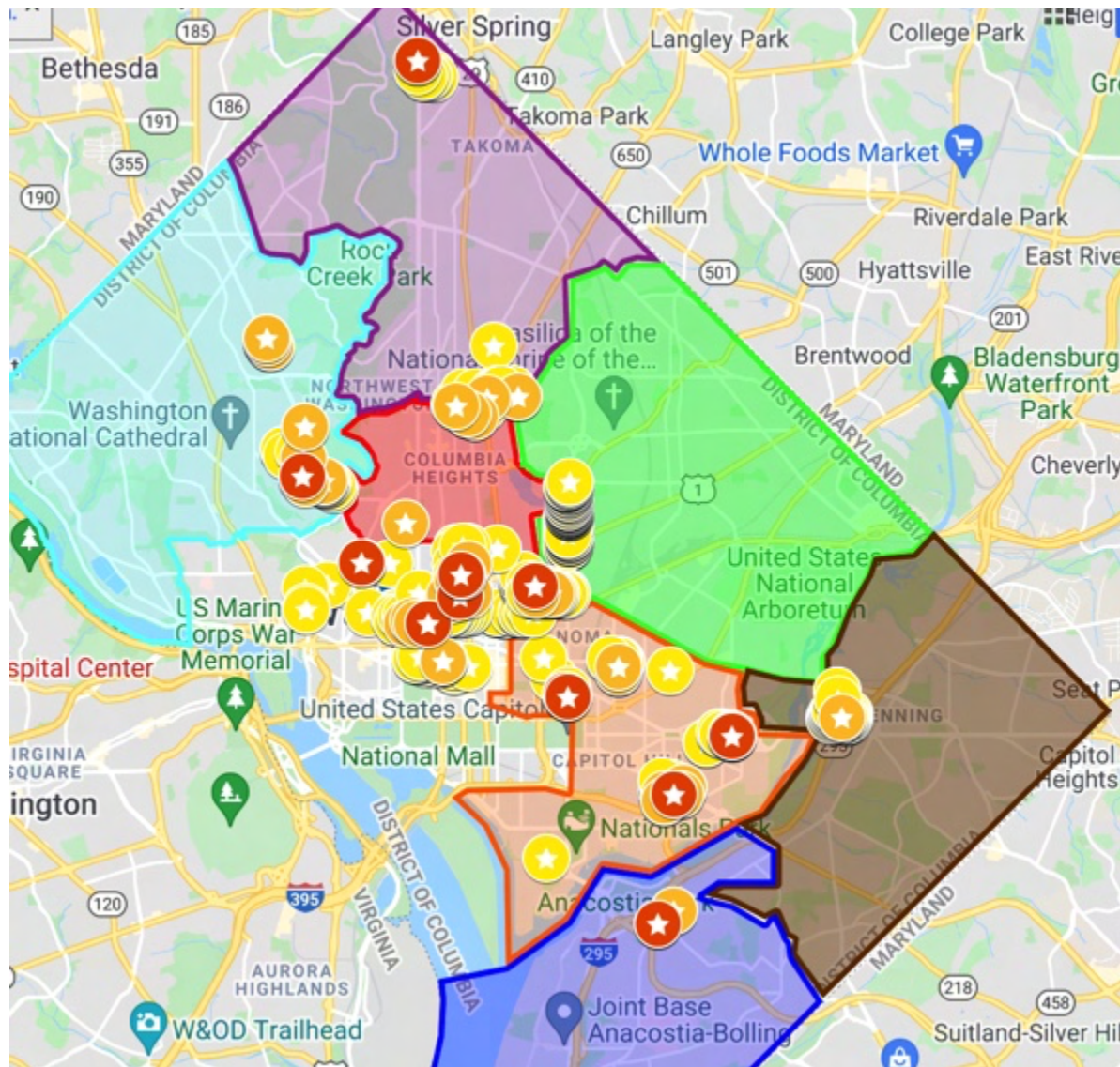
⁹ [Gas Stoves: Health and Air Quality Impacts and Solutions, RMI, 2020](#)

¹⁰ [Effects of prenatal exposure to NO2 on children's neurodevelopment: a systematic review and meta-analysis, Environmental Science and Pollution Research International, April 20, 2020](#)



Asthma rates among children living with gas stoves are comparable to those of children living with cigarette smokers, with one study attributing 12% of all childhood asthma to pollution from gas stoves.¹¹ Poor and Black children are disproportionately affected by indoor air pollution. Children in Ward 8 are 10 times more likely to go to the hospital because of an asthma attack than children in wealthier parts of DC.¹²

Gas Leak Map



The above map of leaks our volunteer teams identified is not a comprehensive list of gas leaks in DC. We measured a small fraction of the gas utility's access caps for

¹¹ [Kicking the Gas Habit: How Gas is Harming our Health. Climate Council \(Australia\). May 2021](#)

¹² [Doctors Blame D.C.'s High Asthma Rates in Part on Poor Housing. City Paper. May 22, 2019](#)



methane leakage, meaning the number of actual leaks is orders of magnitude higher than the leaks found by the neighborhood researchers.

Leak Data

Date	Starting Location	Total Leaks	Large Leaks (over 2,000ppm)	Leaks \geq Lower Explosive Level	Leak detection team members
2/7/21	Florida Ave. & Decatur Place NW (Ward 2)	4	1	1	Friends Meeting of Washington 1st Day School
2/19/21	2101 St St NW (Ward 2)	5	1	1	Audubon Naturalist Society, Friends Meeting of Washington
3/15/21	N St. & 6th St. NW (Ward 2)	33	0	0	Audubon Naturalist Society, Friends Meeting of Washington
3/23/21	Adams St. & N Capitol NW (Ward 5)	75	0	0	Audubon Naturalist Society and Friends Meeting of Washington
4/17/21	225 Anacostia Ave. NE (Ward 7)	41	2	0	Varick Memorial AME Zion & Washington Interfaith Network (WIN)
5/1/21	Klinge Trail & Tregaron (Ward 3)	10	2	1	Friends Meeting of Washington
5/6/21	Woodley Rd. & 29th St. NW (Ward 3)	12	2	0	Friends Meeting of Washington
5/14/21	Randolph St. & 5th St NW (Ward 4)	25	5	0	Audubon Naturalist Society, Friends Meeting of Washington
5/21/21	15th St. & A St. SE (Ward 6)	11	2	1	St. Mark's Episcopal, Church of the Epiphany, WIN, FMW



6/11/21	2401 MLK Ave. SE (Ward 8)	2	2	1	St. Mark's Episcopal, Church of the Epiphany, WIN, FMW, St. Augustine
6/19/21	Rhode Island Ave. & St Matthews Ct. NW (Ward 2)	16	2	1	Cathedral of St. Matthews, WIN
6/25/21	1717 Rhode Island Ave. (Ward 2)	4	3	0	Cathedral of St. Matthews, WIN
7/2/21	700 13th St. NW (Ward 2)	19	1	0	Church of the Epiphany, WIN
7/3/21	N Capitol St. & E St. NE (Ward 6)	18	4	2	St. Mark's, St. Augustine, Church of Epiphany, WIN
9/3/21	19 Logan Circle NW (Ward 2)	29	4	1	WIN, FMW
9/11/21	E St. & 12th St. SE (Ward 6)	24	5	1	Sierra Club
10/9/21	4301 Connecticut Ave. (Ward 3)	6	3	0	St. Mark's, St Augustine, St Margarets, FMW
1/15/22	2817 Cathedral Ave. NW (Ward 3)	2	2	0	FMW
1/16/22	1442 Jonquil St. NW (Ward 4)	10	1	1	Tifereth Israel, FMW
2/12/22	1535 4th St NW (Ward 5)	22	5	1	Masjid Muhammad
2/12/22	U Street Metro (Ward 1)	19	4	2	WIN Affordable Green Buildings team, St. John's Episcopal Church
Totals		388	51	14	

Methodology

From February 2021 to February 2022, neighborhood researchers used a hand-held, industry grade gas detector (Sensit Gold G2 Combustible Gas Leak Detector) with an



18-inch flexible tube that draws in air to be tested for the presence of methane. The researchers inserted the nozzle into utility access caps to measure the presence of methane.

The Sensit Gold G2 detector measured methane in parts per million (ppm). At methane concentrations of 2,000 ppm, the detector shifted to measuring gas concentration as a percentage of methane's lower explosive limit, which is the level at which an explosion can occur. The lower explosive limit is 5% of air volume or 50,000 parts per million. Our teams found 51 leaks of over 2,000 parts per million and 13 leaks at or exceeding the lower explosive limit.



The leak surveyors came from the Sierra Club, Washington Interfaith Network, Interfaith Power & Light, Friends Meeting of Washington, Audubon Naturalist Society, Varick Memorial AME Zion Church, St. Mark's Episcopal Church, Church of the Epiphany, St. Augustine Catholic Church, Cathedral of St. Matthew the Apostle, St. Margaret's Episcopal Church, St. John's Episcopal Church, All Souls Unitarian Church, Tifereth Israel Congregation and Masjid Muhammad - the Nation's Mosque.

Government & Academic Studies Confirm Widespread Gas Leakage

A gas leak study commissioned by the DC government in 2021 identified 3,346 locations with methane at concentrations higher than ambient background levels.¹³ In a smaller sampling of these locations, 100% were found to be in close proximity to a gas main, valve or service line. Massachusetts-based Gas Safety Inc. performed the study for the Department of Energy and Environment (DOEE). The study, released on October 31, 2021, covered DC's residential neighborhoods, comprising about 50% of the District's land area.

The Beyond Gas survey measured methane levels at the precise location where the gas concentrates under utility access caps. Our data reaffirm the DOEE study's findings

¹³ [2021 Fugitive Methane Emission Survey of the District of Columbia For the District of Columbia Department of Energy and Environment, October 31, 2021](#)

that leaks are ubiquitous across the District. In addition, our ground-level testing device was also able to measure gas concentration levels, which were troublingly high in many locations.



Research released by Stanford University in January 2022 found that gas stoves leak significant amounts of methane, even when turned off.¹⁴ Methane gas leaks from stoves cause climate damage equivalent to that caused by about 500,000 gasoline-powered cars, according to the Stanford study.

The Stanford researchers measured how much methane escapes from the moment a burner is turned on and when the flame ignites the gas. It also examined how much unburned methane is released during cooking and how much gas is leaked when the stove is off. The scientists from Stanford University conducted the study on gas cooktops in 53 California homes.

The scientists found no relationship between the age or cost of a stove and its emissions. New and more expensive stoves leaked gas at similar rates to older and less expensive gas cooktops.

“I don’t want to breathe any extra nitrogen oxides, carbon monoxide or formaldehyde,” said Rob Jackson, one of the researchers with Stanford. “Why not reduce the risk entirely? Switching to electric stoves will cut greenhouse gas emissions and indoor air pollution.”¹⁵

Conclusion

One seemingly obvious solution to the problem of gas leaks across DC (and the approach favored by the fracked gas industry) would be simply to repair the leaks.

¹⁴ [Methane and NOx Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes. Environmental Science & Technology, January 27, 2022](#)

¹⁵ [Stanford scientists find the climate and health impacts of natural gas stoves are greater than previously thought. Stanford News Service, January 27, 2022](#)



Fixing the already-existing leaks would take decades, during which the climate and health damage caused by leaking and burning methane gas would continue. Additionally, as some leaks are fixed, new leaks would appear. A gas distribution system across DC with zero leaks is impossible. Fixing the leaks we know of is a whack-a-mole approach that will not stop new leaks from forming and eventually being discovered. As one of our neighborhood researchers succinctly put it: “Gas leaks.”

The cost of gas leaks isn’t only paid in climate and public health damage, there’s also an enormous financial price tag. The gas utility’s pipeline replacement program is estimated to cost up to \$4.5 billion, according to DOE.¹⁶

Instead of spending billions of dollars on fracked gas infrastructure, another approach would be to electrify buildings with highly efficient heating systems using clean energy. Switching to modern, electric furnaces and water heaters would save 282,000 DC households \$100 million annually on utility bills. The savings are greatest for low- and moderate-income households because they have three times the energy burden (the portion of their income spent on home energy) as other households. DC families would save an average of \$378 a year.¹⁷

Building homes with clean electric appliances is less expensive than building with fossil fuel appliances. Foregoing gas piping in homes saves a median of nearly \$9,000. Electrifying existing buildings can also be cost effective, especially for households replacing both a gas furnace and an air conditioning unit, or bundling rooftop solar with electrification.¹⁸

The District’s official climate and energy policy is to achieve carbon neutrality and eliminate fossil fuel combustion. Meeting DC’s climate commitments will require transitioning from methane gas to highly efficient heating systems powered by electricity from renewable sources.

¹⁶ [District of Columbia Government Testimony before the Public Service Commission, Formal Case No. 1154 – In the Matter of Washington Gas Light Company’s Project Pipes 2 Application, June 15, 2020](#)

¹⁷ [District of Columbia: Benefits of Household Electrification, Rewiring America](#)

¹⁸ [The Economics of Electrifying Buildings, RMI, 2018](#)