

Summary

DPU 20-GLR-01

Gas Leaks Report

RELEASED DECEMBER 30, 2020

GAS LEAKS ALLIES

DAVID ZEEK

Minimal Progress on Gas Leak Repair in Massachusetts

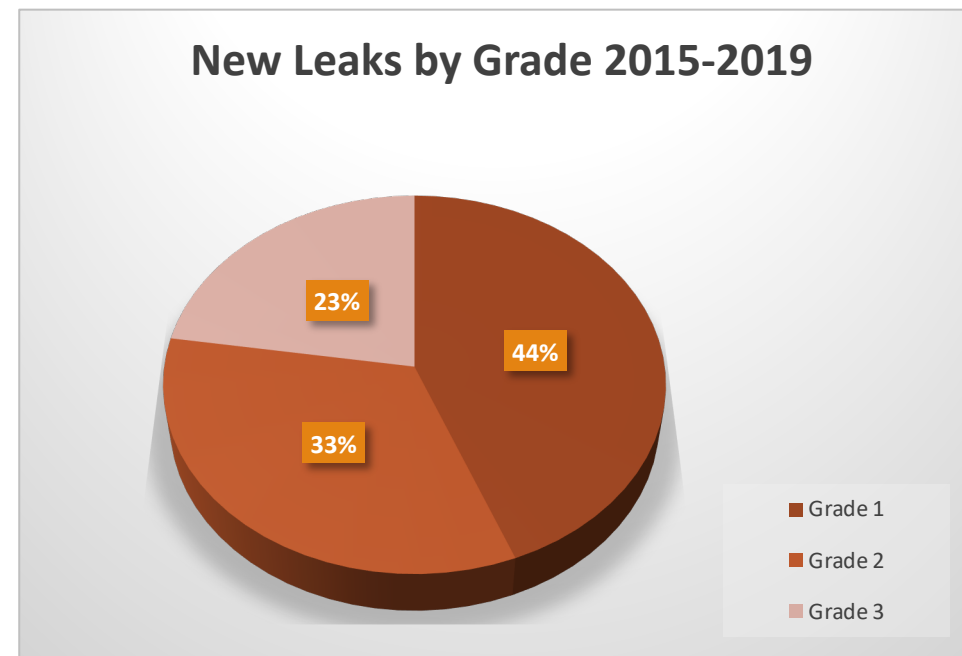
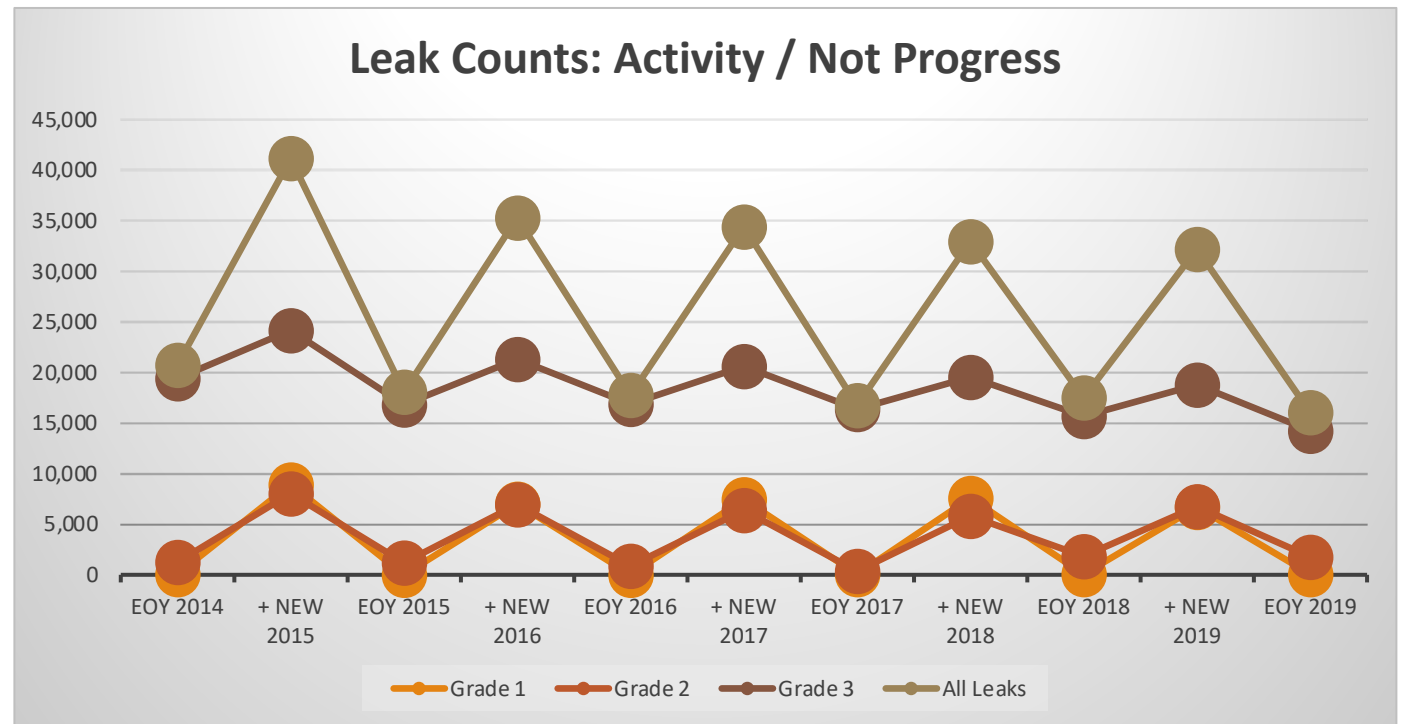
16,044 leaks at EOY 2019

Down from 17,533 at EOY 2018

As leaks are fixed, new ones appear:

- 16,218 leaks repaired or eliminated in 2019 but
- 14,712 new leaks

D.P.U. 20-GLR-01 (Dec. 30, 2020): Report on the Prevalence of Natural Gas Leaks in the Natural Gas System

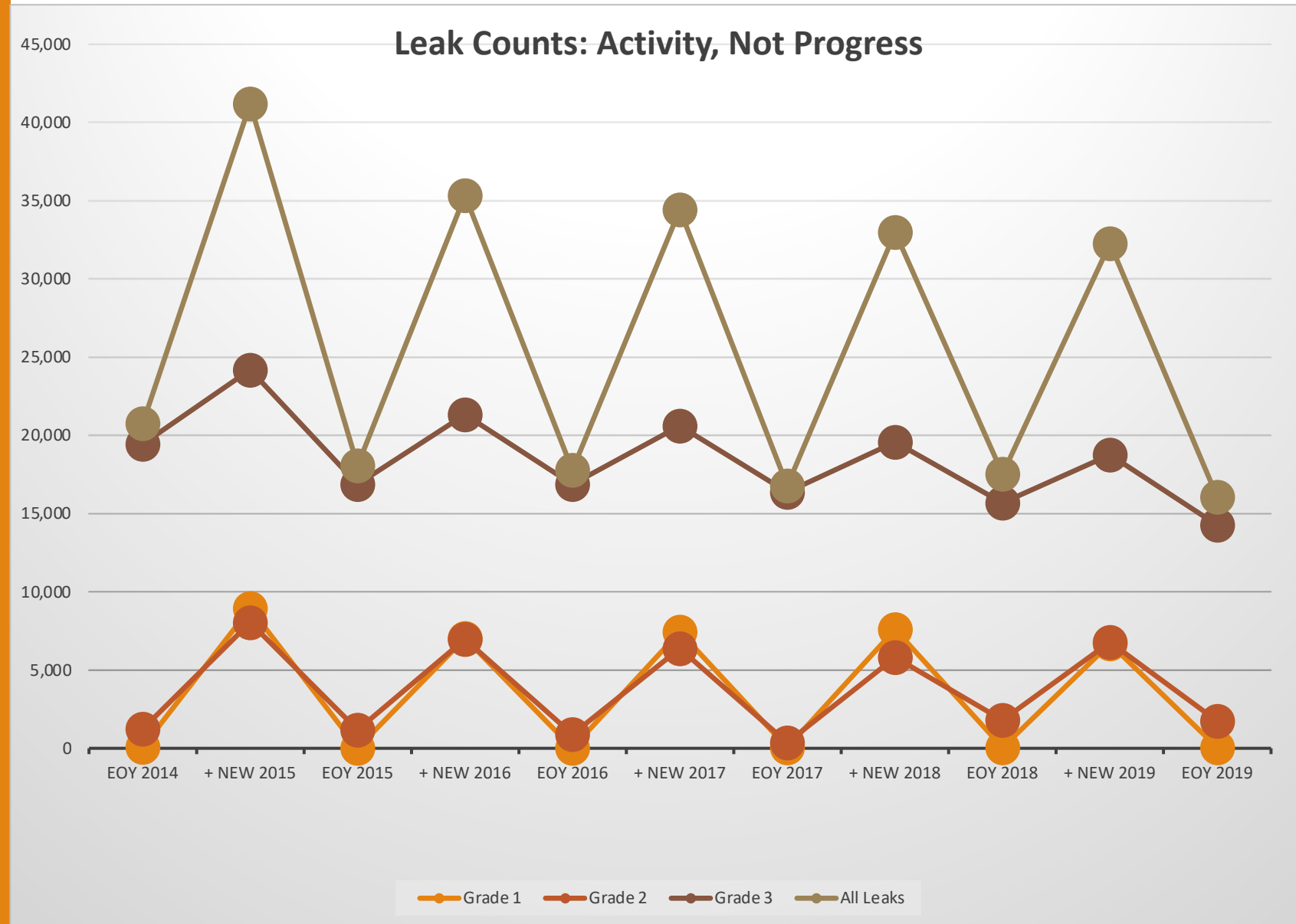


Minimal Progress on Gas Leak Repair in Massachusetts

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There Were 16,044 Gas Leaks in Massachusetts at Year End 2019

Down from 17,533 at EOY 2018

DPU publishes an annual report compiling gas leaks data collected from the gas companies

20-GLR-01 Prevalence of Natural Gas Leaks in the Natural Gas System

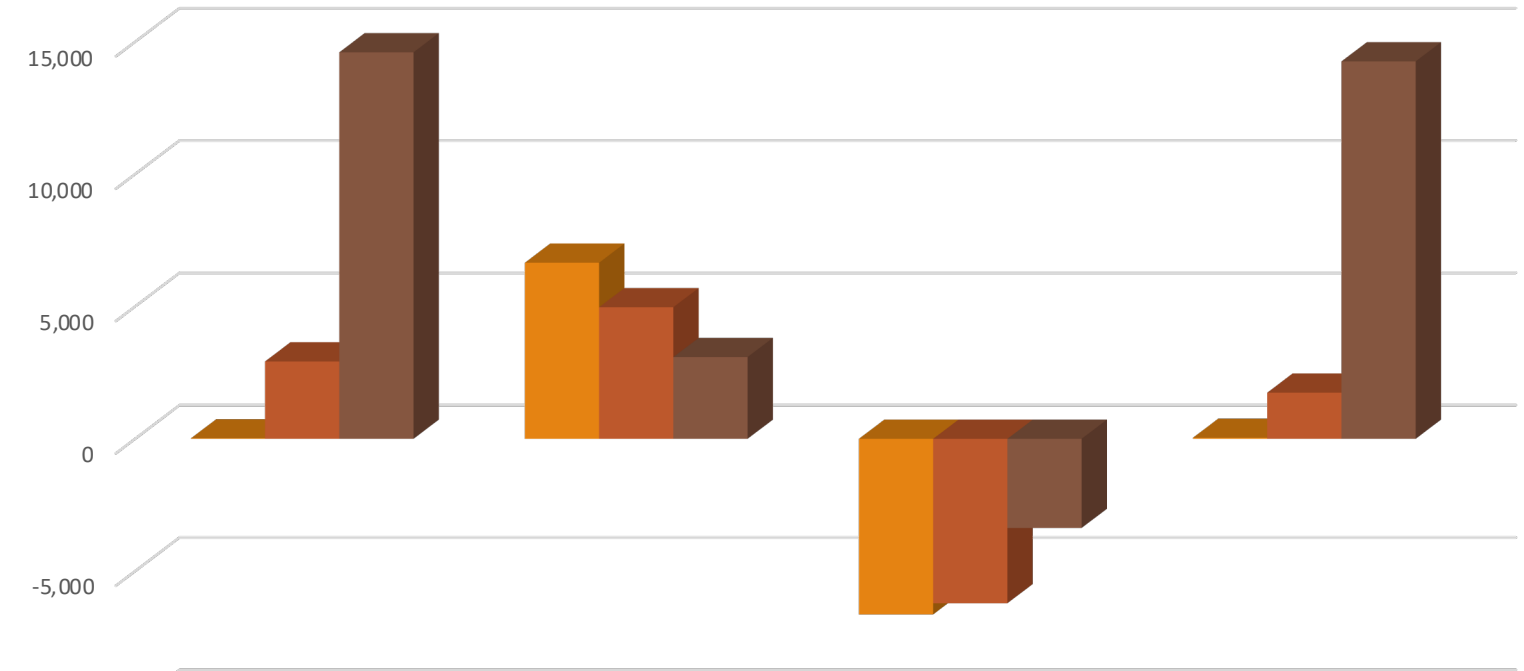
Latest report released Dec. 30, 2020 covers gas leaks data for CY2019

46% of leaks in 2019 were new leaks

79% of new leaks in 2019 were hazardous (Grade 1 or Grade 2)

11% of leaks remaining at year end 2019 were hazardous

2019 Gas Leaks



	Leaks from 2018	New Leaks 2019	Repaired 2019	Remainder 2019
Grade 1	15	6,653	-6,637	41
Grade 2	2,923	4,971	-6,213	1,743
Grade 3	14,602	3,088	-3,368	14,260

Grade 1 Grade 2 Grade 3

Lost And Unaccounted For Gas

DPU 20-GLR-01 includes estimates for lost and unaccounted-for natural gas associated with gas leakage

In Dec. 2019, DPU promulgated a new regulation 220 CMR 115.00 on how LAUF is to be reported to the DPU.

Prior years LAUF was based on data submitted to the US Department of Transportation, Pipeline and Hazardous Materials Safety Administration and to the DPU.

Local Distribution Company	LAUF Leakage 2019 MCF (thousand cubic feet)	LAUF Leakage 2018 MCF (thousand cubic feet)	LAUF Leakage 2017 MCF (thousand cubic feet)	LAUF Leakage 2016 MCF (thousand cubic feet)	LAUF Leakage 2015 MCF (thousand cubic feet)
Berkshire	9,751	25,294	34,544	36,152	35,167
Blackstone	358	695	234	248	241
Columbia Gas	56,349	119,721	232,514	247,922	241,169
Eversource	41,967	55,592	214,512	222,805	216,737
Holyoke	17,748	18,359	18,946	20,179	19,629
Liberty	12,002	104,816	52,805	214,998	209,142
Middleborough Gas	0	29,566	3,531	17,736	17,253
National Grid	213,903	847,271	892,986	897,227	872,789
Unitil	4,069	0	1,339	1,995	1,941
Wakefield	7,915	2,856	4,231	4,796	4,665
Westfield	1,846	2,458	2,583	94,654	92,076
Totals	365,909	1,206,628	1,458,224	1,758,712	1,710,809

Methane Emissions

DPU 20-GLR-01 includes reports of methane emissions associated with leakage in the natural gas system.

Reported in accordance with the Department of Environmental Protection's 310 CMR 7.71, Reporting of Greenhouse Gas Emissions.

The chart includes data from prior years DPU Gas Leaks Reports.

Local Distribution Company	Methane Emissions 2019 MT (Metric Tons)	Methane Emissions 2018 MT (Metric Tons)	Methane Emissions 2017 MT (Metric Tons)	Methane Emissions 2016 MT (Metric Tons)	Methane Emissions 2015 MT (Metric Tons)
Berkshire	52	502	549	606	726
Blackstone	20	163	5	5	555
Columbia Gas	1112	2363	4531	4804	5136
Eversource	1094	28768	4427	4610	4972
Holyoke	341	353	366	379	396
Liberty	237	1031	27895	1185	1247
Middleborough Gas	0	55	58	59	0
National Grid	4115	16462	17350	15864	16846
Unitil	1946	2074	31	47	20
Wakefield	153	55	82	93	63
Westfield	28	37	54	2	1
Totals	9097	51864	55348	27652	29962

Backup

Cost to Repair Gas Leaks Remaining at EOY 2019

Total repair cost: \$36M
(half of last year)

Average cost: \$2,236 per leak

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Local Distribution Company	Total Leaks EOY 2019	\$ Total to Fix	\$ Average to Fix
Berkshire	113	\$395,500	\$3,500
Blackstone	0	\$0	n/a
Columbia Gas	1,925	\$19,500,000	\$10,130
Eversource*	2,583	\$7,147,161	\$2,767
Holyoke	119	\$463,750	\$3,897
Liberty	481	\$2,784,509	\$5,789
Middleborough Gas	0	\$0	n/a
National Grid	10,674	\$5,026,500	\$471
Unitil	14	\$70,000	\$5,000
Wakefield	102	\$304,164	\$2,982
Westfield	33	\$189,202	\$5,733
Totals	16,044	\$35,880,786	\$2,236.40

Reported Data is Questionable

DPU 20-GLR-01 Natural Gas Leaks in the Natural Gas System for CY2019

Gas Leaks Local Distribution Company	Leaks Carried forward from 2018					YR 2019 New Gas Leaks					YR 2019 Total Gas Leaks					YR 2019 Leaks Repaired or Eliminated					EOY 2019 Remaining Gas Leaks				
	Grade 1	Grade 2	Grade 3 SEI	Grade 3 Non-SEI	Total	Grade 1	Grade 2	Grade 3 SEI	Grade 3 Non-SEI	Total	Grade 1	Grade 2	Grade 3 SEI	Grade 3 Non-SEI	Total	Grade 1	Grade 2	Grade 3 SEI	Grade 3 Non-SEI	Total	Grade 1	Grade 2	Grade 3 SEI	Grade 3 Non-SEI	Total
Berkshire	0	27	7	182	216	52	58	2	39	151	52	85	9	221	367	52	76	7	119	254	0	6	2	105	113
Blackstone	0	0	0	0	0	1	1	0	18	20	1	1	0	18	20	1	1	0	18	20	0	0	0	0	0
Columbia Gas	0	834	8	1,253	2,095	1,256	1,853	27	616	3,752	1,256	2,687	35	1,869	5,847	1,255	2,044	11	612	3,922	1	643	33	1,248	1,925
Eversource	0	54	35	3,301	3,390	644	449	9	413	1,515	644	503	44	3,714	4,905	648	485	37	1,151	2,321	0	59	6	2,518	2,583
Holyoke	0	5	0	143	148	39	36	3	140	218	39	41	3	283	366	39	44	10	154	247	0	8	0	111	119
Liberty	0	25	0	538	563	140	113	0	69	322	140	138	0	607	885	147	132	1	141	421	0	4	0	477	481
Middleborough Gas	0	0	0	0	0	8	7	0	1	16	8	7	0	1	16	8	7	0	1	16	0	0	0	0	0
National Grid	15	1,927	1,240	7,733	10,915	4,394	2,304	271	1,398	8,367	4,409	4,231	1,511	9,131	19,282	4,369	3,246	92	901	8,608	40	1,000	1,436	8,198	10,674
Unitil	0	0	1	21	22	105	76	5	23	209	105	76	6	44	231	104	76	5	26	211	0	0	2	12	14
Wakefield	0	47	20	70	137	2	16	9	10	37	2	63	29	80	174	2	48	6	16	72	0	15	23	64	102
Westfield	0	4	0	50	54	12	58	0	35	105	12	62	0	85	159	12	54	0	60	126	0	8	0	25	33
Totals	15	2,923	1,311	13,291	17,540	6,653	4,971	326	2,762	14,712	6,668	7,894	1,637	16,053	32,252	6,637	6,213	169	3,199	16,218	41	1,743	1,502	12,758	16,044
		Shading means reported Remaining leaks differs from Total - Repaired																							

Gas System Enhancement Plans

LDC	Mains (miles)	Leak-prone Pipe (miles)	Percent	To be Replaced in 2020 (miles)
Columbia Gas	4,990	624	13%	44
Berkshire	761	76	10%	7
Liberty Utilities	619	178	29%	16
National Grid	11,130	4,786	43%	142
Eversource	3,292	639	19%	55
Unitil	274	50	18%	4
	21,066	6,352		268

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