STATE OF NEW YORK
DEPARTMENT OF PUBLIC SERVICE

CASE 24-G-0145 - In the Matter of Staff's Analysis of Local Distribution Company (LDC) Performance Related to the Pipeline Safety Measures.

2023 PIPELINE SAFETY PERFORMANCE MEASURES REPORT

Office of Energy System Planning and Performance
Pipeline Safety Section
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Executive Summary

The pipeline safety performance measures that make up this report were the result of collaborative efforts beginning in the 1990's between New York's 11 major gas local distribution companies (LDCs) and the New York State Department of Public Service (DPS). Revised in 2017, these measures improve identification and tracking in areas that are critical to pipeline safety. Most of the data used in the report was gathered and submitted by the LDCs using processes developed from these collaborative efforts.

This report examines the results of LDCs' performance in specific safety areas that include damage prevention, emergency response, and leak management for calendar year 2023, as well as the results of DPS Staff's (Staff's) audits and investigations that verify compliance with the minimum pipeline safety regulations for calendar year 2022. The Pipeline Safety Section of the Office of Energy System Planning and Performance has been producing this report since 2004.

For the damage prevention measure, in 2023, the data shows a decrease of 4.0% in the number of one-call tickets, going from 797,613 to 765,858 (or 31,755 less tickets), and a decrease of 33 damages, going from 1,359 to 1,326, compared to 2022. This resulted in a decline in performance of the total damage rate, going from a rate of 1.70 per 1,000 one-call tickets in 2022 to a rate of 1.73 per 1,000 one-call tickets in 2023. For the emergency response measure, the 30-minute, 45-minute, and 60-minute emergency response time performances slightly improved all within a 0.4% range. For the leak management measure, the total year-end leak backlog improved 16.1% from the previous calendar year, going from 7,325 to 6,149, in 2023. The total number of leaks discovered decreased from 13,838 in 2022 to 12,789 in 2023, or 1,049 less leaks. The number of leak repairs

increased from 15,643 in 2022 to 15,786 in 2023, or 143 more leaks repaired. Due to the increase in the number of miles of leak prone pipe removed each year since 2015, with pipe materials that are less prone to leak, there has been a trending decrease in the number of both, leaks discovered and repaired. In 2022, non-compliances were identified in all 11 of the major LDCs' operating service territories.

Overall, the data indicates that performance has substantially improved for LDCs across the state over the twenty-one-year period Staff has been reporting performance to the New York State Public Service Commission (Commission). It is important to note that the LDCs maintained focus on these performance measures, which ensured the same, if not a greater, level of public safety. As LDCs continue their outreach and education efforts to excavator communities as well as the public, adopt better practices in responding to leak, odor, and emergency reports, work to remove leak-prone infrastructure, and as quality assurance and quality control programs continue to mature, Staff expects further performance improvements will occur. A high-level discussion of the results for each performance measure follows below.

The first measure, damage prevention, gauges the LDCs' achievement in minimizing damages to buried gas facilities caused by excavation or demolition activities. The damage prevention measure is broken down into four categories: damages due to (1) mismarks, or the inaccurate marking by the LDC of its affected underground facilities; (2) LDC's and its contractor's error; (3) third party excavator error; and (4) no-calls, or failure of an excavator to provide notice of intent to excavate to the one-call notification system. Two of the four measures showed improvements as follows: mismark damages decreased slightly from 0.40 per 1,000 one-call tickets in 2022, to 0.39

in 2023 (2.5%); and LDC and their contractor damages decreased from 0.07 damages per 1,000 one-call tickets in 2022, to 0.06 in 2023 (14.3%). Two of the four categories saw a decrease in performance as follows: third party damages increased from 0.89 in 2022 to 0.92 in 2023 (3.4%); and no-call damages showed a slight increase, going from 0.34 per 1,000 one-call tickets in 2022, to 0.36 in 2023 (5.9%). Each one-call ticket is a request for mark-outs of the affected underground facility prior to the commencement of excavation.

The second measure, emergency response, reflects the LDCs' ability to respond promptly to reports of leak, odor, and emergency notifications by examining the percentage of reports that were responded to within three response time intervals. The first criterion is for an LDC to respond to 75% of emergency reports within 30 minutes; the second, respond to 90% of emergency reports within 45 minutes; and the third, respond to 95% of emergency reports within 60 minutes.

In 2023, LDCs' performance for each of the emergency response time intervals slightly improved compared to 2022, with each interval far exceeding the established minimum percentages. In general, the LDCs have continued to use technologies such as global position systems, or GPS, to quickly identify the most appropriate employee to respond to leak, odor, or emergency reports, and have continued placing, or adding, personnel in certain geographical areas during times of day that have historically high volumes of emergency notifications. In addition, the Commission has begun to incorporate incentives, or positive revenue adjustments, within the LDCs' respective rate proceedings to encourage further improvements.

The third measure, leak management, examines LDCs' performances related to their leak inventories, in addition to the evaluation of leaks discovered and leaks repaired.

Potentially hazardous leaks include any leak that requires repair pursuant to Title 16 New York Codes Rules and Regulations (16 NYCRR) Part 255 (Types 1, 2A, and 2). Type 3 leaks, which do not currently have a prescribed repair timeframe, are, by definition, considered to be non-hazardous. Pursuant to 16 NYCRR §255.817(c), Type 3 leaks require reevaluation during the next required leakage survey or annually, whichever is sooner, to ensure that a public safety concern has not developed. While Type 3 leaks are not expected to become a safety concern, LDCs continue to eliminate these leaks on their systems because it reduces lost gas, maintenance costs, the total number of emergency reports, methane emissions, and any potential dampening effect the persistent odor has on the public and public awareness efforts.

For leaks requiring repair, the end of the calendar year generally coincides with the beginning of the frost season. During this timeframe, there is a greater chance of gas migration into a building because the gas cannot vent as readily through the soil to the atmosphere due to the impermeable blanket of frost. In general, all LDCs have demonstrated improvement in these measures over the past several years. The total year-end leak backlog improved by approximately 17.5% from the previous calendar year, a reduction of 1,176 leaks (reduced from a backlog of 7,325 leaks in 2022 to 6,149 leaks in 2023). The repairable year-end leak backlog improved by 31.8%, or 14 leaks, going from 44 leaks in 2022 to 30 leaks in 2023. The total number of leaks discovered decreased by 7.9% or 1,049 leaks, going from 13,838 leaks in 2022 to 12,789 leaks in 2023, and the total number of leaks repaired increased by 0.9% or 143 leaks, going from 15,643 in 2022 to 15,786 in 2023. As indicated above, this shows the positive effect leak prone pipe removals have had on the leak management performance measure.

For the fourth measure, Staff identification of non-compliances through annual audit activity, Staff evaluates LDCs on their compliance with the Commission's minimum pipeline safety regulations. This measure looks at non-compliance issues Staff identifies during audits and investigations of the LDCs. Each year, Staff conducts statistically based audits and investigations of the LDCs to determine their respective compliance with gas safety regulations. Each non-compliance identified by Staff represents an area where an LDC failed to meet these minimum requirements as prescribed.

The data reported varies greatly from year to year, which is due, in part, to Staff's audit cycle. Staff conducts these audits and investigations of the pipeline safety regulations on varying frequencies determined by the risk each individual regulation poses to public safety. Staff identifies the regulations as high risk, in which Staff audits annually, or as other risk, which are Staff evaluates on a frequency not to exceed five years (inclusive of two-, three-, four-, and five-year frequencies). Additionally, because of the timing of Staff's audits and required LDC responses to them, this measure looks at calendar year 2022, as opposed to the other measures, which look at calendar year 2023.

In 2022, Staff identified non-compliances in all 11 of the major LDCs' operating service territories. A review of the number of non-compliances incurred by LDCs in 2022 showed that the number of non-compliances increased for eight of the LDCs, while the other three LDCs experienced decreases. For those LDC operators that showed an increase in the number of non-compliances in 2022, the increase were primarily attributed to problems experienced during the transition to electronic records (from paper records), inspections that were not completed during the COVID pandemic because of exposure risks to the public

and/or to LDC personnel, and LDCs' misunderstanding or misinterpretation of the safety regulations regarding: cast iron protection, leakage survey piping beyond the meter, leakage survey plan active corrosion and distribution, damage prevention blasting, Type 2 leaks, odorization, regulator station annual inspection (relief), service discontinuation, service regulator, valve, and vent inspection periodic meter change, and warning tags class A, class B, and class C. After identifying and bringing these issues to LDCs' attention, the LDCs have developed and implemented remediation plans including, but not limited to, retraining their employees, and revising documentation used to record inspections so that all required steps are prescribed.

Regardless of the efforts made thus far, the goal for each LDC should remain the complete elimination of all non-compliances with pipeline safety regulations.

Introduction

The pipeline safety performance measures were developed as a means of evaluating LDC performance in areas presenting higher safety risks to life, property, and the environment. These performance measures are tools Staff uses to gauge whether New York LDCs sustain and improve the safe and reliable operation and maintenance of gas distribution and transmission systems. These measures show how LDCs are performing from year to year, as well as the performance trends over time.

In developing the performance measures, Staff first identified areas in the LDCs' systems or operations that carry greater potential for harm to the public if performance is sub-standard. Staff then developed methods for recording and tracking data for use as a practical management tool. This process resulted in identifying four performance measures:

damage prevention, which examines damage to the LDCs' buried facilities resulting from excavator activities; emergency response, which examines the amount of time that it takes an LDC to reach the site of a reported gas leak, odor, or emergency notification; leak management, which examines LDC performance in reducing and managing leak inventory levels at year-end, and the evaluation of leaks discovered, and leaks repaired, in total, and per each LDC's respective system mileage; non-compliances with the Commission's Pipeline Safety Regulations, which is discussed in more detail below.

On August 15, 2013, the Commission issued a request for proposals for an independent consultant to perform a focused operational audit of the performance measure data as submitted by nine of the 11 LDCs mentioned in this report.[1] The audit's objectives were to assess the completeness and accuracy of the performance measure data submitted by LDCs and assess comparability amongst LDCs.

On April 20, 2016, the Commission issued an Order releasing the audit report and provided guidance on LDCs' responses to the recommendations.[2] Implementation plans to address each recommendation were due by May 20, 2016. In general, the consultant reported that the LDCs complied with the intent of these performance measures and, for the most part, accurately reported their respective data. Some of the consultant's recommendations focused on the LDCs' lack of written policies and procedures to address and collect data, instances where the

[1] Case 13-M-0314, Central Hudson Gas & Electric Corporation, et al. – Operational Audit, Letters to LCDs (issued August 15, 2013).

[2] Case 13-M-0314, supra, Order Releasing Report and Providing Guidance on Response (issued April 20, 2016).

methodology used to calculate the data has varied, and minor inconsistencies amongst LDCs in the compilation of their respective data.

On March 10, 2017, the Commission issued an Order approving the implementation plans submitted by LDCs and directed the LDCs to implement those plans.[3] As a result of the LDCs' implementation of those plans since 2017, the data contained in the reports should be more consistent across each LDC than prior reports.

For the final measure, non-compliances identified by Staff, Staff evaluates LDCs on their compliance with the Commission's minimum pipeline safety regulations. This measure looks at non-compliance issues as identified by Staff during audits and investigations of the LDC. Each year, Staff conducts audits and investigations of the LDCs to determine their respective compliance with the gas safety regulations. Each non-compliance identified represents an area in which an LDC failed to meet the prescribed minimum requirements found in these regulations.

Non-compliance with pipeline safety regulations could cause or contribute to a major incident. For this reason, it is important these audit findings are publicly transparent and continue to track performance, as well as reoccurring non-compliances, over time. A further deterrent to non-compliances with pipeline safety regulations are negative revenue adjustments, which the Commission has incorporated into ten of the 11 LDCs' rate plans.

While all gas corporations are subject to the Commission's pipeline safety regulations, this report only looks at the performance of the 11 largest LDCs, which includes 99.5% of the

[3] Case 13-M-0314, supra, Order Approving Implementation Plans (issued March 10, 2017).

customers in the state. These are as follow: Central Hudson Gas and Electric Corporation (Central Hudson), Consolidated Edison Company of New York, Inc. (Con Edison), Corning Natural Gas Corporation (Corning), KeySpan Gas East Corporation d/b/a National Grid (NGrid LI), Liberty Utilities (St. Lawrence Gas) Corp. (Liberty), National Fuel Gas Distribution Corporation (NFG), Niagara Mohawk Power Corporation, d/b/a National Grid (NGrid Upstate), New York State Electric & Gas Corporation (NYSEG), Orange and Rockland Utilities, Inc. (O&R), Rochester Gas & Electric Corporation (RG&E), and The Brooklyn Union Gas Company d/b/a National Grid NY (NGrid NY).

Performance and Analysis

Throughout this report, except for the compliance measure, the figures display performance results from calendar years 2019 through 2023 for each LDC.[4] For the compliance measure, the results from calendar years 2018 through 2023 are displayed based on the timing of when audits were completed. The grey columns in the bar graphs represent prior four years', and the black column represents the most recent year's performance. The blue horizontal lines on the bar graphs represent the combined LDC performance levels for the specifically identified measure.

Damage Prevention

Damage to underground gas facilities due to excavation activity is one of the leading causes of gas pipeline failures and accidents, both statewide and nationally. The Common Ground Alliance (CGA) stated that in 2019, excavation-related damages

[4] Historical calendar year data and associated case numbers can be found in Appendix A of this report.

to utilities cost the United States approximately $30 billion, and in 2022, there were a total of 42,716,394 one-call tickets requested within the United States. In 2022, of the 11 LDCs in New York State, there were a total of 797,613 one-call tickets which accounts for 1.87% of the total number of tickets within the United States.

The general damage prevention process is as follows: (1) an excavator provides notice of its intent to excavate to a one-call notification system;[5] (2) an excavator waits two full working days, not counting New York State publicly observed holidays and weekends, for underground facilities to be marked; (3) the one-call notification system transmits an excavation notice (one-call ticket or ticket) to the member operators whose facilities may be affected by that excavation activity; (4) an excavator confirms that each utility operator has either marked its facilities or cleared the ticket as no utilities within the work site; (5) the affected operators clearly and accurately mark the location of its buried facilities in or within 15-feet of the excavation area; (6) an excavator preserves the utility markings, either paint, flags, or both, until no longer required for safe excavation; and (7) an excavator works carefully around the marked facilities to avoid damages. Damage to an underground facility can be categorized by identifying where in this process the root cause of the incident lies.

Evaluating the number of damages in relation to the volume of construction and excavation activity in an LDC's respective service territory provides a useful basis for assessing

[5] New York State has two one-call notification systems, one for New York City and Long Island, New York 811, Inc., and the second for the remainder of the state, UDig NY (formerly known as Dig Safely New York).

performance. The data used in these analyses are contained in Appendices B and C. The method used to normalize each LDC's data is the number of damages per 1,000 one-call tickets received by that LDC in a given year. As previously mentioned, inconsistencies were identified through the operational audit issued in 2016, and pursuant implementation plans approved in 2017. Thus, the data represented in this year's report may vary by LDC when compared to performance measure reports issued prior to 2017, but the numbers should be more accurate.

The numbers of damages are then categorized as damages resulting from mismarks, excavator error, LDC employees and its contractors, or no-calls. Each ticket received provides an LDC with the opportunity to mark its affected facilities accurately. Hence, for damages due to mismarks, the report examines the number of damages caused by mismarks per 1,000 tickets received for each LDC.

Once a one-call ticket is requested by either calling the toll-free telephone number, 811, or using the UDig NY or New York 811, Inc. websites, and the facilities are marked, the excavator can, if working carefully, avoid damage to underground facilities. Third party excavator error damages are historically the largest component of total damages, primarily because of the need to educate third party contractors in safe excavation and best practices. Most large excavators are aware of the existence of the one-call systems and their requirement to provide notification. Many excavators, especially small excavators, are not as well-versed in the additional requirements such as respecting tolerance zones, verifying locations of underground facilities by means of hand-dug test holes, notifying underground facility operators of unverifiable marked facilities, maintaining the markings, maintaining four inches of clearance with powered equipment and the verified

facility, and providing a one-call ticket for work being performed on private property. Educating excavators on how to avoid underground facility damage once mark-outs have been requested requires more in-depth outreach and training, particularly given employee turnover for some excavators. The Commission cannot order such training for non-utility excavator personnel. This is one of the reasons why, through its enforcement process, the Commission considers reducing penalties for excavator's contingent upon successful completion of training provided by the one-call systems.

Damages caused by LDCs' personnel or by their own contractors are also included in the damage analysis as a separate category. Because of robust damage prevention programs and operator qualification requirements for LDCs, the LDCs' personnel and contractors should have sufficient training, knowledge, qualifications, and experience to work carefully near the LDC's facilities. LDCs should also have better control over the contractors they hire to perform work than they have over unaffiliated excavators. Thus, this category should be the smallest contributor to the total damage performance and, in theory, the easiest to improve. The current measure tracks damages caused by all utility operations within an LDC's operating service territory. That is, for an electric and gas combination utility, damages to gas facilities caused by electric crews or electric company contractors are combined.

Damages due to no-calls are instances where an excavator failed to provide notice of its intent to excavate to either of the two one-call notification systems located in New York State. This measure provides an indication of the general level of awareness excavators have about the one-call notification systems. A high percentage of damage in this category indicates that additional and more effective outreach efforts are needed

by the LDC to make excavators aware of the dangers of working around buried facilities and the importance of using the one-call notification systems.

A total of 1,326 underground damages were reported in 2023 for the 11 major gas LDCs' facilities. For the previous ten years, the average number of total damages has been 1,499, with a standard deviation of 133. This consistency demonstrates that any performance improvements or declines have primarily been driven by the number of one-call tickets. In 2023, the data shows a decrease of 4.0% in the number of one-call tickets, going from 797,613 to 765,858 (or 31,755 less tickets), and a decrease of 33 damages, going from 1,359 to 1,326, compared to 2022. This resulted in a decline in performance of the total damage, with a damage rate going from a rate of 1.70 per 1,000 one-call tickets in 2022 to a rate of 1.73 per 1,000 one-call ticket in 2023.

Staff supports the LDCs' and excavators' efforts to eliminate damages by enforcing the Commission's damage prevention regulations prescribed within 16 NYCRR Part 753 - Protection of Underground Facilities. Over the past five years, Staff issued 1,692 citations, which led to 259 training sessions completed by excavators with either New York 811, Inc. or UDig NY as part of the Commission's enforcement process. Additionally, approximately $3,634,112 in penalties have been collected for this same period.

Figure 1 below displays the collective performance regarding the damage prevention measures.

Damage Prevention	2019	2020	2021	2022	2023
Number of Tickets	841,849	765,498	808,652	797,613	765,858
Mismarks	0.48	0.42	0.38	0.40	0.39
Co. & Co. Contractor Error	0.08	0.08	0.08	0.07	0.06
Excavator Error	0.88	0.97	0.79	0.89	0.92
No-Calls	0.40	0.38	0.37	0.34	0.36
Total Damages (per 1,000)	1.84	1.85	1.62	1.70	1.73

Figure 1 – Collective Damage Prevention Performance

As previously mentioned, 2023 saw a 4.0% decrease in the number of one-call tickets when compared to 2022.[6] A review of the number of damages, shows that 2023 had 19 less mismark damages, going from 318 to 299, and 3 fewer no-call damages going from 275 to 272. Additionally, this number is well below the five-year average (2019 through 2023) of 329 mismark damages. The decrease in the number of no-call damages might indicate that the efforts made in educating excavators of the importance, and the need of, using the one-call system for

[6] The total damage performance may not equal the sum of the four categories due to rounding.

providing notice of their intent to excavate is functioning properly. For LDCs and their respective contractors, the number of damages also decreased, going from 59 in 2022 to 49 in 2023. For third-party damages, there was a decrease in the number of damages of 0.1% (going from 707 in 2022 to 706 in 2023). Specific LDC performance for each of the damage prevention categories are located in Appendices B and C.

Individual LDC performance for total damages per 1,000 tickets, is displayed in Figure 2 below.

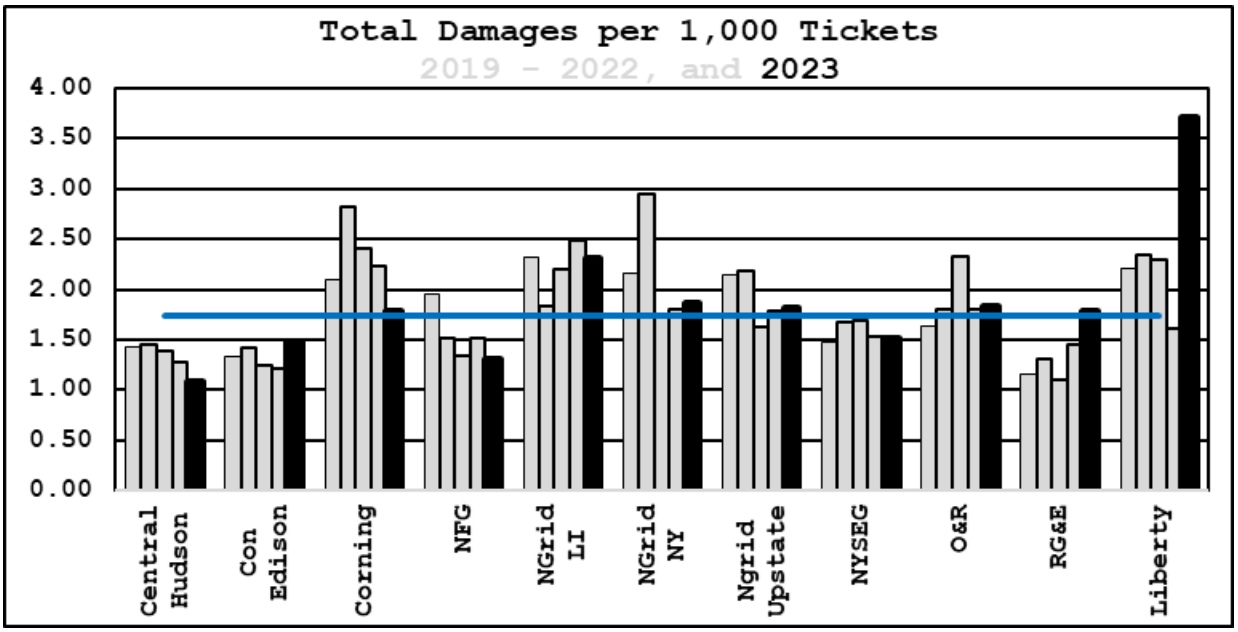


Figure 2 – Total Damages per 1,000 Tickets

As seen in Figure 2, five LDCs improved, and six LDCs performed worse than the previous year. Specifically: Central Hudson improved by 15.0%, going from 39 total damages in 2022 to 31 in 2023, despite receiving 1,981 fewer tickets; Corning's performance improved by 20.2%, going from 11 total damages in 2022 to 9 in 2023; NFG's performance improved by 13.6%, going from 186 total damages in 2022 to 164 in 2023; NGrid LI improved by 6.9%, going from 314 damages in 2022 to 279 in 2023, despite

receiving 5,737 fewer tickets; and NYSEG improved by 0.5%, going from 96 total damages in 2022 to 94 in 2023, despite receiving 995 fewer tickets.

As mentioned above, six LDCs performed worse than the previous year. Con Edison's performance decreased by 22.1%, going from 143 total damages in 2022 to 157 in 2023, while receiving 11,828 fewer tickets; NGrid NY's performance decreased by 4.0%, going from 189 total damages in 2022 to 197 in 2023, while receiving 286 additional tickets; NGrid Upstate's performance decreased by 2.0%, going from 196 total damages in 2022 to 192 damages in 2023, while receiving 4,288 additional tickets; O&R's performance decreased by 1.0%, going from 71 total damages in 2022 to 70 in 2023, despite receiving 933 fewer tickets; RG&E's performance decreased by 23.4%, going from 106 total damages in 2022 to 115 in 2023, despite receiving 8,810 fewer tickets; and Liberty's performance significantly decreased by 130.2%, going from 8 total damages in 2022 to 18 in 2023, despite receiving 111 fewer tickets.

LDCs' performance for excavator error damages per 1,000 tickets, is displayed in Figure 3 below.

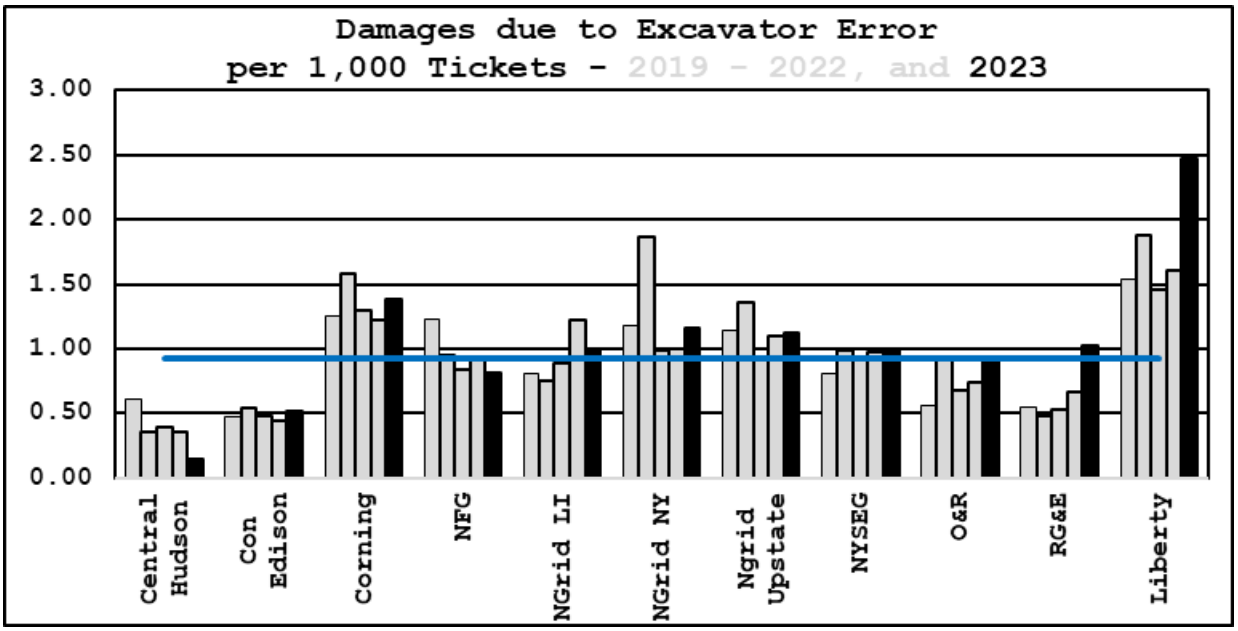


Figure 3 – Excavator Error Damages per 1,000 Tickets

As seen in Figure 3, three LDCs improved and eight LDCs performed worse than the previous year. Among those that performed worse compared to the previous year were: RG&E showing a decrease of 53.2%, going from 49 excavator error damages in 2022 to 66 in 2023; and Liberty showing a decrease of 53.4%, going from 8 excavator error damages in 2022 to 12 in 2023.

LDC performance for no-call damages per 1,000 tickets, is displayed in Figure 4 below.

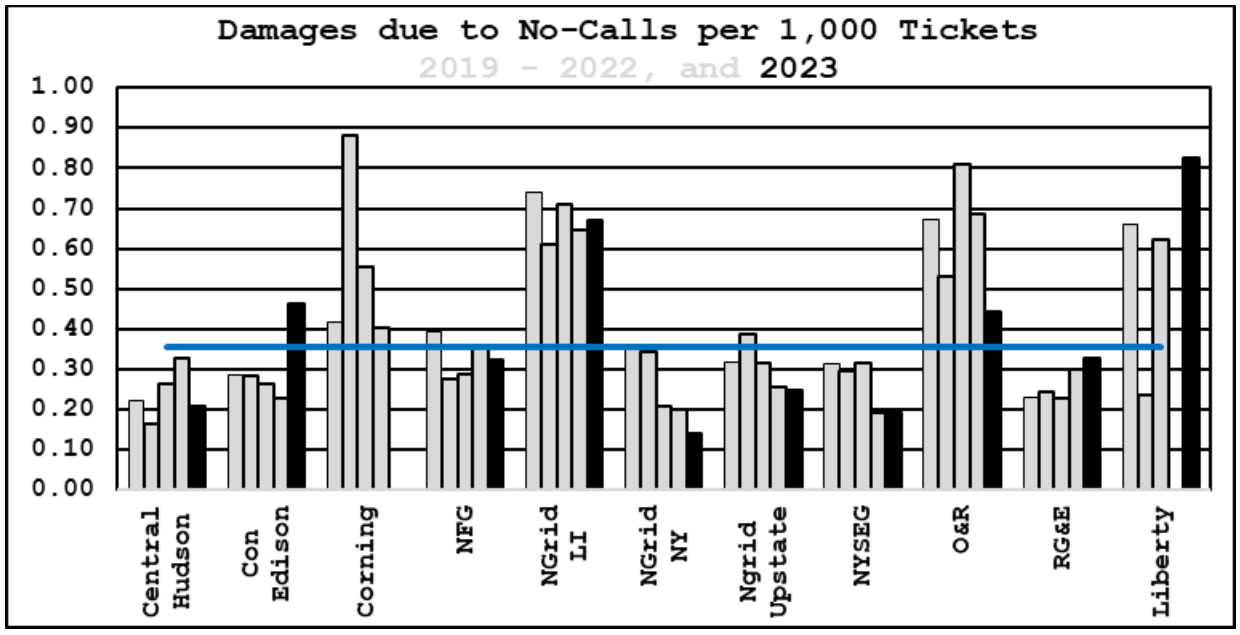


Figure 4 – No-call Damages per 1,000 Tickets

As seen in Figure 4, six LDCs improved, four LDCs performed worse than the previous year, and one LDC remained the same as previous year. For those improving, from 2022 to 2023: Central Hudson (35.8%) went from 10 no-call damages to 6; NFG (8.7%) went from 44 to 41; NGrid NY (28.8%) went from 21 to 15; NGrid Upstate (3.4%) went from 28 to 26; and O&R (35.5%) went from 27 to 17; and Corning (100%) going from 2 to 0.

Use of the three-digit 811 dialing system, consistent and regular enforcement taken by the Commission for violations of 16 NYCRR Part 753, excavator training legislation,[7] and public outreach, education, and training efforts taken by LDCs and the one-call systems, all contributed to raising excavator awareness regarding their obligations to not only participate in the one-

[7] Implemented through Case 18-M-0777, In the Matter of Excavator Training Requirements to Comply with Chapter 333 of the Laws of 2018 (commenced December 19, 2018).

call system, but to excavate safely around underground facilities.

To aid in the enforcement of 16 NYCRR Part 753, LDCs voluntarily forward information they collect about excavators who damage underground facilities without having mark-out requests. In a more recent effort, some LDCs have also been voluntarily reporting all damages, regardless of cause or the entity who damaged the facility, allowing Staff to perform more damage investigations in real-time before mark-outs are removed and/or refreshed as part of the repair efforts.

Once notified, Staff evaluates the specifics of each damage, performs on-site interviews and investigations, identifies the root cause, or causes, of the damage, obtains any pertinent information (such as photographs, measurements, etcetera), and pursues enforcement actions where appropriate. This enforcement effort, coupled with increased reporting frequencies and associated penalties, are deterrents to non-compliance. Where appropriate, enforcement cases are resolved by a consent order agreement in which the financial penalty is reduced if the excavator agrees to complete a training session provided by the one-call system covering the area where the damage occurred. All LDCs are encouraged to continue their efforts in notifying Staff of 16 NYCRR Part 753 incidents as close to the initial damage as possible.

LDC performance for mismark damages per 1,000 tickets is displayed in Figure 5 below.

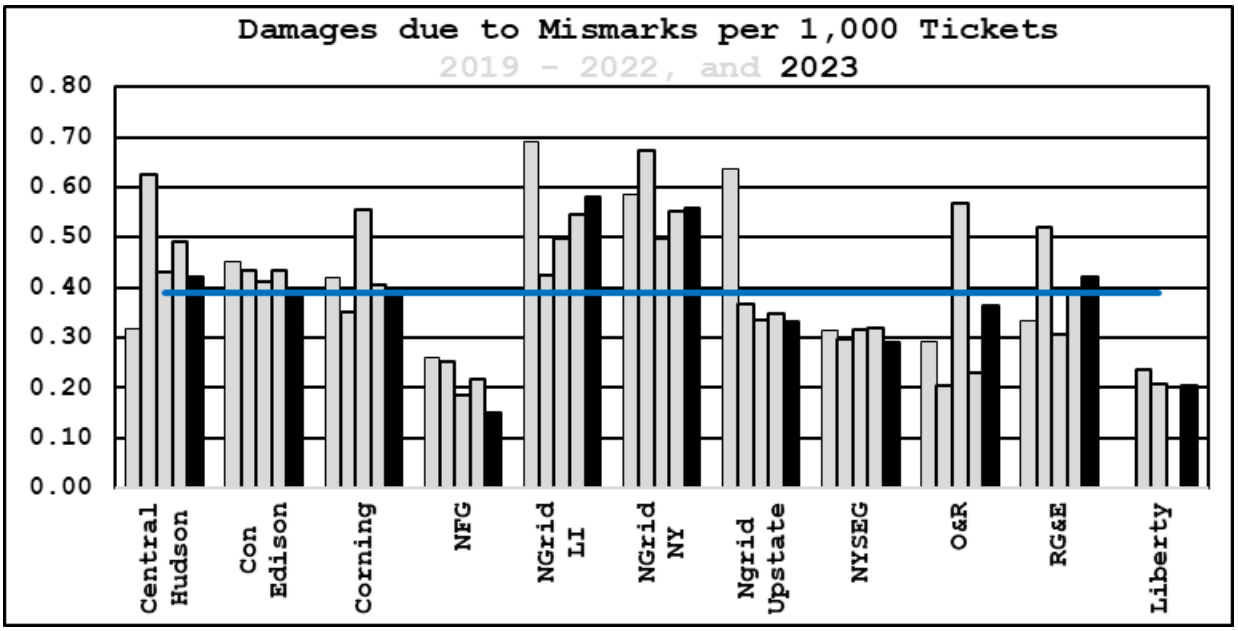


Figure 5 – Mismark Damages per 1,000 Tickets

As seen in Figure 5, six LDCs improved, four LDCs performed worse, and one LDC remained the same as the previous year. For those improving, from 2022 to 2023: Central Hudson (14.4%) went from 15 mismark damaged to 12; Con Edison (8.4%) went from 51 to 42; NFG (31.0%) went from 27 to 19; NGrid Upstate (4.1%) went from 38 to 35; NYSEG (8.6%) went from 20 to 18; and Corning (2.4%) remained at 2. Overall, the LDCs collectively showed a 2.1% improvement in performance going from 318 mismark damages in 2022 to 299 in 2023.

Staff typically expects to see general improvements for damages due to mismarks as LDCs continually adopt best practices to locate their facilities. These best practices include removal of older leak-prone pipe, which is more difficult to accurately identify on facility maps and/or records than newer pipe, and development of better controls over LDCs' locating contractors. As damages occur, pipeline maps are updated to depict the exact location of the underground gas piping.

LDC performance for company and company contractor damages per 1,000 tickets is displayed in Figure 6 below.

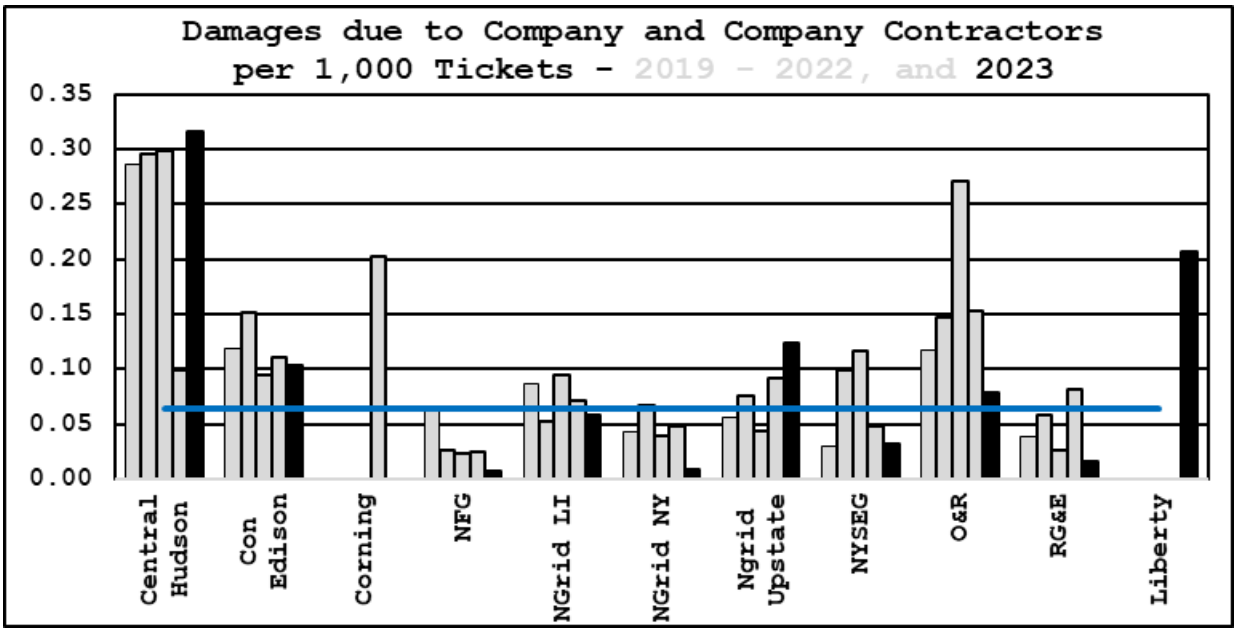


Figure 6 – Damages due to Company and Company Contractors per 1,000 Tickets

As seen in Figure 6, eight LDCs improved, two LDCs performed worse, and one LDC remained the same as the previous year. Overall, the LDCs showed a 13.5% improvement in performance going from 59 in 2022 to 49 in 2023.

With the Commission's support and encouragement, the LDCs have continued to proactively remove leak-prone pipe. This leads to more excavation from both the LDCs' and their contractors near and around buried gas facilities which, in turn, increases the opportunity for damage.

The LDCs are expected to maintain better control over the contractors they hire to perform work for them than they have over non-affiliated third-party excavators. These LDC employees and contractors should have the knowledge, skills, abilities, and qualifications to work carefully near and around underground

gas facilities. The LDCs point out that often these damages are to facilities that are in the process of being removed. When a damage occurs, the LDC and its contractors are more prepared than third-party excavators to promptly control the situation.

While it is true that damages to facilities can occur while they are being removed, Staff believes that LDCs should not underestimate this category of damages. These damages still have the potential to harm workers, members of the public, and property. Therefore, the LDCs should avoid them. All damages not only pose safety concerns, but also have the potential to lead to service outages and other disruptions, such as property damage, ignition, blowing gas, road closures, evacuations, and responses by police and fire departments.

As noted above, this measure has the lowest number of damages and is the smallest contributor to the overall damage prevention measure. Further, the graph's vertical scale in Figure 6 makes the year-to-year changes appear more dramatic than those displayed in Figures 2, 3, 4, and 5. This graph's vertical scale also exaggerates the fluctuations for the smaller LDCs. Several previous reports have noted that the smaller LDCs (such as Corning and Liberty) can have great variations from year to year because of the relatively small number of one-call tickets within their service territories.

Figure 7 below displays a comparison between 2014 and 2023 of the collective damage prevention performance, broken down by damage category:

Metric	2014	2023
Number of Tickets	797,366	765,858
Mismarks	0.42	0.39
Co. & Co. Contractor Error	0.09	0.06
Excavator Error	0.96	0.92
No-Calls	0.49	0.36
Total Damages (per 1,000)	1.96	1.73

Figure 7 – Comparison between 2014 and 2023

Emergency Response

Commission regulation 16 NYCRR §255.825(d) requires that LDCs provide a monthly report that includes a breakdown of the total number of leak, odor, and emergency reports received and responded to during the prior calendar month broken down in intervals of 15 minutes during normal business hours, weekdays outside business hours, and weekends and holidays. The intent of the reporting requirement and the performance measure is to evaluate LDCs' responses to gas leak, odor, and emergency notifications that the public generates or other authorities such as police and fire departments, and municipalities.

Staff has established the following as minimum emergency response standards: LDCs must respond to 75% of leak, odor, and emergency reports within 30 minutes; 90% within 45 minutes; and

95% within 60 minutes. Typically, LDCs have few instances of response times exceeding 60 minutes.[8] For the purposes of reporting, the response times are measured from the time a call is received (from first responders, municipalities, the 911 emergency call center, etcetera) and there is enough information to dispatch a qualified company personnel to the time qualified company personnel arrives at the location.[9]

Figure 8 displays the aggregated 11 major LDCs' annual emergency response time performance for each standard since 2019, with the 2023 performance presented in black.

[8] The LDCs are expected to review the circumstances of each instance exceeding 60 minutes and, where possible, work towards their future elimination.

[9] Qualified personnel are defined as company representatives who are properly trained and equipped to investigate leak, odor, and emergency reports in accordance with approved company procedures and 16 NYCRR §255.604, operator qualification requirements.

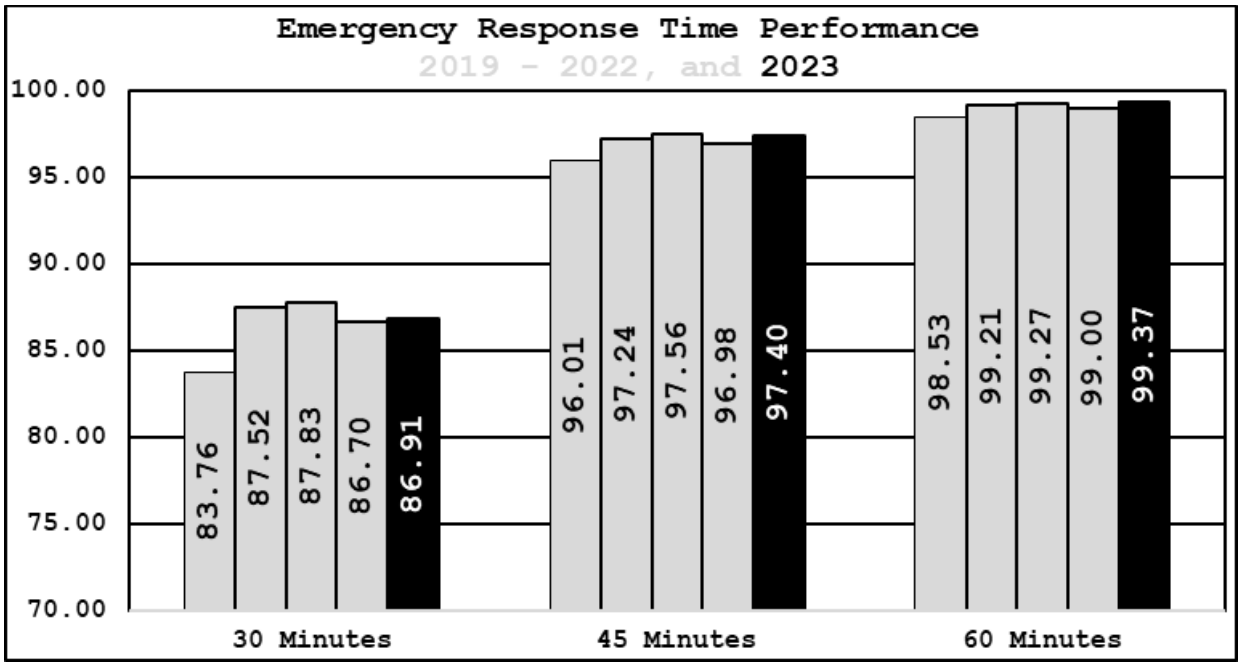


Figure 8 – Emergency Response Time Performance

In 2023, the total number of leak, odor, and emergency reports was 5.4% lower than 2022, going from 150,633 in 2022 to 142,489 in 2023. Also in 2023, the LDCs' performance has slightly improved compared to the previous year. However, each of the 11 LDCs exceeded the 75%, 90%, and 95%, minimum standards for the 30-minute, 45-minute, and 60-minute response times, respectively. The data over the five-year period, 2019 through 2023, shows that the LDC operators continue to improve their performance for this category.

The past 10 years' data, 2014 through 2023, show a downward trendline in number of calls, with an average of 174,948 leak, odor, and emergency notifications per year across the LDCs. The decline in number of notifications may be attributed to the reduction of leaks, which will be discussed below in the leak management section, and due to more aggressive and proactive leak prone pipe removal programs approved by the Commission within rate proceedings. These removal programs directly affect

and reduce the total number of leaks and odor complaints associated with them.

Figure 9 below presents the percentage of emergency response times achieved within 30 minutes by each LDC in the past five calendar years, 2019 through 2023.

LDCs	2019	2020	2021	2022	2023
Central Hudson	83.3	84.4	84.3	85.6	87.9
Con Edison	94.9	98.3	95.9	97.2	97.3
Corning	79.9	77.3	86.5	82.8	84.0
NFG	95.0	95.4	95.8	93.1	96.7
NGrid LI	75.4	83.1	82.1	78.5	77.4
NGrid NY	78.1	81.5	78.7	78.2	78.1
NGrid Upstate	79.4	80.5	84.3	81.1	79.0
NYSEG	72.5	76.7	83.6	82.5	82.8
O&R	92.4	93.2	91.8	87.8	88.4
RG&E	64.3	77.9	89.1	88.5	88.1
Liberty	81.9	75.4	77.7	76.3	79.6

Figure 9 – Emergency Response Times for 30 Minutes (%)

As seen in Figure 9, all eleven LDCs met and exceeded the minimum 75% response standard within 30-minutes. In addition, all 11 LDCs exceeded the minimum 90% and 95% response standards within the 45- and 60-minutes, respectively. The data for the 45- and 60-minute response times are provided in Appendices D and E, respectively.

It is encouraging to see that all LDCs have made efforts over the years to reach and exceed the emergency response time standards jointly established for this measure. Staff expects that all LDCs continue to evaluate and monitor their performance and to identify areas where they can implement best practices to further exceed the benchmarks.

Leak Management

The purpose of evaluating the LDCs' leak management programs is to gauge how the LDCs are responding to and addressing leaks on their systems, eliminating potentially hazardous leaks that are found, reducing total leak backlogs, and evaluating the number of leaks discovered and leaks repaired, in total and per each LDC's respective system mileage.

The gas pipeline safety regulations contained in 16 NYCRR Part 255 include requirements for classifying leaks according to their relative hazard by considering factors such as whether gas migration is detected near buildings, in manholes, vaults, catch basins, under paved versus unpaved areas, etcetera. All leaks classified as potentially hazardous must be monitored and repaired according to the pipeline safety regulations, with any hazardous conditions being immediately eliminated. All other leaks must be reevaluated during the next required leakage survey or annually, whichever is less, but have no mandatory repair timeframes.

Unrepaired, potentially hazardous leaks pose an increased safety risk to the public. The risk is further exacerbated when the ground contains frost, which increases the chance gas will migrate into buildings. The frost essentially acts as a blanket that does not allow gas to readily vent to atmosphere through the soil, forcing gas to pool under the surface until it can find underground pathways and enter structures. Although leak backlogs on any day are a snapshot in time, the end of the calendar year is significant due to it coinciding with the beginning of the frost season. Thus, all data analyses are presented as of the last two weeks in December.

The data reported by the LDC operators related to leak management are contained in Appendices F through L. The leak management measure looks at the year-end backlog of potentially hazardous leaks and in total. This measure does not substitute for, and is not a reflection upon, any LDC's compliance with pipeline safety regulations. The data reported include leak repairs on mains and services by material type; the backlogs of potentially hazardous leaks and in total; and repaired and discovered potentially hazardous leaks.

Analysis of leak management data can also provide an indication of the material type's susceptibility to leakage. As a means of continuously improving leak management programs, Staff encourages LDCs to identify and remove and/or replace leak prone pipe, such as cast or wrought iron, bare or ineffectively coated steel, certain brittle plastic materials, and other materials that the LDC considers leak prone pipe. Performance programs to remove deteriorating and leak prone infrastructure and/or reduce leak backlogs have been incorporated into most of the LDCs' past and current rate plans. The long-term goal is the elimination of aging pipeline infrastructure that, due to its vulnerability to leakage, presents greater safety risks to

the public and environment. Thus, the LDCs should remove and/or replace aging pipeline infrastructure with modern materials that have been shown to be less likely to leak. These performance programs are the primary drivers in the significant reduction of hazardous leaks, total leaks, and the associated fugitive methane emissions associated with the leaks.

The overall year-end backlog of potentially hazardous leaks decreased from 44 in 2022 to 30 in 2023, representing a 31.8% improvement that is down 97.5% when compared to 1,178 in 2003. This demonstrates that LDCs have maintained continual efforts in managing leak surveys and are completing them earlier in the year, to allow for time to repair discovered leaks.

Figure 10 displays the backlog of potentially hazardous leaks from 2019 through 2023.[10] The numerical leak data for this category is contained in Appendix H.

[10] The backlog of leaks requiring repair is defined as active leaks in the system consisting of: Type 1, requiring immediate effort to protect life and property, continuous action to eliminate the hazard, and repairs on a day-after-day basis or the condition kept under daily surveillance until corrected; Type 2A, monitored every two weeks and repaired within six months; and Type 2, monitored every two months and repaired within one year.

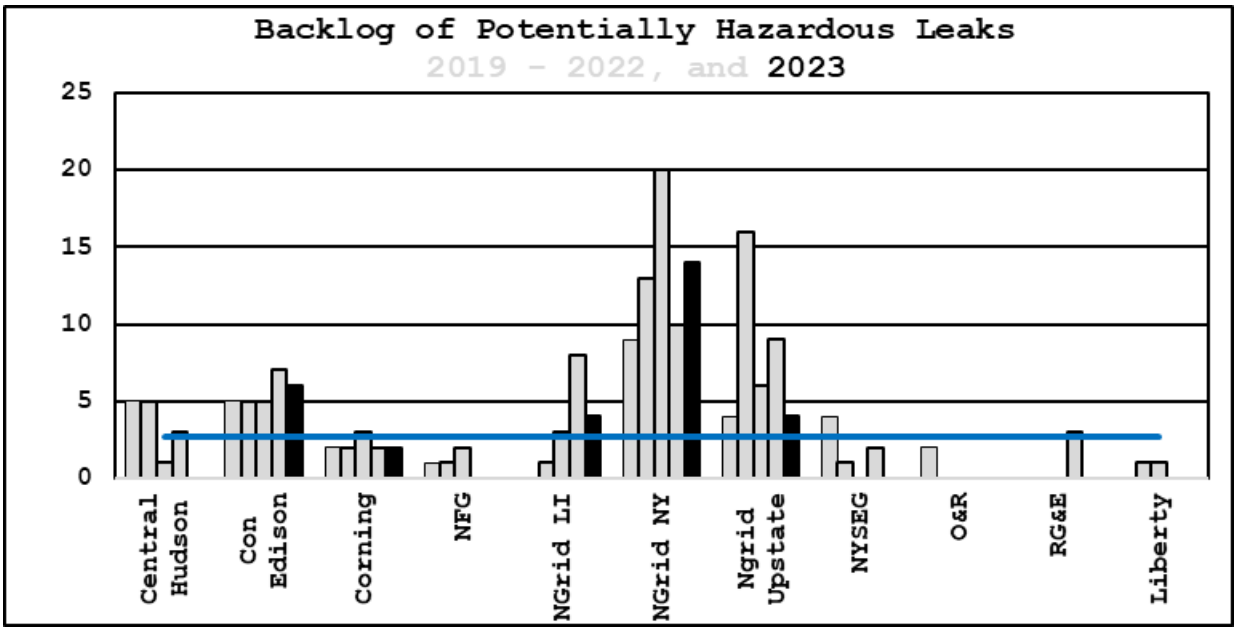


Figure 10 – Backlog of Potentially Hazardous Leaks

As seen in Figure 10, LDCs' continued efforts have led to negligible backlogs for potentially hazardous leaks entering the frost season, the last two weeks in December.

Total leak backlogs include all potentially hazardous leaks, as identified above, and Type 3 leaks. In the State's pipeline safety regulations, Type 3 leaks are defined as not potentially hazardous at the time of inspection and are reasonably expected to remain that way. However, LDCs must reevaluate Type 3 during the next required, regularly scheduled leakage survey or annually, whichever is less, though they have no mandatory repair timeframe.

Without a mandatory repair timeframe, LDCs could allow the total leak backlog to grow while still meeting the minimum pipeline safety regulations. In recent years, and like that of potentially hazardous leak backlogs, negative revenue adjustments have been incorporated into most of the respective LDC's rate plans in an effort to reduce each company's total leak backlog. In addition, some LDCs' rate plans provide for

positive revenue adjustments, as incentives for LDCs to continue reducing Type 3 leaks, that would result in a reduction of methane emission, which is in line with State's goal to reduce the gas carbon footprint and meet the requirements of the Climate Leadership and Community Protection Act.

Figure 11 displays the backlog of total leaks (Type 1, 2A, 2, and 3) from 2019 through 2023. The numerical leak data is contained in Appendix K.

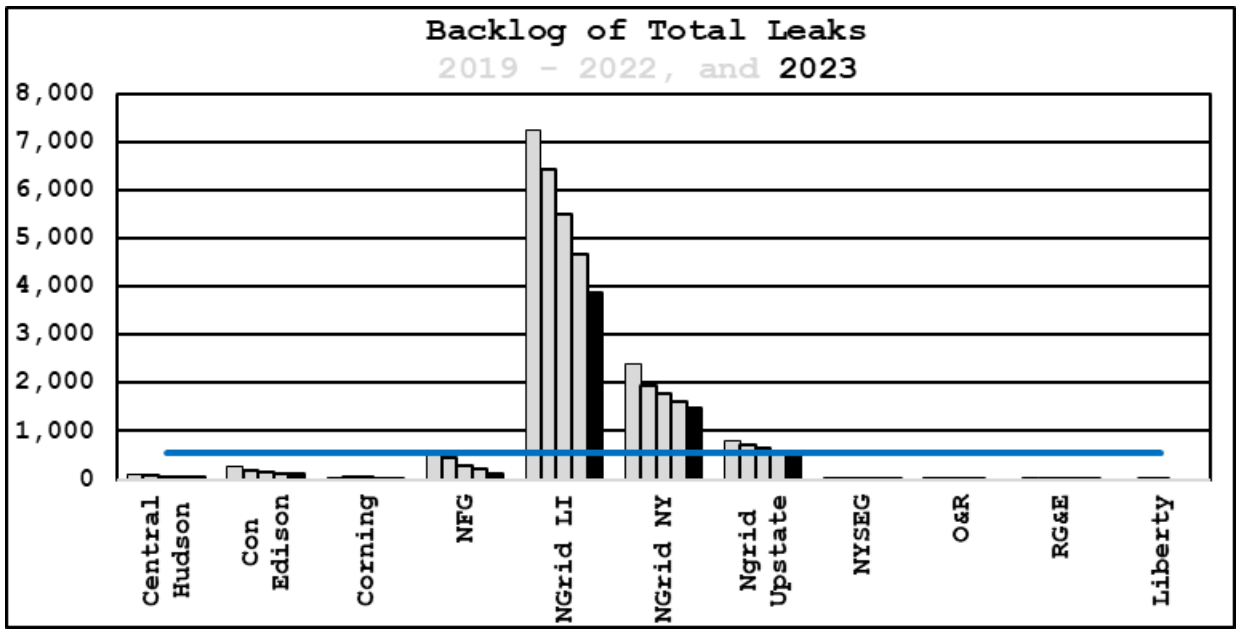


Figure 11 – Backlog of Total Leaks

As seen in Figure 11, all 11 LDC's have improved upon their respective backlogs of total leaks in 2023 when compared to that of 2022. NGrid LI and NGrid NY continue to be outliers in this category even though they have improved from the previous calendar years. NGrid LI's and NGrid NY's improvements were 17.0% and 8.7%, respectively, when comparing 2023 to 2022. This resulted in a total of 938 fewer leaks in 2023. Their total leak backlogs, however, are considerably higher than that of the next highest LDC, NGrid Upstate, and accounts for 87.2% of the

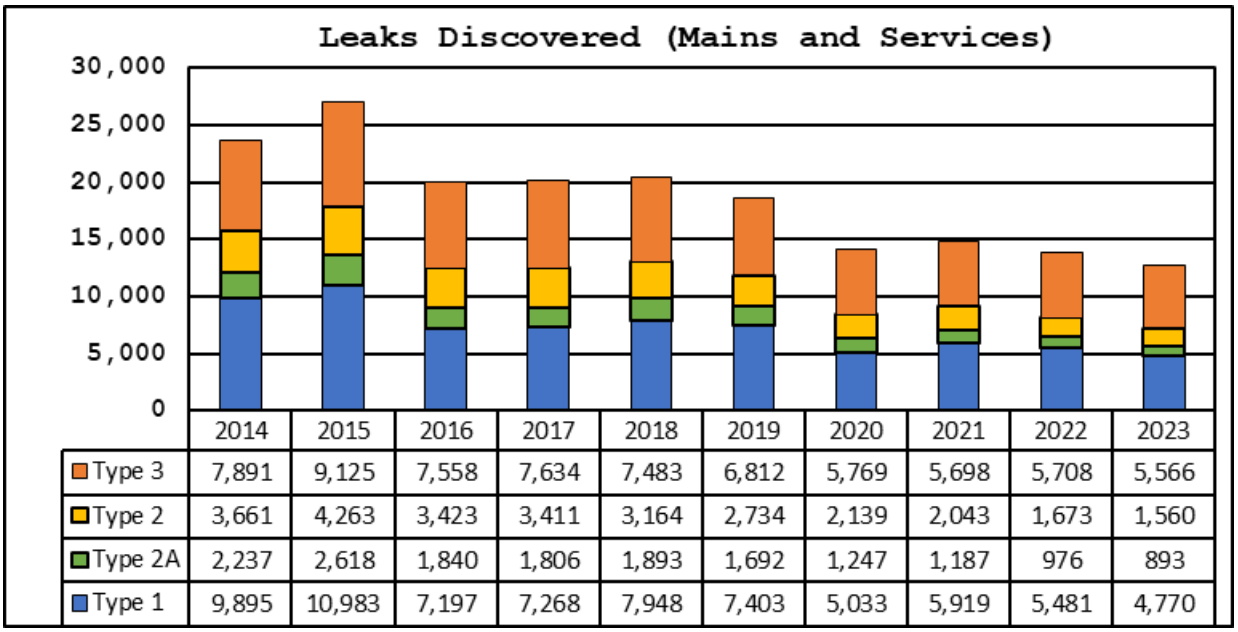
overall total leak backlog amongst the LDCs. Taken in total, NGrid LI, NGrid NY, and NGrid Upstate (NGrid companies) account for 95.3% of the entire LDCs' total leak backlog. In fact, because of NGrid companies' performance in this metric, the overall average total leak backlog is artificially high, making comparisons with other LDCs difficult and overshadowing the progress other companies have made in reducing their backlogs.

The past five years data shows a downward trendline for the overall leak backlog. However, given the fact that over 95.3% of the State's total leak backlog comprises leaks on NGrid companies' pipeline systems, Staff expects that NGrid companies to continue to make every effort to aggressively reduce the leak backlog numbers, by accelerating the elimination of leak prone pipe from their systems and ramping up their leak repair on pipe not scheduled for removal and/or replacement.

Statistically, performance improvements within this measure from 2022 to 2023 include the following: Central Hudson (35.5%) went from 62 hazardous leaks to 40; Con Edison (3.7%) went from 107 to 103; Corning (34.4%) went from 32 to 21; NFG (45.0%) went from 209 to 115; NGrid LI (17.0%) went from 4,671 to 3,875; NGrid NY (8.7%) went from 1,627 to 1,485; NGrid Upstate (15.5%) went from 594 to 502; NYSEG (66.7%) went from 9 to 3; O&R (100.0%) went from 2 to 0; RG&E (58.3%) went from 12 to 5; and Liberty remained at 0 hazardous leaks. As the LDCs continue their accelerated removal of leak prone pipe over the next several years, Staff expects that the backlog of total leaks will continue to improve.

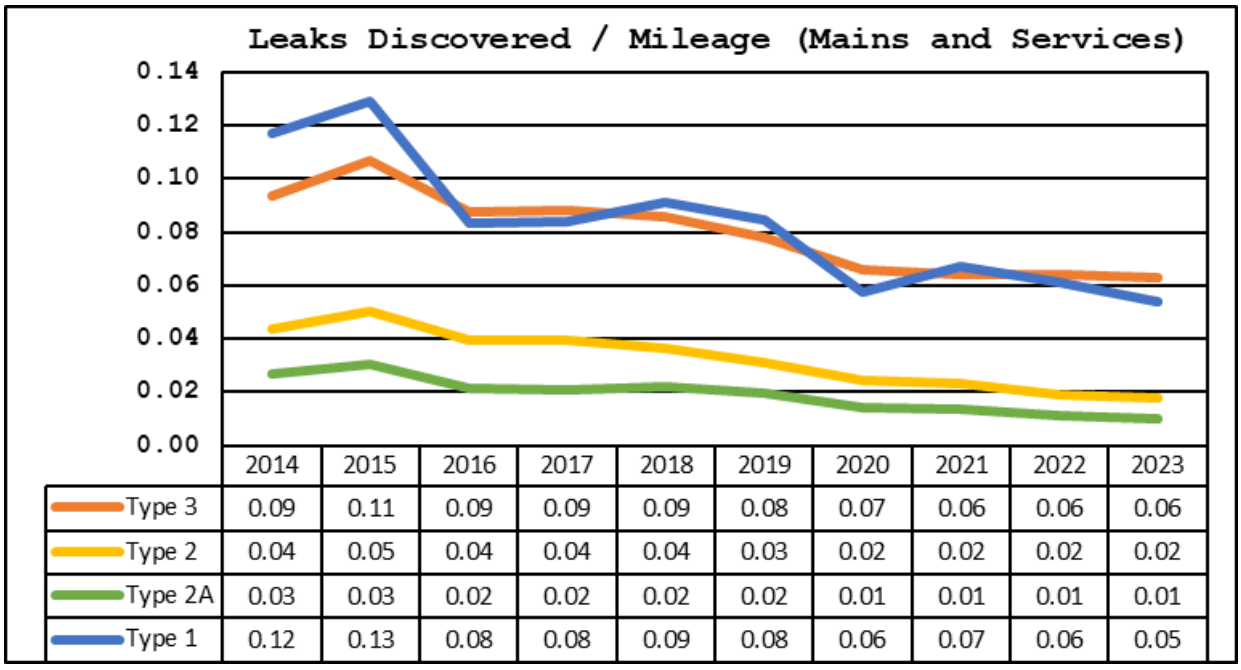
Figures 12 and 13 display the number of leaks discovered per leak type, and per system mileage, respectively. Figures 14 and 15 display the number of leaks repaired per leak type, and per system mileage, respectively. Figures 16 and 17 display the

number of leaks repaired per material type, and per system mileage, respectively.



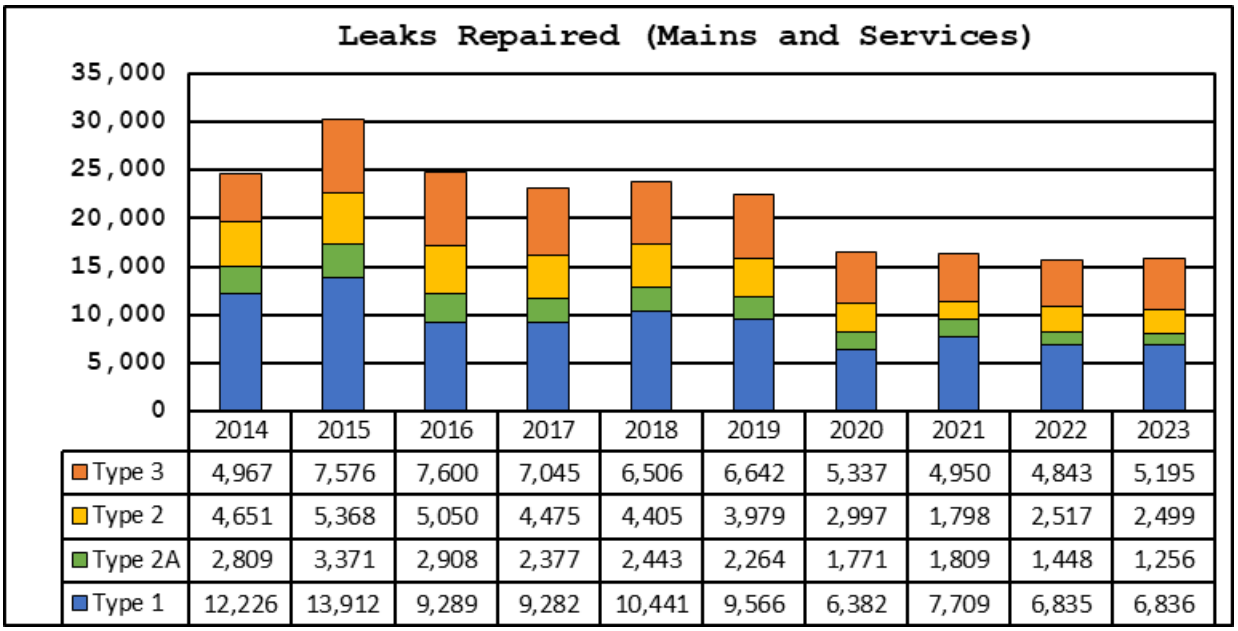
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Type 3	7,891	9,125	7,558	7,634	7,483	6,812	5,769	5,698	5,708	5,566
Type 2	3,661	4,263	3,423	3,411	3,164	2,734	2,139	2,043	1,673	1,560
Type 2A	2,237	2,618	1,840	1,806	1,893	1,692	1,247	1,187	976	893
Type 1	9,895	10,983	7,197	7,268	7,948	7,403	5,033	5,919	5,481	4,770

Figure 12 – Leaks Discovered by Type



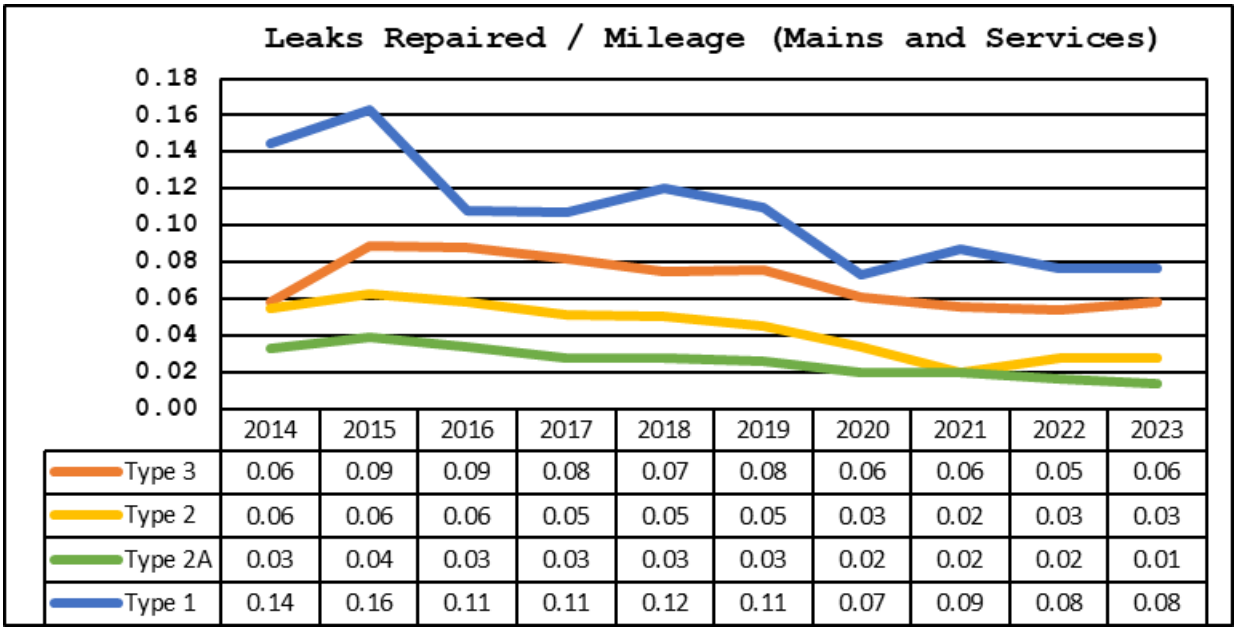
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Type 3	0.09	0.11	0.09	0.09	0.09	0.08	0.07	0.06	0.06	0.06
Type 2	0.04	0.05	0.04	0.04	0.04	0.03	0.02	0.02	0.02	0.02
Type 2A	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
Type 1	0.12	0.13	0.08	0.08	0.09	0.08	0.06	0.07	0.06	0.05

Figure 13 – Leaks Discovered by Type / Mileage



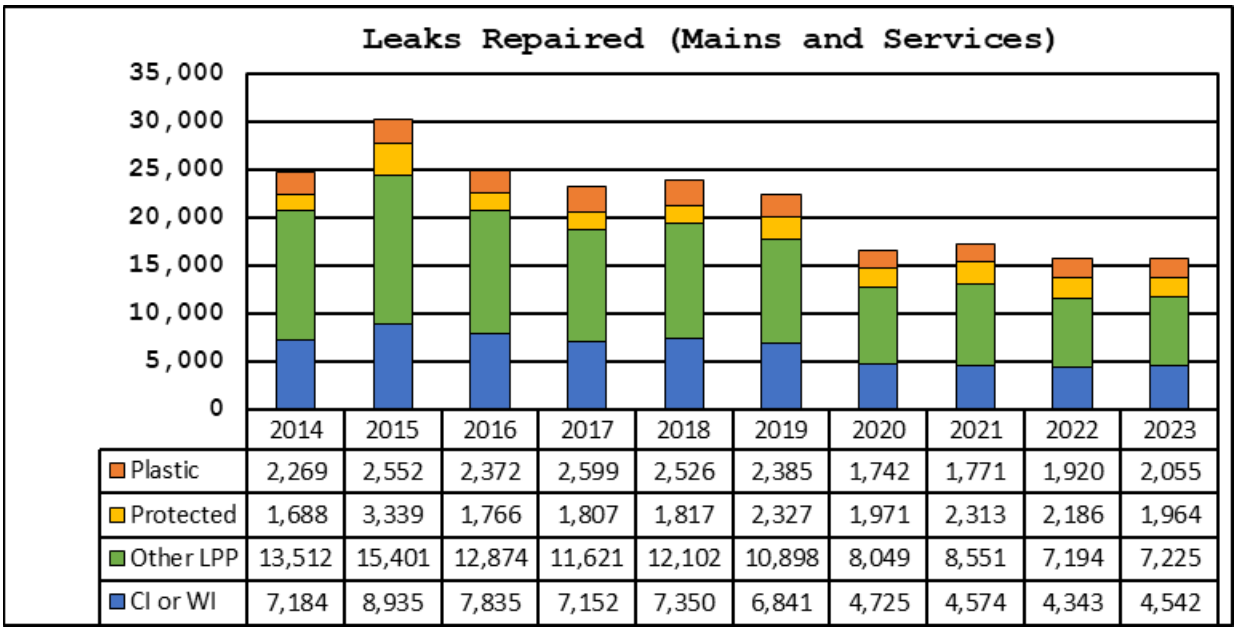
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Type 3	4,967	7,576	7,600	7,045	6,506	6,642	5,337	4,950	4,843	5,195
Type 2	4,651	5,368	5,050	4,475	4,405	3,979	2,997	1,798	2,517	2,499
Type 2A	2,809	3,371	2,908	2,377	2,443	2,264	1,771	1,809	1,448	1,256
Type 1	12,226	13,912	9,289	9,282	10,441	9,566	6,382	7,709	6,835	6,836

Figure 14 – Leaks Repaired by Type



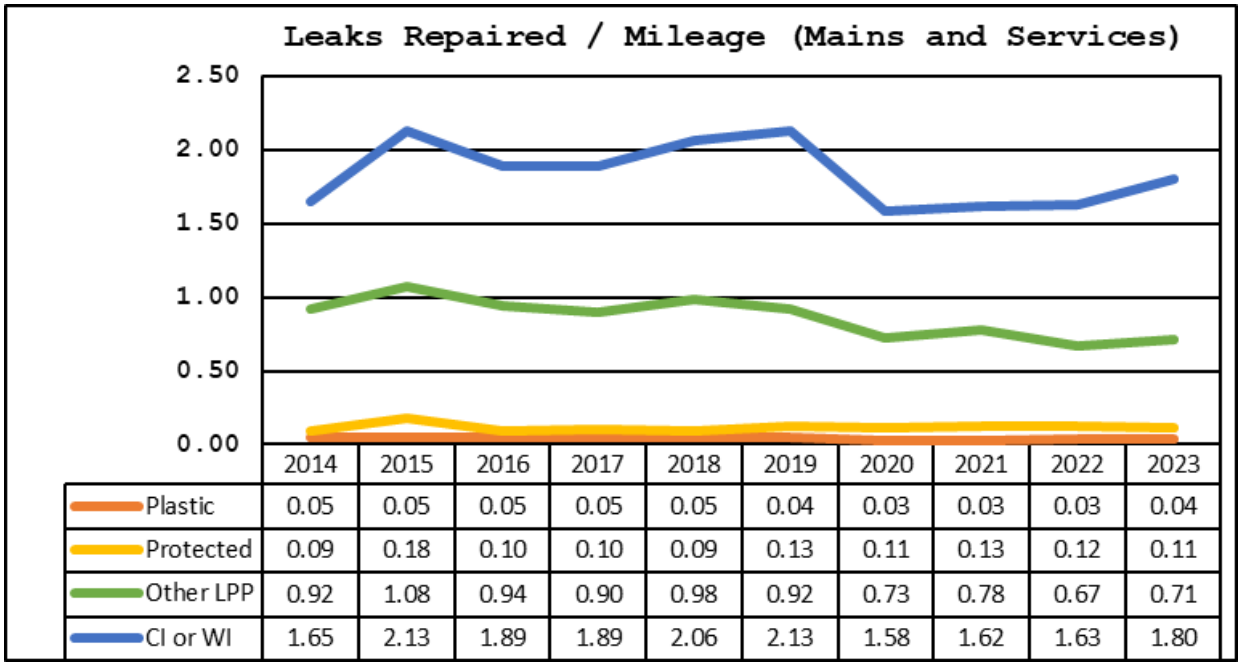
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Type 3	0.06	0.09	0.09	0.08	0.07	0.08	0.06	0.06	0.05	0.06
Type 2	0.06	0.06	0.06	0.05	0.05	0.05	0.03	0.02	0.03	0.03
Type 2A	0.03	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.01
Type 1	0.14	0.16	0.11	0.11	0.12	0.11	0.07	0.09	0.08	0.08

Figure 15 – Leaks Repaired by Type / Mileage



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Plastic	2,269	2,552	2,372	2,599	2,526	2,385	1,742	1,771	1,920	2,055
Protected	1,688	3,339	1,766	1,807	1,817	2,327	1,971	2,313	2,186	1,964
Other LPP	13,512	15,401	12,874	11,621	12,102	10,898	8,049	8,551	7,194	7,225
CI or WI	7,184	8,935	7,835	7,152	7,350	6,841	4,725	4,574	4,343	4,542

Figure 16 – Leaks Repaired by Material



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Plastic	0.05	0.05	0.05	0.05	0.05	0.04	0.03	0.03	0.03	0.04
Protected	0.09	0.18	0.10	0.10	0.09	0.13	0.11	0.13	0.12	0.11
Other LPP	0.92	1.08	0.94	0.90	0.98	0.92	0.73	0.78	0.67	0.71
CI or WI	1.65	2.13	1.89	1.89	2.06	2.13	1.58	1.62	1.63	1.80

Figure 17 – Leaks Repaired by Material / Mileage

As seen in Figures 12 through 15, in 2023 there was a fluctuation in the number of leaks discovered and repairs by leak type and material. For instance, all leak Types, Type 1,

Type 2A, Type 2, and Type 3, experienced decreases in 2023 when compared with that of 2022. Also, the number of repairs for Type 1 and Type 3 leaks increased in 2023, whereas the number of repairs for Type 2A and Type 2 leaks decreased. The fluctuation in the number of leaks discovered and repaired by leak type and material could be attributed to the removal of leak prone infrastructure.

Figure 16 shows the number of leaks repaired per material type (plastic, protected, other leak prone pipe excluding cast and wrought-iron, and cast and wrought-iron). Each year from 2014 through 2023 there was a higher number of leaks repaired on other leak prone pipe (7,225) than on cast and wrought iron (4,542). However, when normalizing these figures by the respective materials system mileage, as seen in Figure 17, a opposite relationship is shown. While more leaks are repaired on other leak prone pipe, the rate for leaks repaired per mile on cast and wrought iron (1.80) is more than double that of other leak prone pipe (0.71). This data suggests that cast and wrought iron pipelines have a greater potential for leakage than other leak prone pipe, with other leak prone pipe being nearly five times more likely to leak than non-leak prone pipe.

The LDCs account for this within their leak prone pipe removal programs by assigning weighted factors to each material type. When the risk assessment models are finalized, these prioritized listings of leak prone pipe segments are used by LDCs to focus their removal and/or replacement efforts. This provides a higher level of public safety.

Non-Compliances Identified through Audit Process

For the final measure, Staff identified non-compliances through its audit process and evaluated LDCs on their respective compliance with the Commission's minimum pipeline safety

regulations. This measure looks at non-compliance issues Staff identified during audits and investigations of the LDCs. Each year, Staff conducts statistically based audits and investigations of the LDCs to determine their level of compliance with the Commission's regulations. Each non-compliance identified represents an area in which an LDC failed to meet these minimum requirements as prescribed.

Staff conducts compliance audits and investigations on a calendar year basis. The statistically based audits typically include a review of record and field activities. For the record audits, Staff reviews the previous calendar year's documentation and reports on any instances of non-compliance with the pipeline safety regulations. Throughout the remainder of the year, Staff monitors LDC crews as they perform field audits of the actual work being performed and compares those tasks with the regulations and the LDCs' applicable procedures. Like the record audit, any instances of non-compliance are documented and then reported.

For investigations, Staff is made aware, either through mandatory reporting and notifications or through complaints from the public, that an accident or incident has occurred or there is a pipeline related concern that needs attention. Once notified, Staff evaluates the details of the event, performs on-site investigations and/or interviews, identifies the root cause or causes of the accident or incident, obtains any pertinent information, or photographs, and documents any instances of non-compliance.

For this measure, the year identified includes both the statistically based audits and investigations for that calendar

year.[11] This measure is a lagging indicator since Staff needs time to conduct audits, report audit findings, and for LDCs to respond to Staff's findings. Audits are not considered complete until all steps are finalized. Because of this, 2022 findings are the most recent findings contained in this report. Staff's audits of 2023 records are currently in progress for inclusion in next year's Performance Measure Report.

Figure 18 below displays the total number of non-compliances for the five-year period from 2018 through 2022. The total number of non-compliances are then normalized by the number of operating headquarters (OHQs) within an LDC. For each OHQ, Staff conducts a separate statistically based audit of activities as prescribed by Staff's five-year audit plan. The associated data per LDC and the number of OHQs are located in Appendices M and N.

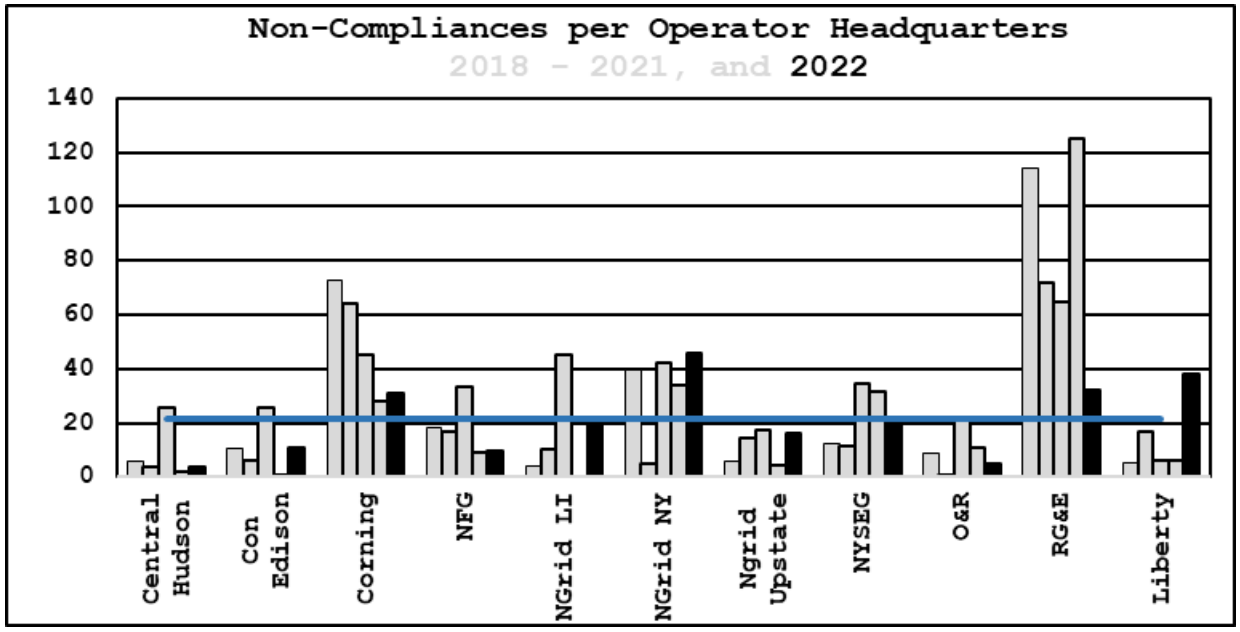


Figure 18 – Non-Compliances Identified through Audits

[11] This typically includes records generated, field activities performed, or accidents and incidents which occurred during the specific calendar year.

As seen in Figure 18, the data varies greatly from year to year. This is due, in part, to Staff's five-year audit plan, which reviews sections of the pipeline safety regulations on varying frequencies based on the likelihood of risk to public safety (life, property, and the environment). Therefore, the year-to-year graph does not represent a direct comparison of year-to-year compliance but summarizes the portion of the five-year audit conducted during each given year.

The regulations are either identified as high risk, which are audited annually, or as other risk, which are audited on a two-, three-, four-, or five-year frequency, not to exceed five years. Staff's focus is on compliance with the minimum pipeline safety regulations, but also includes areas in which LDCs, based upon historic experiences and identified risks, have chosen to exceed these minimum standards. In 2022, non-compliances were identified in all 11 of the major LDCs' operating service territories.

A review of the number of non-compliances incurred by LDCs in 2022 showed that the number of non-compliances increased for eight of the LDCs, while the other three LDC's experienced decreases. For those LDCs that showed an increase in the number of non-compliances in 2022, NGrid Upstate and NYSEG contributed to 61.2% of the high-risk non-compliances; 25.4% and 35.7%, respectfully. These two LDC's also account for 46.6%, 24 out of 52, of the total number of OHQs. The LDCs primarily attributed these increases to problems experienced during the transition to electronic records (from paper records), inspections that were not completed during the COVID pandemic because of exposure risks to the public and/or to LDC personnel, and the LDCs' misunderstanding or misinterpretation of the safety regulations regarding service discontinuation, leakage survey piping beyond the meter, and leakage survey plan active corrosion. However,

after identifying and bringing these issues to LDCs' attention, the LDCs have developed and implemented remediation plans to re-train their employees, revise electronic forms to capture required steps in inspections, and complete inspections that were either not completed or not documented properly. As such, Staff does not expect reoccurrences of violations related to these issues.

As indicated earlier, the data reported varies greatly from year to year, which is due, in part, to Staff's five-year audit cycle and different required activities being reviewed during different calendar years. These audits and investigations to verify compliance with the pipeline safety regulations are conducted on varying frequencies determined by the risk each regulation poses to public safety.

Conclusion

Gas is a safe and reliable energy commodity when handled and transported properly. The pipeline safety performance measures are an important management tool that provides the ability to evaluate trends in key areas such as damage prevention, emergency response, leak management, and compliance with the Commission's pipeline safety regulations. The LDCs must continue to focus on these areas to further reduce risks in providing gas to consumers.

Over the past ten years, LDCs have worked to improve performance in the key areas of safety as identified within this report. Over this time: damage prevention performance improved 11.7%, going from 1.96 damages per 1,000 locate requests in 2014 to 1.73 in 2023; response to leak, odor, and emergency reports within 30-minutes, 45-minutes, and 60-minutes improved from 82.5%, 96.2%, and 98.9%, to 86.9%, 97.4, and 99.4%, respectfully; and the year-end backlogs of potentially hazardous

leaks and total leaks have decreased 72.2% and 71.8%, respectively, going from 108 and 21,776 in 2014, to 30 and 6,149 in 2023, respectively. As LDCs continue their outreach and education efforts to excavator communities as well as the public, adopt best practices in responding to leak, odor, and emergency reports, work to remove leak prone pipe, and as quality assurance and quality control programs continue to mature, Staff's expectation is that further improvements will be realized.

Staff will continue to evaluate LDCs' performance via the measures contained within this report and encourage LDCs to evaluate their past and current practices. LDCs with clear opportunities for improvement when compared to their peers should reach out to the LDCs that showed superior performance levels to determine the incremental and, if necessary, entirely new approaches needed to achieve sustained improvement.

Staff further encourages the LDCs that made significant improvements to respond to this report and share their best practices that have enabled them to make these improvements. Staff will continue to meet with LDCs on a regular basis and will continue to monitor LDCs' performance. Staff will discuss performance trends with LDCs at these meetings and will further analyze these trends in future performance measure reports.

Appendix A

Historical Case Numbers[12]

Year Analyzed	Case Number
2003	04-G-0457
2004	05-G-0204
2005	06-G-0566
2006	07-G-0461
2007	08-G-0413
2008	09-G-0454
2009	10-G-0225
2010	11-G-0242
2011	12-G-0222
2012	13-G-0213
2013	14-G-0176
2014	15-G-0248
2015	16-G-0254
2016	17-G-0245
2017	18-G-0260
2018	19-G-0298
2019	20-G-0195
2020	21-G-0165
2021	22-G-0165
2022	23-G-0224
2023	24-G-0145

[12] The appendices to this report include the most recent year under analysis plus the four previous years. This table is provided to aid those wishing to research prior years.

Appendix B

Collective Damage Prevention Data

Number of One-Call Tickets

LDCs	2019	2020	2021	2022	2023
Central Hudson	31,422	30,414	30,187	30,465	28,484
Con Edison	126,182	98,678	116,897	117,509	105,681
Corning	4,772	5,676	5,398	4,934	5,056
NFG	111,451	115,115	129,056	123,288	125,808
NGrid LI	137,703	151,040	136,705	126,559	120,822
NGrid NY	139,826	90,473	100,391	105,211	105,497
NGrid Upstate	107,008	106,054	113,528	109,529	105,241
NYSEG	66,504	60,685	59,894	62,815	61,820
O&R	34,209	34,004	36,970	39,272	38,339
RG&E	78,227	69,105	74,818	73,066	64,256
Liberty	4,545	4,254	4,808	4,965	4,854
Total	841,849	765,498	808,652	797,613	765,858

Number of Damages due to Mismarks

LDCs	2019	2020	2021	2022	2023
Central Hudson	10	19	13	15	12
Con Edison	57	43	48	51	42
Corning	2	2	3	2	2
NFG	29	29	24	27	19
NGrid LI	95	64	68	69	70
NGrid NY	82	61	50	58	59
NGrid Upstate	68	39	38	38	35
NYSEG	21	18	19	20	18
O&R	10	7	21	9	14
RG&E	26	36	23	29	27
Liberty	0	1	1	0	1
Total	400	319	308	318	229

Damages due to Mismarks per 1,000 Tickets

LDCs	2019	2020	2021	2022	2023
Central Hudson	0.32	0.62	0.43	0.49	0.42
Con Edison	0.45	0.44	0.41	0.43	0.40
Corning	0.42	0.35	0.56	0.41	0.40
NFG	0.26	0.25	0.19	0.22	0.15
NGrid LI	0.69	0.42	0.50	0.55	0.58
NGrid NY	0.59	0.67	0.50	0.55	0.56
NGrid Upstate	0.64	0.37	0.33	0.35	0.33
NYSEG	0.32	0.30	0.32	0.32	0.29
O&R	0.29	0.21	0.57	0.23	0.37
RG&E	0.33	0.52	0.31	0.41	0.42
Liberty	0.00	0.24	0.21	0.00	0.21

Appendix B (Continued)

Number of Damages due to No-calls

LDCs	2019	2020	2021	2022	2023
Central Hudson	7	5	8	10	6
Con Edison	36	28	31	27	49
Corning	2	5	3	2	0
NFG	44	32	37	44	41
NGrid LI	102	92	97	82	81
NGrid NY	50	31	21	21	15
NGrid Upstate	34	41	36	28	26
NYSEG	21	18	19	12	12
O&R	23	18	30	27	17
RG&E	18	17	17	22	21
Liberty	3	1	3	0	4
Total	340	288	302	275	272

Damages due to No-calls per 1,000 Tickets

LDCs	2019	2020	2021	2022	2023
Central Hudson	0.22	0.16	0.27	0.33	0.21
Con Edison	0.29	0.28	0.27	0.23	0.46
Corning	0.42	0.88	0.56	0.41	0.00
NFG	0.39	0.28	0.29	0.36	0.33
NGrid LI	0.74	0.61	0.71	0.65	0.67
NGrid NY	0.36	0.34	0.21	0.20	0.14
NGrid Upstate	0.32	0.39	0.32	0.26	0.25
NYSEG	0.32	0.30	0.32	0.19	0.19
O&R	0.67	0.53	0.81	0.69	0.44
RG&E	0.23	0.25	0.23	0.30	0.33
Liberty	0.66	0.24	0.62	0.00	0.82

Number of Damages due to Excavator Error

LDCs	2019	2020	2021	2022	2023
Central Hudson	19	11	12	11	4
Con Edison	60	54	56	52	55
Corning	6	9	7	6	7
NFG	137	110	108	112	103
NGrid LI	111	114	122	154	121
NGrid NY	164	169	99	105	122
NGrid Upstate	122	144	106	120	118
NYSEG	54	60	56	61	62
O&R	19	31	25	29	36
RG&E	43	33	40	49	66
Liberty	7	8	7	8	12
Total	742	743	638	707	706

Appendix B (Continued)

Damages due to Excavator Error per 1,000 Tickets

LDCs	2019	2020	2021	2022	2023
Central Hudson	0.60	0.36	0.40	0.36	0.14
Con Edison	0.48	0.55	0.48	0.44	0.52
Corning	1.26	1.59	1.30	1.22	1.38
NFG	1.23	0.96	0.84	0.91	0.82
NGrid LI	0.81	0.75	0.89	1.22	1.00
NGrid NY	1.17	1.87	0.99	1.00	1.16
NGrid Upstate	1.14	1.36	0.93	1.10	1.12
NYSEG	0.81	0.99	0.93	0.97	1.00
O&R	0.56	0.91	0.68	0.74	0.94
RG&E	0.55	0.48	0.53	0.67	1.03
Liberty	1.54	1.88	1.46	1.61	2.47

Number of Damages due to Co. & Co. Contractor Error

LDCs	2019	2020	2021	2022	2023
Central Hudson	9	9	9	3	9
Con Edison	15	15	11	13	11
Corning	0	0	0	1	0
NFG	7	3	3	3	1
NGrid LI	12	8	13	9	7
NGrid NY	6	6	4	5	1
NGrid Upstate	6	8	5	10	13
NYSEG	2	6	7	3	2
O&R	4	5	10	6	3
RG&E	3	4	2	6	1
Liberty	0	0	0	0	1
Total	64	64	64	59	49

Damages due to Co. & Co. Contractor Error per 1,000 Tickets

LDCs	2019	2020	2021	2022	2023
Central Hudson	0.29	0.30	0.30	0.10	0.32
Con Edison	0.12	0.15	0.09	0.11	0.10
Corning	0.00	0.00	0.00	0.20	0.00
NFG	0.06	0.03	0.02	0.02	0.01
NGrid LI	0.09	0.05	0.10	0.07	0.06
NGrid NY	0.04	0.07	0.04	0.05	0.01
NGrid Upstate	0.06	0.08	0.04	0.09	0.12
NYSEG	0.03	0.10	0.12	0.05	0.03
O&R	0.12	0.15	0.27	0.15	0.08
RG&E	0.04	0.06	0.03	0.08	0.02
Liberty	0.00	0.00	0.00	0.00	0.21

Appendix B (Continued)

Number of Total Damages

LDCs	2019	2020	2021	2022	2023
Central Hudson	45	44	42	39	31
Con Edison	168	140	146	143	157
Corning	10	16	13	11	9
NFG	217	174	172	186	164
NGrid LI	320	278	300	314	279
NGrid NY	302	267	174	189	197
NGrid Upstate	230	232	185	196	192
NYSEG	98	102	101	96	94
O&R	56	61	86	71	70
RG&E	90	90	82	106	115
Liberty	10	10	11	8	18
Total	1,546	1,414	1,312	1,359	1,326

Total Damages per 1,000 Tickets

LDCs	2019	2020	2021	2022	2023
Central Hudson	1.43	1.45	1.39	1.28	1.09
Con Edison	1.33	1.42	1.25	1.22	1.49
Corning	2.10	2.82	2.41	2.23	1.78
NFG	1.95	1.51	1.33	1.51	1.30
NGrid LI	2.32	1.84	2.19	2.48	2.31
NGrid NY	2.16	2.95	1.73	1.80	1.87
NGrid Upstate	2.15	2.19	1.63	1.79	1.82
NYSEG	1.47	1.68	1.69	1.53	1.52
O&R	1.64	1.79	2.33	1.81	1.83
RG&E	1.15	1.30	1.10	1.45	1.79
Liberty	2.20	2.35	2.29	1.61	3.71

Appendix C[13]

Individual Damage Prevention Data

Central Hudson	2019	2020	2021	2022	2023	LDCs
Number of Tickets	31,422	30,414	30,187	30,465	28,484	765,858
Mismarks	0.32	0.62	0.43	0.49	0.42	0.39
No-Calls	0.22	0.16	0.27	0.33	0.21	0.36
Excavator Error	0.60	0.36	0.40	0.36	0.14	0.92
Co. & Co. Contractor Error	0.29	0.30	0.30	0.10	0.32	0.06
Total	1.43	1.45	1.39	1.28	1.09	1.73

Con Edison	2019	2020	2021	2022	2023	LDCs
Number of Tickets	126,182	98,678	116,897	117,509	105,681	765,858
Mismarks	0.45	0.44	0.41	0.43	0.40	0.39
No-Calls	0.29	0.28	0.27	0.23	0.46	0.36
Excavator Error	0.48	0.55	0.48	0.44	0.52	0.92
Co. & Co. Contractor Error	0.12	0.15	0.09	0.11	0.10	0.06
Total	1.33	1.42	1.25	1.22	1.49	1.73

Corning	2019	2020	2021	2022	2023	LDCs
Number of Tickets	4,772	5,676	5,398	4,934	5,056	765,858
Mismarks	0.42	0.35	0.56	0.41	0.40	0.39
No-Calls	0.42	0.88	0.56	0.41	0.00	0.36
Excavator Error	1.26	1.59	1.30	1.22	1.38	0.92
Co. & Co. Contractor Error	0.00	0.00	0.00	0.20	0.00	0.06
Total	2.10	2.82	2.41	2.23	1.78	1.73

[13] The Total performance level may not equal the sum of the four-metrics due to rounding.

Appendix C[13] (Continued)

NFG	2019	2020	2021	2022	2023	LDCs
Number of Tickets	111,451	115,115	129,056	123,288	125,808	765,858
Mismarks	0.26	0.25	0.19	0.22	0.15	0.39
No-Calls	0.39	0.28	0.29	0.36	0.33	0.36
Excavator Error	1.23	0.96	0.84	0.91	0.82	0.92
Co. & Co. Contractor Error	0.06	0.03	0.02	0.02	0.01	0.06
Total	1.95	1.51	1.33	1.51	1.30	1.73

NGrid LI	2019	2020	2021	2022	2023	LDCs
Number of Tickets	137,703	151,040	136,705	126,559	120,822	765,858
Mismarks	0.69	0.42	0.50	0.55	0.58	0.39
No-Calls	0.74	0.61	0.71	0.65	0.67	0.36
Excavator Error	0.81	0.75	0.89	1.22	1.00	0.92
Co. & Co. Contractor Error	0.09	0.05	0.10	0.07	0.06	0.06
Total	2.32	1.84	2.19	2.48	2.31	1.73

NGrid NY	2019	2020	2021	2022	2023	LDCs
Number of Tickets	139,826	90,473	100,391	105,211	105,497	765,858
Mismarks	0.59	0.67	0.50	0.55	0.56	0.39
No-Calls	0.36	0.34	0.21	0.20	0.14	0.36
Excavator Error	1.17	1.87	0.99	1.00	1.16	0.92
Co. & Co. Contractor Error	0.04	0.07	0.04	0.04	0.01	0.06
Total	2.16	2.95	1.73	1.80	1.87	1.73

Appendix C[13] (Continued)

NGrid Upstate	2019	2020	2021	2022	2023	LDCs
Number of Tickets	107,008	106,054	113,528	109,529	105,241	765,858
Mismarks	0.64	0.37	0.33	0.35	0.33	0.39
No-Calls	0.32	0.39	0.32	0.26	0.25	0.36
Excavator Error	1.14	1.36	0.93	1.10	1.12	0.92
Co. & Co. Contractor Error	0.06	0.08	0.04	0.09	0.12	0.06
Total	2.15	2.19	1.63	1.79	1.82	1.73

NYSEG	2019	2020	2021	2022	2023	LDCs
Number of Tickets	66,504	60,685	59,894	62,815	61,820	765,858
Mismarks	0.32	0.30	0.32	0.32	0.29	0.39
No-Calls	0.32	0.30	0.32	0.19	0.19	0.36
Excavator Error	0.81	0.99	0.93	0.97	1.00	0.92
Co. & Co. Contractor Error	0.03	0.10	0.12	0.05	0.03	0.06
Total	1.47	1.68	1.69	1.53	1.52	1.73

O&R	2019	2020	2021	2022	2023	LDCs
Number of Tickets	34,209	34,004	36,970	39,272	38,339	765,858
Mismarks	0.29	0.21	0.57	0.23	0.37	0.39
No-Calls	0.67	0.53	0.81	0.69	0.44	0.36
Excavator Error	0.56	0.91	0.68	0.74	0.94	0.92
Co. & Co. Contractor Error	0.12	0.15	0.27	0.15	0.08	0.06
Total	1.64	1.79	2.33	1.81	1.83	1.73

Appendix C[13] (Continued)

RG&E	2019	2020	2021	2022	2023	LDCs
Number of Tickets	78,227	69,105	74,818	73,066	64,256	765,858
Mismarks	0.33	0.52	0.31	0.40	0.42	0.39
No-Calls	0.23	0.25	0.23	0.30	0.33	0.36
Excavator Error	0.55	0.48	0.53	0.67	1.03	0.92
Co. & Co. Contractor Error	0.04	0.06	0.03	0.08	0.02	0.06
Total	1.15	1.30	1.10	1.45	1.79	1.73

Liberty	2019	2020	2021	2022	2023	LDCs
Number of Tickets	4,545	4,254	4,808	4,965	4,854	765,858
Mismarks	0.00	0.24	0.21	0.00	0.21	0.39
No-Calls	0.66	0.24	0.62	0.00	0.82	0.36
Excavator Error	1.54	1.88	1.46	1.61	2.47	0.92
Co. & Co. Contractor Error	0.00	0.00	0.00	0.00	0.21	0.06
Total	2.20	2.35	2.29	1.61	3.71	1.73

Appendix D

Emergency Response Times for 45 Minutes (%)

LDCs	2019	2020	2021	2022	2023
Central Hudson	98.9	99.4	99.1	99.4	99.6
Con Edison	99.7	99.9	99.2	99.9	99.8
Corning	96.9	95.0	97.0	96.5	95.3
NFG	98.9	99.1	99.3	96.4	99.4
NGrid LI	96.0	97.7	96.9	95.4	96.6
NGrid NY	95.3	96.2	95.6	95.3	95.3
NGrid Upstate	94.3	93.7	95.9	94.9	94.3
NYSEG	89.1	93.0	96.3	95.5	96.4
O&R	99.3	99.3	99.0	97.9	98.6
RG&E	82.5	93.8	98.2	97.9	97.8
Liberty	91.7	92.0	93.5	91.4	92.6

Appendix E

Emergency Response Times for 60 Minutes (%)

LDCs	2019	2020	2021	2022	2023
Central Hudson	99.9	99.9	99.9	99.9	99.9
Con Edison	99.9	99.9	99.4	99.9	99.9
Corning	98.7	98.6	98.5	98.8	98.6
NFG	99.7	99.8	99.9	97.2	99.9
NGrid LI	99.5	99.7	99.5	98.8	99.5
NGrid NY	98.8	99.1	98.9	98.8	98.8
NGrid Upstate	98.1	97.4	98.4	98.3	98.2
NYSEG	94.6	97.9	99.1	99.0	99.4
O&R	99.9	99.9	99.9	99.9	99.9
RG&E	89.2	98.2	99.7	99.6	99.4
Liberty	95.7	97.3	98.5	97.4	97.6

Appendix F

Leak Repairs on Mains by Material

LDCs	Unprot. Bare	Unprot. Coated	Prot. Bare	Prot. Coated	Plastic	Cast / Wrought Iron	Copper	Other
Central Hudson	19	0	0	24	13	82	0	0
Con Edison	2,947	134	0	278	108	2,227	0	0
Corning	28	0	1	2	4	0	0	0
NFG	810	0	0	97	47	90	0	18
NGrid LI	322	74	0	8	90	62	0	0
NGrid NY	163	0	0	5	16	1,942	0	0
NGrid Upstate	13	23	0	53	20	98	0	0
NYSEG	3	0	0	9	26	1	0	6
O&R	55	0	0	8	27	0	0	0
RG&E	1	0	0	76	13	0	0	67
Liberty	0	0	0	0	0	0	0	0

Appendix G

Leak Repairs on Services by Material

LDCs	Unprot. Bare	Unprot. Coated	Prot. Bare	Prot. Coated	Plastic	Cast / Wrought Iron	Copper	Other
Central Hudson	34	0	0	55	38	34	1	0
Con Edison	1,125	81	0	800	479	0	128	0
Corning	14	2	0	3	40	0	0	0
NFG	153	0	0	43	265	0	0	5
NGrid LI	394	45	6	0	181	0	10	0
NGrid NY	171	0	0	192	271	1	177	0
NGrid Upstate	35	35	0	99	143	4	6	0
NYSEG	13	0	0	16	90	1	0	2
O&R	103	0	0	26	125	0	0	0
RG&E	0	0	0	110	59	0	3	5
Liberty	0	0	0	3	0	0	0	0

Appendix H

Backlog of Potentially Hazardous Leaks

LDCs	2019	2020	2021	2022	2023
Central Hudson	5	5	1	3	0
Con Edison	5	5	5	7	6
Corning	2	2	3	2	2
NFG	1	1	2	0	0
NGrid LI	0	1	3	8	4
NGrid NY	9	13	20	10	14
NGrid Upstate	4	16	6	9	4
NYSEG	4	1	0	2	0
O&R	2	0	0	0	0
RG&E	0	0	0	3	0
Liberty	0	1	1	0	0

Appendix I

Repaired Potentially Hazardous Leaks

LDCs	2019	2020	2021	2022	2023
Central Hudson	224	170	198	184	156
Con Edison	7,406	5,814	6,869	5,322	5,116
Corning	133	54	66	39	39
NFG	843	707	839	776	696
NGrid LI	2,085	1,225	1,048	921	984
NGrid NY	4,095	2,168	2,399	2,745	2,782
NGrid Upstate	586	590	446	405	348
NYSEG	87	102	77	63	98
O&R	239	187	177	204	157
RG&E	110	132	136	141	123
Liberty	0	1	4	1	2

Appendix J

Discovered Potentially Hazardous Leaks

LDCs	2019	2020	2021	2022	2023
Central Hudson	208	158	176	172	140
Con Edison	3,814	2,903	3,738	2,924	2,345
Corning	118	49	67	45	38
NFG	826	693	831	772	694
NGrid LI	1,947	1,239	1,050	819	485
NGrid NY	3,400	2,129	2,317	2,367	2,543
NGrid Upstate	836	739	528	545	555
NYSEG	145	149	94	83	125
O&R	250	180	178	204	155
RG&E	285	178	166	198	141
Liberty	0	2	4	1	2

Appendix K

Backlog of Total Leaks

LDCs	2019	2020	2021	2022	2023
Central Hudson	87	80	47	62	40
Con Edison	262	173	137	107	103
Corning	48	45	40	32	21
NFG	608	453	297	209	115
NGrid LI	7,256	6,435	5,494	4,671	3,875
NGrid NY	2,382	1,944	1,779	1,627	1,485
NGrid Upstate	803	714	648	594	502
NYSEG	14	13	3	9	3
O&R	7	3	2	2	0
RG&E	23	10	6	12	5
Liberty	0	1	1	0	0

Appendix L

System Totals (Mains and Services)

Year	Steel (in Miles)			
	Unprotected		Protected	
	Bare	Coated	Bare	Coated
2014	9,362	3,385	541	18,036
2015	9,313	3,141	533	18,049
2016	8,795	3,196	543	17,699
2017	7,878	3,518	338	17,832
2018	7,570	3,300	339	18,794
2019	7,073	3,331	332	17,692
2020	6,659	3,154	324	17,792
2021	6,501	3,134	320	17,713
2022	6,347	3,060	303	17,706
2023	5,958	2,968	288	17,454

Appendix L (Continued)

System Totals (Mains and Services)

Year	Plastic (in Miles)	Cast and Wrought Iron (in Miles)	Copper (in Miles)	Other (in Miles)
2014	46,823	4,356	1,729	151
2015	48,157	4,194	1,712	134
2016	50,200	4,150	1,539	109
2017	51,499	3,783	1,414	100
2018	51,970	3,570	1,355	99
2019	54,304	3,217	1,349	93
2020	55,207	2,983	1,185	92
2021	56,689	2,826	1,276	88
2022	58,006	2,664	1,268	85
2023	58,183	2,523	1,171	108

Appendix L (Continued)

System Totals (Mains and Services)

Year	Average Service Length (in Feet)	Number of Services	System Totals (in Miles)
2014	64.97	3,173,759	84,383
2015	66.15	3,143,133	85,232
2016	65.70	3,203,732	86,232
2017	65.80	3,200,736	86,361
2018	65.77	3,233,062	86,998
2019	65.79	3,248,187	87,391
2020	66.23	3,261,548	87,397
2021	66.83	3,294,803	88,546
2022	68.00	3,284,900	89,439
2023	66.64	3,289,951	88,654

Appendix M

High Risk Non-Compliances Identified through Audit Process

LDCs	2018	2019	2020	2021	2022	# of OHQs
Central Hudson	123	14	5	9	13	5
Con Edison	17	27	30	3	17	5
Corning	36	34	13	12	7	1
NFG	55	57	56	26	76	9
NGrid LI	8	13	11	0	11	2
NGrid NY	16	5	24	51	75	2
NGrid Upstate	44	38	74	17	164	11
NYSEG	74	79	338	64	229	13
O&R	5	2	5	12	3	2
RG&E	45	57	52	17	23	1
Liberty	3	8	2	5	24	1

Appendix N

Other Risk Non-Compliances Identified through Audit Process

LDCs	2018	2019	2020	2021	2022	# of OHQs
Central Hudson	4	6	124	0	6	5
Con Edison	35	5	97	1	38	5
Corning	37	30	32	16	24	1
NFG	108	92	243	55	10	9
NGrid LI	0	4	79	0	32	2
NGrid NY	63	5	61	17	17	2
NGrid Upstate	21	121	117	29	17	11
NYSEG	83	66	109	345	32	13
O&R	13	0	37	10	7	2
RG&E	69	15	13	106	9	1
Liberty	2	9	4	1	14	1