Filed Session of June 17, 2015

STATE OF NEW YORK
DEPARTMENT OF PUBLIC SERVICE

2014 GAS SAFETY PERFORMANCE MEASURES REPORT
(CASE 15-G-0248)

Safety Section
Office of Electric, Gas & Water
June 17, 2015

EXECUTIVE SUMMARY

The performance measures are the result of collaborative efforts, started in 2003, between Staff and major New York State natural gas local distribution companies (LDCs) to improve identification and tracking of areas that are critical to gas safety. The data used in the report were gathered and submitted by the LDCs using processes developed from these collaborative efforts.[1] Overall, the data indicate that LDC performance has substantially improved across the state over the twelve year period. The total damage prevention measure improved for the twelfth consecutive year and is now 73.8% better than it was in 2003. The 30-minute emergency response time has improved from 76.8% in 2003 to 82.5% in 2014 and the year-end backlog of potentially hazardous leaks has decreased 90.6%, from 1,154 to 108. As LDCs continue their outreach efforts, adopt better practices in responding to leak and odor calls, and work to replace leak-prone infrastructure, Staff expects further improvements will occur.

Staff recommends that LDCs identified as having improvement opportunities conduct a self-analysis and provide it to Staff within 45 days of receiving a letter from Staff. LDCs should provide specific details on how they plan to improve performance. A more detailed discussion of the 2014 results for each performance measure follows.

[1] This report examines the results of LDC performance in three specific safety areas (Damage Prevention, Emergency Response, and Leak Management) for 2014. The New York State Department of Public Service, Gas Safety Section has been producing this annual report since 2004.

Damage Prevention

The first measure, damage prevention, gauges the ability of LDCs to minimize damage to buried facilities caused by excavation activities. The damage measure is further broken down into four root cause categories: damages due to (1) mismarks (inaccurate marking by the LDC of its buried facilities); (2) company and company contractor error; (3) third party excavator error; and (4) no-calls (failure to provide notice of intent to excavate to the one-call notification system).

Overall, damage prevention performance across the state improved 10.9% during 2014. The number of requests to locate underground gas facilities (one-call tickets) received by the LDCs increased nearly 9.9% in 2014, largely driven by NGrid NY, [2] Con Edison, [2] and NGrid Upstate, [2] which experienced a 38.1%, 20.6%, and 11.8% increase, respectively.

Three of the four categories composing the total damage measure either showed improvement or stayed consistent in performance during 2014, with damages due to mismarks declining in performance. The greatest improvements came in damages due to excavator error (21.7%), and no-calls (7.0%).

Compared to 2013, all LDCs experienced varying combinations of improvement and decline among the four categories. Having been identified in previous reports as needing to improve performance in various categories, NGrid Upstate[2] and NFG[2] have shown improvement for the sixth consecutive year. O&R, [2] also identified, has improved its performance. These performance levels, however, still pull down the statewide level for the total damage prevention metric.

[2] Company Names and their respective acronyms can be found on Page 2 of this report.

Emergency Response

The second measure, emergency response, gauges the LDCs' ability to respond promptly to reports of gas leaks or emergencies by examining the percentage of calls that fall within various response times. The performance measure contains three specific response goals: respond to 75% of emergency calls within 30 minutes, 90% within 45 minutes, and 95% within 60 minutes. Statewide performance for the 30 minute, 45 minute, and 60 minute goals all declined slightly in 2014. This decline can be attributed to an increase of nearly thirty-seven thousand emergency calls received, compared to the previous year. In general, the LDCs have continued to use technologies such as global position systems (GPS) to quickly identify the most appropriate employee to respond to a gas leak or odor call, continued public awareness initiatives on the properties of natural gas, and have continued placing, or added personnel, in certain geographical areas during the times of day that have historically high volumes of emergency notifications.

Leak Management

The third measure, leak management, examines LDCs' performance in effectively maintaining leak inventories and keeping potentially hazardous leaks to a minimum. Potentially hazardous leaks include any leak that requires repair pursuant to 16 NYCRR Part 255 (Type 1, 2A, and 2). For the first time in this report, this measure will also examine each LDC's total leak backlog. Total leak backlogs include Type 3 leaks, which do not have a statutory repair timeframe and are, by definition, considered to be non-hazardous. Pursuant to 16 NYCRR Part 255, Type 3 leaks require reevaluation during the next required leakage survey or annually, whichever is sooner.

For leaks requiring repair, the end of the calendar year 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 blanket of frost. All LDCs have demonstrated improvement in these measures over the past several years. The statewide year-end 2014 backlog was comparable to that from year-end 2013, and is down 90.6% when compared to 2003. For total leak backlogs, the statewide year-end 2014 backlog was down a total of 2,169 leaks (9.1%) from year-end 2013, and is down 16.2% when compared to 2010.

Next Steps

The analysis of each performance measure in this report identifies specific areas where certain LDCs have room for improvement. Staff recommends that those LDCs develop action plans to improve performance. In some cases, Staff suggests certain issues to examine, although the LDCs need not limit themselves to Staff's suggestions and are free to explore additional areas.

This report will be transmitted to an executive level operating officer of each LDC. For those LDCs identified as having improvement opportunities, Staff recommends that those companies conduct a self-analysis and provide it to the Safety Section of the Office of Electric, Gas, and Water within 45 days of receiving a letter from Staff. The analysis should include specific details on how the LDC plans to improve performance. For LDCs that have repeatedly been identified as needing improvement in specific areas, Staff recommends those LDCs evaluate the effectiveness of their past efforts and determine the additional approaches to be used.

Table of Contents

COMPANY ACRONYMS

Local Distribution Companies (LDCs)	Acronym in Report
Central Hudson Gas & 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
The Brooklyn Union Gas Company d/b/a National Grid	NGrid NY
National Fuel Gas Distribution Corporation	NFG
New York State Electric & Gas Corporation	NYSEG
Niagara Mohawk Power Corporation d/b/a National Grid	NGrid Upstate
Orange & Rockland Utilities, Inc.	O&R
Rochester Gas & Electric Corporation	RG&E
St. Lawrence Gas Company, Inc.	St. Lawrence

HISTORICAL CASE NUMBERS[3]

Year Analyzed	Report 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

[3] 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.

INTRODUCTION

Gas safety performance measures were developed as a means of improving local distribution companies' (LDCs) gas delivery system safety performance in areas identified as presenting the highest risks. Performance measures are tools that Staff and the LDCs can use to monitor the safe operation and maintenance of distribution systems. These measures indicate how companies are performing from year to year, as well as trends over time.

In developing the performance measures, Staff first identified areas in LDCs' systems or operations that carry the greatest potential for harm to the public if performance is sub-standard. Staff then worked with LDCs to develop methods for capturing and tracking appropriate data so they could be used as a practical management tool. This process led to the identification of three performance measures:

Damage Prevention: This measure examines damages to the LDCs buried facilities resulting from excavator activities, which is a leading cause of incidents involving buried gas pipelines both nationally and within New York State.

Emergency Response Time: This measure examines the amount of time that it takes an LDC to reach the scene of a reported gas leak or odor complaint.

Leak Management: This measure examines LDC performance in managing leak inventory levels and keeping potentially hazardous leaks to a minimum. For the first time in this report, this measure will also examine each LDC's total leak backlog.

Operations Audit

On August 15, 2013, in Case 13-M-0314, the NYS Public Service Commission issued a request for proposals for an independent consultant to perform a focused operations audit of the accuracy of the performance measure data submitted by nine of the eleven LDCs mentioned in this report. The consultant's objectives were to assess the completeness and accuracy of the measures submitted, assess comparability amongst the utilities, and determine the suitability of each of the performance measures identified.

Any recommendations identified within the consultant's report will be evaluated for future consideration within this performance measures report. Should these modifications change the performance levels associated with the measures, the changes will be addressed and the rationale provided. In continuing to evaluate the 2014 performance of the LDCs, the methodology is consistent with that of past performance measure reports.

PERFORMANCE AND ANALYSIS FOR 2014

Throughout this report, all of the figures display performance results from 2010 through 2014 for each LDC, with the grey columns in the bar graphs representing 2010 through 2013 and the black columns representing the 2014 results. The blue horizontal lines on the bar graphs represent the 2014 statewide performance level. When no bar is shown in the graph for a particular company and year, there were no incidents for that measure. Red numbers in tables represent failure to meet the target level for the measure or a decline in performance from the previous year.

Damage Prevention

Damage due to excavation activity is one of the leading causes of natural gas pipeline failures and accidents, both statewide and nationwide.

The damage-prevention procedures are designed to work as follows: (1) excavators provide notice of their intent to excavate to a one-call system,[4] which transmits an excavation notice (one-call ticket or ticket) to the member operators potentially affected by that excavation; (2) member operators clearly and accurately mark the location of their buried facilities in or near the excavation site; and (3) excavators work carefully around the marked facilities in order to avoid damaging them. Damages to underground facilities can be categorized by identifying where in this three-step process the root cause of an incident lies.

Evaluating the number of damages in relation to the volume of construction and excavation activity in an LDC's operating territory provides a useful basis for assessing performance in this area. The data used in this analysis are contained in **Appendix A** and **Appendix B**. The method used to normalize each LDC's data is the number of facility damages per 1,000 one-call tickets for that LDC.

The numbers of damages are categorized as damages resulting from mismarks, excavator error, company and company contractor error, and no-calls.

Each one-call ticket received provides an LDC the opportunity to mark its facilities correctly. Hence, the measure specifically addresses mismark opportunities by

[4] New York has two one-call systems, one for New York City and Long Island and the second for the remainder of the state.

examining damages caused by mismarks per 1,000 tickets received by that LDC.

Once a one-call ticket is requested and the facilities are marked correctly, an excavator is afforded the opportunity to work carefully and avoid damages. Damage due to third party excavator error per 1,000 tickets tracks this category. Third party excavator error damages are historically the largest component of total damages, partially because of the effort needed to educate third party contractors in safe and best excavation practices. Most professional excavators are well aware of the existence of the one-call centers and the requirement to notify it of planned excavation work. Many excavators are not as well versed in the additional requirements such as tolerance zones and verifying locations of underground facilities with hand-dug test holes, maintaining the marks, maintaining clearances with powered equipment, etc. Educating excavators on how to avoid damages once mark-outs have been requested requires more in-depth training and outreach.

Damages that are caused by LDC personnel, or by LDC direct contractors are also included in the damage analysis as a separate category. These personnel should have the training and experience to work carefully near their own facilities. LDCs should also have better control over contractors they hire to perform work for them than they do over third party contractors. Thus, this category should be the smallest contributor to the total damages. The current measure tracks damages caused by all utility operations within a particular LDC. That is, for an electric and gas combination LDC, damages to gas facilities caused by electric crews or electric company contractors are included.

Damages due to no-calls are instances where no ticket exists because the excavator failed to provide notice of intent

to excavate. This metric provides an indication of the general level of awareness excavators have about the one-call notification systems. A high percentage of damages in this category indicates that efforts are needed to make excavators aware of the dangers of working around buried facilities and the importance of using the one-call notification systems.

It is important to note that the damage prevention measures evaluate actual damages to LDCs' underground facilities. Based on the data reported in 2014, 99.8% of one-call tickets in LDC gas areas had no associated damages to natural gas facilities. This is consistent with the Common Ground Alliance's (CGA)[5] 2014 Damage Information Reporting Tool (DIRT) report which found that when a call is made prior to excavation, damage occurs less than 1.0% of the time.

There were a total of 1,562 damages to natural gas LDC facilities in 2014, 33 less than in 2013. With an increase of 82,353 one-call tickets (9.9%) during 2014, the results are an improvement (10.9%) in total damages per 1,000 one-call tickets. While these are encouraging statistics, a single damage could lead to a catastrophic event, so it is important that LDCs and excavators strive to minimize damage to facilities.

The Department enforces the Commission's damage prevention regulations, 16 NYCRR Part 753, Protection of Underground Facilities. Over the past five years approximately 1,642 citations have been issued, which has led to training sessions being completed by excavators with both New York 811

[5] The Common Ground Alliance is a national association of stakeholders involved in damage prevention that identifies and disseminates best practices, conducts public awareness programs, and collects and analyzes data regarding damages to underground utility facilities.

and Dig Safely NY, and approximately $640,000 in penalties collected.

Figure #1 below displays the collective statewide performance regarding the damage prevention measures. Note the significant increase in the number of one-call tickets over the period, in addition to the significant improvement in the total damages measure.

Metric	2010	2011	2012	2013	2014
Number of Tickets	729,067	735,041	771,749	832,841	915,194
Mismarks	0.50	0.45	0.44	0.36	0.37
Co. & Co. Contractor Error	0.10	0.10	0.10	0.08	0.08
Excavator Error	1.18	1.12	1.04	1.01	0.83
No-calls	0.50	0.47	0.43	0.46	0.43
Total Damages (per 1000)	2.29	2.14	2.01	1.92	1.71

Figure #1 – Damages per 1,000 Tickets Statewide

Two of the four metrics composing the total damage measure improved during 2014.[6] The greatest statewide improvement in 2014 came in damages due to excavator error and no-calls. The statewide performance in damages due to company and company contractors stayed consistent in 2014, whereas damages due to mismarks declined slightly. The total number of tickets increased approximately 9.9% during 2014 as compared to 2013.

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

The LDCs that experienced the largest increase in tickets were NGrid NY (38.1%), Con Edison (20.6%), Corning (20.6%), and NGrid Upstate (11.8%). Increases were also experienced by NFG, O&R, RG&E, and St. Lawrence. LDC's actual performance in each area of damage prevention is located in **Appendices A** and **B**.

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

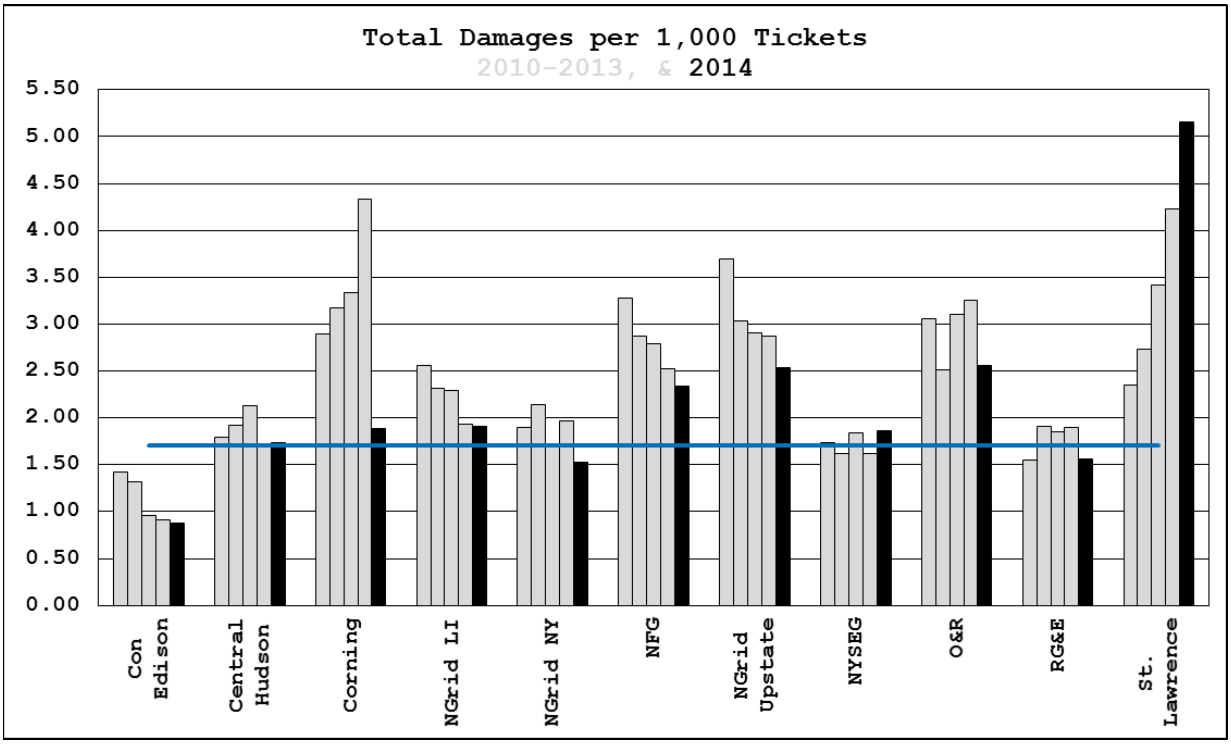

Figure #2 – Total Damages per 1,000 Tickets

As seen in **Figure #2**, eight LDCs improved and three LDCs declined in 2014. This is an improvement from 2013, when only six LDCs improved. Among those improving, significant gains were made by Corning (56.4%), NGrid NY (22.6%), O&R (21.4%), RG&E (18.7%), and NGrid Upstate (11.6%). These improvements were driven by either a decrease in the total number of damages and/or an increase in the total number of one-call tickets. Corning, who was noted as a poor performer in 2013, saw the most significant improvements with damages due to

mismarks (4 to 0) and no-calls (7 to 4). These small swings, combined with having a lower total volume of one-call tickets, can have a greater impact from year-to-year on its performance when compared to other LDCs.

Similarly, and for the fourth consecutive year, St. Lawrence experienced a decline in its performance. With an increase of only 5 damages (3 due to excavator error, and 2 due to company and company contractor error), its performance in 2014 declined 22.0%. NYSEG's performance also declined (14.7%), which can be attributed to damages due to no-calls (10 to 14) and excavator error (54 to 61).

LDC performance in damages due to third party excavator error per 1,000 tickets is displayed in **Figure #3**.

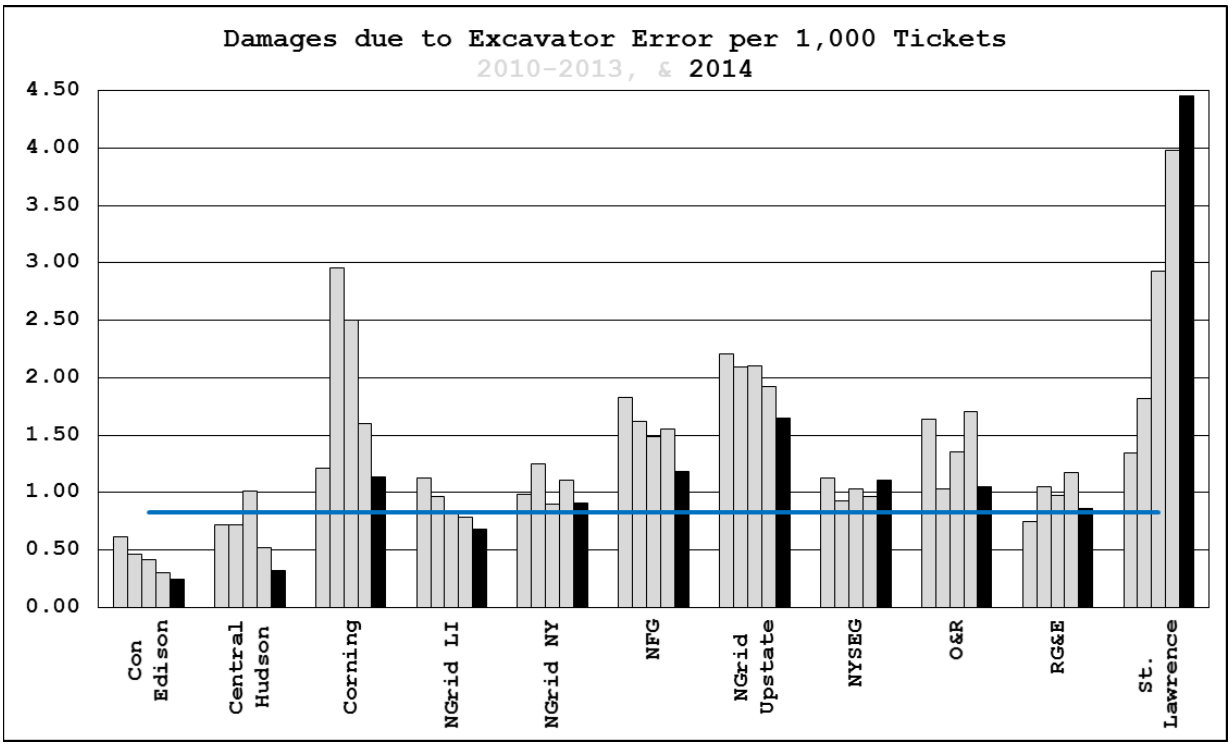

Figure #3 – Excavator Error Damages per 1,000 Tickets

As seen in **Figure #3**, nine LDCs improved and two LDCs declined in 2014, which is an improvement from 2013. For the fourth consecutive year, St. Lawrence experienced a performance

decline (12.0%). In actual numbers, St. Lawrence went from 16 damages in 2013 to 19 in 2014. While this change does not seem drastic, this level of performance is approaching a level not seen since 2009 (21 damages).

The overall statewide improvement in this metric was driven by improvements with the following LDCs: Central Hudson (38.8%), O&R (38.7%), Corning (29.0%), RG&E (26.4%), NFG (24.0%), Con Edison (20.1%), NGrid NY (17.6%), NGrid Upstate (14.3%), and NGrid LI (13.4%). In 2013, NFG and NGrid Upstate were identified as outliers who needed improvement in this area. While both continue to be outliers, their improvements brought the most significant change to the statewide level.

It is recommended that NYSEG and St. Lawrence perform analyses of their damage prevention programs and outreach efforts to identify methods to further reduce these damages.

LDC performance in damages due to no-calls per 1,000 tickets is displayed in **Figure #4** below.

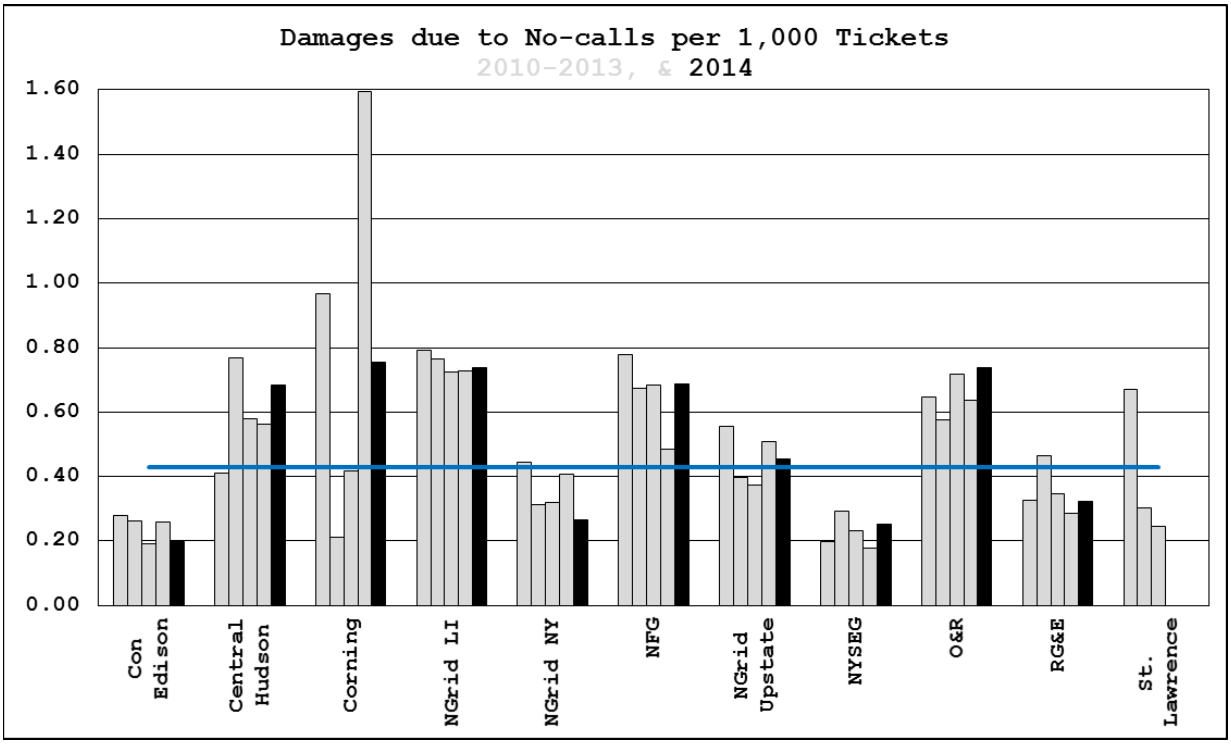

Figure #4 – No-call Damages per 1,000 Tickets

As seen in **Figure #4**, four LDCs improved, six declined, and one remained consistent in 2014. Even with the majority of LDCs declining in performance, the statewide level improved 6.5% when compared with 2013. The largest improvement came with NGrid NY going from 51 to 46 damages. When normalized with its increase in one-call tickets (47,643) it saw a 34.7% improvement in performance. Other contributing LDCs to this improved performance included Corning (52.6%), Con Edison (24.3%), and NGrid Upstate (10.5%).

For the six LDCs who declined in performance (NYSEG, NFG, Central Hudson, O&R, RG&E, and NGrid LI) the variations with increasing and decreasing number of damages and one-call tickets can be attributed to their performance change. Most notably, NFG saw an increase in both one-call tickets (103) and damages (18) which led to a 41.7% decrease in performance.

It is recommended that NFG perform an analysis of its damage prevention program, targeting damages due to no-calls, to identify efforts to further improve in this area. Its analysis of this year should include a review of the effectiveness of previous efforts and adopt new approaches.

This statewide improvement in damages due to no-calls indicates that excavators are more aware of their obligation to utilize the one-call system. Key contributors in improving this metric came in the form of the three digit 811 dialing program, enforcement action for violations of 16 NYCRR Part 753, and outreach and training efforts made by LDCs and one-call centers.

In order to aid in the enforcement of 16 NYCRR Part 753, Staff requested that LDCs forward information about contractors who damaged underground facilities without having mark-out requests. Staff evaluates the details of each damage and pertinent information regarding the excavator, and takes enforcement actions where appropriate. This enforcement effort,

coupled with higher penalties, is a deterrent to non-compliance. Where appropriate, enforcement cases are resolved by a "Consent Order" agreement in which the financial penalty may be reduced if, inter alia, the excavator attends free Dig Safely training provided by one-call centers. All LDCs are encouraged to continue in their efforts to notify Staff of these contractors.

LDC performance in damages due to mismarks per 1,000 tickets is displayed in **Figure #5** below.

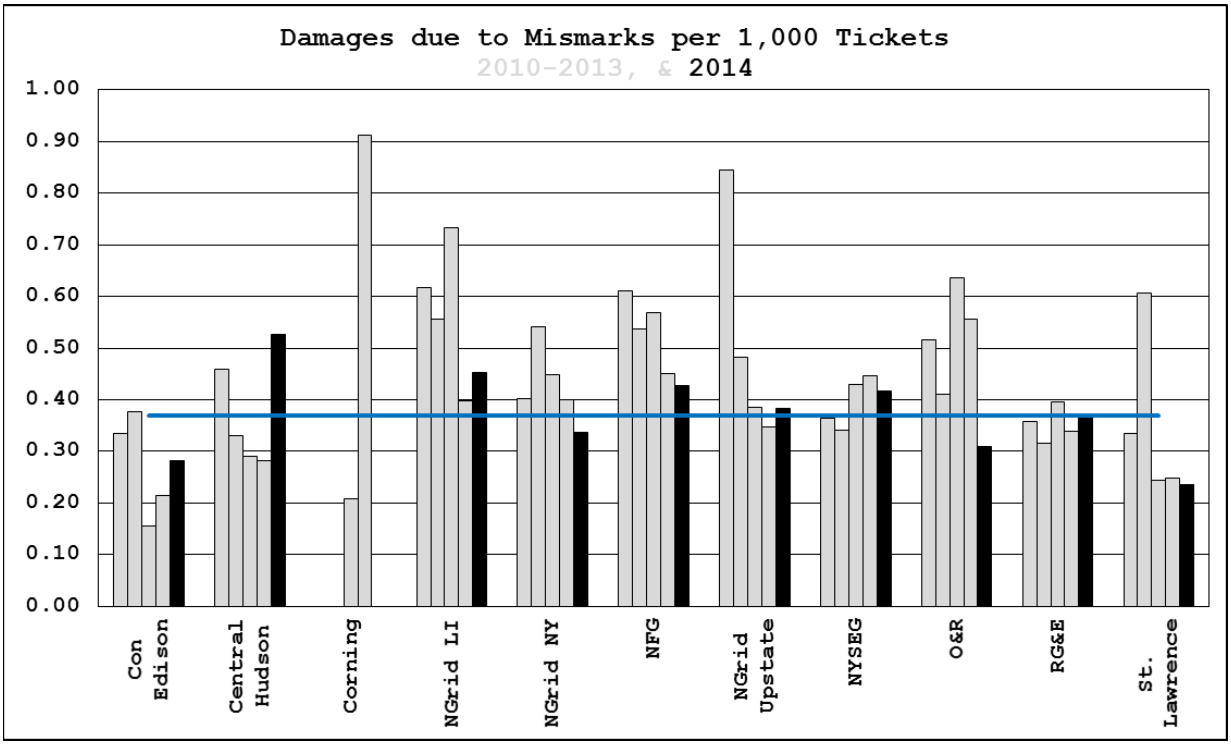

Figure #5 – Mismark Damages per 1,000 Tickets

As seen in **Figure #5**, six LDCs improved and five declined in 2014. In last year's report, Con Edison and Corning were identified as poor performers. Con Edison declined for the second consecutive year by 30.9%, going from 38 damages in 2013 to 60 in 2014. Corning improved by ending 2014 with no damages, compared to the four it had in 2013.

The statewide average, however, experienced a decline (2.8%) in performance, going from 302 damages in 2013 to 336 in

2014. Contributing LDCs to this decline, in addition to Con Edison, included Central Hudson (86.9%), NGrid LI (13.5%), NGrid Upstate (10.4%), and RG&E (10.3%). In raw numbers, Central Hudson went from 6 damages in 2013 to 10 damages in 2014, NGrid LI went from 75 to 79, NGrid Upstate went from 30 to 37, and RG&E went from 19 to 22, respectively.

Staff typically expects to see general improvements in damages due to mismarks as LDCs continually adopt best practices to locate their facilities and develop better controls over their locating contractors. Central Hudson and Con Edison are both recommended to evaluate their locating programs and adopt methods that could further improve mark-out accuracy.

LDC performance in damages due to company and company contractors per 1,000 tickets is displayed in **Figure #6** below.

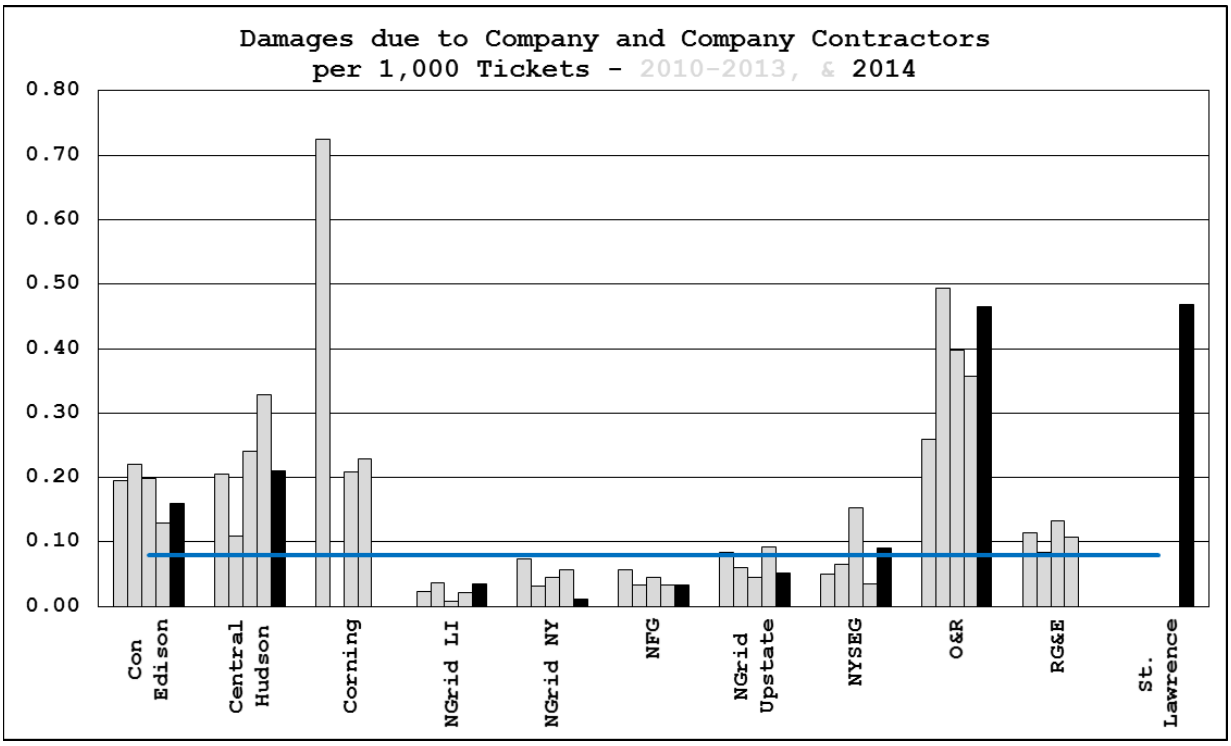

Figure #6 – Company and Company Contractor Error Damages per 1,000 Tickets

As seen in **Figure #6**, six LDCs improved and five LDCs declined in 2014. In last year's report, Central Hudson, NGrid LI, NGrid NY, and NGrid Upstate were all identified as poor performers. In 2014, NGrid NY (79.3%), NGrid Upstate (44.1%), and Central Hudson (35.9%) all improved. NGrid LI declined once again in its performance (61.7%), going from four damages in 2013 to six in 2014.

Other LDCs that improved were RG&E (6 damages in 2013 to 0 in 2014), Corning (1 to 0), and NFG (3 to 3),[7] respectively. LDCs that experienced a decline in performance, in addition to NGrid LI, were NYSEG, Con Edison, O&R, and St. Lawrence. In raw numbers, NYSEG went from 2 damages in 2013 to 5 in 2014, Con Edison from 23 to 34, O&R from 9 to 12, and St. Lawrence from 0 to 2.

With the Commission's encouragement, the LDCs have increased the proactive replacement of leak-prone pipe in recent years. This leads to more excavation activity by company and company contractor forces near their own buried gas lines, which increases the opportunity for damages to occur. Even with this increased excavation activity, statewide performance in this metric stayed consistent with that of 2013. On the other hand, and as these annual performance measures reports have pointed out for many years, LDCs should also have better control over contractors they hire to perform work for them than they do over third party contractors, and these personnel should have the training and experience to work carefully near their own facilities. The LDCs point out that often these damages are to facilities that are in the process of being replaced; when damaged, their own crews and contractors are better prepared

[7] For NFG, when normalized with the addition of 103 one-call tickets, its performance in this metric improved.

than third party contractors to promptly control the situation and make repairs. While true, Staff believes that LDCs should not minimize this category of damages. These damages still have the potential to harm workers and nearby members of the public. All damages are not only safety concerns, but have the potential to lead to service outages and other disruptions, such as road closures and evacuations.

As noted above, this metric has the lowest raw number of damages, is the smallest contributor to the total number of damages, and is the smallest contributor to the total statewide damage measure. Further that the vertical scale on **Figure #6** makes the year-to-year changes appear more dramatic than they would be in **Figures #2**, **#3**, **#4**, and **#5**. This also further exaggerates the fluctuations for the smaller LDCs.

It has been noted several times that the smaller LDCs can have dramatic variations year-to-year. For the second consecutive year, the data suggest that even the larger LDCs can experience sizable volatility in performance. As the actual numbers of damages get smaller, these swings become larger in percentage.

With a narrow view in comparing data over the past few years, it is worth taking a step back to look at this year's data in relation to the first year of reporting. **Figure #7** displays the collective statewide performance regarding the damage prevention measures from calendar years 2003 and 2014.

Metric	2003	2014
Number of Tickets	481,179	915,194
Mismarks	1.14	0.37
Co. & Co. Contractor Error	0.27	0.08
Excavator Error	3.28	0.83

No-calls	1.84	0.43
Total (per 1000)	6.53	1.71

Figure #7 – Damages Comparison from 2003 to 2014

Emergency Response

16 NYCRR §255.825(d) requires that LDCs provide a monthly report to Staff that includes a breakdown of the total number of gas leak and emergency calls received during the month and responded to in intervals of 15 minutes during normal business hours, weekdays outside business hours, and weekends and holidays. The report also indicates the percentage of calls responded to within 30, 45, and 60 minutes. The following have been established as acceptable overall response time standards: 75% within 30 minutes, 90% within 45 minutes, and 95% within 60 minutes. Each company has a very small number of instances of response times exceeding 60 minutes.[8]

The intent of the reporting requirement and the performance measure is to evaluate company responses to gas leak, odor, and emergency calls that are generated by the public and other authorities (e.g. police, fire, and municipal employees). For the purposes of reporting, the response time is measured from the time the call is sent to the company dispatch to the time of arrival of qualified[9] company personnel at the location.

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

[9] Qualified personnel are defined as company representatives who are properly trained and equipped to investigate gas leak and odor reports in accordance with accepted company procedures and 16 NYCRR §255.604 – Operator Qualification.

When an LDC responds to an odor call and an investigation determines that the problem is not attributed to natural gas, the event is nevertheless included in the reported data. This is because LDCs must respond as if it is an actual gas emergency until proven otherwise.

Any LDC that does not meet one of the target response levels at 30 minutes, 45 minutes, or 60 minutes also must provide additional data showing when the target response level is actually achieved.

Figure #8 displays the collective annual statewide emergency response time (ERT) performance for each goal since 2010, with the 2014 performance presented in black. In 2014, the 30 minute, 45 minute, and 60 minute statewide performance all declined slightly when compared to 2013. All three categories exceeded their minimum goals of 75%, 90%, and 95%. The total number of emergency calls increased (23.5%) in 2014, reaching a level not seen since 2005.

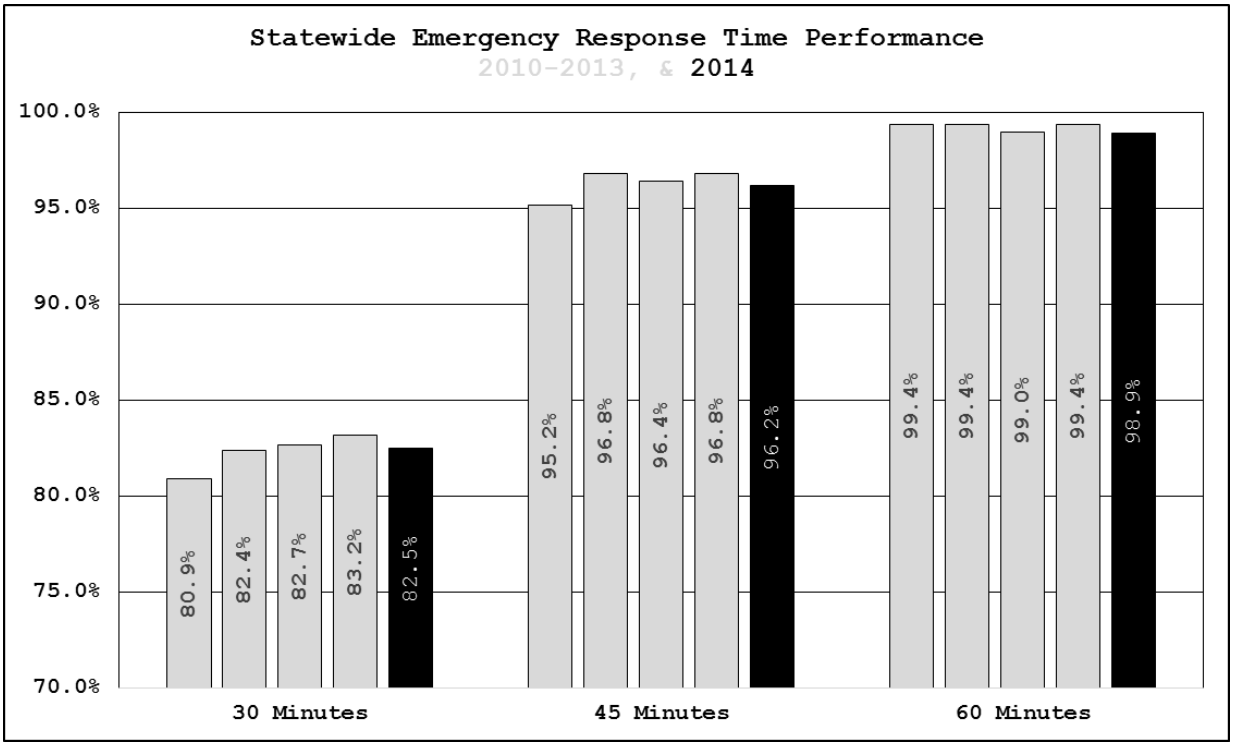

Figure #8 – Emergency Response Time Performance Statewide

Figure #9 presents data for calendar years 2010 through 2014 arranged by LDC and percentage of response times achieved within 30 minutes. Performances that did not meet the minimum goal of 75% are shown in red.

LDCs	2010	2011	2012	2013	2014
Con Edison	81.8	83.5	87.6	88.9	87.9
Central Hudson	80.0	78.3	79.7	78.5	78.7
Corning	83.1	83.8	88.0	81.9	79.9
NGrid LI	76.0	77.3	73.8	77.7	75.5
NGrid NY	78.2	77.1	76.0	76.7	75.6
NFG	91.8	91.8	91.6	92.7	92.5
NGrid Upstate	82.9	82.5	84.1	80.2	79.1
NYSEG	80.2	82.3	80.4	80.1	80.8
O&R	82.8	83.4	87.5	86.5	87.9
RG&E	90.8	90.3	88.9	84.7	87.4
St. Lawrence	77.9	75.5	74.5	71.3	84.4

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

All LDCs met the 30 minute, 45 minute, and 60 minute goals. The data for the 45 minute and 60 minute emergency response times are provided in **Appendix C**.

Over the twelve years of the collected data, leak and odor calls statewide have decreased from 227,905 in 2003 to 194,197 in 2014, or a 14.8% decrease over the period. Part of the decline in calls may be attributed to the reduction of leak backlogs, which will be discussed further in the leak management section.

It is encouraging to see that all LDCs have made efforts over the years to reach the statewide goals jointly established for this measure. Staff expects all LDCs to continue to evaluate and monitor their performance and identify areas where best practices can be implemented.

Leak Management

The intent of evaluating LDCs' leak management programs is to gauge performance in reducing the number of leaks that occur, eliminating potentially hazardous leaks that are found, reducing the backlog of potentially hazardous leaks at the end of the year, and reducing the backlog of total leaks. The natural gas safety regulations contained in 16 NYCRR Part 255 include requirements for classifying leaks according to their relative hazard, considering factors such as whether gas migration is detected near buildings, in manholes, vaults or catch basins, or under paved versus unpaved areas, etc. All leaks classified as potentially hazardous must be monitored and repaired according to the gas safety regulations, and any hazardous conditions must be eliminated immediately. All other leaks must be reevaluated during the next required leakage survey or annually, whichever is less, but have no mandatory repair timeframe.

Unrepaired potentially hazardous leaks are an increased safety risk to the public. The risk is further exacerbated when there is frost in the ground due to the increased chance of gas migration into buildings. The frost acts as a blanket that does not allow the gas to readily vent to the atmosphere through the soil. Although a leak backlog on any particular day is a snapshot in time, the end of the calendar year is significant since it coincides with the beginning of the frost season. Thus, all data analyses are presented as of December 31 for each year (data as reported by the LDCs related to Leak Management are contained in **Appendices D**, and **E**). The leak management measure looks at the year-end backlog of potentially hazardous leaks in addition to the total leak backlog. This measure does not substitute for, and is not a reflection upon, any LDC's compliance with the gas safety regulations.

The data reported by the LDCs include leaks found; leaks repaired on mains and services categorized by leak type classification; leaks repaired on mains by type of pipe material; leaks repaired on services by type and pipe material; and backlog of leaks by classification type.

Analysis of leakage data can also provide an indication of the pipe material's susceptibility to leakage. As a means of continuously improving leak management programs, Staff encourages the identification and removal of leak prone pipe, such as cast iron, bare or poorly coated steel pipe that are difficult to protect against corrosion, and certain brittle plastic materials. Incentive programs to replace deteriorating and leak prone infrastructure and/or reducing leak backlogs have been incorporated into past and current rate agreements for LDCs. The Public Service Commission has recently begun an initiative to review how this pipe may be replaced at a higher

rate. The long-term goal is to eliminate pipeline infrastructure that, due to its vulnerability to leaks, presents greater safety risks to the public. As the aging pipe infrastructure is replaced by more modern materials, general leak concerns should decrease with time.

The statewide year-end backlog of potentially hazardous leaks stayed consistent from 2013 to 2014 at 108, and is down 90.6% when compared to 1,154 in 2003. This demonstrates that LDCs have sustained a continued effort and are paying more attention to managing leak surveys and are completing them earlier in the year, to allow for time to repair discovered leaks before heading into the frost season.

Figure #10 displays the backlog of potentially hazardous leaks (Type 1, 2A, and 2)[10] on December 31st of 2010 through 2014. Numerical leak data is contained in **Appendix E**.

[10] A 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.

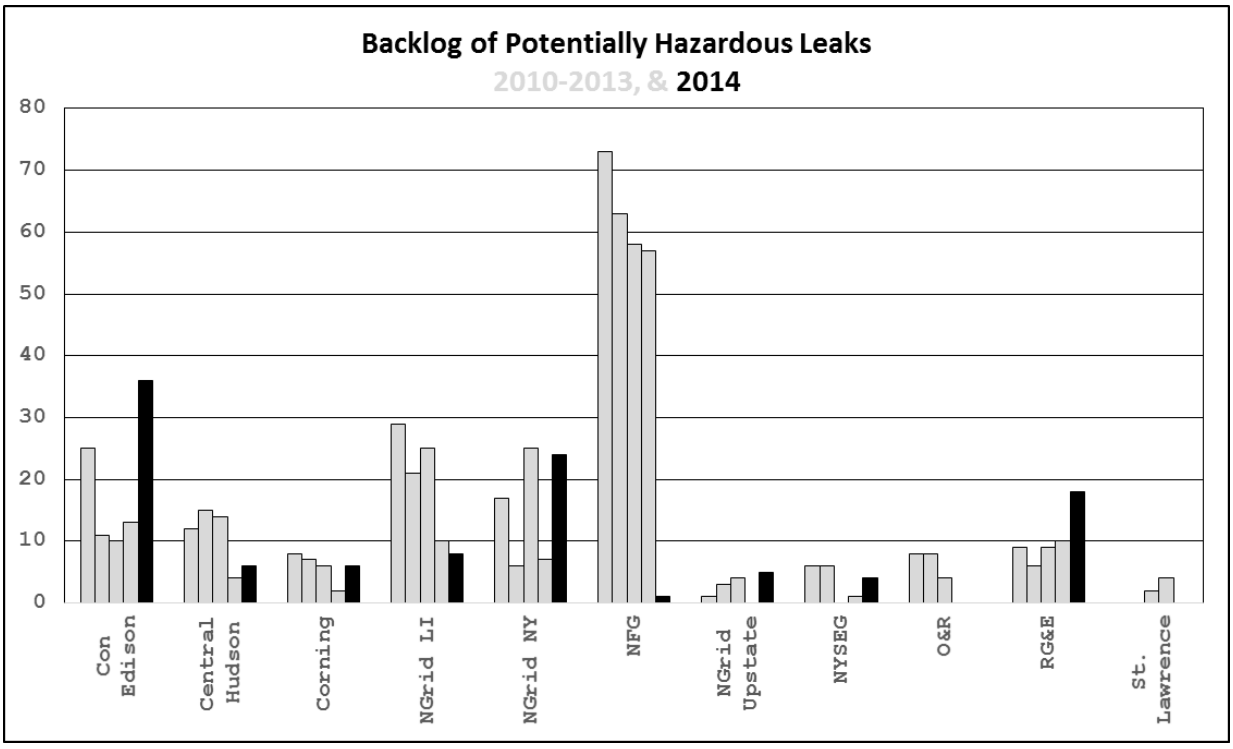

Figure #10 – Hazardous Leak Backlog from 2010 through 2014

As seen in **Figure #10**, seven of the LDCs ended 2014 within 5 leaks, plus or minus, of where they finished in 2013. NFG saw the most significant change when compared to 2013, going from 57 to 1. In 5 of the previous 7 years, NFG has been identified as an outlier in this category. With this improvement, NFG has gone from the worst to one of the best performers in this category.

Con Edison, NGrid NY, and RG&E all declined in performance when compared to 2013. Con Edison went from 13 hazardous leaks to 36, NGrid NY from 7 to 24, and RG&E from 10 to 18. The only notable change between these years is that Con Edison's negative revenue adjustment was shifted from this measure within its most current rate case to a total leak backlog target and associated adjustment. The added influence to total leak backlog appears to have shifted Con Edison's focus from reducing its hazardous leak backlog to reducing its total

leak backlog. It is recommended that Con Edison respond to this report by outlining the efforts it will make to decrease its year-end hazardous leak backlog.

For the first time in this report, LDCs will also be evaluated on their backlog of total leaks. This will include all hazardous leaks, as identified above, in addition to their remaining Type 3 leaks. Type 3 leaks are defined as not being immediately hazardous at the time of detection and being reasonably expected to remain that way. However, Type 3 leaks must be reevaluated during the next required leakage survey or annually, whichever is less, though they have no mandatory repair timeframe.

Without this mandatory repair timeframe, LDCs have the discretion to allow this backlog to grow exponentially. **Figure #11** displays the backlog of total leaks (Type 1, 2A, 2, and 3) on December 31st of 2010 through 2014. Numerical leak data is contained in **Appendix F**.

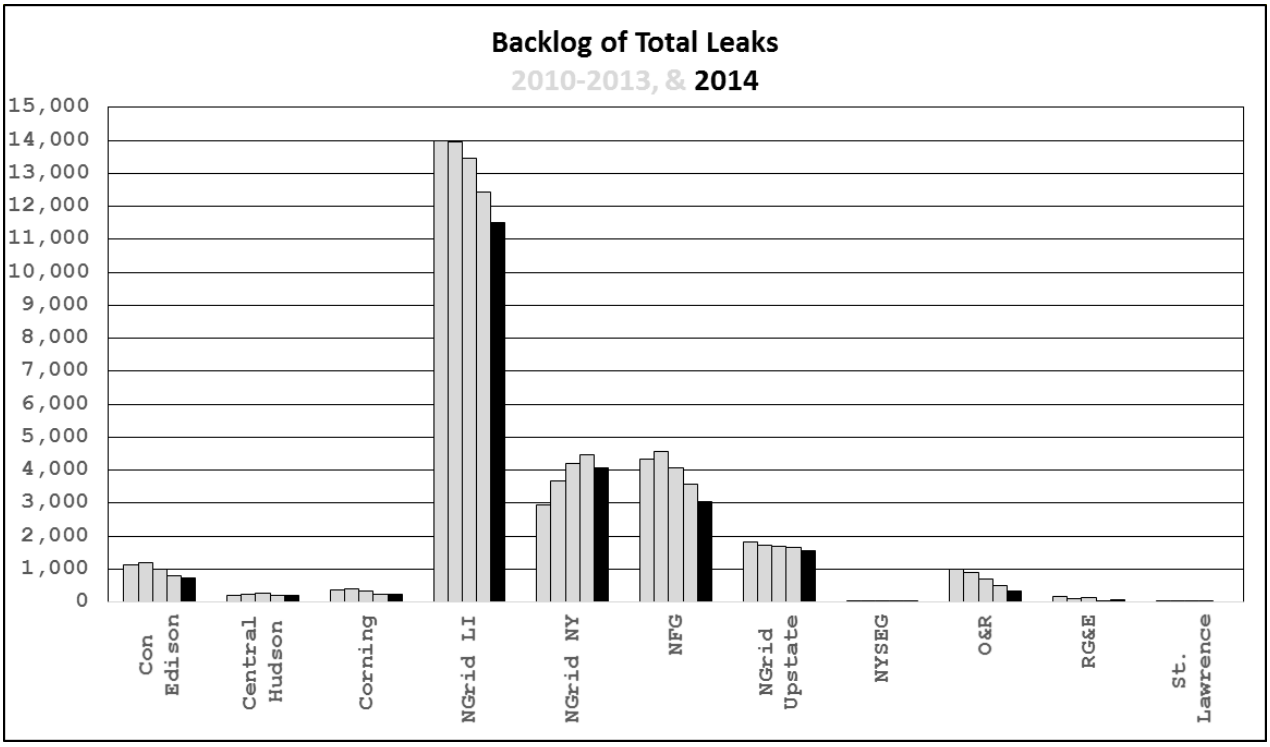

Figure #11 – Total Leak Backlog from 2010 through 2014

As seen in **Figure #11**, seven of the LDCs appear to have emphasized on maintaining a lower year-end total leak backlog. Four of the LDCs have a year-end backlog of greater than 1,500 total leaks, with the more notable LDC being NGrid LI (11,494). In March of 2015, the Commission approved a cost recovery mechanism for NGrid LI to increase its leak prone pipe replacement program.

As the replacement of leak prone pipe increases over the next several years, it is to be expected that these totals will decrease. In the meantime, it is recommended that NGrid LI, NGrid NY, NFG, and NGrid Upstate respond to this report by outlining efforts they will make to further decrease their year-end total leak backlog.

Conclusion

Natural gas is a safe and reliable energy commodity, if handled and transported properly. Safety performance measures are an important management tool that provide Staff and LDCs the ability to evaluate trends in key areas of gas safety (damage prevention, emergency response times, and leak management). The LDCs must continue to focus on these areas to further reduce risks in distributing natural gas to consumers.

Over the past twelve years, LDCs have worked to improve performance in the key areas of safety identified in this report. There has been a 73.8% improvement in total damage performance; the 30-minutes emergency response time has improved from 76.8% to 82.5%; and the year-end backlog of potentially hazardous leaks has decreased 90.6%, from 1,154 to 108. As LDCs continue their outreach efforts, adopt better practices in responding to leak and odor calls, and work to replace aging leak prone infrastructure, Staff expects further improvement will occur.

Staff will continue to evaluate LDCs' performance via the measures contained in this report and will send letters to those LDCs mentioned as having improvement opportunities, requesting that those LDCs provide the Pipeline Safety Section of the Office of Electric, Gas, and Water specific details on how they plan to improve. It is recommended that those LDCs evaluate their current and past practices, as well as to reach out to the other LDCs that experienced higher performance levels to determine the incremental and, if necessary, entirely new approaches to pursue in order to achieve improvement. Those LDCs that were able to make significant improvements are further encouraged to respond to this report and share best practices which enabled them to make these games in performance. Staff will continue to meet with LDCs on a regular basis and monitor

LDC performance. Performance trends will be discussed with LDCs at these meetings and will be analyzed in future performance measure reports. Staff continues to incorporate lessons learned in investigating the cause of natural gas incidents in New York State and across the country. In addition, Staff are considering including an additional performance measure in future reports. This measure being considered would evaluate non-compliances identified during Staff's record and field audits for safety code compliance.

Recommendations

For each of the measures listed below, it is recommended that the LDCs identified self-assess their performance. Staff will send letters to these LDCs, requesting responses within 45 days. The identified LDCs should take into consideration the analysis and recommendations in this report and the effectiveness of efforts made in response to previous performance measure reports and respond with improved action plans identifying their self-assessment and outlining incremental efforts on how they will improve in the future.

Mismark Damages:

- Central Hudson, Con Edison

No-Call Damages:

- NFG

Company & Company Contractor Damages:

- Con Edison, NGrid LI

Excavator Error Damages:

- NYSEG, St. Lawrence

Year-End Hazardous Leak Backlog:

- Con Edison

Year-End Total Leak Backlog:

- NFG, Grid LI, NGrid NY, NGrid Upstate

Appendix A

Number of One-call Tickets

LDCs	2010	2011	2012	2013	2014
Con Edison	158,596	159,355	166,749	177,102	213,612
Central Hudson	19,568	18,206	20,714	21,305	19,002
Corning	4,143	4,735	4,794	4,386	5,291
NGrid LI	132,813	134,852	139,274	188,412	174,833
NGrid NY	94,573	95,974	109,298	125,030	172,673
NFG	88,512	89,292	87,916	88,621	88,724
NGrid Upstate	82,850	83,091	88,109	86,500	96,672
NYSEG	60,469	61,757	65,086	56,039	55,299
O&R	23,225	24,315	25,130	25,193	25,809
RG&E	61,332	60,168	60,579	56,232	59,014
St. Lawrence	2,986	3,296	4,100	4,021	4,265

Number of Damages due to Mismarks

LDCs	2010	2011	2012	2013	2014
Con Edison	53	60	26	38	60
Central Hudson	9	6	6	6	10
Corning	0	0	1	4	0
NGrid LI	82	75	102	75	79
NGrid NY	38	52	49	50	58
NFG	54	48	50	40	38
NGrid Upstate	70	40	34	30	37
NYSEG	22	21	28	25	23
O&R	12	10	16	14	8
RG&E	22	19	24	19	22
St. Lawrence	1	2	1	1	1

Damages due to Mismarks per 1,000 Tickets

LDCs	2010	2011	2012	2013	2014
Con Edison	0.33	0.38	0.16	0.21	0.28
Central Hudson	0.46	0.33	0.29	0.28	0.53
Corning	0.00	0.00	0.21	0.91	0.00
NGrid LI	0.62	0.56	0.73	0.40	0.45
NGrid NY	0.40	0.54	0.45	0.40	0.34
NFG	0.61	0.54	0.57	0.45	0.43
NGrid Upstate	0.84	0.48	0.39	0.35	0.38
NYSEG	0.36	0.34	0.43	0.47	0.42
O&R	0.52	0.41	0.64	0.56	0.31
RG&E	0.36	0.32	0.40	0.34	0.37
St. Lawrence	0.33	0.61	0.24	0.25	0.23

Appendix A (Continued)

Number of Damages due to No-calls

LDCs	2010	2011	2012	2013	2014
Con Edison	44	42	32	46	42
Central Hudson	8	14	12	12	13
Corning	4	1	2	7	4
NGrid LI	105	103	101	137	129
NGrid NY	42	30	35	51	46
NFG	69	60	60	43	61
NGrid Upstate	46	33	33	44	44
NYSEG	12	18	15	10	14
O&R	15	14	18	16	19
RG&E	20	28	21	16	19
St. Lawrence	2	1	1	0	0

Damages due to No-calls per 1,000 Tickets

LDCs	2010	2011	2012	2013	2014
Con Edison	0.28	0.26	0.19	0.26	0.20
Central Hudson	0.41	0.77	0.58	0.56	0.68
Corning	0.97	0.21	0.42	1.60	0.76
NGrid LI	0.79	0.76	0.73	0.73	0.74
NGrid NY	0.44	0.31	0.32	0.41	0.27
NFG	0.78	0.67	0.68	0.49	0.69
NGrid Upstate	0.56	0.40	0.37	0.51	0.46
NYSEG	0.20	0.29	0.23	0.18	0.25
O&R	0.65	0.58	0.72	0.64	0.74
RG&E	0.33	0.47	0.35	0.28	0.32
St. Lawrence	0.70	0.30	0.24	0.00	0.00

Number of Damages due to Excavator Error

LDCs	2010	2011	2012	2013	2014
Con Edison	97	73	69	54	52
Central Hudson	14	13	21	11	6
Corning	5	14	12	7	6
NGrid LI	150	130	115	148	119
NGrid NY	93	120	98	138	157
NFG	162	145	131	138	105
NGrid Upstate	183	174	185	166	159
NYSEG	68	57	67	54	61
O&R	38	25	34	43	27
RG&E	46	63	59	66	51
St. Lawrence	4	6	12	16	19

Appendix A (Continued)

Damages due to Excavator Error per 1,000 Tickets

LDCs	2010	2011	2012	2013	2014
Con Edison	0.61	0.46	0.41	0.30	0.24
Central Hudson	0.72	0.71	1.01	0.52	0.32
Corning	1.21	2.96	2.50	1.60	1.13
NGrid LI	1.13	0.96	0.83	0.79	0.68
NGrid NY	0.98	1.25	0.90	1.10	0.91
NFG	1.83	1.62	1.49	1.56	1.18
NGrid Upstate	2.21	2.09	2.10	1.92	1.64
NYSEG	1.12	0.92	1.03	0.96	1.10
O&R	1.64	1.03	1.35	1.71	1.05
RG&E	0.75	1.05	0.97	1.17	0.86
St. Lawrence	1.34	1.82	2.93	3.98	4.45

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

LDCs	2010	2011	2012	2013	2014
Con Edison	31	35	33	23	34
Central Hudson	4	2	5	7	4
Corning	3	0	1	1	0
NGrid LI	3	5	1	4	6
NGrid NY	7	3	5	7	2
NFG	5	3	4	3	3
NGrid Upstate	7	5	4	8	5
NYSEG	3	4	10	2	5
O&R	6	12	10	9	12
RG&E	7	5	8	6	0
St. Lawrence	0	0	0	0	2

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

LDCs	2010	2011	2012	2013	2014
Con Edison	0.20	0.22	0.20	0.13	0.16
Central Hudson	0.20	0.11	0.24	0.33	0.21
Corning	0.72	0.00	0.21	0.23	0.00
NGrid LI	0.02	0.04	0.01	0.02	0.03
NGrid NY	0.07	0.03	0.05	0.06	0.01
NFG	0.06	0.03	0.05	0.03	0.03
NGrid Upstate	0.08	0.06	0.05	0.09	0.05
NYSEG	0.05	0.06	0.15	0.04	0.09
O&R	0.26	0.49	0.40	0.36	0.46
RG&E	0.11	0.08	0.13	0.11	0.00
St. Lawrence	0.00	0.00	0.00	0.00	0.47

Appendix A (Continued)

Number of Total Damages

LDCs	2010	2011	2012	2013	2014
Con Edison	225	210	160	161	188
Central Hudson	35	35	44	36	33
Corning	12	15	16	19	10
NGrid LI	340	313	319	364	333
NGrid NY	180	205	187	246	263
NFG	290	256	245	224	207
NGrid Upstate	306	252	256	248	245
NYSEG	105	100	120	91	103
O&R	71	61	78	82	66
RG&E	95	115	112	107	92
St. Lawrence	7	9	14	17	22

Total Damages per 1,000 Tickets

LDCs	2010	2011	2012	2013	2014
Con Edison	1.42	1.32	0.96	0.91	0.88
Central Hudson	1.79	1.92	2.12	1.69	1.74
Corning	2.90	3.17	3.34	4.33	1.89
NGrid LI	2.56	2.32	2.29	1.93	1.90
NGrid NY	1.90	2.14	1.71	1.97	1.52
NFG	3.28	2.87	2.79	2.53	2.33
NGrid Upstate	3.69	3.03	2.91	2.87	2.53
NYSEG	1.74	1.62	1.84	1.62	1.86
O&R	3.06	2.51	3.10	3.25	2.56
RG&E	1.55	1.91	1.85	1.90	1.56
St. Lawrence	2.34	2.73	3.41	4.23	5.16

Appendix B[11]

Con Edison	2010	2011	2012	2013	2014	Statewide
Number of Tickets	158,596	159,355	166,749	177,102	213,612	915,194
Mismarks	0.33	0.38	0.16	0.21	0.28	0.37
No-Calls	0.28	0.26	0.19	0.26	0.20	0.43
Excavator Error	0.61	0.46	0.41	0.30	0.24	0.83
Co. & Co. Contractor Error	0.20	0.22	0.20	0.13	0.16	0.08
Total	1.42	1.32	0.96	0.91	0.88	1.71

Central Hudson	2010	2011	2012	2013	2014	Statewide
Number of Tickets	19,568	18,206	20,714	21,305	19,002	915,194
Mismarks	0.46	0.33	0.29	0.28	0.53	0.37
No-Calls	0.41	0.77	0.58	0.56	0.68	0.43
Excavator Error	0.72	0.71	1.01	0.52	0.32	0.83
Co. & Co. Contractor Error	0.20	0.11	0.24	0.33	0.21	0.08
Total	1.79	1.92	2.12	1.69	1.74	1.71

Corning	2010	2011	2012	2013	2014	Statewide
Number of Tickets	4,143	4,735	4,794	4,386	5,291	915,194
Mismarks	0.00	0.00	0.21	0.91	0.00	0.37
No-Calls	0.97	0.21	0.42	1.60	0.76	0.43
Excavator Error	1.21	2.96	2.50	1.60	1.13	0.83
Co. & Co. Contractor Error	0.72	0.00	0.21	0.23	0.00	0.08
Total	2.90	3.17	3.34	4.33	1.89	1.71

[11] The 'total' damage performance may not equal the sum of the four metrics due to rounding.

Appendix B[9] (Continued)

NGrid LI	2010	2011	2012	2013	2014	Statewide
Number of Tickets	132,813	134,852	139,274	188,412	174,833	915,194
Mismarks	0.62	0.56	0.73	0.40	0.45	0.37
No-Calls	0.79	0.76	0.73	0.73	0.74	0.43
Excavator Error	1.13	0.96	0.83	0.79	0.68	0.83
Co. & Co. Contractor Error	0.02	0.04	0.01	0.02	0.03	0.08
Total	2.56	2.32	2.29	1.93	1.90	1.71

NGrid NY	2010	2011	2012	2013	2014	Statewide
Number of Tickets	94,573	95,974	109,298	125,030	172,673	915,194
Mismarks	0.40	0.54	0.45	0.40	0.34	0.37
No-Calls	0.44	0.31	0.32	0.41	0.27	0.43
Excavator Error	0.98	1.25	0.90	1.10	0.91	0.83
Co. & Co. Contractor Error	0.07	0.03	0.05	0.06	0.01	0.08
Total	1.90	2.14	1.71	1.97	1.52	1.71

NFG	2010	2011	2012	2013	2014	Statewide
Number of Tickets	88,512	89,292	87,916	88,621	88,724	915,194
Mismarks	0.61	0.54	0.57	0.45	0.43	0.37
No-Calls	0.78	0.67	0.68	0.49	0.69	0.43
Excavator Error	1.83	1.62	1.49	1.56	1.18	0.83
Co. & Co. Contractor Error	0.06	0.03	0.05	0.03	0.03	0.08
Total	3.28	2.87	2.79	2.53	2.33	1.71

Appendix B[9] (Continued)

NGrid Upstate	2010	2011	2012	2013	2014	Statewide
Number of Tickets	82,850	83,091	88,109	86,500	96,672	915,194
Mismarks	0.84	0.48	0.39	0.35	0.38	0.37
No-Calls	0.56	0.40	0.37	0.51	0.46	0.43
Excavator Error	2.21	2.09	2.10	1.92	1.64	0.83
Co. & Co. Contractor Error	0.08	0.06	0.05	0.09	0.05	0.08
Total	3.69	3.03	2.91	2.87	2.53	1.71

NYSEG	2010	2011	2012	2013	2014	Statewide
Number of Tickets	60,469	61,757	65,086	56,039	55,299	915,194
Mismarks	0.36	0.34	0.43	0.47	0.42	0.37
No-Calls	0.20	0.29	0.23	0.18	0.25	0.43
Excavator Error	1.12	0.92	1.03	0.96	1.10	0.83
Co. & Co. Contractor Error	0.05	0.06	0.15	0.04	0.09	0.08
Total	1.74	1.62	1.84	1.62	1.86	1.71

O&R	2010	2011	2012	2013	2014	Statewide
Number of Tickets	23,225	24,315	25,130	25,193	25,809	915,194
Mismarks	0.52	0.41	0.64	0.56	0.31	0.37
No-Calls	0.65	0.58	0.72	0.64	0.74	0.43
Excavator Error	1.64	1.03	1.35	1.71	1.05	0.83
Co. & Co. Contractor Error	0.26	0.49	0.40	0.36	0.46	0.08
Total	3.06	2.51	3.10	3.25	2.56	1.71

Appendix B[9] (Continued)

RG&E	2010	2011	2012	2013	2014	Statewide
Number of Tickets	61,332	60,168	60,579	56,232	59,014	915,194
Mismarks	0.36	0.32	0.40	0.34	0.37	0.37
No-Calls	0.33	0.47	0.35	0.28	0.32	0.43
Excavator Error	0.75	1.05	0.97	1.17	0.86	0.83
Co. & Co. Contractor Error	0.11	0.08	0.13	0.11	0.00	0.08
Total	1.55	1.91	1.85	1.90	1.56	1.71

St. Lawrence	2010	2011	2012	2013	2014	Statewide
Number of Tickets	2,986	3,296	4,100	4,021	4,265	915,194
Mismarks	0.33	0.61	0.24	0.25	0.23	0.37
No-Calls	0.70	0.30	0.24	0.00	0.00	0.43
Excavator Error	1.34	1.82	2.93	3.98	4.45	0.83
Co. & Co. Contractor Error	0.00	0.00	0.00	0.00	0.47	0.08
Total	2.34	2.73	3.41	4.23	5.16	1.71

Appendix C

Emergency Response Times for 45 Minutes (%)

LDCs	2010	2011	2012	2013	2014
Con Edison	97.9	98.5	99.2	99.4	99.2
Central Hudson	98.9	98.6	98.7	99.1	98.7
Corning	96.6	96.3	98.2	97.5	95.2
NGrid LI	95.2	96.0	93.0	94.9	93.8
NGrid NY	96.3	96.1	95.0	95.9	93.9
NFG	97.7	97.7	97.7	98.0	97.3
NGrid Upstate	95.1	95.0	95.9	94.6	94.4
NYSEG	95.3	95.1	95.1	95.5	95.7
O&R	98.1	97.8	98.4	98.9	99.1
RG&E	98.3	98.6	97.8	96.9	97.6
St. Lawrence	95.2	95.5	95.6	92.9	95.0

Appendix C (Continued)

Emergency Response Times for 60 Minutes (%)

LDCs	2010	2011	2012	2013	2014
Con Edison	99.9	99.9	99.9	99.9	99.9
Central Hudson	99.9	99.8	99.7	99.9	99.9
Corning	99.6	99.0	99.8	99.4	98.5
NGrid LI	99.6	99.7	97.4	99.4	99.1
NGrid NY	99.2	99.3	98.5	99.4	98.2
NFG	99.4	99.4	99.4	99.5	98.5
NGrid Upstate	98.5	98.4	98.5	98.2	98.1
NYSEG	99.0	98.2	99.0	99.2	98.8
O&R	99.9	99.9	99.9	99.9	99.9
RG&E	99.8	99.8	99.6	99.4	99.5
St. Lawrence	99.5	99.8	99.8	99.2	98.9

Appendix D

Total Leak Repairs on Mains by Material

LDCs	Unprot. Bare	Unprot. Coated	Prot. Bare	Prot. Coated	Plastic	Cast / Wrought Iron	Copper	Other
Con Edison	2,813	131	0	0	55	3,202	0	0
Central Hudson	89	0	0	72	27	121	0	0
Corning	133	2	2	2	7	0	0	0
NGrid LI	645	131	6	21	63	194	0	0
NGrid NY	168	0	0	99	29	2,815	0	0
NFG	2,031	0	0	84	127	231	0	19
NGrid Upstate	47	79	0	64	27	517	0	0
NYSEG	96	0	0	39	46	3	0	0
O&R	159	0	0	21	50	25	0	0
RG&E	49	0	0	167	13	14	0	0
St. Lawrence	0	0	0	4	0	0	0	0

Appendix D (Continued)

Total Leak Repairs on Services by Material

LDCs	Unprot. Bare	Unprot. Coated	Prot. Bare	Prot. Coated	Plastic	Cast / Wrought Iron	Copper	Other
Con Edison	2,572	320	0	0	503	0	149	0
Central Hudson	60	0	0	97	33	38	0	0
Corning	95	1	0	0	13	0	0	0
NGrid LI	967	217	30	61	171	0	29	0
NGrid NY	511	0	0	450	265	0	373	0
NFG	622	0	0	56	271	0	0	42
NGrid Upstate	236	208	0	106	250	24	13	0
NYSEG	110	0	0	72	105	0	0	2
O&R	350	0	0	55	152	0	0	0
RG&E	34	0	0	172	58	0	9	0
St. Lawrence	0	0	0	8	4	0	0	0

Appendix E

Backlog of Potentially Hazardous Leaks

LDCs	2010	2011	2012	2013	2014
Con Edison	25	11	10	13	36
Central Hudson	12	15	14	4	6
Corning	8	7	6	2	6
NGrid LI	29	21	25	10	8
NGrid NY	17	6	25	7	24
NFG	73	63	58	57	1
NGrid Upstate	1	3	4	0	5
NYSEG	6	6	0	1	4
O&R	8	8	4	0	0
RG&E	9	6	9	10	18
St. Lawrence	0	0	2	4	0

Appendix E (Continued)

Repaired Potentially Hazardous Leaks

LDCs	2010	2011	2012	2013	2014
Con Edison	5,993	6,032	5,540	5,267	8,283
Central Hudson	141	201	211	273	327
Corning	108	129	66	45	102
NGrid LI	2,170	2,509	2,331	2,050	2,318
NGrid NY	2,378	3,114	2,287	2,839	4,457
NFG	1,340	1,589	1,995	1,747	2,025
NGrid Upstate	1,354	1,164	778	798	1,136
NYSEG	266	477	267	210	274
O&R	480	520	422	406	430
RG&E	430	322	195	292	284
St. Lawrence	4	7	52	4	12

Appendix F

Backlog of Total Leaks

LDCs	2010	2011	2012	2013	2014
Con Edison	1,140	1,203	997	811	740
Central Hudson	196	246	261	201	197
Corning	380	406	320	242	225
NGrid LI	13,977	13,965	13,475	12,433	11,494
NGrid NY	2,961	3,682	4,191	4,475	4,068
NFG	4,328	4,561	4,056	3,575	3,053
NGrid Upstate	1,810	1,735	1,679	1,650	1,552
NYSEG	42	46	20	18	49
O&R	987	886	682	496	330
RG&E	158	88	122	40	68
St. Lawrence	1	1	3	4	0