

STATE OF NEW YORK  
DEPARTMENT OF PUBLIC SERVICE



2012 GAS SAFETY  
PERFORMANCE MEASURES REPORT  
(CASE 13-G-0213)

Safety Section  
Office of Electric, Gas & Water  
May 30, 2013

## EXECUTIVE SUMMARY

The performance measures are the result of collaborative efforts, started in 2003, between Staff and the 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.<sup>1</sup> Overall, the data indicate that LDC performance has substantially improved across the state over the ten year period. The Total Damage Prevention measure improved for the tenth consecutive year, and is now 69% better than it was in 2003. The 30-minute emergency response time has improved from 76.8% in 2003 to 82.7% in 2012, and the year-end leak backlog of potentially hazardous leaks has decreased 86%, from 1,154 to 157. 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 those LDCs identified as having improvement opportunities conduct a self-analysis, and provide it within 45 days with specific details on how they plan to improve performance. A more detailed discussion of the 2012 results for each performance measure follows.

<sup>1</sup> This report examines the results of New York State natural gas local distribution companies' (LDCs) performance in three specific safety areas (Damage Prevention, Emergency Response, and Leak Management) for 2012. The Gas Safety Section has been producing this annual report since 2004 (which reported on 2003 data).

## 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 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 (lack of notification of intent to excavate).

Overall, Damage Prevention performance across the state improved 6.1% during 2012. The number of requests to locate underground gas facilities (one call tickets) received by the LDCs increased nearly 5% in 2012, largely driven by NGrid NY which experienced a 13.9% increase. The company attributes this largely to a tree planting program by the New York City Parks Department in March and April. It also reports that the tickets were up slightly, but not significantly, for November and December, indicating that Hurricane Sandy had minimal effect on the ticket volume.

Three of the four categories composing the Total Damage measure showed continued improvement during 2012, with damages due to Company and Company Contractors remaining level. The greatest improvements came in damages due to No-Calls (8.5%) and Excavator Error (7.1%). Staff attributes these positive results, in part, to continuing public education efforts undertaken by both the LDCs and the One-Call Centers, the 811 three-digit dialing initiative, and the Commission's enforcement process for non-compliance with its regulations intended to protect underground facilities.

Compared to 2011, Con Edison was the only LDC to improve in all of the damage prevention categories, and its

performance was main driver for the statewide improvement. Corning was the only one to decline in all categories. The remaining LDC's experienced varying combinations of improvement and decline among the four categories. Despite slight improvements by NGrid Upstate and NFG, these two LDCs, plus O&R, are pulling down the statewide level. These three LDCs have been identified by the Commission in previous reports as needing to improve performance in the various categories of total damage prevention metric.

### Emergency Response

The second measure, Emergency Response, gauges the ability of LDCs 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% with 60 minutes. Statewide performance for the 30 minutes goal improved while the 45 minutes and 60 minutes goals declined in 2012 compared to 2011. The declines are mainly attributable to the effects of Hurricane Sandy on the fourth quarter performance of NGrid NY and NGrid LI. Despite this setback due to a major weather event, general improvement has occurred over the past ten years. Staff attributes this general improvement to LDCs adopting more efficient work practices, fewer numbers of leak and odor calls, utilization of new technologies such as global positioning 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 placement of existing or additional personnel in certain geographical

areas during the times of day that have historically had 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. The measure focuses on the year-end backlog of leaks requiring repair. The end of the calendar year is regarded as the beginning of the frost season, when there is a greater chance of gas migration into buildings because the gas cannot vent as readily through the ground to the atmosphere due to the blanket of frost. All LDCs have demonstrated improvement over the past several years. The statewide year-end 2012 backlog was up by 11 leaks (7.5%) from year-end 2011 but down 86% compared to 2003. This uptick in the year-end leak backlog was mainly attributable to NGrid NY, which was affected in the fourth quarter by Hurricane Sandy.

### 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 with specific details on how they plan to improve performance. For LDCs that have repeatedly been identified as needing improvement in specific areas (Central Hudson, Con Edison, Corning, NGrid LI, NGrid Upstate, NFG and O&R), Staff recommends they evaluate the effectiveness of their past efforts to determine what additional approaches are needed.

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## COMPANY ACRONYMS

| Company                                               | 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 NY | 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<sup>2</sup>

| 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          |

<sup>2</sup>Previous reports have included historic data since 2003 in appendices to show trends and context. With ten years of data now available, the tables are becoming large and difficult to fit on the pages. Therefore, going forward, the appendices will include the current year under analysis, plus the five 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 effectively 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 utilize to monitor the safe operation and maintenance of distribution systems. They 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 evaluated methods for capturing and tracking appropriate data so it 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 the leading cause of incidents involving buried gas pipelines.

**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.

**Leak Management:** This measure examines LDC performance in effectively maintaining leak inventory levels and keeping potentially hazardous leaks to a minimum.

## PERFORMANCE AND ANALYSIS FOR 2012

Throughout this report, all of the figures display performance results for 2008-2012 for each LDC with the grey columns in the bar graphs representing 2008-2011, and the color columns representing 2012 results. The blue horizontal lines on the bar graphs represent the 2012 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,<sup>3</sup> 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.

<sup>3</sup> New York has two One-call systems, one for New York City and Long Island, and another for the remainder of the State.

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 the analyses are contained in Appendix A. The method used to normalize each LDC's data is the number of facility damages per 1000 one-call tickets.

The numbers of damages are categorized by damages resulting from:

- Mismarks
- Excavator Error
- Company and Company Contractor Error
- "No-calls"

Each one-call ticket received provides an LDC the opportunity to mark its facilities correctly. Hence, the Mismatch measure specifically addresses this by examining damages caused by Mismarks per 1000 tickets.

Once a One-call ticket is requested and the facilities are marked correctly, it provides an excavator the opportunity to work carefully and avoid damages. Damage due to Third Party Excavator Error per 1000 tickets tracks this category. Third Party Excavator Error damages are historically the largest component of Total Damages, partially because it entails the most effort to educate third-party contractors. 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 markouts 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 a gas-electric 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 did not 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 indicate 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 2012, 99.79% of One-call tickets in LDC gas areas had no associated damages to natural gas facilities. This is consistent with the findings reported in the Common Ground

Alliance's (CGA)<sup>4</sup> report 2011 Damage Information Reporting Tool (DIRT) which states, "...data suggests that when a call is made prior to excavation, damage occurs less than 1% of the time."

There were a total of 1,551 damages to natural gas LDC facilities in 2012, only 20 less than in 2011. However, when these damages are normalized with the increase of 5,974 One-call tickets (5.0%) during 2012, the result is an improvement (6.1%) in Total Damages per 1000 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 1740 citations have been issued leading to over \$745,000 in fines collected.

**Figure #1** below displays the collective statewide performance regarding the damage prevention measures. Note the significant increase in the number of tickets over the period. Also take note of the significant improvement in the Total Damages measure.

<sup>4</sup> 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.

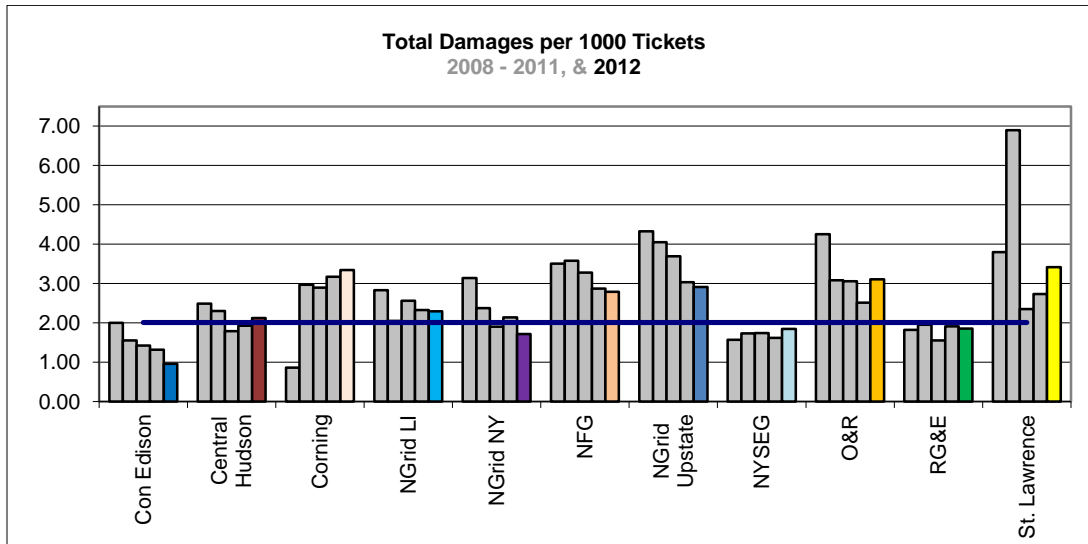
| Metric               | 2008    | 2009    | 2010    | 2011    | 2012    |
|----------------------|---------|---------|---------|---------|---------|
| # Tickets            | 722,903 | 719,475 | 729,067 | 735,041 | 771,749 |
| Mismarks             | 0.53    | 0.54    | 0.50    | 0.45    | 0.44    |
| Co. & Co. Contractor | 0.13    | 0.11    | 0.10    | 0.10    | 0.10    |
| Excavator Error      | 1.40    | 1.27    | 1.18    | 1.12    | 1.04    |
| No-Calls             | 0.74    | 0.54    | 0.50    | 0.47    | 0.43    |
| Total (per 1000)     | 2.80    | 2.46    | 2.29    | 2.14    | 2.01    |

**Figure #1** - Damages per 1000 Tickets Statewide

All four metrics composing the Total Damage measure improved or remained constant during 2012.<sup>5</sup> The greatest improvement in 2012 came in damages due to No-Calls (8.5%) followed by damages due to Excavator Error (7.1%). Damages due to Mismarks improved slightly (2.2%), and Company and Company Contractor damages remained level. It is encouraging to see that LDCs have collectively maintained, and continue to improve, performance over the past several years. The total number of tickets increased approximately 5% during 2012. NGrid NY experienced a 13.9% increase, which it attributes mainly to a tree planting program by the New York City Parks Department in March and April. All LDCs experienced an increase in tickets except NFG. Each LDC's actual number of tickets received, and individual annual performance in each area of damage prevention is located in Appendix A.

LDC performance in Total Damages and Third Party Excavator Error damages is displayed in **Figure #2** and **Figure #3** below.

<sup>5</sup> The Total Damage performance may not equal the sum of the four metrics due to rounding.



**Figure #2** - Total Damages per 1000 Tickets Statewide

As seen in **Figure #2**, six LDCs improved and five LDC's declined in 2012. Among those improving, NGrid NY made the most significant gain (26.3%), driven mainly by improvements in Excavator Error damages. In the 2011 report, NFG and NGrid Upstate were identified as outliers in the Total Damage performance measure despite slight improvements. Both of these LDCs made slight improvements again in 2012, but remain worse than the statewide level.

Last year's report noted that Corning experienced a difficult year in 2011 with a level of damages not reached since 2007. Its deterioration in 2011 was driven by a 144% increase in Excavator Error damages. In 2012 those damages were 15.3% better than 2011, but still significantly higher than any year since 2007. In 2011 Corning experienced zero damages due to Mismarks and Company and Company Contractors, but one apiece in 2012.

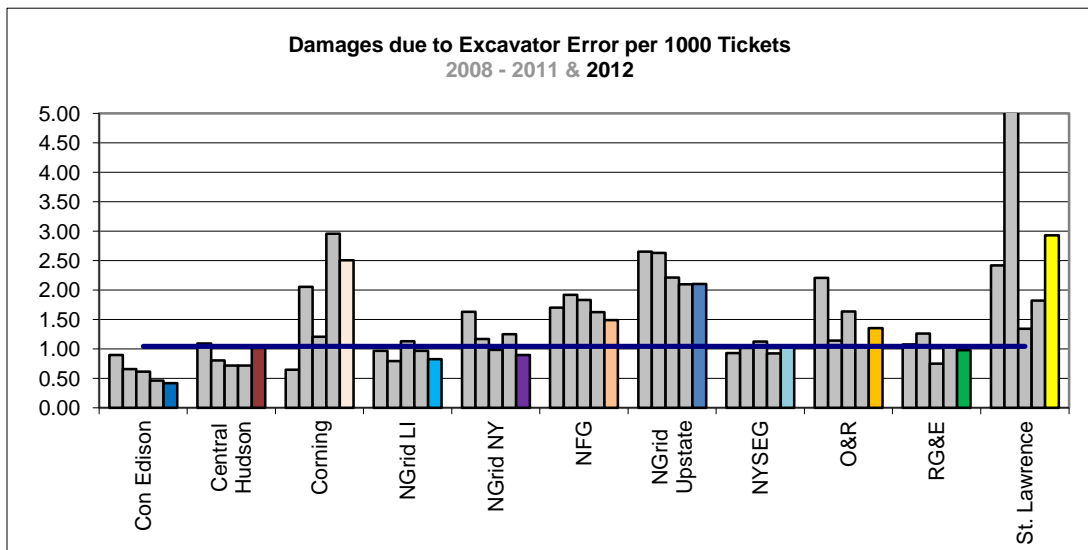
St. Lawrence also experienced a significant increase in damages due to Excavator Error (60.8%

normalized, doubled (6 to 12) in raw numbers), which contributed to its Total Damages metric declining by 25.1%.

O&R improved in Company and Company Contractor Damages, which was identified as an area of concern in last year's report. However, it declined in the other three categories.

Due to Corning's and St. Lawrence's relatively low volume of One-call tickets, and the fact that the number of damages in the four categories are typically in the single digits or even zero, small swings in the number of damages year-to-year have a magnified impact on performance compared to other LDCs. Although O&R is larger than Corning and St. Lawrence, it is still relatively small compared to the remaining LDC's.

LDC performance in damages due to Third Party Excavator Error is displayed in **Figure #3** below:



**Figure #3** - Excavator Error Damages per 1000 Tickets Statewide

In last year's report, Corning, NFG and NGrid Upstate were identified as poor performers. In 2012

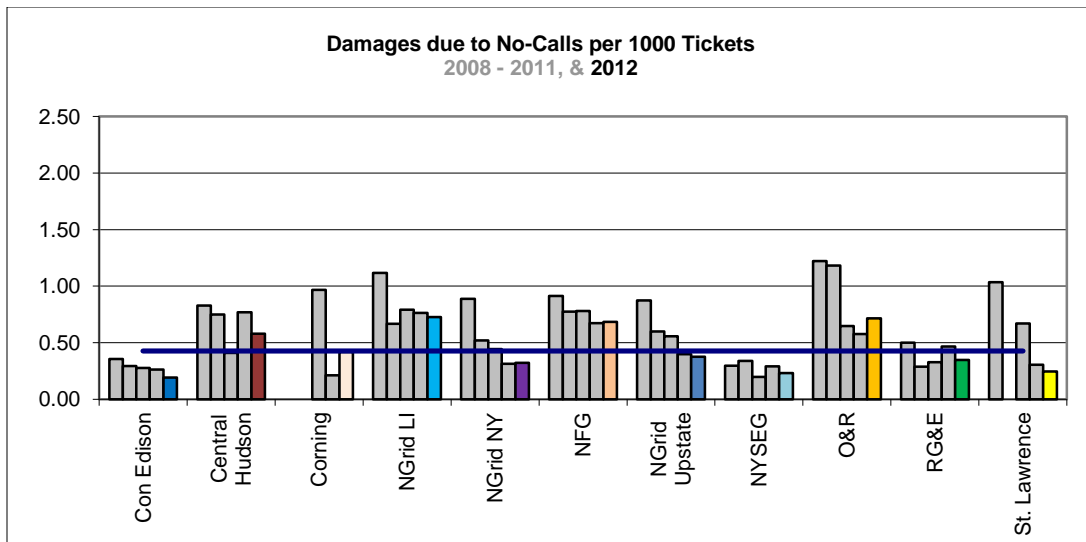


Corning (2 less in raw numbers) and NFG improved slightly, while NGrid Upstate remained virtually level (worse by 0.3%). In actual numbers, St. Lawrence went from 6 in 2011 to 12 in 2012, and O&R went from 25 to 34. St. Lawrence's performance is of concern because it is the second consecutive year of significant deterioration.

The overall statewide improvement in this metric was driven by improvements by several large LDC's: Con Edison, NGrid LI and NGrid NY. Even though their gains appear small on the bar graph, they greatly influence the statewide level due to their size.

NFG and NGrid Upstate continue to remain outliers in this category and their performance is significantly worse than the statewide level. These two LDCs have been identified in several reports as needing improvement in this area. NFG and NGrid Upstate need to reduce these types of damages and make additional efforts to reach out to the excavating community.

It is recommended that Corning, NFG, NGrid Upstate, O&R and St. Lawrence perform an analysis of their damage prevention programs and outreach efforts to identify methods to further reduce these damages.



**Figure #4** - *No-call Damages per 1000 Tickets Statewide*

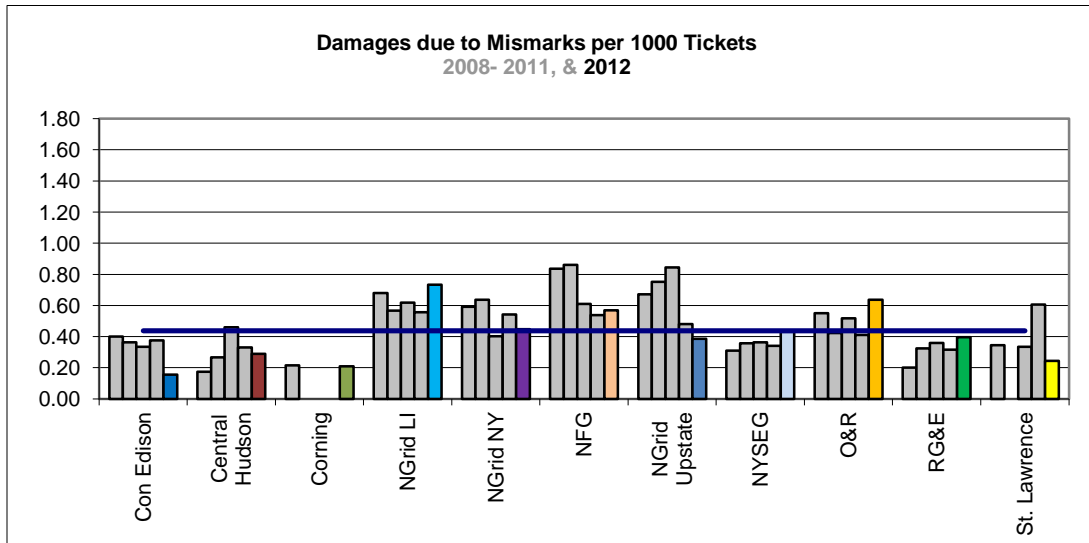
In last year's report, Central Hudson, NGrid LI and NFG were identified as poor performers. In 2012 Central Hudson improved by 24.7%, NGrid LI improved by 5.1%, and NFG declined slightly (1.6%). NFG's decline was due to a reduction in One-Call tickets. Its actual number of No-Call damages remained the same (60). In raw numbers, Corning went from 1 to 2, and O&R from 14 to 18. Similar to Excavator Error above, the overall statewide improvement (8.5%) was driven by gains by the larger LDC's: Con Edison, NGrid Upstate, NYSEG and RG&E. Even though it remains significantly worse than the statewide level, NGrid LI also contributed to the statewide improvement.

It is recommended that NGrid LI, NFG and O&R perform an analysis of their damage prevention programs, targeting damages due to No-calls, and to identify efforts to further improve in this area. Each has been identified in previous years as needing improvement in this area. Their analyses this year should include a review of the effectiveness of previous efforts and consideration of new approaches.

The continued statewide improvement for No-call damages indicates that more excavators are becoming aware of their obligation to utilize the One-call system. Likely key contributors are; the three digit 811 dialing program, enforcement action for violations of 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 LDCs to forward information about contractors who damaged underground facilities without having markout requests. Staff evaluates the details of each damage and pertinent information regarding the excavator, and takes enforcement actions where appropriate. This enforcement effort is a deterrent to non-compliance. Where appropriate, enforcement cases are resolved by a "Consent Order" agreement where the financial penalty is reduced if the excavator attends free Dig Safely training provided by One-call centers.

In March of 2012 the penalties for violations of 16 NYCRR Part 753 were increased. It will be interesting to see how this affects future performance.



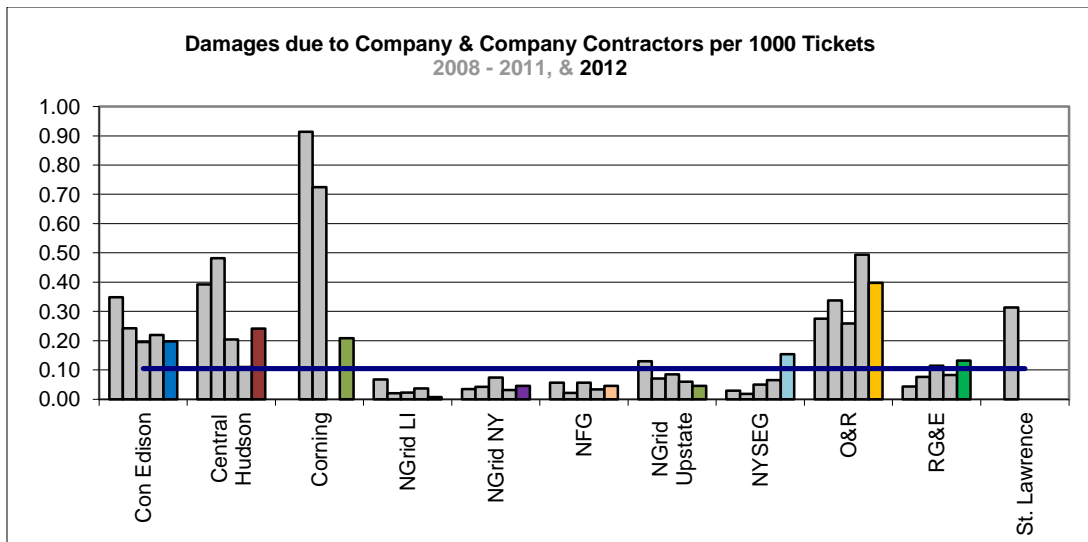
**Figure #5** - Mismark Damages per 1000 Tickets Statewide

NGrid LI, NGrid NY and NFG were identified as poor performers in last year's report. In 2012 NGrid NY improved, while NGrid LI did significantly poorer (31.7%), and NFG somewhat poorer (5.8%). NGrid LI informed Staff that earlier this year it replaced its utility locating vendor, and its performance has improved so far in 2012. For the first quarter of 2013 its Mismark metric was at 0.35 versus 0.73 at the end of 2012.

In terms of raw numbers for the small companies, Corning went from 0 to 1, and St. Lawrence went from 2 to 1. O&R went from 10 to 16, with 8 of those in the fourth quarter. O&R was also affected by Hurricane Sandy, and also provided mutual aid crews to more severely affected LDC's which may have contributed to its fourth quarter decline.

The overall statewide improvement for this category was modest (2.2%), and driven mainly by Con Edison's 58.6% improvement.

Staff expects to see general improvement in this area as LDCs continually adopt best practices to locate their facilities and develop better controls over their locating contractors. NGrid LI, NFG and O&R are recommended to evaluate their locating programs and adopt methods that could further improve markout accuracy.



**Figure #6** - *Company & Company Contractor Damages per 1000 Tickets Statewide*

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 category has remained level. 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 times these damages are to facilities they are in the process of replacing anyway, and when damage occurs their own crews and contractors are better prepared than third-party contractors to promptly control the situation and make repairs. While true, Staff believes the LDC's should not minimize this category of damages.

They still have the potential to harm nearby members of the public. The Commission, Department, and LDC's should also be just as committed to preventing harm to LDC employees and contractors. All of the four categories of damages have the potential to lead to service outages, and other disruptions such as road closures and evacuations.

For the second consecutive year this measure did not change at the statewide level, although there were some fluctuations among the LDCs. As noted above, this category has the lowest raw number of damages and is the smallest contributor to the total statewide damage measure. Also note that the vertical scale on Figure #6 makes the year-to-year changes appear more dramatic than they would in Figures 2 through 5. This also further exaggerates the changes of the small LDC's. For example, Corning went from 0 to 1, which was enough to put it over the statewide level. Central Hudson went from 2 to 5, and O&R went from 12 to 10. St. Lawrence had 1 in 2009 and none since.

Central Hudson was identified as a poor performer in this area in the 2008, 2009 and 2010 reports. In addition, every year since 2009, Con Edison and O&R have been identified as poor performers. Despite improvements in 2012, Con Ed and O&R both remain poorer than the statewide level. It is recommended that Central Hudson, Con Edison and O&R review their efforts in identifying problem areas and adopt additional best practices when excavating around their own facilities.

It's been noted several times how the small LDC's can have dramatic swings year to year. This year's analysis suggests that even the large LDC's can have large swings in performance. As the actual numbers of damages get smaller, the swings become larger in percentage terms. For example,

in damages due to Mismarks Con Edison improved by 58.6% and NGrid LI declined by 31.7%. For comparison, in 2004-2005 NGrid Upstate went from 6.77 to 8.15 in Total Damages. This difference of 1.38 equaled 20%. In 2011-2012 NGrid LI improved 20% in Total Damages, but it went from 2.14 to 1.71, a difference of 0.43.

It is worth taking stock of the improvements made since the first year's report.

| <b>Metric</b>        | <b>2003</b> | <b>2012</b> |
|----------------------|-------------|-------------|
| # Tickets            | 481,179     | 771,749     |
| Mismarks             | 1.14        | 0.44        |
| Co. & Co. Contractor | 0.27        | 0.10        |
| Excavator Error      | 3.28        | 1.04        |
| No-Calls             | 1.84        | 0.43        |
| Total (per 1000)     | 6.53        | 2.01        |

### 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.<sup>6</sup>

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 dispatcher to the time of arrival of qualified<sup>7</sup> company personnel at the location.

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

<sup>6</sup> The LDCs are expected to review the circumstances of each instance exceeding 60 minutes and where possible work towards their elimination.

<sup>7</sup> *Qualified personnel* is 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.



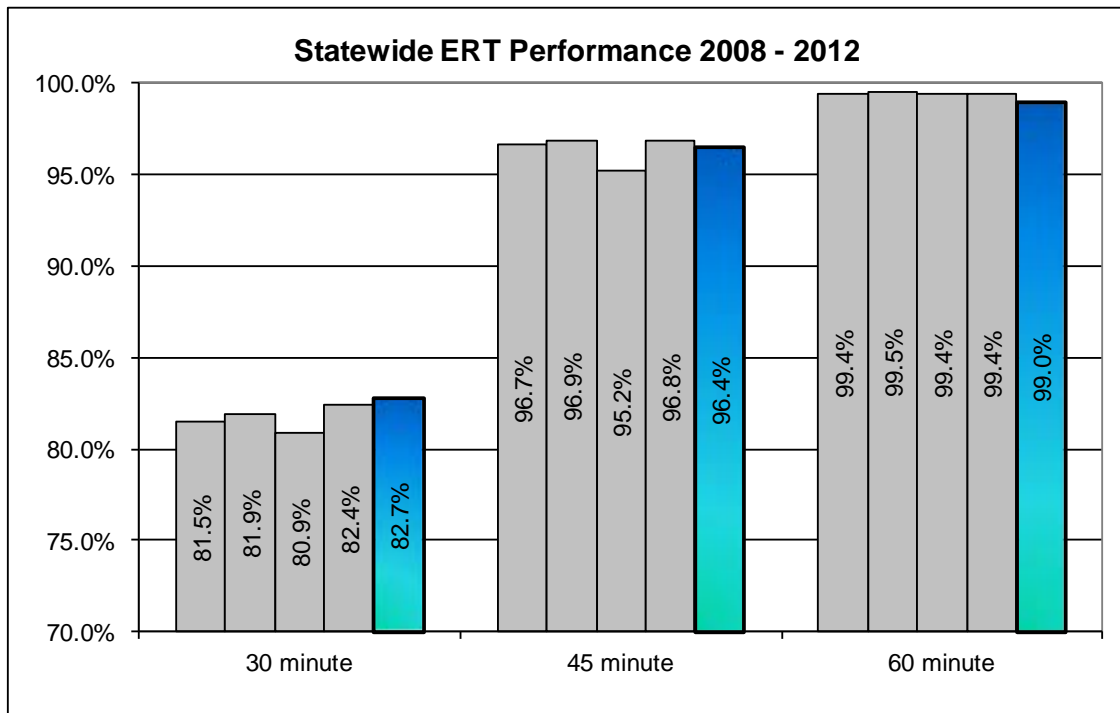
reported data. This is because LDCs must respond as if it is an actual gas emergency until proven otherwise.

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

### 2012 Results and Analysis

**Figure #7** displays the collective annual statewide Emergency Response Time (ERT) performance for each goal since 2008, with 2012 performance presented in color. In 2012 the 30 minutes response goal was the best statewide performance level achieved since data has been collected. The 45 minutes and 60 minutes goals declined during 2012, mainly due to the impact of Hurricane Sandy. However, on a statewide level, performances in all three categories still exceed the goals.

After some issues with NGrid NY not meeting the 30-minute target from 2003 to 2007, 2011 marked the fourth consecutive year that all of the LDCs met the 30-minute goal. This was not the case in 2012, with NGrid LI and St. Lawrence not meeting the 30 minute goal.



**Figure #7** - Statewide ERT Performance for All Goals

**Figure #8** presents data for calendar years 2008 through 2012 arranged by LDC and percentage of responses achieved within 30 minutes. Performances that did not meet the goal are shown in red.

|                | 30 Minute |       |       |       |       |
|----------------|-----------|-------|-------|-------|-------|
|                | 2008      | 2009  | 2010  | 2011  | 2012  |
| Central Hudson | 82.5%     | 81.6% | 80.0% | 78.3% | 79.7% |
| Coning         | 79.3%     | 81.0% | 83.1% | 83.8% | 88.0% |
| Con Edison     | 80.8%     | 80.8% | 81.8% | 83.5% | 87.6% |
| NGrid LI       | 76.5%     | 76.5% | 76.0% | 77.3% | 73.8% |
| NGrid NY       | 77.0%     | 77.2% | 78.2% | 77.1% | 76.0% |
| NFG            | 88.7%     | 89.8% | 91.8% | 91.8% | 91.6% |
| NGrid Upstate  | 82.3%     | 84.0% | 82.9% | 82.5% | 84.1% |
| NYSEG          | 79.9%     | 81.9% | 80.2% | 82.3% | 80.4% |
| O&R            | 80.7%     | 81.0% | 82.8% | 83.4% | 87.5% |
| RG&E           | 92.3%     | 92.4% | 90.8% | 90.3% | 88.9% |
| St. Lawrence   | 80.2%     | 82.7% | 77.9% | 75.5% | 74.5% |

**Figure #8** - Response Times for 30-Minute Goal

NGrid LI and St. Lawrence failed to meet the 75% within 30-minutes goal. NGrid LI's performance in the fourth quarter was affected by Hurricane Sandy, which pulled it down to 73.8% within 30 minutes. In fact, if the data for day of the storm and the next day were excluded, NGrid LI's performance would have been 75.3% for the year. Following the storm it received a significant increase in calls that were not actually natural-gas related, but due to odors from raw sewage or fuel oil. In addition, driving conditions within the territory were difficult, and its crews were stretched thin by the restoration efforts. NGrid NY's fourth quarter performance was also affected by Sandy. It was under 75% within 30 minutes for the quarter, but when merged with the three other quarters it met the goal for the year. NGrid NY and NGrid LI's performance across all the response times suffered in the fourth quarter, and they both had large increases in responses over 60 minutes. Grid LI missed that target (95%) for the fourth quarter but met it for the year. NGrid NY met it for both the fourth quarter and the year. For the first quarter of 2013 NGrid NY and NGrid LI were back above 75% within 30 minutes (79% and 80% respectively), and the number of responses over 60 minutes have returned to normal levels.

St. Lawrence was also pulled down by a poor fourth quarter performance (66%) in the 30-minute response time. Although at 91% it met the 90% goal for 45 minutes, it was at 96% or better through the first three quarters. St. Lawrence was also under 75% within 30 minutes in the first quarter of 2013. The company believes the decline may be due to more non-business hour calls, when it has fewer responders on duty. The company acknowledges that

its performance is an issue, will perform an analysis and make adjustments to its staffing levels or take other measures to improve.

All LDCs met the 45-minute and 60-minute goals. The data for the 45-minute and 60-minute targets are provided in Appendix B.

Over the ten years of the collected data, leak and odor calls statewide have decreased from 227,905 in 2003, to 159,386 in 2012, or a 30.1% decrease over the period. Part of the decline in calls may be attributed to the reduction of leak backlogs, which will be discussed further under 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.

It is recommended that St. Lawrence perform a self-analysis of its performance in this area and respond with steps to improve.

### **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, and reducing the backlog of potentially hazardous leaks at the end of the year. The natural gas safety regulations contained in 16 NYCRR Part 255 include requirements for classifying leaks according to the 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.

Unrepaired potentially hazardous leaks are an increased safety risk in LDCs' systems. The risk is further increased when there is frost in the ground due to the increased chance of gas migration into buildings, because the gas cannot vent through the ground to the atmosphere as readily due to the blanket of frost. Although a leak backlog on any particular day is a snapshot in time, the end of a calendar year is significant since it is typically 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 used in analyses are contained in Appendix C). The leak management measure looks at the year-end backlog of potentially hazardous leaks. This measure does not substitute for, and is not a reflection upon any LDCs' compliance with the gas safety regulations.

The data reported by the LDCs includes leaks found, and leaks repaired on mains and services categorized by:

- Leaks discovered by type of leak
- Leaks repaired on mains by type and pipe material
- Leaks repaired on services by type and pipe material
- Backlog of leaks by type

Analysis of leakage data can also provide an indication of the pipe material's susceptibility to leakage. As one means of continuously improving leak management programs, Staff encourages the identification

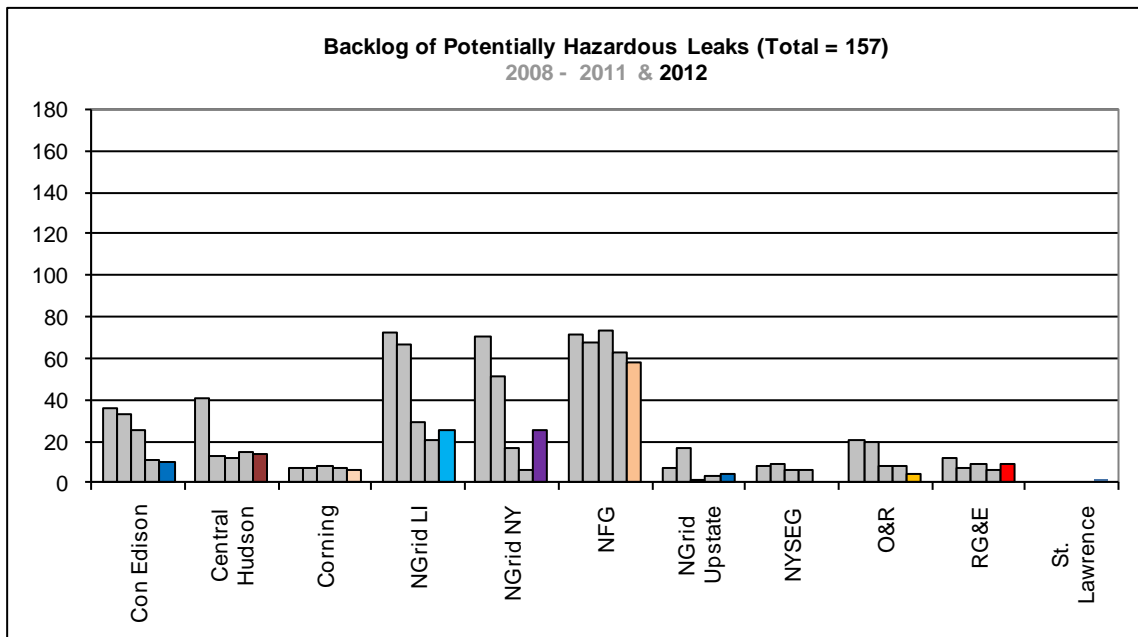
and removal of leak-prone pipe, such as cast iron and bare or poorly coated steel pipe that is difficult to protect against corrosion. Incentive programs to replace deteriorating and leak-prone infrastructure and/or reducing leak backlogs have been incorporated into past and current rate agreements for LDCs. The 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 over time. During 2013 the LDCs across the state collectively plan to remove over 340 miles of leak-prone main.

#### 2012 Results and Analysis

The statewide year-end backlog of potentially hazardous leaks increased slightly from 146 in 2011 to 157 in 2012, but is still down approximately 86% when compared to 1154 in 2003. This demonstrates that LDCs are paying more attention to managing leak surveys and completing them earlier in the year to allow for time to repair discovered leaks before heading into the frost season.

**Figure #9** displays the backlog of potentially hazardous leaks (Types 1, 2A, and 2)<sup>8</sup> on December 31<sup>st</sup> of 2008 through 2012. Numerical leak data is contained in Appendix D.

<sup>8</sup>A backlog of leaks requiring repair is defined as active leaks in the system, consisting of Type 1 - requires 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 at least every two months and repaired within one year.



**Figure #9** - Leak Backlog 2008 - 2012

As indicated in **Figure #9**, St. Lawrence's streak of maintaining a year-end backlog of zero came to an end, finishing 2012 with two. Seven of the LDC's (including St. Lawrence) ended 2012 within four leaks, plus or minus, of where they finished 2011. NYSEG went from six to zero.

NGrid NY experienced the most significant change compared to 2011, going from 6 to 25, which is still a substantial improvement compared to its peak of 197 in 2004. Hurricane Sandy contributed to its decline at the end of 2012, with crews that would have been performing leak repairs occupied instead with storm restoration efforts.

In four of the past five years NFG has been identified as a significant outlier. It ended 2012 with 5 fewer leaks (63 to 58) compared to 2011. It repaired 406 more of these types of leaks in 2012 compared to 2011. However, it continues to be a significant outlier and apparently has not taken the initiative to drive down these

potentially hazardous leaks prior to the onset of the frost season. In past responses NFG has pointed out that a high percentage of its year-end leaks are on pipe scheduled for replacement in the near future. It also has the largest distribution system in the state, and its leaks-per-mile rate is lower than the statewide average. It believes that the best way to lower the risk associated with leaks is to minimize the potential for future leaks through targeted pipeline replacement. While these may be valid arguments, the other LDC's in the state are in similar positions with leak-prone pipe and still strive to enter the frost season with a low backlog of potentially hazardous leaks. Staff believes entering the frost season with the lowest possible backlog is the best approach to minimizing the risk to the public. It is recommended NFG respond to this report outlining efforts it will make to lower its year-end leak backlog.



## CONCLUSION

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

Over the past ten years LDCs have collectively worked to improve performance in the key areas of safety identified in this report. There has been a 69% improvement in total damage performance, the 30-minute emergency response time has improved from 76.8% to 82.7%, and the year-end leak backlog of potentially hazardous leaks has decreased 86%, from 1,154 to 157. 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 to provide the Safety Section of the Office of Electric, Gas and Water with specific details on how they plan to improve. It is recommended that those LDCs evaluate their current and past practices, as well as reach out to other LDCs that experience higher performance levels to determine what incremental, and if necessary, entirely new approaches to pursue in order to realize improvement. It is further

encouraged that those LDCs that were able to make significant improvements respond to this report and share best practices which enabled them to obtain such improvement. Staff will continue to meet with LDCs on a regular basis and monitor LDC performance. Performance trends are discussed with LDCs at those meetings and will be analyzed in future performance measure reports.

## 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. With the exception of St. Lawrence, the LDC's listed below have been identified in recent previous reports as needing improvements in the same performance metrics. The identified LDCs should take into consideration the analyses and recommendations in this report, the effectiveness of efforts made in response to previous performance measures reports, and respond with improved action plans identifying their self-assessment and outlining incremental efforts on how they will improve performance in the future

- Mismatch damages - NGrid LI, NFG, and O&R
- No-call damages - NGrid LI, NFG, and O&R
- Company & Company Contractor damages - Central Hudson, Con Edison and O&R
- Excavator Error damages - Corning, NFG, NGrid Upstate, O&R, and St. Lawrence
- Emergency Response Time - St. Lawrence
- Leak Management - NFG

## Appendix A

### Reported & Computed LDC Damage Performance

| 2012 LDC<br>Reported Totals | # One Call Tickets |         |         |         |         |
|-----------------------------|--------------------|---------|---------|---------|---------|
|                             | 2008               | 2009    | 2010    | 2011    | 2012    |
| Con Edison                  | 132,175            | 140,170 | 158,596 | 159,355 | 166,749 |
| Central Hudson              | 22,931             | 18,670  | 19,568  | 18,206  | 20,714  |
| Corning                     | 4,644              | 4,380   | 4,143   | 4,735   | 4,794   |
| NGrid LI                    | 119,216            | 149,860 | 132,813 | 134,852 | 139,274 |
| NGrid NY                    | 87,895             | 94,117  | 94,573  | 95,974  | 109,298 |
| NFG                         | 105,292            | 91,786  | 88,512  | 89,292  | 87,916  |
| NGrid Upstate               | 84,857             | 85,165  | 82,850  | 83,091  | 88,109  |
| NYSEG                       | 67,772             | 56,134  | 60,469  | 61,757  | 65,086  |
| O&R                         | 25,389             | 23,690  | 23,225  | 24,315  | 25,130  |
| RG&E                        | 69,836             | 52,313  | 61,332  | 60,168  | 60,579  |
| St. Lawrence                | 2,896              | 3,190   | 2,986   | 3,296   | 4,100   |

| 2012 LDC<br>Reported Totals | Damages due to Mismarks |      |      |      |      |
|-----------------------------|-------------------------|------|------|------|------|
|                             | 2008                    | 2009 | 2010 | 2011 | 2012 |
| Con Edison                  | 53                      | 51   | 53   | 60   | 26   |
| Central Hudson              | 4                       | 5    | 9    | 6    | 6    |
| Corning                     | 1                       | 0    | 0    | 0    | 1    |
| NGrid LI                    | 81                      | 85   | 82   | 75   | 102  |
| NGrid NY                    | 52                      | 60   | 38   | 52   | 49   |
| NFG                         | 88                      | 79   | 54   | 48   | 50   |
| NGrid Upstate               | 57                      | 64   | 70   | 40   | 34   |
| NYSEG                       | 21                      | 20   | 22   | 21   | 28   |
| O&R                         | 14                      | 10   | 12   | 10   | 16   |
| RG&E                        | 14                      | 17   | 22   | 19   | 24   |
| St. Lawrence                | 1                       | 0    | 1    | 2    | 1    |

| 2012 LDC<br>Computed<br>Performance | Damages due to Mismarks (per 1000 Tickets) |      |      |      |      |
|-------------------------------------|--------------------------------------------|------|------|------|------|
|                                     | 2008                                       | 2009 | 2010 | 2011 | 2012 |
| Con Edison                          | 0.40                                       | 0.36 | 0.33 | 0.38 | 0.16 |
| Central Hudson                      | 0.17                                       | 0.27 | 0.46 | 0.33 | 0.29 |
| Corning                             | 0.22                                       | 0.00 | 0.00 | 0.00 | 0.21 |
| NGrid LI                            | 0.68                                       | 0.57 | 0.62 | 0.56 | 0.73 |
| NGrid NY                            | 0.59                                       | 0.64 | 0.40 | 0.54 | 0.45 |
| NFG                                 | 0.84                                       | 0.86 | 0.61 | 0.54 | 0.57 |
| NGrid Upstate                       | 0.67                                       | 0.75 | 0.84 | 0.48 | 0.39 |
| NYSEG                               | 0.31                                       | 0.36 | 0.36 | 0.34 | 0.43 |
| O&R                                 | 0.55                                       | 0.42 | 0.52 | 0.41 | 0.64 |
| RG&E                                | 0.20                                       | 0.32 | 0.36 | 0.32 | 0.40 |
| St. Lawrence                        | 0.35                                       | 0.00 | 0.33 | 0.61 | 0.24 |

| 2012 LDC Reported Totals | No-Call Damages |      |      |      |      |
|--------------------------|-----------------|------|------|------|------|
|                          | 2008            | 2009 | 2010 | 2011 | 2012 |
| Con Edison               | 47              | 41   | 44   | 42   | 32   |
| Central Hudson           | 19              | 14   | 8    | 14   | 12   |
| Coning                   | 0               | 0    | 4    | 1    | 2    |
| NGrid LI                 | 133             | 100  | 105  | 103  | 101  |
| NGrid NY                 | 78              | 49   | 42   | 30   | 35   |
| NFG                      | 96              | 71   | 69   | 60   | 60   |
| NGrid Upstate            | 74              | 51   | 46   | 33   | 33   |
| NYSEG                    | 20              | 19   | 12   | 18   | 15   |
| O&R                      | 31              | 28   | 15   | 14   | 18   |
| RG&E                     | 35              | 15   | 20   | 28   | 21   |
| St. Lawrence             | 3               | 0    | 2    | 1    | 1    |

| Co. & Co. Contractor Damages |      |      |      |      |
|------------------------------|------|------|------|------|
| 2008                         | 2009 | 2010 | 2011 | 2012 |
| 46                           | 34   | 31   | 35   | 33   |
| 9                            | 9    | 4    | 2    | 5    |
| 0                            | 4    | 3    | 0    | 1    |
| 8                            | 3    | 3    | 5    | 1    |
| 3                            | 4    | 7    | 3    | 5    |
| 6                            | 2    | 5    | 3    | 4    |
| 11                           | 6    | 7    | 5    | 4    |
| 2                            | 1    | 3    | 4    | 10   |
| 7                            | 8    | 6    | 12   | 10   |
| 3                            | 4    | 7    | 5    | 8    |
| 0                            | 1    | 0    | 0    | 0    |

| 2012 LDC Computed Performance | Excavator Error Damages (per 1000 Tickets) |      |      |      |      |
|-------------------------------|--------------------------------------------|------|------|------|------|
|                               | 2008                                       | 2009 | 2010 | 2011 | 2012 |
| Con Edison                    | 0.89                                       | 0.66 | 0.61 | 0.46 | 0.41 |
| Central Hudson                | 1.09                                       | 0.80 | 0.72 | 0.71 | 1.01 |
| Coning                        | 0.65                                       | 2.05 | 1.21 | 2.96 | 2.50 |
| NGrid LI                      | 0.96                                       | 0.79 | 1.13 | 0.96 | 0.83 |
| NGrid NY                      | 1.63                                       | 1.17 | 0.98 | 1.25 | 0.90 |
| NFG                           | 1.70                                       | 1.92 | 1.83 | 1.62 | 1.49 |
| NGrid Upstate                 | 2.65                                       | 2.63 | 2.21 | 2.09 | 2.10 |
| NYSEG                         | 0.93                                       | 1.02 | 1.12 | 0.92 | 1.03 |
| O&R                           | 2.21                                       | 1.14 | 1.64 | 1.03 | 1.35 |
| RG&E                          | 1.07                                       | 1.26 | 0.75 | 1.05 | 0.97 |
| St. Lawrence                  | 2.42                                       | 6.58 | 1.34 | 1.82 | 2.93 |

| Total Damages (per 1000 Tickets) |      |      |      |      |
|----------------------------------|------|------|------|------|
| 2008                             | 2009 | 2010 | 2011 | 2012 |
| 2.00                             | 1.56 | 1.42 | 1.32 | 0.96 |
| 2.49                             | 2.30 | 1.79 | 1.92 | 2.12 |
| 0.86                             | 2.97 | 2.90 | 3.17 | 3.34 |
| 2.83                             | 2.05 | 2.56 | 2.32 | 2.29 |
| 3.14                             | 2.37 | 1.90 | 2.14 | 1.71 |
| 3.50                             | 3.57 | 3.28 | 2.87 | 2.79 |
| 4.32                             | 4.05 | 3.69 | 3.03 | 2.91 |
| 1.56                             | 1.73 | 1.74 | 1.62 | 1.84 |
| 4.25                             | 3.08 | 3.06 | 2.51 | 3.10 |
| 1.82                             | 1.95 | 1.55 | 1.91 | 1.85 |
| 3.80                             | 6.90 | 2.34 | 2.73 | 3.41 |

| 2012 LDC<br>Reported Totals | Excavator Error Damages |      |      |      |      |
|-----------------------------|-------------------------|------|------|------|------|
|                             | 2008                    | 2009 | 2010 | 2011 | 2012 |
| Con Edison                  | 118                     | 92   | 97   | 73   | 69   |
| Central Hudson              | 25                      | 15   | 14   | 13   | 21   |
| Conring                     | 3                       | 9    | 5    | 14   | 12   |
| NGrid LI                    | 115                     | 119  | 150  | 130  | 115  |
| NGrid NY                    | 143                     | 110  | 93   | 120  | 98   |
| NFG                         | 179                     | 176  | 162  | 145  | 131  |
| NGrid Upstate               | 225                     | 224  | 183  | 174  | 185  |
| NYSEG                       | 63                      | 57   | 68   | 57   | 67   |
| O&R                         | 56                      | 27   | 38   | 25   | 34   |
| RG&E                        | 75                      | 66   | 46   | 63   | 59   |
| St. Lawrence                | 7                       | 21   | 4    | 6    | 12   |

| Total Damages |      |      |      |      |
|---------------|------|------|------|------|
| 2008          | 2009 | 2010 | 2011 | 2012 |
| 264           | 218  | 225  | 210  | 160  |
| 57            | 43   | 35   | 35   | 44   |
| 4             | 13   | 12   | 15   | 16   |
| 337           | 307  | 340  | 313  | 319  |
| 276           | 223  | 180  | 205  | 187  |
| 369           | 328  | 290  | 256  | 245  |
| 367           | 345  | 306  | 252  | 256  |
| 106           | 97   | 105  | 100  | 120  |
| 108           | 73   | 71   | 61   | 78   |
| 127           | 102  | 95   | 115  | 112  |
| 11            | 22   | 7    | 9    | 14   |

| 2012 LDC<br>Computed<br>Performance | Excavator Error Damages (per 1000 Tickets) |      |      |      |      |
|-------------------------------------|--------------------------------------------|------|------|------|------|
|                                     | 2008                                       | 2009 | 2010 | 2011 | 2012 |
| Con Edison                          | 0.89                                       | 0.66 | 0.61 | 0.46 | 0.41 |
| Central Hudson                      | 1.09                                       | 0.80 | 0.72 | 0.71 | 1.01 |
| Conring                             | 0.65                                       | 2.05 | 1.21 | 2.96 | 2.50 |
| NGrid LI                            | 0.96                                       | 0.79 | 1.13 | 0.96 | 0.83 |
| NGrid NY                            | 1.63                                       | 1.17 | 0.98 | 1.25 | 0.90 |
| NFG                                 | 1.70                                       | 1.92 | 1.83 | 1.62 | 1.49 |
| NGrid Upstate                       | 2.65                                       | 2.63 | 2.21 | 2.09 | 2.10 |
| NYSEG                               | 0.93                                       | 1.02 | 1.12 | 0.92 | 1.03 |
| O&R                                 | 2.21                                       | 1.14 | 1.64 | 1.03 | 1.35 |
| RG&E                                | 1.07                                       | 1.26 | 0.75 | 1.05 | 0.97 |
| St. Lawrence                        | 2.42                                       | 6.58 | 1.34 | 1.82 | 2.93 |

| Total Damages (per 1000 Tickets) |      |      |      |      |
|----------------------------------|------|------|------|------|
| 2008                             | 2009 | 2010 | 2011 | 2012 |
| 2.00                             | 1.56 | 1.42 | 1.32 | 0.96 |
| 2.49                             | 2.30 | 1.79 | 1.92 | 2.12 |
| 0.86                             | 2.97 | 2.90 | 3.17 | 3.34 |
| 2.83                             | 2.05 | 2.56 | 2.32 | 2.29 |
| 3.14                             | 2.37 | 1.90 | 2.14 | 1.71 |
| 3.50                             | 3.57 | 3.28 | 2.87 | 2.79 |
| 4.32                             | 4.05 | 3.69 | 3.03 | 2.91 |
| 1.56                             | 1.73 | 1.74 | 1.62 | 1.84 |
| 4.25                             | 3.08 | 3.06 | 2.51 | 3.10 |
| 1.82                             | 1.95 | 1.55 | 1.91 | 1.85 |
| 3.80                             | 6.90 | 2.34 | 2.73 | 3.41 |

## Individual LDC Damage Performance

| Con Edison                   | 2008    | 2009    | 2010    | 2011    | 2012    | 2012 Statewide |
|------------------------------|---------|---------|---------|---------|---------|----------------|
| Tickets                      | 132,175 | 140,170 | 158,596 | 159,355 | 166,749 | 771,749        |
| Damages/1000 tickets Due to: |         |         |         |         |         |                |
| Mismarks                     | 0.40    | 0.36    | 0.33    | 0.38    | 0.16    | 0.44           |
| No-Calls                     | 0.36    | 0.29    | 0.28    | 0.26    | 0.19    | 0.43           |
| Co. & Co. Contractor         | 0.35    | 0.24    | 0.20    | 0.22    | 0.20    | 0.10           |
| Excavator Error              | 0.89    | 0.66    | 0.61    | 0.46    | 0.41    | 1.04           |
| Total                        | 2.00    | 1.56    | 1.42    | 1.32    | 0.96    | 2.01           |

| Central Hudson               | 2008   | 2009   | 2010   | 2011   | 2012   | 2012 Statewide |
|------------------------------|--------|--------|--------|--------|--------|----------------|
| Tickets                      | 22,931 | 18,670 | 19,568 | 18,206 | 20,714 | 771,749        |
| Damages/1000 tickets Due to: |        |        |        |        |        |                |
| Mismarks                     | 0.17   | 0.27   | 0.46   | 0.33   | 0.29   | 0.44           |
| No-Calls                     | 0.83   | 0.75   | 0.41   | 0.77   | 0.58   | 0.43           |
| Co. & Co. Contractor         | 0.39   | 0.48   | 0.20   | 0.11   | 0.24   | 0.10           |
| Excavator Error              | 1.09   | 0.80   | 0.72   | 0.71   | 1.01   | 1.04           |
| Total                        | 2.49   | 2.30   | 1.79   | 1.92   | 2.12   | 2.01           |

| Corning                      | 2008  | 2009  | 2010  | 2011  | 2012  | 2012 Statewide |
|------------------------------|-------|-------|-------|-------|-------|----------------|
| Tickets                      | 4,644 | 4,380 | 4,143 | 4,735 | 4,794 | 771,749        |
| Damages/1000 tickets Due to: |       |       |       |       |       |                |
| Mismarks                     | 0.22  | 0.00  | 0.00  | 0.00  | 0.21  | 0.44           |
| No-Calls                     | 0.00  | 0.00  | 0.97  | 0.21  | 0.42  | 0.43           |
| Co. & Co. Contractor         | 0.00  | 0.91  | 0.72  | 0.00  | 0.21  | 0.10           |
| Excavator Error              | 0.65  | 2.05  | 1.21  | 2.96  | 2.50  | 1.04           |
| Total                        | 0.86  | 2.97  | 2.90  | 3.17  | 3.34  | 2.01           |

| NGrid LI                     | 2008    | 2009    | 2010    | 2011    | 2012    | 2012 Statewide |
|------------------------------|---------|---------|---------|---------|---------|----------------|
| Tickets                      | 119,216 | 149,860 | 132,813 | 134,852 | 139,274 | 771,749        |
| Damages/1000 tickets Due to: |         |         |         |         |         |                |
| Mismarks                     | 0.68    | 0.57    | 0.62    | 0.56    | 0.73    | 0.44           |
| No-Calls                     | 1.12    | 0.67    | 0.79    | 0.76    | 0.73    | 0.43           |
| Co. & Co. Contractor         | 0.07    | 0.02    | 0.02    | 0.04    | 0.01    | 0.10           |
| Excavator Error              | 0.96    | 0.79    | 1.13    | 0.96    | 0.83    | 1.04           |
| Total                        | 2.83    | 2.05    | 2.56    | 2.32    | 2.29    | 2.01           |

| NGrid NY                     | 2008   | 2009   | 2010   | 2011   | 2012    | 2012 Statewide |
|------------------------------|--------|--------|--------|--------|---------|----------------|
| Tickets                      | 87,895 | 94,117 | 94,573 | 95,974 | 109,298 | 771,749        |
| Damages/1000 tickets Due to: |        |        |        |        |         |                |
| Mismarks                     | 0.59   | 0.64   | 0.40   | 0.54   | 0.45    | 0.44           |
| No-Calls                     | 0.89   | 0.52   | 0.44   | 0.31   | 0.32    | 0.43           |
| Co. & Co. Contractor         | 0.03   | 0.04   | 0.07   | 0.03   | 0.05    | 0.10           |
| Excavator Error              | 1.63   | 1.17   | 0.98   | 1.25   | 0.90    | 1.04           |
| Total                        | 3.14   | 2.37   | 1.90   | 2.14   | 1.71    | 2.01           |

| NFG                          | 2008    | 2009   | 2010   | 2011   | 2011   | 2012 Statewide |
|------------------------------|---------|--------|--------|--------|--------|----------------|
| Tickets                      | 105,292 | 91,786 | 88,512 | 89,292 | 87,916 | 771,749        |
| Damages/1000 tickets Due to: |         |        |        |        |        |                |
| Mismarks                     | 0.84    | 0.86   | 0.61   | 0.54   | 0.57   | 0.44           |
| No-Calls                     | 0.91    | 0.77   | 0.78   | 0.67   | 0.68   | 0.43           |
| Co. & Co. Contractor         | 0.06    | 0.02   | 0.06   | 0.03   | 0.05   | 0.10           |
| Excavator Error              | 1.70    | 1.92   | 1.83   | 1.62   | 1.49   | 1.04           |
| Total                        | 3.50    | 3.57   | 3.28   | 2.87   | 2.79   | 2.01           |

| NGrid Upstate                | 2008   | 2009   | 2010   | 2011   | 2012   | 2012 Statewide |
|------------------------------|--------|--------|--------|--------|--------|----------------|
| Tickets                      | 84,857 | 85,165 | 82,850 | 83,091 | 88,109 | 771,749        |
| Damages/1000 tickets Due to: |        |        |        |        |        |                |
| Mismarks                     | 0.67   | 0.75   | 0.84   | 0.48   | 0.39   | 0.44           |
| No-Calls                     | 0.87   | 0.60   | 0.56   | 0.40   | 0.37   | 0.43           |
| Co. & Co. Contractor         | 0.13   | 0.07   | 0.08   | 0.06   | 0.05   | 0.10           |
| Excavator Error              | 2.65   | 2.63   | 2.21   | 2.09   | 2.10   | 1.04           |
| Total                        | 4.32   | 4.05   | 3.69   | 3.03   | 2.91   | 2.01           |

| <b>NYSEG</b>                 | 2008   | 2009   | 2010   | 2011   | 2012   |
|------------------------------|--------|--------|--------|--------|--------|
| Tickets                      | 67,772 | 56,134 | 60,469 | 61,757 | 65,086 |
| Damages/1000 tickets Due to: |        |        |        |        |        |
| Mismarks                     | 0.31   | 0.36   | 0.36   | 0.34   | 0.43   |
| No-Calls                     | 0.30   | 0.34   | 0.20   | 0.29   | 0.23   |
| Co. & Co. Contractor         | 0.03   | 0.02   | 0.05   | 0.06   | 0.15   |
| Excavator Error              | 0.93   | 1.02   | 1.12   | 0.92   | 1.03   |
| Total                        | 1.56   | 1.73   | 1.74   | 1.62   | 1.84   |

| 2012 Statewide |
|----------------|
| 771,749        |
| 0.44           |
| 0.43           |
| 0.10           |
| 1.04           |
| 2.01           |

| <b>O&amp;R</b>               | 2008   | 2009   | 2010   | 2011   | 2012   |
|------------------------------|--------|--------|--------|--------|--------|
| Tickets                      | 25,389 | 23,690 | 23,225 | 24,315 | 25,130 |
| Damages/1000 tickets Due to: |        |        |        |        |        |
| Mismarks                     | 0.55   | 0.42   | 0.52   | 0.41   | 0.64   |
| No-Calls                     | 1.22   | 1.18   | 0.65   | 0.58   | 0.72   |
| Co. & Co. Contractor         | 0.28   | 0.34   | 0.26   | 0.49   | 0.40   |
| Excavator Error              | 2.21   | 1.14   | 1.64   | 1.03   | 1.35   |
| Total                        | 4.25   | 3.08   | 3.06   | 2.51   | 3.10   |

| 2012 Statewide |
|----------------|
| 771,749        |
| 0.44           |
| 0.43           |
| 0.10           |
| 1.04           |
| 2.01           |

| <b>RG&amp;E</b>              | 2008   | 2009   | 2010   | 2011   | 2012   |
|------------------------------|--------|--------|--------|--------|--------|
| Tickets                      | 69,836 | 52,313 | 61,332 | 60,168 | 60,579 |
| Damages/1000 tickets Due to: |        |        |        |        |        |
| Mismarks                     | 0.20   | 0.32   | 0.36   | 0.32   | 0.40   |
| No-Calls                     | 0.50   | 0.29   | 0.33   | 0.47   | 0.35   |
| Co. & Co. Contractor         | 0.04   | 0.08   | 0.11   | 0.08   | 0.13   |
| Excavator Error              | 1.07   | 1.26   | 0.75   | 1.05   | 0.00   |
| Total                        | 1.82   | 1.95   | 1.55   | 1.91   | 1.85   |

| 2012 Statewide |
|----------------|
| 771,749        |
| 0.44           |
| 0.43           |
| 0.10           |
| 1.04           |
| 2.01           |

| <b>St. Lawrence</b>          | 2008  | 2009  | 2010  | 2011  | 2012  |
|------------------------------|-------|-------|-------|-------|-------|
| Tickets                      | 2,896 | 3,190 | 2,986 | 3,296 | 4,100 |
| Damages/1000 tickets Due to: |       |       |       |       |       |
| Mismarks                     | 0.35  | 0.00  | 0.33  | 0.61  | 0.24  |
| No-Calls                     | 1.04  | 0.00  | 0.67  | 0.30  | 0.24  |
| Co. & Co. Contractor         | 0.00  | 0.31  | 0.00  | 0.00  | 0.00  |
| Excavator Error              | 2.42  | 6.58  | 1.34  | 1.82  | 2.93  |
| Total                        | 3.80  | 6.90  | 2.34  | 2.73  | 3.41  |

| 2012 Statewide |
|----------------|
| 771,749        |
| 0.44           |
| 0.43           |
| 0.10           |
| 1.04           |
| 2.01           |



## Appendix B

### Reported Emergency Response Data

|                | 45 Minute |       |       |       |       |
|----------------|-----------|-------|-------|-------|-------|
|                | 2008      | 2009  | 2010  | 2011  | 2012  |
| Central Hudson | 99.0%     | 99.1% | 98.9% | 98.6% | 98.7% |
| Corning        | 96.1%     | 97.1% | 96.6% | 96.3% | 98.2% |
| Con Edison     | 97.8%     | 97.9% | 97.9% | 98.5% | 99.2% |
| NGrid LI       | 95.6%     | 95.7% | 95.2% | 96.0% | 93.0% |
| NGrid NY       | 96.6%     | 96.6% | 96.3% | 96.1% | 95.0% |
| NFG            | 96.3%     | 97.1% | 97.7% | 97.7% | 97.7% |
| NGrid Upstate  | 95.5%     | 95.9% | 95.1% | 95.0% | 95.9% |
| NYSEG          | 95.7%     | 96.1% | 95.3% | 95.1% | 95.1% |
| O&R            | 97.5%     | 97.8% | 98.1% | 97.8% | 98.4% |
| RG&E           | 98.8%     | 98.9% | 98.3% | 98.6% | 97.8% |
| St. Lawrence   | 96.3%     | 96.1% | 95.2% | 95.5% | 95.6% |

|                | 60 Minute |        |        |       |        |
|----------------|-----------|--------|--------|-------|--------|
|                | 2008      | 2009   | 2010   | 2011  | 2012   |
| Central Hudson | 99.9%     | 100.0% | 99.9%  | 99.8% | 99.7%  |
| Corning        | 98.7%     | 98.7%  | 99.6%  | 99.0% | 99.8%  |
| Con Edison     | 99.9%     | 100.0% | 99.9%  | 99.9% | 100.0% |
| NGrid LI       | 99.6%     | 99.7%  | 99.6%  | 99.7% | 97.4%  |
| NGrid NY       | 99.7%     | 99.6%  | 99.2%  | 99.3% | 98.5%  |
| NFG            | 98.8%     | 99.2%  | 99.4%  | 99.4% | 99.4%  |
| NGrid Upstate  | 98.7%     | 98.8%  | 98.5%  | 98.4% | 98.5%  |
| NYSEG          | 99.3%     | 99.3%  | 99.0%  | 98.2% | 99.0%  |
| O&R            | 99.9%     | 99.9%  | 100.0% | 99.9% | 99.9%  |
| RG&E           | 99.8%     | 99.8%  | 99.8%  | 99.8% | 99.6%  |
| St. Lawrence   | 99.6%     | 99.6%  | 99.5%  | 99.8% | 99.8%  |

| # Calls        | 2008   | 2009   | 2010   | 2011   | 2012   |
|----------------|--------|--------|--------|--------|--------|
| Central Hudson | 3,752  | 3,485  | 3,578  | 4,086  | 3,591  |
| Corning        | 1,279  | 1,102  | 941    | 1,314  | 1,015  |
| Con Edison     | 26,003 | 25,834 | 27,389 | 29,148 | 27,938 |
| NGrid LI       | 21,605 | 20,966 | 20,944 | 21,051 | 21,230 |
| NGrid NY       | 43,253 | 42,036 | 40,590 | 39,702 | 38,909 |
| NFG            | 26,558 | 26,016 | 24,012 | 24,012 | 25,433 |
| NGrid Upstate  | 21,681 | 20,601 | 19,768 | 20,025 | 17,594 |
| NYSEG          | 8,395  | 7,923  | 6,835  | 8,287  | 7,600  |
| O&R            | 6,982  | 6,249  | 7,667  | 6,720  | 6,889  |
| RG&E           | 11,475 | 9,261  | 9,244  | 9,013  | 8,759  |
| St. Lawrence   | 481    | 490    | 420    | 441    | 428    |

|        |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|
| Total: | 171,464 | 163,963 | 161,388 | 163,799 | 159,386 |
|--------|---------|---------|---------|---------|---------|

## Appendix C

### Reported Leak Data

| LDC            | 2012 Total Leak Repairs on Mains by Material |                |            |              |         |                |        |       |
|----------------|----------------------------------------------|----------------|------------|--------------|---------|----------------|--------|-------|
|                | Unprot. Bare                                 | Unprot. Coated | Prot. Bare | Prot. Coated | Plastic | Cast/Wrt. Iron | Copper | Other |
| Con Edison     | 1,784                                        | 78             | 0          | 0            | 41      | 1,925          | 0      | 0     |
| Central Hudson | 63                                           | 0              | 0          | 57           | 11      | 119            | 0      | 0     |
| Conning        | 163                                          | 0              | 5          | 0            | 3       | 0              | 0      | 0     |
| NGrid LI       | 628                                          | 153            | 10         | 26           | 59      | 86             | 0      | 0     |
| NGrid NY       | 53                                           | 0              | 0          | 30           | 1       | 1,745          | 0      | 0     |
| NFG            | 2,598                                        | 0              | 0          | 134          | 128     | 279            | 0      | 19    |
| NGrid Upstate  | 27                                           | 33             | 0          | 83           | 41      | 346            | 0      | 0     |
| NYSEG          | 191                                          | 0              | 0          | 35           | 28      | 0              | 0      | 1     |
| O&R            | 208                                          | 0              | 0          | 11           | 42      | 27             | 0      | 0     |
| RG&E           | 47                                           | 0              | 0          | 136          | 20      | 15             | 0      | 0     |
| St. Lawrence   | 0                                            | 0              | 0          | 2            | 0       | 0              | 0      | 0     |

| LDC            | 2012 Total Leak Repairs on Services by Material |                |            |              |         |                |        |       |
|----------------|-------------------------------------------------|----------------|------------|--------------|---------|----------------|--------|-------|
|                | Unprot. Bare                                    | Unprot. Coated | Prot. Bare | Prot. Coated | Plastic | Cast/Wrt. Iron | Copper | Other |
| Con Edison     | 1,995                                           | 258            | 0          | 0            | 391     | 0              | 109    | 0     |
| Central Hudson | 62                                              | 0              | 0          | 59           | 17      | 0              | 0      | 0     |
| Conning        | 63                                              | 0              | 0          | 1            | 6       | 0              | 0      | 0     |
| NGrid LI       | 1,034                                           | 190            | 29         | 46           | 279     | 0              | 28     | 0     |
| NGrid NY       | 222                                             | 0              | 0          | 126          | 108     | 0              | 125    | 0     |
| NFG            | 683                                             | 0              | 0          | 81           | 150     | 0              | 0      | 36    |
| NGrid Upstate  | 212                                             | 82             | 0          | 107          | 173     | 13             | 23     | 0     |
| NYSEG          | 172                                             | 0              | 0          | 19           | 106     | 0              | 0      | 2     |
| O&R            | 300                                             | 0              | 0          | 26           | 176     | 1              | 0      | 0     |
| RG&E           | 55                                              | 0              | 0          | 82           | 40      | 1              | 4      | 0     |
| St. Lawrence   | 0                                               | 0              | 0          | 28           | 32      | 0              | 0      | 0     |

**Appendix D**

Backlog of Potentially Hazardous Leaks

| LDC            | Leak Backlog - Type 1, 2, and 2a |      |      |      |      |
|----------------|----------------------------------|------|------|------|------|
|                | 2008                             | 2009 | 2010 | 2011 | 2012 |
| Con Edison     | 36                               | 33   | 25   | 11   | 10   |
| Central Hudson | 41                               | 13   | 12   | 15   | 14   |
| Coning         | 7                                | 7    | 8    | 7    | 6    |
| NGrid LI       | 72                               | 67   | 29   | 21   | 25   |
| NGrid NY       | 70                               | 51   | 17   | 6    | 25   |
| NFG            | 71                               | 68   | 73   | 63   | 58   |
| NGrid Upstate  | 7                                | 17   | 1    | 3    | 4    |
| NYSEG          | 8                                | 9    | 6    | 6    | 0    |
| O&R            | 21                               | 20   | 8    | 8    | 4    |
| RG&E           | 12                               | 7    | 9    | 6    | 9    |
| St. Lawrence   | 0                                | 0    | 0    | 0    | 2    |
| Total:         | 345                              | 292  | 188  | 146  | 157  |

Repaired Potentially Hazardous Leaks

| LDC            | Leaks Repaired - Type 1, 2, and 2a |       |       |       |       |
|----------------|------------------------------------|-------|-------|-------|-------|
|                | 2008                               | 2009  | 2010  | 2011  | 2012  |
| Con Edison     | 5800                               | 6592  | 5993  | 6032  | 5540  |
| Central Hudson | 306                                | 175   | 141   | 201   | 211   |
| Coming         | 127                                | 105   | 108   | 129   | 66    |
| NGrid LI       | 2282                               | 2325  | 2170  | 2509  | 2331  |
| NGrid NY       | 2460                               | 2351  | 2378  | 3114  | 2287  |
| NFG            | 1949                               | 1464  | 1340  | 1589  | 1995  |
| NGrid Upstate  | 1033                               | 1316  | 1354  | 1164  | 778   |
| NYSEG          | 242                                | 207   | 266   | 477   | 267   |
| O&R            | 362                                | 339   | 480   | 520   | 422   |
| RG&E           | 387                                | 330   | 430   | 322   | 195   |
| St. Lawrence   | 0                                  | 5     | 4     | 7     | 52    |
| Total:         | 14948                              | 15209 | 14664 | 16064 | 14144 |