BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of

KeySpan Gas East Corporation d/b/a National Grid and
The Brooklyn Union Gas Company d/b/a National Grid NY

Cases 16-G-0058 and 16-G-0059

May 2016

Prepared Testimony of:

Gas Safety Panel

Christopher Stolicky
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Panel Credentials

Q. Members of the Panel, please state your names.

A. Christopher Stolicky, Suresh Thomas, Sergey Peschanyy, and Michael Pasinella.

Q. Mr. Stolicky, please state your business address.

A. My business address is New York State Department of Public Service (Department), Three Empire State Plaza, Albany, New York 12223.

Q. By whom are you employed and in what capacity?

A. I am employed by the Department as a Utility Supervisor (Safety) in the Safety Section of the Office of Electric, Gas, & Water.

Q. Please summarize your education and work experience.

A. I graduated from Union College in 2000 with a Bachelor degree in Civil Engineering. I received a Master degree in Business Administration from the University at Albany. I have been employed by the Department since January 2001. I work in the Safety Section and I am familiar with federal and state gas safety pipeline codes, statewide risk-based safety performance measures, and with the operations of

the major gas utilities in the state. My other duties include interfacing with utility management, working with the United States Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) regarding interstate pipeline issues, engineering support for the Safety Section field staff, supervision of the Albany and New York City field staff, reviewing possible violations relating to 16 NYCRR Part 753 (Damage Prevention), participating in rate proceedings and negotiations, reviewing proposed pipeline designs, processing petitions and waivers relating to code compliance matters, and reviewing proposed updates to utility operations and maintenance procedures. In addition, I have contributed to and led several significant incident investigations. I have also participated in job rotations and work assignments in the Gas Rates and Gas Policy Sections, where I participated in various rate issues and in the review of utility winter gas supply planning.

Q. Mr. Stolicky, have you previously testified in

any administrative proceeding?

A. Yes. I have testified in numerous rate and merger proceedings. Most recently were the rate case for Niagara Mohawk Power Corporation d/b/a National Grid, 12-G-0202; the merger case for Fortis, Inc. and CH Energy Group, Inc., 12-M-0192; and the rate case for Consolidated Edison of New York, Inc., 13-G-0031.

Q. Mr. Thomas, please state your business address.

A. My business address is New York State Department of Public Service, 90 Church Street, 4th Floor, New York, New York 10007.

Q. By whom are you employed and in what capacity?

A. I am employed by the Department of Public Service as a Utility Engineer 3 (Safety) in the Pipeline Safety Section of the Office of Electric, Gas, & Water.

Q. Please summarize your education and work experience.

A. I graduated from Mahatma Gandhi University in 1992 with a Bachelor of Science degree in Mechanical Engineering. I have been employed by the Department since July 2001. I have oversight responsibility for six utility

engineers in the New York City Office of the Department. My responsibilities also include utilization of sound engineering practices to review filings of proposed hazardous liquid, natural gas, and steam pipeline construction, operating and maintenance procedures, operator qualification programs, hazardous liquid and gas intrastate and interstate pipeline programs and participation in rate case proceedings. From 1999 to July 2001 I worked for the City of New York's Housing Preservation and Development Department as a housing inspector. Prior to that, from 1998 to 1999, I served as an engineer with Valence Technology, Inc. located in Nevada. I worked as a project engineer for Lloyd Insulation Limited from 1995 to 1997 and had oversight on thermal insulation projects related to the petrochemical and power plant industries. Finally, from 1993 to 1994 I participated in a one-year apprenticeship program at a crude oil refinery.

Q. Have you previously testified before the Commission?

A. Yes. I have testified in the rate case for Sea

Cliff Water Company rate case, 02-W-1564, the rate case for Heritage Hills Water Works Corporation rate case, 03-W-1182, the rate cases for Orange and Rockland Utilities, Inc., 05-G-1494, 08-G-1398, and 14-G-0494, and the rate cases for Consolidated Edison Company of New York, Inc., 13-G-0031, and 13-S-0032.

Q. Mr. Peschanyy, please state your business address.

A. My business address is New York State Department of Public Service, 90 Church Street, 4th Floor, NY 10007.

Q. By whom are you employed and in what capacity?

A. I am employed by the Department of Public Service as a Utility Engineer 3 (Safety) in the Pipeline Safety Section of the Office of Electric, Gas, & Water.

Q. Please summarize your education and work experience.

A. I graduated from Polytechnic Institute of New York University in 2010 with a Bachelor of Science Degree in Civil Engineering. I joined the Department in March of 2012. I have a comprehensive knowledge of the Federal and State

gas safety pipeline codes and the operations of the major gas utilities in New York State. My duties include: conducting record, field, and construction inspections of local distribution companies (LDCs) and interstate pipeline operators to ensure compliance with Federal and State gas safety pipeline regulations; conducting investigations of pipeline failures and third-party damages; conducting investigations for safety-related customer complaints; reviewing proposed updates to utility operations and maintenance, storm hardening, emergency and other program plans.

Q. Have you previously testified before the Commission?

A. No.

Q. Mr. Pasinella, please state your business address.

A. My business address is New York State Department of Public Service, 3 Empire State Plaza, Albany, New York 12223-1350.

Q. By whom are you employed and in what capacity?

A. I am employed by the Department of Public Service as a Utility Engineer 2 (Safety) in the

Pipeline Safety Section of the Office of Electric, Gas, & Water.

Q. Please summarize your education and work experience.

A. I graduated from Clarkson University in 2009 with a Bachelor of Science degree in Civil Engineering. I have been employed by the New York State Department of Public Service since December of 2010. I am familiar with Federal and State gas safety pipeline codes, as well as with the operations of major gas utilities in New York State. My duties include reviewing proposed pipeline designs, reviewing proposed updates to gas utility operations and maintenance procedures, reviewing proposed changes to Federal and State gas safety pipeline codes, and preparing citations for enforcement of probable violations relating to 16 NYCRR Part 753, damage prevention. My other duties include conducting record, field, and construction inspections of LDCs and interstate pipeline operators to ensure compliance with Federal and State gas safety pipeline regulations.

Q. Have you previously testified before the

Commission?

A. Yes. I have testified for the Gas Safety Panel in the rate case for Central Hudson Gas & Electric Corporation, 14-G-0319; the rate case for New York State Electric & Gas Corporation, 15-G-0284; and the rate case for Rochester Gas & Electric Corporation, 15-G-0286.

Scope of Testimony

Q. What is the purpose of the Gas Safety Panel's testimony in this proceeding?

A. The purpose of our testimony is to address KeySpan Gas East Corporation d/b/a National Grid's, KEDLI's, and The Brooklyn Union Gas Company d/b/a National Grid's, KEDNY's, proposed safety performance measures in the areas of infrastructure enhancement, leak management, damage prevention, emergency response, and violations of the pipeline safety regulations. Our testimony will also address the gas safety incentive, first responder communication and training, residential methane detection, compliance related positions, independent compliance assessment, the service line

proceeding and replacements, integrity and reliability programs, inactive accounts, roadway depressions, and annual reporting requirements.

Q. In your testimony, will you refer to, or otherwise rely upon, any information obtained during the discovery phase of this proceeding?

A. Yes, we will refer to, and have relied upon, several responses to Information Requests (IRs) provided by the Companies. These responses are contained within Exhibit__(GSP-1).

Q. Is the Panel presenting any other exhibits?

A. Yes. Exhibit__(GSP-2) details the high risk and other risk break downs associated with 16 NYCRR Part 255 and 16 NYCRR Part 261. For 49 CFR Part 193, and 16 NYCRR Part 259, all sections are deemed high risk.

Q. What is the purpose of the performance measures?

A. The performance measures ensure that KEDLI and KEDNY maintain their focus on important safety areas and also ensure service reliability. The performance measures are derived from the Companies' actual levels of historic performance, our knowledge of the Companies, and our experience with other LDCs across the state.

The performance measures are separate and independent for each KEDNY and KEDLI.

Infrastructure Enhancement

Q. What is meant by infrastructure enhancement?

A. By infrastructure enhancement, we mean the Companies' efforts to replace leak prone pipe.

Q. What pipe is considered leak prone?

A. Leak prone pipe generally includes unprotected steel pipe, cast and/or wrought iron pipe, and some early vintages of plastic pipe that can become brittle. For KEDNY and KEDLI, the population of leak prone pipe generally consists of unprotected steel, wrought iron, cast iron, Aldyl-A plastic.

Q. What is meant by the term unprotected?

A. Unprotected means that the pipe lacks adequate cathodic protection rendering it susceptible to corrosion. Unprotected steel pipe often has inadequate or no coating, rendering efforts to cathodically protect it ineffective and uneconomical. Such unprotected steel pipe is also referred to as bare steel pipe.

Q. How do the leak prone pipe replacement programs

add to the safety of the natural gas systems?

A. Leaks on underground piping can create safety risks to the public and potentially lead to incidents. Removal or replacement of such leak prone pipe reduces these safety risks.

Q. Please explain the importance of removing unprotected, or bare steel, pipe.

A. Data collected by the United States Department of Transportation, Office of Pipeline Safety, as well as our own Department, shows that corrosion is a leading cause of leakage and that bare steel pipe is most susceptible to corrosion. This information is publicly available on the Office of Pipeline Safety's "Pipeline Data Mart" website at https://primis.phmsa.dot.gov/comm/FactSheets/FSCorrosion.htm.

Q. How does the removal of cast iron pipe add to the safety of the natural gas system?

A. In general, cast iron pipe tends to be brittle, is susceptible to graphitization, a form of corrosion, and has low beam strength. Beam strength refers to the amount of loading a structure can withstand before it fails. Cast iron pipe's low beam strength means that the

material can fail if it's subjected to increased loading or a loss of ground support, which makes the material particularly susceptible to stresses from underground disturbances. Such disturbances can include, but are not limited to, ground settlement, freeze-thaw cycles, soil erosion, or nearby excavation activities. Its physical characteristics make it more prone to catastrophic failure than cathodically protected steel and plastic pipe. In addition, cast iron lengths are joined by hub joints with packing material, and unlike welded joints on steel pipe these cast iron joints develop leaks over a period of time. Cast iron pipe tends to be located in densely populated areas where there are many enclosed structures and continuously paved areas. In the event of a major leak or failure, these circumstances may lead to greater volumes of below ground gas migration and expose the public to an increased risk for fires or explosions. The removal of this pipe will reduce the potential for leaks and incidents resulting from potential failures. This will in turn improve public safety.

Q. What are other benefits associated with removing leak prone pipe?

A. The removal of leak prone pipe should drive down the number of active leaks, will lead to a decline in leakage rates on the distribution systems, and also reduce overtime and operating and maintenance costs associated with responding to leak calls and monitoring leaks.

Q. Please describe the leak prone pipe replacement component of the safety performance measures.

A. This component is designed to ensure that both KEDNY and KEDLI continue to proactively remove this type of pipe from their systems. Typically, the Companies only proactively remove and replace pipe beyond the requirements of the pipeline safety regulations found in 16 NYCRR Part 255, because of significant customer complaints, or as a result of municipal or state construction projects.

Q. Do KEDNY and KEDLI currently have leak prone pipe removal programs?

A. Yes.

Q. How do KEDNY and KEDLI prioritize the removal of leak prone pipe?

A. The pipe to be removed from service is identified and ranked using a risk assessment model-based approach.

Q. What is a risk assessment model?

A. A risk assessment model prioritizes all segments of leak prone pipe according to attributes that poses the highest associated risk. These models have several weighted factors to determine their ranking such as material type, diameter, pressure, date of installation, etcetera. It is important to note that each Company has unique characteristics and geography that must be considered which prevents a uniform approach, so the model that works for KEDNY may not be appropriate for KEDLI. This risk-based prioritization model ranks segments of pipe for removal so that pipe that presents the greatest risk to the public is removed from service before lower risk pipe. This allows the Companies to focus resources on segments with the highest risk, providing the greatest level of safety to the public.

Q. What current leak prone pipe replacement requirements do KEDNY and KEDLI have?

A. KEDNY and KEDLI are required to remove annually a minimum of 40 miles and 50 miles of leak prone main, respectively. KEDLI is also required to remove a minimum of 4,000 leak prone services each year.

Q. For the previous three years, 2013 through 2015, how many miles of leak prone main on average have KEDNY and KEDLI removed?

A. According to DPS-291, Exhibit__(GSP-1), KEDNY has removed 42.3 miles and KEDLI 62.3 miles, respectively, of leak prone main on average for the previous three calendar years. These averages are significantly lower than the newly proposed levels and are reflective of the previously established minimum annual replacement targets.

Q. Have the Companies addressed this program in their rate filings?

A. Yes. Both Companies proposed to further enhance their leak prone pipe removal programs. These proposed enhancements are consistent with the Commission's goal of increased leak prone pipe replacement rates for all LDCs.

Q. Please explain these proposals.

A. KEDNY proposed to remove a minimum of 45 miles of leak prone main in 2017 and 45 miles in 2018. KEDNY also proposed to replace a minimum of 150 miles for the three year period of 2017 through 2019. KEDLI proposed to replace a minimum of 105 miles of leak prone main in 2017, and 105 miles in 2018. KEDLI also proposed to replace a minimum of 345 miles for the three year period of 2017 through 2019. The Companies proposed a Company-specific negative revenue adjustment of eight pre-tax basis points for failure to meet these targets. The Companies also proposed a Company-specific positive revenue adjustment.

Q. Please describe the Companies proposal for a positive incentive.

A. The Companies propose a separate mechanism for KEDNY and KEDLI. For every mile in excess of the incentive target the company would earn one pre-tax basis point, with an eight pre-tax basis point cap. Additionally, the costs associated with the replacement of the additional miles would be recovered through a surcharge. Even though they proposed negative revenue adjustments, the Companies then argue that, due

to this substantial increase in their respective replacement programs, the associated negative revenue adjustments would be waived should KEDNY or KEDLI fail to meet either of their targeted replacement levels in a given year. This incentive was proposed to serve as a protection for the Companies in the event that, due to circumstances beyond its span of control, would result in a less than desired replacement level. KEDNY also proposes incentive thresholds of 50 miles in 2017, 55 miles in 2018, 60 miles in 2019, and 65 miles in 2020. KEDLI also proposes incentive thresholds of 115 miles in 2017, 135 miles in 2018, 155 miles in 2019, and 175 miles in 2020.

Q. Will leak prone services be replaced in conjunction with these newly proposed replacement programs?

A. Yes. When replacing leak prone pipe, it is common for companies to group mains and services together within a single project. This grouping results in the most cost efficient approach towards the replacement of leak prone pipe in addition to minimizing the time a customer is

without natural gas due to the work.

Q. At this proposed replacement rate, how long will it take the Companies to replace all leak prone pipe?

A. According to DPS-371, Exhibit__(GSP-1), there will be approximately 1,837 miles and 3,714 miles of remaining leak prone pipe within the KEDNY and KEDLI systems, respectively as of December 31, 2016. KEDLI intends to increase its leak prone pipe removal annually, until 2023 where it will plateau at 224 miles per year. KEDNY intends to increase its leak prone pipe removal annually, until 2035 where it will have removed all of its' targeted pipe. Both Companies intend to replace all of their leak prone pipe by 2035.

Q. Does the Panel agree with the Companies' proposal?

A. In part. We agree with the Companies that funding should be increased so that they can accelerate their leak prone pipe removal programs. However, reaching the goal set by the Commission should be of the utmost importance. Also, we still consider pipe that has been

treated under the Companies' proposed CISBOT and cured-in-place lining programs to be leak prone, and therefore must ultimately be replaced as part of the Companies' leak prone pipe replacement program. Therefore, we propose that the removal targets be further increased to a minimum of 55 miles in 2017, 60 miles in 2018, and 65 miles in 2019 for KEDNY, and a minimum of 115 miles in 2017, 135 miles in 2018, and 155 miles in 2019 for KEDLI. Also, the Commission should require both KEDNY and KEDLI to replace leak prone services in conjunction with the associated mains. As the Company replaces the mains and services, it should be required to ensure that its meters are installed in a readily accessible location and be protected from corrosion and other damage, preferably located outside.

Q. Given that Staff is testifying to a single rate year, why is a multi-year approach to this program appropriate?

A. Due to the complexity of the leak prone pipe replacement programs, utilizing a multi-year approach allows the Companies with flexibility

so that they can strategically manage their programs more efficiently. It also ensures that steps can be taken to assure adequate qualified personnel are available to meet the increased targets.

Q. Do you agree that the Companies should be subject to a negative revenue adjustment for failure to meet remove at least these minimum amounts?

A. Yes. We recommend separate mechanisms for each company. The mechanism would require that eight pre-tax basis points be owed to customers for failure to meet the annual targets. In recognition that external factors may hinder the Companies' efforts in a single year, should either Company fail to meet its respective annual targets that Company should be allowed to rely on a cumulative three year target, 180 miles for KEDNY, and 405 miles for KEDLI. Should a company rely on the cumulative target in lieu of the annual targets, a total of 24 pre-tax basis points would be owed to the customers for failure to meet that cumulative target.

Q. Does the Panel propose a positive revenue adjustment for exceeding the replacement targets?

A. Yes. We propose separate positive revenue adjustments for each Company of two pre-tax basis points for each full mile of leak prone main replaced beyond the annual minimum targets. However, a company would only receive the incentive if it meets minimum targets in each rate year. We recommend capping this incentive at 10 pre-tax basis points per Company per year. Should either Company opt to meet the cumulative target in lieu of the annual targets, the positive revenue adjustment would not be available.

Q. How will the leak prone pipe replacement costs and associated surcharges be handled?

A. The costs and associated surcharges related to the increase in leak prone pipe replacement will be addressed by the Staff Gas Infrastructure and Operations, and Staff Gas Rates Panels.

Q. Will the mileage target work with the Companies' risk assessment models?

A. Yes. We expect the Companies will continue to

use their risk assessment models to rank segments of pipe for replacement so that the highest risk pipe that presents the greatest risk to the public is removed prior to lower risk pipe. However, the Companies should have the flexibility to allow for opportunistic replacements, such as neighborhood approaches, or in conjunction with other entities, but overall risk reduction should still remain a driver of the replacement program. In other words, if using the neighborhood approach, areas replaced should contain high risk segments.

Q. Do you have any other recommendations regarding the removal of leak prone pipe?

A. Yes. KEDNY and KEDLI should both perform inspections on newly installed pipelines to ensure that they are completed in accordance with applicable procedures and regulations. We recommend that KEDNY and KEDLI increase onsite inspections adequate for the total leak prone pipe replacement targets and assure that the quality of pipe going into service meets workmanship and installation expectations.

Q. Are there any other conditions that either KEDNY

or KEDLI should meet pertaining to your safety related recommendations?

A. Yes. We recommend that the Commission direct KEDNY and KEDLI each to submit a quarterly report to the Secretary of the Commission detailing their respective leak prone pipe replacement progress. This report, at a minimum, should be required to include material type, mileage, project location, rank of the segment replaced at the time of replacement using the risk based model, project cost, and include a forecast of the scheduled leak prone pipe replacement projects and their rank on risk based replacement model for the upcoming quarter. The report should also be required to include a reconciliation of proposed replacements versus what was actually replaced. The Companies should be required to submit these quarterly reports no later than thirty days after the end of the quarterly reporting periods ending March 31st, June 30th, September 30th, and December 31st.

Leak Management

Q. What does the Panel mean by the term leak management?

A. Leak management refers to the utilities ability to monitor and repair existing and newly found leaks on their natural gas systems.

Q. Do KEDNY and KEDLI currently have safety related targets for leak management?

A. Yes. KEDNY has a total leak backlog target and KEDLI has a repairable leak backlog target.

Q. Is there an associated negative revenue adjustment for failure to meet the leak management targets?

A. Yes. If either KEDNY or KEDLI fail to meet its target, it owes a total of 12 pre-tax basis points.

Q. What is the difference between the total and repairable leak management targets?

A. Total leak management targets encompass Type 1, Type 2A, Type 2, and Type 3 leaks as defined by 16 NYCRR 255.811, 16 NYCRR 255.813, 16 NYCRR 255.815, and 16 NYCRR 255.817, respectively. Repairable leak management targets exclude Type 3 leaks because they are considered non-

hazardous and reasonably expected to remain that way.

Q. Have either KEDNY or KEDLI proposed to update or modify their respective leak management targets?

A. Yes. The Companies proposed to set targets for both total and repairable leak backlogs. KEDNY proposed to reduce its total backlog by an average of 100 leaks per year and KEDLI by an average of 500 leaks per year. Both Companies propose to be allowed to maintain a backlog of no more than 30 repairable leaks per year.

Q. Have either KEDNY or KEDLI proposed to update or modify the associated negative revenue adjustments?

A. Yes. The Companies propose to maintain the total associated negative revenue adjustment of 12 basis points for each, KEDNY and KEDLI. However, they propose that four of the 12 basis points be appropriated to the total leak backlog target, and eight basis points to the repairable leak backlog target.

Q. Did the Companies make any other proposals related to leak management?

A. Yes. The Companies propose to adjust the annual

leak targets based on the number of frost degree days in a given year. They also propose to recover the costs associated with the repair of up to an additional 50 leaks, based on the average per unit incremental repair cost.

Q. For both the total and repairable leak backlogs, how have the Companies performed in recent years?

A. Both KEDNY and KEDLI have demonstrated the ability to reduce their respective total and repairable leak backlogs. For the previous five years, 2011 through 2015, KEDNY and KEDLI have averaged a total backlog of approximately 4,047 and 12,539 leaks, respectively. Similarly, the Companies have averaged a repairable leak backlog of approximately 65 and 19 leaks, respectively.

Q. What was the average leak backlog reduction for both Companies in the recent years?

A. For the previous four years, 2012 through 2015, on average KEDLI reduced the leak backlog by 659 leaks per year. For the year 2012, the leak backlog for KEDNY increased by 509 leaks and is an outlier in the historic data. For the

previous three years, 2013 through 2015, on average KEDNY reduced the leak backlog by 123 leaks per year.

Q. How did the Companies perform in 2015?

A. According to DPS-260, Exhibit__(GSP-1), KEDNY and KEDLI have total leak backlogs of 3,820 and 11,330, respectively. KEDNY and KEDLI have repairable leak backlogs of 21 and five, respectively.

Q. What does the Panel recommend?

A. Based on previous years' leak reduction averages and significant increases in main replacement targets for rate years 2017, 2018, and 2019 we recommend the following. For KEDNY, we recommend that beginning in 2017 the backlog of total leaks be reduced by 150 leaks per year. For KEDLI, we similarly recommend the backlog of total leaks be reduced by 750 leaks per year. In establishing these targets, we recommend the baseline for KEDNY and KEDLI be set at 3,650 and 10,700 total leaks, respectively for the beginning of the rate year, January 1, 2017. Correspondingly, the 2017 year-end backlog targets will be 3,500 for KEDNY and 9,950 for

KEDLI. For both KEDNY and KEDLI, we recommend maintaining a backlog of less than 25 repairable leaks at calendar year end.

Q. Do you recommend an associated negative revenue adjustment for failure to meet these backlog targets?

A. Yes. We concur with the Companies that the total adjustment of 12 basis points per Company be split between the total and repairable targets. However, we recommend an equal proportion of six pre-tax basis points be owed to the customers should KEDNY or KEDLI fail to meet either their total or repairable leak backlog targets.

Q. Do you recommend an associated positive revenue adjustment for the leak management measure?

A. No. However, the Staff Policy Panel will address an incentive related to an increase in the Companies' repair of Type 3 leaks.

Q. Why are these leak management targets reasonable?

A. Both KEDNY and KEDLI have made significant increases to their leak prone pipe replacement targets. The Companies' use both historic and

active leaks as weighted factors when prioritizing segments within the Companies risk assessment models. Thus, replacement of leak prone pipe alone should drive leak rates down. As more and more of the system includes newly installed piping, reductions in leak inventory should be easier to attain.

Q. Should either the targets, or the negative revenue adjustments expire?

A. No. These targets and associated adjustments should remain in effect until changed by the Commission.

Damage Prevention

Q. What does the Panel mean by Damage Prevention?

A. Both KEDNY and KEDLI respond to calls regarding, and perform many repairs, each year caused by excavation damage to their underground facilities. Any damage to a pipeline can result in the uncontrollable release of natural gas and could potentially lead to an incident. Damage prevention refers to the Companies' ability to minimize damage to their systems caused by excavation.

Q. Please describe the performance measures related to the prevention of excavation damage.

A. In order to encourage the Companies to continuously strive to improve their performance, targets for damages caused by mismarks, Company and Company contractors, and total damages per 1,000 one-call tickets were established in previous rate orders to measure the Companies' progress in minimizing damage to their underground pipeline facilities. The total damage category includes damages caused by mismarks, those caused by Company and Company contractors, and those caused by excavator error or those where no notification was made by an excavator.

Q. What is a one-call ticket?

A. The Commission's pipeline safety regulations contained in 16 NYCRR Part 753, Protection of Underground Facilities, require excavators to make a toll-free call to a one-call notification system and provide notice of their intent to perform excavation work. The one-call notification system that covers both KEDNY's and KEDLI's service territory is New York 811. New

York 811 takes the pertinent information from the excavator and transmits it to the member utilities that may be affected by the excavation work. Those utilities then mark the location of their affected facilities so the excavator can take needed precautions to avoid damaging them. Each incoming call to New York 811 will generate several outgoing notices to the member utilities such as the gas, electric, telephone, cable, water, and sewer companies. A notice received by the utility is referred to as a one-call ticket.

Q. What is a mismark?

A. A mismark occurs when a utility fails to accurately mark the location of its underground facilities in response to the one-call ticket. Consistent with the requirements of 16 NYCRR Part 753 and for the purpose of this performance measure, a mismark is considered any instance where the markings are off by more than two feet. It also includes any instances where the utility fails to mark its facilities in response to a properly requested one-call ticket.

Q. What are damages by Company and Company

contractors?

A. These are damages to the Companies' facilities that are caused by Company personnel, or by contractors that are directly working for the Company.

Q. How does prevention of excavation damage benefit public safety?

A. These damages often cause interruptions of service to customers, building evacuations, and road closures. Explosions and fires are less frequent, but have occurred. Fatalities and injuries due to third-party excavation damages are also a possibility. Therefore, reducing these types of damages improves public safety.

Q. Do KEDNY and KEDLI currently have safety related targets associated with damage prevention?

A. Yes.

Q. Have the Companies proposed any changes to their current damage prevention targets?

A. Yes. The Companies proposed to tighten their mismark, Company and Company contractor, and total damage targets for the 2017 calendar year. They proposed an additional 2% improvement in the targets for subsequent years. The

associated negative revenue adjustments would remain the same at 18 pre-tax basis points being owed to the customers should the Companies fail to meet either of these targets.

Q. Have the Companies proposed an associated positive revenue adjustment for the damage prevention measure?

A. Yes. The Companies propose that improvement by greater than 10% in a given year would earn the Company an incentive.

Q. Describe the Companies' historical performance as it relates to damage prevention.

A. For the previous five-years, 2010 through 2014, KEDNY has averaged 0.43 for damages due to mismarks, 0.04 for damages due to Company and Company contractors, and 1.85 for total damages per 1,000 one-call tickets. KEDLI has averaged 0.55 for damages due to mismarks, 0.02 for damages due to Company and Company contractors, and 2.20 for total damages per 1,000 one-call tickets. The Companies' historical performance is well documented in the most recent Gas Safety Performance Measures Report, filed in Case 15-G-0248, and can be obtained from the Commission's

website.

Q. Please describe the Gas Safety Performance Measures Report.

A. The Gas Safety Performance Measures Report is an annual report presented by Department Staff to the Commission. The report summarizes data and analyzes performance in three areas of gas safety: Damage Prevention, Emergency Response, and Leak Management. It also contains data from subsets of those areas, resulting in a more thorough analysis, and is used as a tool to track and identify LDC's performance in areas widely identified as high-risk. When an LDC's performance notably varies from the statewide performance in a particular area that LDC is recommended to institute incremental changes to improve performance.

Q. Has either KEDNY or KEDLI been identified as an LDC in need of improvement in damage prevention?

A. Yes.

Q. In which areas(s) of damage prevention?

A. In 2014, the most recent data available, KEDLI was identified as a poor performer in the area of Company and Company contractor damages. This

identification was given to KEDLI due to the sheer volume of damages. However, when looking at the number of damages per 1,000 one-call tickets, KEDLI out performs the statewide level in this category.

Q. What was the statewide performance level for damages due to mismarks, damages due to Company and Company contractors, and total damages per 1,000 one-call tickets in 2014?

A. In 2014, the statewide performance level was 0.37 for damages due to mismarks, 0.08 for damages due to Company and Company contractors, and 1.71 for total damages per 1,000 one-call tickets.

Q. How have the Companies performed in comparison to the statewide performance?

A. KEDNY currently out performs the statewide levels for the damage prevention categories targeted. KEDLI out performs the statewide level for Company and Company contractor damages. However, for damages due to mismarks and for total damages, KEDLI's 2014 performance is equal to 0.45 and 1.90, respectively. It is important to note that for damages resulting

where no notification was made to the one-call system, KEDLI's performance is nearly twice as worse than that of the statewide level.

Q. What does the Panel recommend?

A. We recommend that each Company have the same targets, 0.37, 0.08, and 1.71 for damages due to mismarks, Company and Company contractors, and total damages, respectively. The Companies' reporting of their performance on these measures should be required to be in compliance with that of the most recent Gas Safety guidance.

Q. Please explain how the Panel derived these targets.

A. We chose our recommended targets based on the 2014 statewide levels for all three of the damage prevention areas identified. In most areas, the Companies are performing at higher levels so by setting these new targets, it will encourage the Companies to maintain their current levels of performance.

Q. Why are these targets reasonable?

A. We believe that with the total volume of notifications being made within the Company's service territories, and the inherent risk

associated with said excavation work, public safety should be of the utmost importance. We support the additional full time equivalent damage prevention advisors, as requested by the Companies, to assist with achieving these targets. In addition, as the Companies replace older leak prone pipe, damages due to mismarks should fall as it is the older pipe for which the Companies have incomplete records, including location information. This older pipe is being replaced by pipe for which the Companies know the exact locations, including rise and run, allowing the Companies to use updated and accurate mapping during the mark-out process.

Q. Are damages due to mismarks, and Company and Company contractors within the control of the Companies?

A. Yes.

Q. Are total damages?

A. Not entirely. Specifically, damages caused by excavator failure to notify New York 811, sometimes referred to as no-calls, and/or unsafe excavation practices are not totally within the control of the Companies. However, the

Companies can minimize these damages by influencing excavator activity through education and outreach efforts to excavators, by continuing to bill excavators for repair costs when the excavator is at fault, and by referring problem contractors to Department Staff for enforcement purposes. In addition, both KEDNY and KEDLI should consider developing best practices, in conjunction with other companies affiliated with the Northeast Gas Association and/or other trade associations.

Q. Are damages due to no-calls a component of the overall damage measures?

A. Yes. Damages due to no-calls are simply instances where the excavator fails to provide notice of intent to excavate to the one-call notification system, and thus no ticket is generated. This measure is part of the total damages and provides an indication of the general level of awareness excavators have about the one-call notification system.

Q. How does Staff assist LDCs with their damage prevention requirements?

A. Department Staff has been conducting an

enforcement program involving collection of penalties for violations of the Commission's damage prevention regulations for approximately 18 years. In 2007, this program was expanded by having gas LDCs report all instances of damage due no-calls. Damages due to no-calls are the most straight forward violations of 16 NYCRR Part 753 to enforce. LDC participation takes little effort and results in greater enforcement and eventual lower damage rates to underground pipeline facilities. This joint effort has led to a significant decline in damages due to no-calls over the years, as explained in the most recent Gas Safety Performance Measures report. In addition, when promptly notified and available, Staff provides aid to LDCs in working with problem excavators.

Q. Do the recommended targets for total damages per 1,000 one-call tickets include damages due to mismarks and Company and Company contractors?

A. Yes.

Q. Why do you recommend this approach?

A. This approach ensures that, even if it appears that damages due to mismarks and Company and

Company contractors will not be met in a given year, the Companies will still have an incentive to keep such damages as low as possible because of this combined total damages metric.

Q. Does the Panel recommend an associated negative revenue adjustment for failure to achieve these targets?

A. Yes. We recommend that KEDNY and KEDLI each be subject to a negative revenue adjustment of 18 pre-tax basis points, which would be owed to the customers should that company fail to achieve the recommended damage prevention targets. The breakdown should be as follows: 10 pre-tax basis points for damages due to mismarks, four for damages due to Company and Company contractors, and four for total damages.

Q. Does the Panel recommend an associated positive revenue adjustment for the damage prevention measure?

A. No.

Q. Should either the targets, or the negative revenue adjustments expire?

A. No. These targets and associated adjustments should remain in effect until changed by the

Commission.

Emergency Response

Q. Please describe the emergency response performance measures as followed by KEDNY, KEDLI, and other LDCs in the state.

A. These measures evaluate utility response to gas leak, odor and emergency calls generated by the public and non-Company personnel. Each gas utility is required by the gas safety regulations to provide a monthly report of the total number of calls received and responded to in intervals of fifteen minutes during normal business hours, weekdays outside of normal business hours, weekends, and holidays. These measures, in addition to Leak Management and Damage Prevention, are included in the annual Gas Safety Performance Measures report. Statewide standards for the emergency response performance measures have been jointly established by Staff and LDCs within individual rate cases as follows: respond to 75% of all gas leak and odor calls within 30 minutes; respond to 90% of all gas leak and odor calls within 45

minutes; and respond to 95% of all gas leak and odor calls within 60 minutes.

Q. What is the significance of the emergency response performance measure?

A. Leaks on inside piping, improperly operated or installed appliances, and gas migration into a building from leaks on outside buried piping presents a risk to the general public. The utility recognizes this and dispatches personnel on a priority basis in response to calls reporting gas leaks or odors. The LDCs are required to maintain a log of such calls and track the elapsed time between dispatch and arrival times of qualified service personnel responding to the scene. As the LDCs response time lengthens, the potential for the development of a serious incident or safety threat to the general public increases. Therefore, it is important that LDCs minimize their response times for gas leaks or odors calls.

Q. Do KEDNY and KEDLI currently have a target for emergency response performance?

A. Yes. Both KEDNY and KEDLI are required to

respond to 75% of leak and odor calls within 30 minutes, 90% of leak and odor calls within 45 minutes, and 95% of leak and odor calls within 60 minutes. Failure to meet the 30, 45, or 60 minute measures results in a negative revenue adjustment owed to the customers. For KEDNY, the adjustment is equal to six, four, and two pre-tax basis points, respectively. For KEDLI, the adjustment is equal to $600,000, $360,000, and $240,000, respectively.

Q. Have the Companies proposed any changes to their current emergency response targets?

A. Both Companies proposed keeping the current minimum targets and associated negative revenue adjustments. In addition, both Companies proposed an exclusion of gas leak and odor calls resulting from mass area odor complaints, significant weather related occurrences, or major equipment failures.

Q. How have KEDNY and KEDLI performed in its emergency response efforts?

A. From 2010 through 2014, both KEDNY and KEDLI have met the established minimum levels.

Q. What does the Panel recommend?

A. We recommend that both KEDNY and KEDLI be required to respond to 75%, 90%, and 95% of all gas leak and odor calls within 30, 45, and 60 minutes, respectively. Any gas leak and odor calls resulting from mass area odor complaints, significant weather related occurrences, or major equipment failures should not be excluded from these counts.

Q. Would there be an associated negative revenue adjustment for failing to meet this measure?

A. Yes. Failure to meet either of the 30, 45, and 60 minute targets would result in a negative revenue adjustment owed to customers of six, four, and two pre-tax basis points, respectively, for each Company.

Q. Would the targets and associated negative revenue adjustments expire under Staff's proposal?

A. No. The targets and adjustments should remain in effect until changed by the Commission.

<u>Violations of Safety Regulations</u>

Q. Does the Panel have any concerns with either KEDNY's or KEDLI's compliance with the

Commission's pipeline safety regulations?

A. Yes. We are concerned with general non-compliance with the Commission's pipeline safety rules and regulations contained in 16 NYCRR Parts 255, 259, and 261.

Q. How are these violations identified?

A. Department Staff conducts record and field audits of KEDNY and KEDLI on an annual basis. Staff also investigates incidents involving the Companies' natural gas facilities. Typically, when Staff discovers an instance of non-compliance with the Commission's pipeline safety regulations, a compliance meeting is held with the Company detailing the code sections related to the instances of non-compliance.

Q. What is the purpose of the compliance meeting?

A. The compliance meeting is an opportunity for the Company to provide information to clarify any deficiencies found. Information clarifying these deficiencies might include providing further explanation to inquiries, or providing records that were not available at the time of the audit.

Q. How long does a Company have to provide this

information?

A. A Company is required to provide this information within five business days of the compliance meeting. After the five business day period, Staff reviews the information and subsequently issues a formal letter detailing the specifics of the violations as it relates to the regulations.

Q. Does KEDNY currently have a violation target?

A. Yes.

Q. Does KEDLI currently have a violation target?

A. No.

Q. Has either Company proposed modifications to or a new violation measure?

A. KEDNY proposed modifications to its existing measure. Specifically, KEDNY proposed lower financial exposure limits associated with failure to meet their targets, total violation caps for a particular code section or regulation to also lower their financial exposure limits, and an incentive to not be penalized for self-reported violations. Also, KEDNY would like to rework the categorizations of violations. KEDLI did not propose a new violation measure.

Q. What is the difference between a violation and an occurrence?

A. Historically, audit letters outline findings which note a violation of a specific requirement, and then associated it with the total number of occurrences found. The term violation is commonly referred to in discussions and is widely understood within the pipeline industry. Thus, for the purpose of this measure, there is no difference between a violation and an occurrence. These words are and can be used interchangeably. Staff considers both terms as an instance of non-compliance with the Commission's pipeline safety regulations.

Q. How does the Panel account for violations in which a record cannot be provided by the Companies?

A. We will continue to consider it a standing violation when any records requested by Staff during its audits are either not provided or are found to be incorrect. This definition of a records violation will apply to situations where KEDNY and KEDLI attempt to provide missing or

correct records after the five business days following the compliance meeting. An official Company record is each Company's sole vehicle to demonstrate compliance.

Q. Does the Panel categorize violations?

A. Yes. We have two categories which are based on the likelihood of risk to public safety resulting from a violation of the regulations. The two categories of violations are high and other risk. High risk refers to code requirements that, if not followed, lead to a greater likelihood of an adverse impact on public safety with regard to loss of life or property and damage to the environment. We consider all violations occurring at a Liquefied Natural Gas plant to be high risk. The breakdown of code sections are provided in Exhibit__(GSP-2).

Q. For the past five years, 2011 through 2015, on average how many violations of the Commission's pipeline safety regulations have KEDNY and KEDLI been cited for by gas safety Staff?

A. On average, from 2011 through 2015, Staff has identified an average total of 65 and 47 high

risk violations for KEDNY and KEDLI, respectively. For other risk violations, Staff has identified an average total of 74 and 277 violations, respectively.

Q. What were the negative revenue adjustments for KEDNY based on its' performance in 2013, and 2014?

A. Based on the violations identified in Staff's audit reports, KEDNY's performance resulted in a negative revenue adjustment of 15 pre-tax basis points in 2013, and 30 pre-tax basis points in 2014, for a total exposure of 45 pre-tax basis points, or approximately $10,800,000.

Q. How should these adjustments be treated?

A. At this juncture, it is appropriate to defer the above adjustments. At a later date, the monies should be used to offset costs associated with safety related programs. We recommend that KEDNY be required to seek Commission approval prior to allocating these funds.

Q. Does the Panel find the Companies' performance of compliance with the regulations acceptable?

A. No. We are concerned with both Companies' performance. Any number of violations can

indicate a lack of the Companies' control, an issue with internal quality assurance, or a culture that is willing to accept a level of non-compliance with the regulations. This culture is further demonstrated by the Companies' repeated inability to promptly respond to Staff's audit letters. In addition, many of the Companies' responses to violations simply indicate that they will "re-train" or "counsel" employees. After several years of these typical responses, it is clear that these responses are generally ineffective, evidenced by the fact that the Companies continue to have difficulty complying with the minimum pipeline safety regulations, some of which have been in place for over 40 years.

Q. What does the Panel recommend?

A. We recommend the continuation of the violation performance measure for KEDNY and the creation of one for KEDLI. We also recommend the inclusion of Liquefied Natural Gas Plant audit findings from Staff's annual audits under 49 CFR Part 193, and 16 NYCRR Part 259. Any violations identified under these sections would be deemed

high risk. For high risk violations, each occurrence of non-compliance would result in one pre-tax basis point being owed to the customers. For other risk violation, one-third of one pre-tax basis point would be owed for each occurrence.

Q. Does the Panel recommend any positive revenue adjustments?

A. No positive revenue adjustments would be given to the Companies for this performance measure as these audits are focused on complying with the minimum pipeline safety requirements.

Q. Should either KEDNY or KEDLI be excused from associated negative revenue adjustments for the self-reporting of violations?

A. No. However, self-reporting of violations could be a consideration in the determination of an administrative sanctions proceeding under Public Service Law Section 25-a.

Q. Does the Panel recommend capping the associated negative revenue adjustments for violations of a particular code section?

A. Yes. We recommend capping the total violation count at ten for each of the code sections

identified in Exhibit__(GSP-2), 49 CFR Part 193, and 16 NYCRR Part 259.

Q. Does this mean that, if there are more than ten violations of any given code section, enforcement will not be pursued?

A. No. We consider more than ten violations of a single code section to be gross non-compliance, for which additional action needs to be taken. Should KEDNY or KEDLI incur more than ten violations of a single code section that Company should file with the Commission a plan for remediation explaining how it will ensure that compliance issues are addressed and resolved. This plan should include dates by which all cited violations will be brought into compliance, or, where appropriate, when remedial actions will be put in place to mitigate reoccurrence. If needed, such a filing should be required to be made within 90 days of receiving Staff's audit letter. In addition, we note that Public Service Law Section 25-a provides for administrative sanctions, which may be appropriate in instances where KEDNY or KEDLI exceed ten violations of a given code section,

specifically if one (or more) of the violations lead to injury or significant property damage.

Q. When should this measure commence?

A. For KEDNY, this measure is a continuation of an existing measure, and for KEDLI this is a new measure. For both, the measures as set forth in our testimony should take effect on January 1, 2017.

Q. Should this measure expire?

A. No. This measure should remain in effect until changed by the Commission.

Q. Why does the Panel recommend this measure?

A. First, the performance measure provides a financial disincentive for non-compliance with the Commission’s pipeline safety regulations. Second, it is critical for the Commission to be able to address all violations of the pipeline safety regulations where the potential exists for serious harm, or even death. As occurrences of violations can be clearly demonstrated, this measure should be automatic and avoid the need for formal, intensive penalty actions against KEDNY and KEDLI for every occurrence of non-compliance. Note, however, that the Commission

always has the authority to pursue a penalty action notwithstanding the existence of a violations measure.

Q. Please provide an example of how this violation measure would work.

A. Let us assume the field audit letter details a total of five occurrences of high risk and 20 occurrences of other risk violations. The record audit letter for that same period details a total of 30 occurrences of high risk and 40 occurrences of other risk violations. Also noted in the Liquefied Natural Gas plant audit were 10 occurrences of high risk violations. The 45 high risk violations would result in a negative revenue adjustment of 45 pre-tax basis points owed to the customers. The 60 other risk violations would result in an additional negative revenue adjustment of 20 pre-tax basis points owed to the customers. The resultant exposure would be 65 pre-tax basis points.

Q. Are there any other LDCs in the state subjected to a violation performance measure?

A. Yes, Corning Natural Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid,

Central Hudson Gas and Electric Corporation, Consolidated Edison of New York, Inc., National Fuel Gas Distribution Corporation and Orange and Rockland Utilities, Inc. all are subject to a violation performance measure.

Gas Safety Incentive

Q. What is the Gas Safety Incentive?

A. Both KEDNY and KEDLI proposed a new incentive to promote the development and deployment of new safety programs and technology.

Q. How would this new Gas Safety Incentive work?

A. Prior to the beginning of each year the Companies would meet with Staff to identify a new set of programs to be delivered in the coming year. Both KEDNY and KEDLI could earn an incentive of up to 10 pre-tax basis points for successfully reaching their respective targets.

Q. Have either KEDNY or KEDLI identified specific programs to be considered for this incentive?

A. According to DPS-290, Exhibit__(GSP-1), the Companies deferred specifics until such time that they and Staff could meet to collaborate. However, the Companies did provide examples of

potential programs to be utilized such as methane detection, remote shut off valves, and first responder training programs. All of which are currently being addressed in this proceeding.

Q. What does this Panel recommend?

A. Due to so much uncertainty, because the Companies could not provide the specific programs to be considered, and based on the potential programs being addressed in this proceeding, we cannot recommend the creation of this new gas safety incentive at this time.

First Responder Communication and Training

Q. What do KEDNY and KEDLI propose for enhanced First Responder Communication and Training?

A. The Companies have requested increased funding to support a new safety e-learning program. This program contains a comprehensive series of educational modules on gas safety issues, incident management, the properties and characteristics of natural gas, carbon monoxide poisoning, and response tactics for incidents involving liquefied natural gas.

Q. How often do KEDNY and KEDLI perform emergency response drills?

A. According to DPS-375, Exhibit__(GSP-1), KEDNY will perform a tabletop exercise and will implement separate field-based drills with the Fire Department of New York to enhance communication and coordination in the event of gas emergencies. Pending the outcome of this exercise, KEDLI intends to perform a similar interactive drill the following year, 2017, with volunteer fire departments on Long Island.

Q. Does the Panel have any recommendations with regards to training fire department first responders?

A. Yes. 16 NYCRR Part §255.615(c) “Emergency Plans” requires that natural gas utilities offer training annually to volunteer fire departments. We would like the Companies to improve their current training of fire department first responders in both service territories by conducting more drills, hands-on activities, and workshops with a review of the processes and procedures that would be used during an incident.

Q. What would be the benefits of having the Companies improve their training with first responders?

A. Both local fire departments and KEDNY and KEDLI responders play a critical role in responding to natural gas odors, leaks, and incidents. Most often, customers report natural gas odors directly to KEDNY and KEDLI. Companies will then dispatch their first responders to investigate and will notify the fire department of the report as needed for assistance.

Q. What triggers a need for additional assistance?

A. There are multiple triggers for additional assistance, such as multiple reports of gas odor on the same block, high natural gas readings in subsurface structures, suspected interaction of gas and electric facilities, or any other situation the Companies believe it needs assistance. Assistance requests initiate a heightened response in which the Companies, besides calling the fire departments, will also dispatch additional Company first responders and supervisors. In situations such as these, interaction between the fire departments and the

Companies is crucial to ensuring public safety. Then, the fire departments and Companies coordinate efforts to check for natural gas inside residences or subsurface structures, and evacuate homes if necessary.

Q. In what other ways could the fire departments become involved in natural gas emergency response?

A. Residents can notify 911 of a natural gas odor instead of the utility. KEDNY and KEDLI's own public awareness information advises customers to call either 911 or the utility number in case of a natural gas emergency. When someone calls 911, the fire department responders are often the first ones on the scene and will initiate actions to make the situation safe. This action generally includes checking for the presence of natural gas inside homes, and evacuating residences. Also, the fire department notifies KEDNY and KEDLI when it receives a report of a natural gas odor. If the utility responder arrives after the fire department, both KEDNY and KEDLI need to be able to communicate and coordinate with the fire department to assess

the situation and make the area safe. For all instances where both fire department and the Companies' personnel are on the scene, the fire department and Companies need to be able to effectively interact and communicate. Since fire departments play such an important role in natural gas emergency response, KEDNY and KEDLI should provide more training to local fire departments. This training should cover realistic scenarios where both the Companies and the fire departments jointly interact.

Q. How do KEDNY and KEDLI first responders communicate with fire department first responders?

A. According to DPS-375, Exhibit__(GSP-1) during gas emergency situations the primary communication between the local fire departments and the Companies is through a land line or cellular telephones. The Companies also indicated that they have an exclusive utility frequency that is not shared with other agencies, such as fire departments.

Q. What does the Panel recommend?

A. In addition to the training enhancements

mentioned above, the radios used by KEDNY and KEDLI and by fire departments should be compatible or have a similar radio frequency system to allow for communication with one another in an emergency situation. A program should be developed and implemented to ensure that this communication is maintained.

Residential Methane Detection

Q. What has KEDNY proposed for its Residential Methane Detection program?

A. KEDNY proposed to deploy 10,000 detectors in apartments that currently have inside meter sets by 2019. KEDNY has requested $150,000 per year to fund this program and seeks a positive revenue adjustment should it be able to install 2,500 detectors by the end of the 2017 calendar year, an additional 3,500 detectors in 2018, and an additional 4,000 detectors in 2019. KEDNY proposes incentives of one pre-tax basis point, one pre-tax basis point, and 1.5 pre-tax basis points, for each year, respectively.

Q. Where will the KEDNY detectors be located?

A. According to DPS-372, Exhibit__(GSP-1), KEDNY

intends to focus its installation efforts on individual apartments within larger buildings that have meters in the apartment, commonly referred to by KEDNY as “room sets.” These “room sets” can present accessibility issues. Having a methane detector in place would aid in alerting nearby persons of a potential emergency situation.

Q. Do the pipeline safety regulations allow for meters to be inaccessible?

A. No. The wording of the requirement is very clear. Per 16 NYCRR Part 255.353(a), “[e]ach meter and service regulator must be installed in a readily accessible location and be protected from corrosion and other damage, including any vehicular damage that may be anticipated.”

Q. What does the Panel recommend regarding KEDNY?

A. We are supportive of KEDNY’s Residential Methane Detection program. However, during the installation process should KEDNY encounter a situation where a meter is inaccessible, it should be required to take immediate action in the relocation of said equipment to an accessible location. According to the

Commission's regulations, each meter shall be "readily accessible" and "protected".

Compliance Related Positions

Q. How many additional compliance analyst, quality assurance analyst, and damage prevention advisor positions are the Companies requesting?

A. The Companies are requesting a total of seven full-time compliance analysts, two full-time quality assurance analysts, and 12 full-time damage prevention advisors.

Q. Please describe the responsibilities and general duties of compliance analysts.

A. Compliance analysts' role is to promote the safe and reliable operation of the Companies gas system by performing regular audits of operation activities. These audits focus on identifying instances of non-compliance with the Commission's pipeline safety regulations, internal procedures, and documentation deficiencies.

Q. Please describe the responsibilities and general duties of quality assurance analysts.

A. Quality assurance analysts conduct field

inspections and assessments of the work performed by both in-house and contractor crews. These analysts also conduct the Companies' "re-dig" program whereby newly constructed underground facilities are exposed and inspected to evaluate workmanship and compliance with the pipeline safety regulations.

Q. Please describe the responsibilities and general duties of damage prevention advisors.

A. Damage prevention advisors monitor the ticket management system for active location requests, provide education on applicable regulations, and proactively work with excavators to reduce damages.

Q. What does the Panel recommend?

A. We are supportive of the additional quality assurance analyst, and damage prevention advisor positions. However, we are not supportive of rate recovery for the additional compliance analyst positions.

Q. What is the revenue requirement impact of these reductions in FTEs?

A. The Staff Accounting Panel provided the following information about the impact of these

labor adjustments on the Companies' revenue requirement. The removal of the compliance analyst positions results in a downward adjustment to other initiative expense of $360,882 for KEDNY, which includes $233,423 in labor and $127,459 in adders; and $384,501 for KEDLI, which includes $233,423 in labor and $151,077 in adders.

Q. Why is this recommendation reasonable?

A. Both the quality assurance analyst, and damage prevention advisor positions provide a routine service to verify compliance with the pipeline safety regulations and overall workmanship. The Companies have justified the need for these additional positions, and we support these additional positions. However, the compliance analyst positions serve as a secondary, and in some cases a tertiary, review of completed documentation. While this review is beneficial to the Company, the associated costs should not be the responsibility of rate payers. Ratepayers have already paid for a thorough review of this documentation and should not be responsible for these additional costs.

Independent Compliance Assessment

Q. What are the Companies' independent compliance assessment proposals?

A. Both KEDNY and KEDLI propose to engage a third-party consultant to perform an annual assessment of compliance with federal, state, and local pipeline safety requirements, as well as procedures and work practices. The consultant will review and assess the adequacy of Company programs including training, operator qualification, emergency response, and public awareness. The consultant will review prior internal, external, and regulatory audits, and will identify re-occurring issues of non-compliance. The costs associated with this compliance assessment were forecasted to be $525,000 for KEDNY, and $243,000 for KEDLI in 2017. Additional costs for each subsequent year include $160,000 for KEDNY, and $130,000 for KEDLI.

Q. Why is this assessment reasonable?

A. Regardless of the internal reviews conducted by the Companies and Staff audits, these efforts are generally specific in nature and do not

account for all of the procedures and work practices. By hiring an independent, qualified consultant to conduct a thorough and complete review of all procedures and work practices, the Companies would be assured of compliance with the applicable requirements.

Q. What does the Panel recommend?

A. We are supportive of the Companies conducting an independent compliance assessment of applicable procedures and work practices. However, we recommend that this assessment be conducted once, not on an annual basis as originally requested. By conducting a thorough and complete review in the rate year, especially given the addition of, quality assurance analyst, and damage prevention advisor positions discussed earlier, the Companies would not have a need a third-party to re-assess these procedures and work practices annually thereafter. Therefore, we recommend that the costs associated with this program are for the baseline assessment only. Any future costs associated with additional future reviews of procedures and work practices would be subject

to justification and approval in a future proceeding.

Service Line Proceeding and Replacements

Q. What is the service line proceeding?

A. In 2015, the Commission instituted Case 14-G-0357, In the Matter of Revising 16 NYCRR Gas Safety Regulations for Consistent Application of More Stringent Federal Gas Safety Standards in 49 CFR, in which it adopted a new definition for natural gas service lines for 16 NYCRRR Part 255.3(29). Under this new definition, service lines would be extended to the outlet of the customers' meter or at the connection to a customer's piping, whichever is further downstream. This includes when a meter is located inside a building, or, as we discussed earlier, inside each apartment within a larger apartment building.

Q. What are the impacts of this definition change?

A. Impacts of this change include the inspection of piping inside a building up to the gas meter, and additional training, qualification, and testing requirements for individuals who make

repairs on inside gas piping, upstream of the meter.

Q. Did the Companies address the service line proceeding in their filing?

A. Yes. Both KEDNY and KEDLI acknowledge this service line proceeding and its impacts. Due to the fact that this separate proceeding has not yet concluded, the Companies have deferred incorporating any associated costs on this topic. Cost recovery is assumed to be handled through this separate proceeding. Otherwise, the Companies will petition the Commission to recover these costs.

Q. What did KEDNY propose for its service line replacement program?

A. KEDNY has proposed the replacement of an additional 250 inside, high pressure, unprotected steel services, annually, which are not included in their leak prone pipe replacement program. Both, an engineering assessment of its gas services, and its Distribution Integrity Management Program identified these services as high risk due to the vulnerability of the “wall piece” where the

piping penetrates the foundation. These sections of piping are exposed to a higher level of shear stress and corrosion.

Q. How many inside, high pressure, unprotected steel services does KEDNY have?

A. According to DPS-373, Exhibit__(GSP-1), KEDNY has approximately 8,100 inside, high pressure, unprotected steel services within its service territory.

Q. What does the Panel recommend?

A. We recommend the annual replacement of 250 inside, high pressure, unprotected steel services within the KEDNY service territory. As previously mentioned when we were discussing residential methane detectors, we also recommend that KEDNY use this opportunity to relocate meters and service regulators to a readily accessible location, ideally outside if feasible. Due to the inherent safety risks when compared to outside sets, it is a best practice to have these facilities installed outside of the building. For any instances where this relocation cannot be completed, KEDNY should be required to document and maintain the

justification for each occurrence. KEDNY should be required to file a quarterly report with the Secretary which details the services replaced, dates of replacement, associated costs, and justifications for leaving any of these facilities within a building.

Integrity and Reliability Programs

Q. What is an Integrity Management Program?

A. An Integrity Management Program, or IM, provides the process and means to improve the safety and reliability of the natural gas system by reducing both the likelihood and consequences of incidents. These programs identify specific threats to the system. Once identified, the next step in the IM program is to assess how these threats relate to high consequence areas. The last step in the IM program is for the operator to take action to address these threats. The resultant prevention and mitigation measures taken by the operator ensure the system's integrity.

Q. How are high consequence areas, HCAs, determined?

A. HCAs are determined by identifying the total number of buildings intended for human occupancy and identified sites (buildings that are hard to evacuate such as hospitals, nursing homes, day care centers, etcetera) within a specified Potential Impact Radius, or PIR.

Q. What is the definition of a PIR?

A. PIR is defined as the radius of a circle within which the potential failure of a pipeline could have significant impact on life or property.

Q. How is the PIR determined?

A. The PIR is determined by calculating the potential failure radius associated with an identified threat. The radius takes into account the maximum operating pressure of the pipeline and its diameter.

Q. How long have operators been required to have an Integrity Management Program?

A. For transmission pipelines, operators have been required to have an IM program in effect since December 17, 2004. For distribution pipelines, operators have been required to have an IM program in effect since August 2, 2011.

Q. Have there been any changes to the transmission

and distribution IM regulations since their respective effective dates?

A. No. However, in 2013 and 2016, PHMSA released proposed additions to IM regulations that, if approved, will require operators to apply additional assessment criteria, including integrity verification, to their programs.

Q. What does integrity verification consist of?

A. Integrity verification consists of four basic principles: identifying higher risk locations, screening segments of pipelines for categories of concern, assuring adequate material and documentation, and performing assessments to establish a maximum allowable operating pressure.

Q. What is the preferred method of integrity assessment?

A. The preferred methods of integrity assessment are In-Line Inspections, or ILI, and hydrostatic pressure testing. However, the hydrostatic pressure test requires that the pipeline be taken out of service and purged of its contents.

Q. What are the advantages of performing an ILI?

A. The advantages of performing an ILI include the

identification of pipeline geometry deformations such as dents, identification of material or construction defects, and the ability to measure the extent of any wall thickness loss.

Q. Please explain what is meant by wall thickness loss.

A. Wall thickness loss occurs when a pipeline experiences either a mechanical damage or some sort of corrosion. Mechanical damage typically leaves a gouge or dent in the pipe that can be identified by ILI. Metal loss in the wall due to corrosion, either internal, external, or atmospheric, can also be identified using ILI.

Q. What have KEDNY and KEDLI proposed with regard to their IM programs?

A. KEDNY and KEDLI proposed increases to their IM and Integrity Verification programs. Justifications for these increases include additional assessments on their transmission mains, conducting a thorough review of records, pressure testing, and engineering analyses.

Q. What does the Panel recommend?

A. We are supportive of KEDNY and KEDLI’s Integrity Management and Verification Programs. We also

encourage the use of ILI.

Q. How does this benefit the Companies' customers?

A. The completed assessments of the Companies' systems have identified several threats which, if left unrepaired, could directly impact public safety. The rehabilitation projects to mitigate these threats prolong the asset life with lower remediation costs in the future, and avoid the need for costly full pipe replacement. In addition, integrity verification provides for thorough review of a pipeline's safe operating pressure so that maximum allowable operating pressures can be justified or reset.

Q. Have either KEDNY or KEDLI proposed any additional rehabilitation projects?

A. Yes. KEDNY proposed the deployment of a Cast Iron Joint Sealing Robot, or CISBOT. Both KEDNY and KEDLI proposed the utilization of Cured-In-Place, CIP, pipe lining to recondition 16-inch and larger diameter cast iron and steel mains.

Q. Please describe the CISBOT program.

A. Unlike traditional repair methods which would require excavation for every leak location and possibly the discontinuance of service, CISBOT

utilizes a single excavation without disrupting customers. This robot traverses through the pipe and seals cast iron joints. This process remedies existing leaks, prevents future leaks, and reduces emissions. A single excavation allows CISBOT to reach and seal upwards of 80 cast iron joints, which makes the CISBOT operation more cost effective per joint when compared to the costs associated with normal construction and repair methods. CISBOT does not make repairs to any leaks that are not located at the joints themselves.

Q. Please describe the CIP program.

A. A treated fabric liner and an adhesive resin are installed inside cast iron and steel mains. This new layer is impervious to gas and utilizes the existing structure for strength because it is not a pressure carrying vessel on its own. Typically, mains containing CIP liners have been termed reconditioned, and their useful life is extended, which allows the Companies to focus their attention on higher risked replacements. Since CIP liners are not considered pressure carrying vessels, use of CIP liners are

dependent upon the integrity and continued maintenance of the host pipe.

Q. What are the specifics of the CISBOT and CIP programs?

A. KEDNY proposed utilizing CISBOT to recondition two miles annually, and CIP lining to recondition 2.5 miles in 2017, four miles in 2018, and four miles in 2019. KEDLI proposed utilizing CIP lining to recondition one mile annually. Any program underruns would be shared with 80% being owed to customers and 20% to shareholders.

Q. Are reconditioned pipelines still considered leak prone pipe?

A. Yes. Reconditioned pipelines are essentially leak repairs made on existing cast iron and steel mains. Facilities which have been reconditioned should be re-prioritized within the Companies' respective replacement programs, but should remain in the program.

Q. What does the Panel recommend?

A. We support the utilization of CISBOT and CIP lining programs. These innovative programs not only reduce the average repair costs, but

prolong the useful life of a pipeline facility. The Companies should be required to maintain all reconditioned pipe on their respective leak prone pipe prioritization list for future removal. In addition, the Companies should only be allowed to use CIP lining on cast iron pipe that is greater that 12-inches in diameter, only after the pipe to be lined has been examined for the presence of graphitization and has had its integrity verified. The Companies should also be required to develop a program, with Staff, that will inspect lined pipe on a regular basis, including but not limited to, leakage surveys, checks for graphitization, and integrity verification. The Companies should be required to report the inspection results to the Secretary to the Commission on an annual basis. The extra protocols for CIP liners are needed as the CIP liners are not pressure carrying vessels.

Inactive Accounts

Q. What enhancements are being made to the Companies' Inactive Accounts program?

A. KEDNY and KEDLI have employed a more structured process to access and lock their inactive accounts, proposed a “Leave on for the Landlord” program that provides an option for the landlord to transfer accounts into its name and requires notifications to the landlord of any such changes, are supportive of potential legislation to assist utilities in gaining access to buildings, are working with other utilities to develop protocols for gaining access to buildings, and have incorporated the importance of gaining access into their public awareness programs.

Q. How many inactive accounts do KEDNY and KEDLI have?

A. According to DPS-380, Exhibit__(GSP-1), and as of March 25, 2016, KEDNY has 7,898, and KEDLI 1,130 inactive accounts on record. The length of time these accounts have been left inactive for ranges up to above one year with 655 accounts, cumulatively for both Companies, inactive for greater than one year.

Q. Why are accounts remaining inactive for such long periods of time?

A. Reasons for accounts remaining inactive for such long periods of time include the Companies' inability to gain access, the accounts being referred to field operations for physical disconnection, and the legal replevin process utilized to secure access.

Q. Should all meters and service regulators be installed in a readily accessible location?

A. Yes. As previously mentioned when we discussed residential methane detectors and the service line definition, all meters and services are required to be installed in a readily accessible location and be protected from corrosion and other damage, including any vehicular damage that may be anticipated.

Q. What are KEDNY and KEDLI's procedures for initiating their respective disconnection processes?

A. According to DPS-380, Exhibit__(GSP-1), two attempts are made to access the meter within the first 60 days. If both attempts are unsuccessful, an order is created to either disconnect the service or to commence the legal replevin process.

Q. Is there any usage associated with inactive accounts?

A. According to the Companies' responses to DPS-380, Exhibit__(GSP-1), 2,245 of the 9,028, nearly 25%, recorded some amount of gas usage while being in an inactive status. Based on March of 2016 pricing, approximately $417,576 of usage was recorded as lost and unaccounted for gas, or LAUF. The Staff Gas Rates Panel addresses the treatment of LAUF.

Q. Does this lost and unaccounted for gas present a safety risk to the general public.

A. It could. While in some cases this gas usage may be accounted for by actual use by an unidentified party, the possibility exists that there may be leakage on the piping associated with these accounts. Any leakage into a building presents an immediate danger to life, property, and the environment. In the past two years, Niagara Mohawk Power Corporation d/b/a National Grid, the sister company of KEDNY and KEDLI, experienced an explosion in Schenectady, New York, and KEDLI experienced an explosion in Watermill, New York, where two people were

injured. Both of these involved inactive accounts where the meters were not shut off.

Q. What do the pipeline safety regulations say with regard to the abandonment or inactivation of facilities?

A. The Commission's regulations, at 16 NYCRR 255.727(d), state that "[w]henever service to a customer is discontinued, one of the following apply. (1) The valve that is closed to prevent the flow of gas to the customer must be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator. (2) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly. (3) The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed."

Q. Is there a timing requirement to commence the abandonment or deactivation of a facility?

A. While not explicitly defined within the pipeline safety regulations, it is important to note that the pipeline safety regulations do not recognize

an active service without a customer, and it is a requirement to commence this process as soon as practicable. The regulations do require that each segment of pipeline that becomes unsafe must be replaced, repaired, or removed from service and specifically require action to take place when service to a customer is discontinued.

Q. Is the 60 day requirement provided within the KEDNY and KEDLI procedures reasonable?

A. No. There are safety risks associated with this interval, and the possibility exists that the lost and unaccounted for gas related to inactive accounts is due to leakage on the associated piping.

Q. What does the Panel recommend?

A. While we are supportive of the efforts both KEDNY and KEDLI have put forth thus far on addressing inactive accounts, due to the inherent safety risks, we recommend that both Companies revise their procedures to provide for a more stringent time requirement. These revisions should be filed within 30 days of the issuance of a rate order in this proceeding. If

the Companies do not believe that a more stringent time frame be required, we recommend that the Companies seek a formal interpretation from PHMSA as to the reasonableness associated with the commencement of this inactive account process.

Roadway Depressions

Q. Why are road depressions and cave-ins a threat to the natural gas system?

A. Roadway depressions and cave-ins can be indicative of underground soil erosion, which can be caused by events such as water main leaks or sewer breaks. This can result in a loss of supporting soil around natural gas mains or services, which could cause the facilities to leak or fail. The NTSB's and Staff's investigation into the explosion in East Harlem in March 2014 found loss of ground support for the gas main due to a sewer main break to be a contributing factor to the incident. The NTSB East Harlem report is publicly available on the NTSB's website at http://www.ntsb.gov/investigations/AccidentReports/Pages/PAR1501.aspx.

Staff's report is publicly available on the Commission's website under Case 14-G-0201.

Q. Has KEDNY proposed any programs to address roadway depressions?

A. Yes. KEDNY will coordinate with reports from New York City's Department of Transportation to inspect roadway depressions for potential damage to underground facilities. KEDNY anticipates using existing personnel and internal systems to perform these inspections and forecasts startup costs to be $1.12 million in 2017. This money will be used for the development and implementation of the program and associated labor costs to conduct the inspections.

Q. What inspections are currently done by KEDNY that may identify roadway depressions?

A. For KEDNY's transmission pipelines, leakage surveys are conducted on an annual basis as well as patrols which are completed more frequently. For KEDNY's distribution pipelines, leakage surveys are conducted either annually, once every three years, or once every five years, depending on the facilities material type and location. Opportunities do exist during these

surveys and patrols for KEDNY to identify any roadway depressions.

Q. What does this Panel recommend with regards to KEDNY's roadway depression program?

A. We are supportive of the implementation of KEDNY's roadway depression program and that it continue to monitor street conditions to determine if there is a potential threat to its natural gas facilities. Any associated findings, or threats, should be coordinated with all other affected facility operators, and the Companies respective integrity management program.

Annual Reporting Requirements

Q. Are there any other conditions that KEDLI and KEDNY should be required to meet pertaining to your safety related performance measure recommendations?

A. Yes. We recommend the Commission direct KEDLI and KEDNY to submit a report, within sixty days following the end of each calendar year, on its performance as they relate to these measures. Any modifications made to the submitted data as

identified in Case 13-M-0314 should also be required to be incorporated into these measures.

Q. What is Case 13-M-0314?

A. Case 13-M-0314 is a focused operations audit of nine LDCs by an independent consultant. The objectives of this audit were to assess the completeness and accuracy of the performance measure data for Emergency Response Times, Leak Management, and Damage Prevention as submitted, to assess the comparability amongst utilities, and to determine the suitability of the measures. Both KEDLI and KEDNY participated in this audit and its recommendations were made public at the April 20, 2016 Commission Session.

Q. Does this complete the Panels' testimony?

A. Yes, at this time.