

STATE OF NEW YORK
DEPARTMENT OF PUBLIC SERVICE



2009 ELECTRIC RELIABILITY PERFORMANCE REPORT

Electric Distribution Systems
Office of Electric, Gas, and Water
June 2010

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EXECUTIVE SUMMARY

This report presents Department of Public Service Staff's (Staff) assessment of electric reliability performance in New York State for 2009. As a means of monitoring the levels of service, utilities are required to submit detailed monthly interruption data to the Public Service Commission (Commission). Staff primarily relies on two metrics commonly used in the industry to measure reliability performance: the System Average Interruption Frequency Index (SAIFI or frequency) and the Customer Average Interruption Duration Index (CAIDI or duration).¹ Frequency is influenced by factors such as system design, capital investment, maintenance, and weather.² Decisions made by utilities today on capital expenditures and maintenance policies, however, can take several years before being fully reflected in the frequency measure. Duration, on the other hand, is affected by work force levels, management of the workforce, and geography. By compiling the interruption data provided by the individual utilities, the average frequency and duration of interruptions can be reviewed to assess the overall reliability of electric service in New York State. In addition, Staff reviews several other specific metrics that vary by utility.

The statewide interruption frequency for 2009, excluding major storms, was comparable to 2008 and better than the five year average. Performance of all companies except Central Hudson Gas and Electric Corporation (Central Hudson) and Niagara Mohawk Power Corporation d/b/a National Grid's (National Grid) improved. While the performance of Central Hudson and National Grid did not improve from 2008 levels, they nonetheless met the performance mechanisms that they were subject to. The statewide duration in 2009 was the best in five years, with all companies improving. The primary reasons for good performance by all the utilities in 2009 include the overall mild weather, continued infrastructure improvements, focused tree trimming, and the

¹ SAIFI is the average number of times that a customer is interrupted during a year. CAIDI is the average interruption duration time for those customers that experience an interruption during the year.

² To help achieve a balance between service interruptions under a utility's control, such as equipment failures, and those which a utility's control is more limited, such as an ice storm, we review reliability data both including and excluding severe weather events.

implementation of improved response practices. Another contributing factor to the good performance was that 2009 was the least affected by storms of the past five years.

With respect to individual utility performance in 2009, New York State Electric and Gas (NYSEG) and Rochester Gas & Electric (RG&E) had improved frequency and duration performances as compared with 2008. Outages associated with tree contacts, however, continue to be a concern relative to NYSEG. Staff also has concerns about the potential effect on system reliability of ongoing workforce reductions at NYSEG and RG&E. Both NYSEG and RG&E are currently involved in rate case proceedings that will be considered by the Commission later this year.

Due to concerns regarding the accuracy of customer counts in Consolidated Edison Company of New York's (Con Edison) networks, the Commission modified the performance metrics; Con Edison's performance for 2009 is being measured using two measures based solely on the number of interruptions.³ The Company performed satisfactorily under these measures. The Company has been taking steps to improve its duration performance with several programs such as cross-training for a broader base of response personnel, quicker temporary repairs, expedited crew mobilization, increased use of weather information, use of pagers for dispatch, computer modeling to rank repairs for effect on reliability and the critiquing of each outage response.

National Grid's positive trend in the declining number of customers affected by an interruption may be attributed to the increasing use of reclosers as part of its commitment to increased infrastructure improvement.⁴ Central Hudson's frequency performance worsened somewhat since 2008; however, it experienced a five-year best for duration performance. The company reports that its new more rigorous tree clearance specification is showing positive results.

Orange and Rockland Utilities, Inc. (Orange and Rockland) performance improved in both frequency, a five-year best, and duration. The company credits its

³ Case 08-E-0539 – Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service

⁴ Case 06-M-0878, Joint Petition of National Grid PLC and KeySpan Corporation for Approval of Stock Acquisition and other Regulatory Authorizations.

increased use of distribution automation with improving reliability, and it is also initiating additional efforts to reduce future tree-related interruptions.

All electric utilities have reliability performance mechanisms (RPMs) in place as a component of their rate plans. The reliability performance mechanisms impose negative revenue adjustments on the utilities that fail to meet electric reliability targets. No company incurred a negative revenue adjustment for failure to achieve the targets in its reliability performance mechanism for 2009.⁵

⁵ Con Edison did not meet its Reliability Performance Mechanism metric related to its Remote Monitoring System; however, because this was determined to have been due to extraordinary circumstances, the Commission granted Con Edison a waiver and it did not incur a negative revenue adjustment.

INTRODUCTION

This report provides an overview of the electric reliability performance in New York State. As a means of monitoring the levels of service reliability, the Commission's Rules and Regulations require utilities delivering electricity in New York State to collect and submit information to the Commission regarding electric service interruptions on a monthly basis.⁶ The utilities provide interruption data that enables Staff to calculate two primary performance metrics: the System Average Interruption Frequency Index (SAIFI or frequency) and the Customer Average Interruption Duration Index (CAIDI or duration). The information is grouped into 10 categories that delineate the nature of the cause of interruption (cause code).⁷ Analysis of the cause code data enables Staff to identify areas where increased capital investment or maintenance is needed. As an example, if a circuit were shown to be prone to lightning-caused interruptions, arrestors could be installed on that circuit to try to minimize the effect of future lightning strikes. In general, most of a utility's interruptions are a result of major storms, tree contacts, equipment failures, and accidents.⁸ Staff maintains the interruption information in a database that dates back to 1989, which enables it to observe trends.

The Commission also adopted standards addressing the reliability of electric service by establishing minimum acceptable levels for both the frequency and duration of service interruptions for each major electric utility's operating divisions. The utilities are required to submit a formal reliability report by March 31 of each year containing detailed assessments of performance, including outage trends in a utility's various geographic regions, reliability improvement projects, and analyses of worst-performing feeders. There are no revenue adjustments for failure to meet a minimum level under the service standards; utilities are, however, required to include a corrective

⁶ 16 NYCRR Part 97, Notification of Interruption of Service requires utilities to keep detailed back-up data for six years.

⁷ 16 NYCRR Part 97, Notification of Interruption of Service specifies and defines the following ten cause codes that reflect the nature of the interruptions: major storms, tree contacts, overloads, operating errors, equipment failures, accidents, prearranged interruptions, customers equipment, lightning, and unknown. There are an additional seven cause codes used exclusively for Con Edison's underground network system.

⁸ The accident cause code covers events not entirely within in the utilities' control including vehicular accidents, sabotage, and animal contacts. Lightning is reported under a separate cause code.

action plan as part of the annual report. Revenue adjustments for inadequate performance are implemented through individual Reliability Performance Mechanisms which have been established in the utilities' rate orders. The service standards were last revised in 2004.

Interruption data is presented in two ways in this report – with major storms excluded and with major storms included. A major storm is defined by the Commission's regulations as any storm which causes service interruptions of at least 10 percent of customers in an operating area, and/or interruptions with duration of 24 hours or more.⁹ Major storm interruptions are excluded from the data used in calculating performance levels for service standards and reliability performance mechanisms. The purpose of this policy is to achieve a balance between service interruptions under a utility's control, such as equipment failures and line maintenance, and those over which a utility's control is more limited, such as severe ice storm or a heavy wet snowstorm. Reliability performance data inclusive of major storms reflects the actual customer experience during a year.

⁹ Major storms do not include heat-related service interruptions.

2009 RELIABILITY PERFORMANCE

The following sections provide a summary discussion of the reliability performance statewide and for each of the major utilities. Each year, Staff also prepares an Interruption Report summarizing the monthly interruption data submitted by utilities. The 2009 Interruption Report contains detailed interruption data for each utility and statewide statistics for the past five years. The Interruption Report for 2009 is attached as an Appendix. Individual company discussions identify issues or actions within each company that influenced performance levels for 2009 and indicates company-specific trends where applicable.

In addition, utility performance is compared with utilities' RPMs established as part of the utilities' rate orders. RPMs are designed such that companies are subjected to negative revenue adjustments for failing to meet electric reliability targets. The RPMs typically include targets for frequency and duration; some RPMs have additional measures to address specific concerns within an individual company. No company incurred a negative revenue adjustment for failure to meet its RPM targets in 2009.

STATEWIDE

For many years, Staff has been combining individual utility performance into overall statewide statistics. By doing so Staff is able to evaluate the level of reliability provided statewide and identify statewide trends. Because Con Edison's system includes many large, highly concentrated distribution networks, its interruption frequency is extremely low (i.e., better) as compared with other utilities. This, combined with the fact that it serves the largest number of customers in the state, typically results in a skewing of the performance measures. As a result, Staff examines and presents aggregated data both including and excluding Con Edison's data.

Statewide, as may be seen in Figure 1, the frequency of interruptions excluding major storms was 0.56 in 2009; this is the same as 2008's performance and better than the five-year average. All companies, except Central Hudson and National Grid, had fewer customers affected by power outages in 2009 when major storms are

excluded. The frequency performance in 2009 for utilities other than Con Edison is 0.89, substantially the same as their frequency performance of 0.88 in 2008, and considerably better than the five-year average of 0.96.

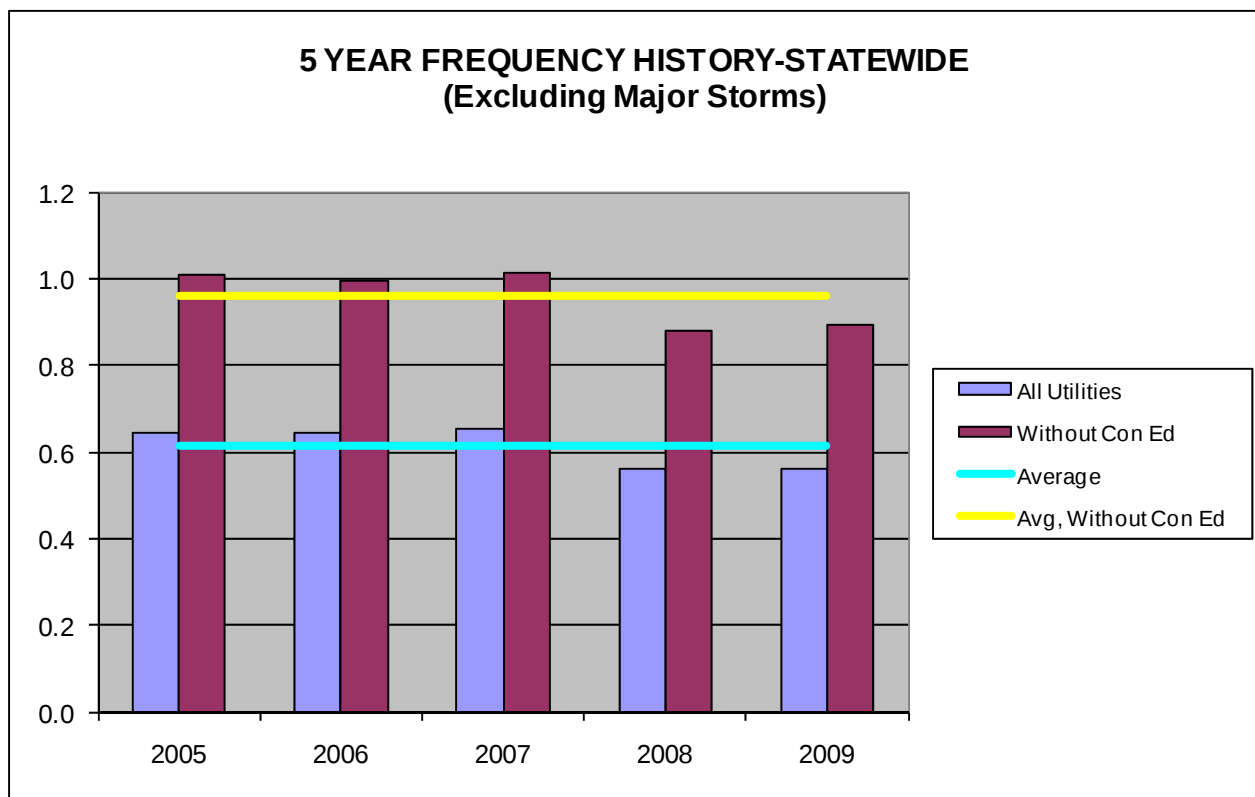


Figure 1: Statewide Frequency Performance

Figure 2 shows the historical statewide duration index, excluding major storms. The 2009 overall statewide duration index of 1.83 compares favorably with that of 1.93 in 2008 and is the best of the past five years. The performance level of 1.89 in 2007 is the next closest. When examining the chart, it should be kept in mind that Con Edison's Long Island City network outages greatly affected the statewide duration in 2006. The statewide duration index, excluding Con Edison, was 1.79 hours in 2009, which is better than 1.89 in 2008 and is the best of the past five years.

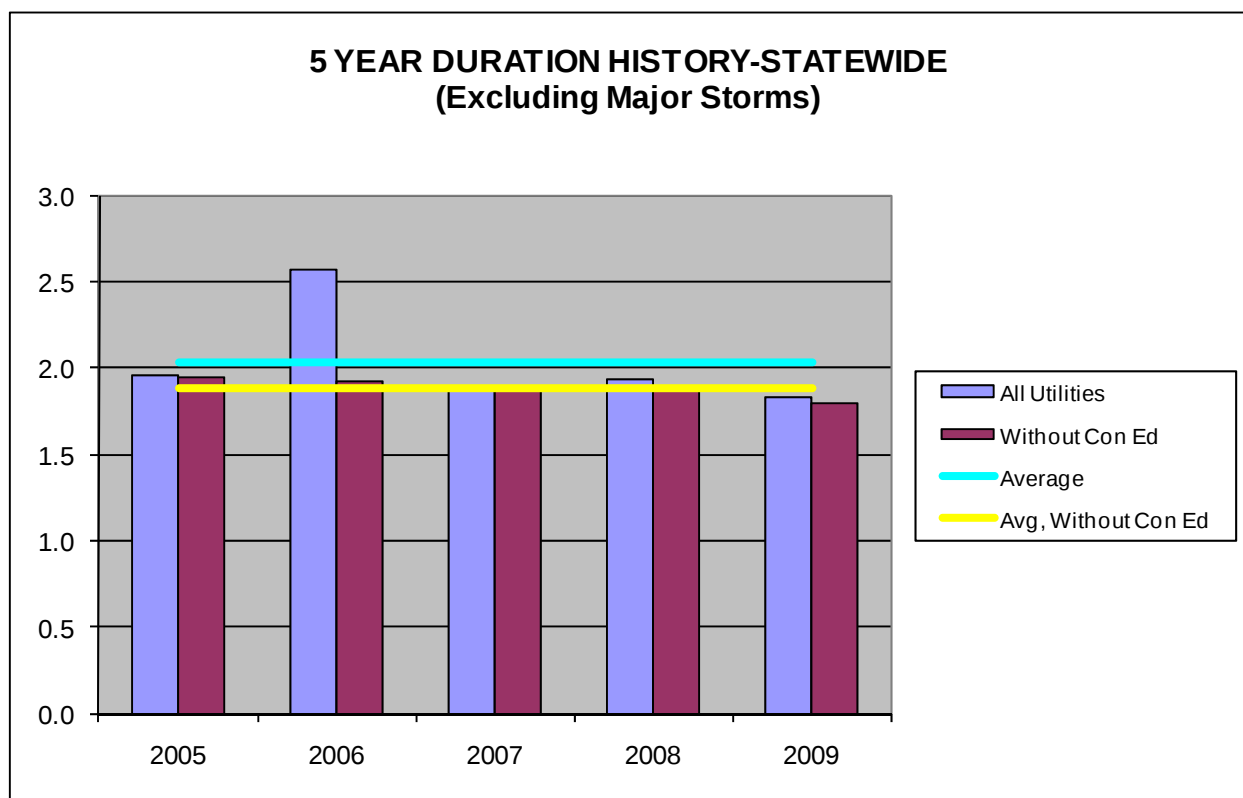


Figure 2: Statewide Duration Performance

In 2009, the weather was mild, causing fewer electric service interruptions (Table 1, and Figure 3, below). As a result, no company was required to file a storm report with the Commission for an outage lasting longer than three days. Most of the storms causing outages on the radial systems occurred in the warmer months. There were no major winter storms, such as the 2006 Buffalo snowstorm and December 2008 ice storm. As can be seen in Figure 3, below, the overall duration of outages due to severe weather also decreased as compared with 2005 and 2007.

Table 1: Number of Major Storms by Year

Year	Con Edison	National Grid	NYSEG	RG&E	Central Hudson	Orange & Rockland	Total
2007	4	10	17	10	5	1	47
2008	4	24	25	12	9	8	82
2009	3	7	16	7	7	7	47

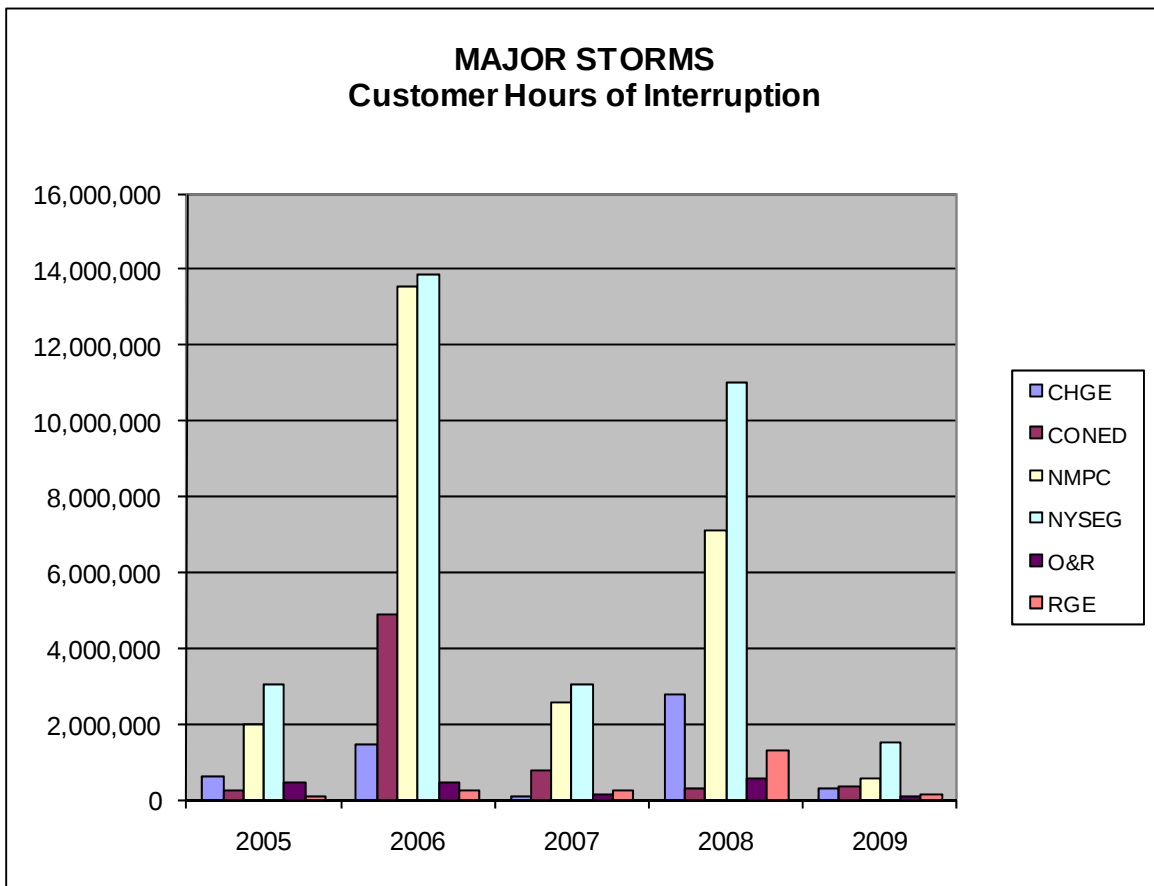


Figure 3: Major Storm Customer Hours

CON EDISON

Table 2: Con Edison's Historic Performance Excluding Major Storms

Metric	2005	2006	2007	2008	2009	5-Year Average
Network Systems						
Frequency (SAIFI)	0.006	0.021	0.075	0.017	0.022 ¹⁰	0.028
Duration (CAIDI)	4.44	60.81	1.79	6.28	5.16 ¹⁰	15.70
Radial System						
Frequency (SAIFI)	0.51	0.54	0.38	0.42	0.32	0.43
Duration (CAIDI)	1.91	2.66	2.07	1.83	1.74	2.04

Note: Data presented in red represents a failure to meet the RPM target for a given year.

Con Edison serves approximately 3.3 million customers in New York City and Westchester County. Electricity is supplied to 2.4 million customers using network systems. The remaining 900,000 customers are supplied by radial systems.

Due to concerns regarding the accuracy of customer counts in its network, network performance in 2009 is being measured using two measures based solely on the number of interruptions. The Company performed satisfactorily under the new measures.

To minimize the frequency of customer outages, Con Edison's networks are designed with redundant supply paths. Individual service lines to customer premises, however, lack any supplemental supply. Given these design characteristics and underground settings, the majority of interruptions (84%) are associated with the service portion of the network system, as shown in Figure 4. Equipment failures and failures on parts of the network grid itself (secondary feeders or mains) are tied for the next highest causes for interruptions in 2009 (6% each).

¹⁰ The duration and frequency metrics to measure network performance were replaced for 2009 with other measures.

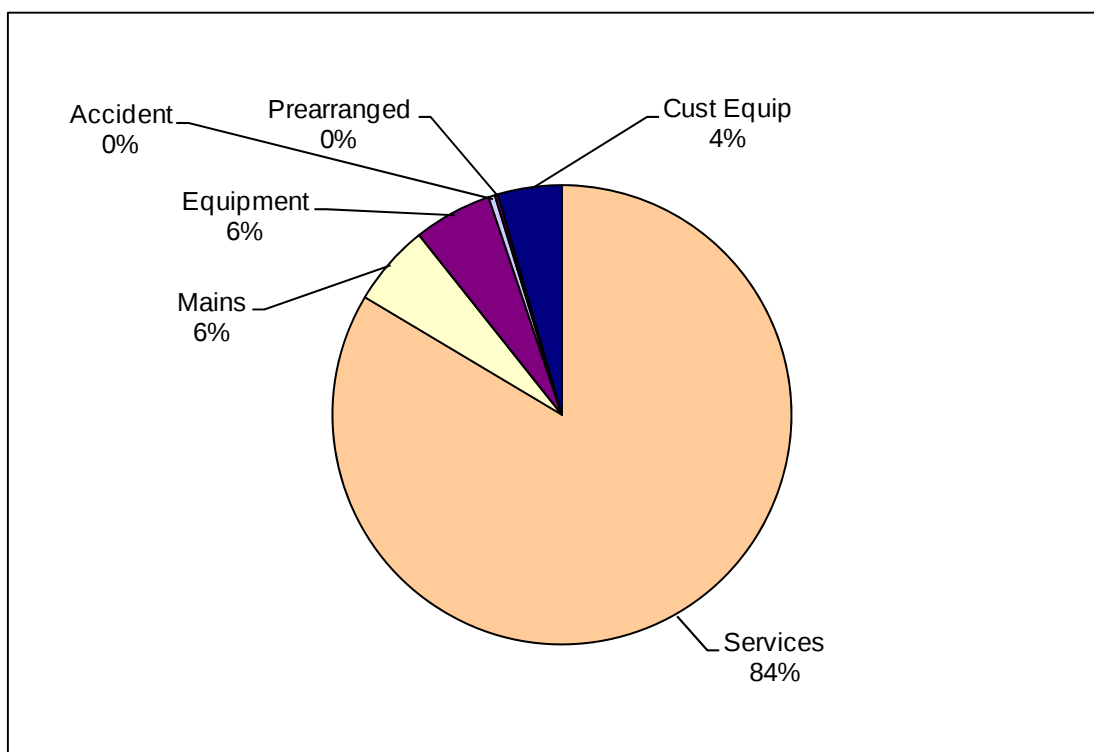


Figure 4: Con Edison's 2009 Network Interruptions by Cause

On its radial system, Con Edison's performance in 2009 was better than the five year averages for both frequency and duration. Equipment failures are responsible for 77% of the interruptions on the radial system, followed by trees and accidents at 12% and 7%, respectively, as shown in Figure 5.

As a regular part of its annual filing, the Company provided information about its worst performing circuits, ranked for both frequency and duration. The report also provided interruption data (Open Auto) on feeders supplying the networks. For each of the worst-performing feeders, Con Edison provided details on equipment failures, including the extent of the damage, and all actions taken in 2009 to address the equipment failures. Staff reviewed these actions and is satisfied that all corrective actions have been accomplished.

Con Edison stated in its annual report that it failed to meet the 90% reporting rate established under the RMS metric for the Long Island City network during the fourth quarter of 2009. Con Edison attributed this failure to its splitting of the Long Island City network and establishment of a new substation to provide adequate capacity and handle increased electrical loads, in response to issues that arose in the course of the

Long Island City Outages in 2006. During this implementation, Con Edison states, certain monitoring stations were unable to report, resulting in the failure to achieve its performance measure. Con Edison sought and was granted an exclusion by the Commission for failure to achieve this performance measure due to extraordinary circumstances.

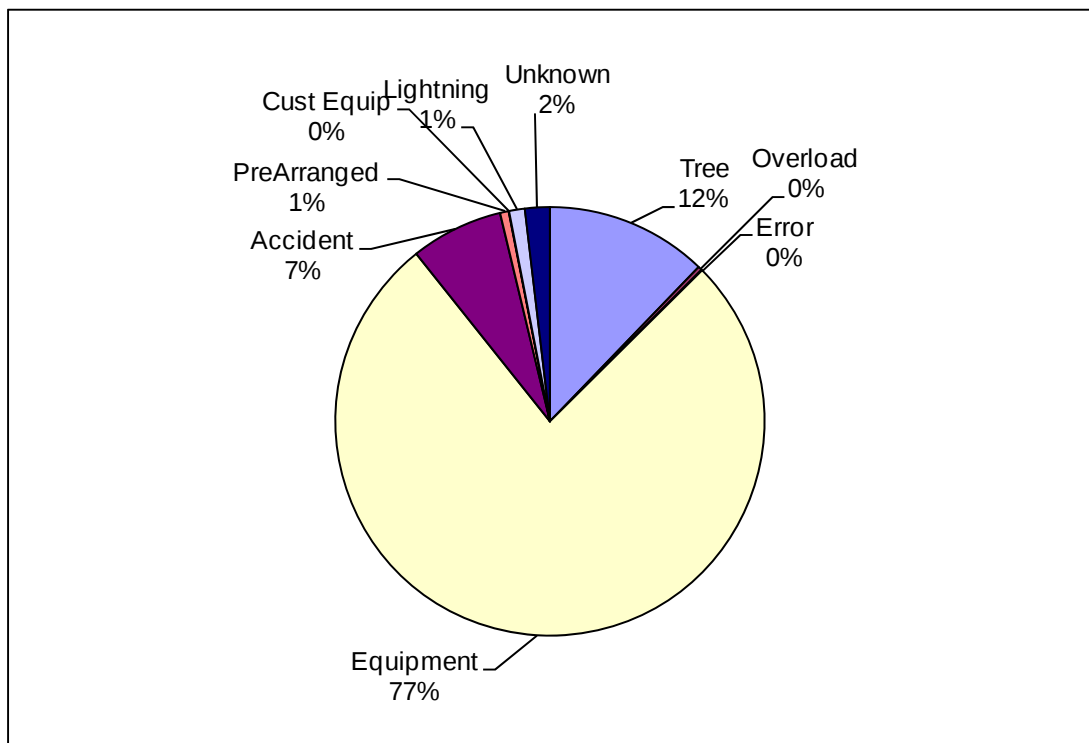


Figure 5: Con Edison's 2009 Radial Interruptions by Cause

Staff's 2008 reliability report noted that Con Edison's network duration performance was among its worst and recommended that Con Edison perform a self-assessment to identify ways to improve network interruption duration, identify corrective actions unique to the network system, provide information learned from the radial interruption duration improvement pilot program, and explain how successful pilot programs will be implemented.

Con Edison states in its self-assessment that one of the causes of poor duration performance is the increasing use of troubleshooting personnel in response to public safety issues (i.e., shock reports). Troubleshooters, who are typically the first responders, are now responding to three times as many safety-related calls as compared

with 2005. Con Edison's strategy is to use its troubleshooter resources more efficiently while also adding more personnel to the pool of potential first responders by cross-training other classes of employees. Con Edison also is modifying work practices to improve service; efforts include quicker deployment of temporary repairs to minimize duration, mobilization of crews early on days where the Company forecasts a high potential for outages (e.g. summer days when thunderstorms are predicted), better utilization of weather forecasts, and use of pagers for dispatch of construction crews. Other strategies to improve its duration performance include queuing and ranking models which will respectively provide more intelligent response to outages and rank outstanding inspections and repairs with an eye towards reliability vulnerability, and performing self assessments on outage responses.

Staff reviewed the Company's response and is generally satisfied with its approach. It is Con Edison's position that the efforts it has put into place to improve network and radial duration performance are working. Staff will be monitoring Con Edison's performance this summer to determine the results of these improvements.

NATIONAL GRID

Table 3: National Grid's Historic Performance Excluding Major Storms

Metric	2005	2006	2007	2008	2009	5-Year Average
Frequency (SAIFI)	0.98	1.01	0.96	0.75	0.88	0.91
Duration (CAIDI)	2.32	2.05	2.01	1.96	1.91	2.05

Note: Data presented in red represents a failure to meet the RPM target for a given year.

National Grid serves approximately 1.59 million customers across upstate New York. The Company's territories include metropolitan areas, such as the cities of Buffalo, Albany, and Syracuse, as well as many rural areas in northern New York and the Adirondacks.

National Grid achieved its reliability targets in 2009. Its frequency level of 0.88 in 2009 declined as compared with 0.75 in 2008, but its performance was still better than its five-year average of 0.91. Previously, National Grid did not achieve the

frequency target level of 0.93 from 2005 until 2007. The duration performance for 2009 improved over 2008; the Company has performed better than the duration target for four consecutive years now. In general, the utility is continuing to provide better service on a region by region basis.

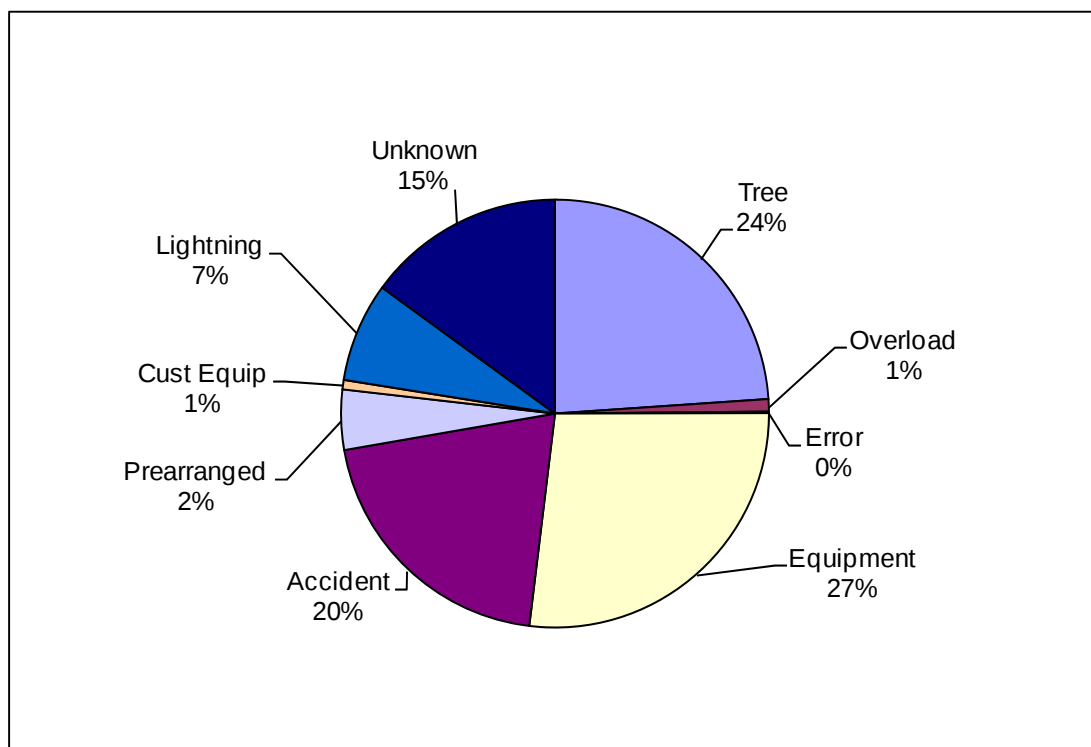


Figure 6: National Grid's 2009 Interruptions by Cause

Equipment failure continues to be the primary contributor to electric service interruptions (see Figure 6, above). To reduce the impact of equipment failures, the Company continues to emphasize recloser and side tap fuse installation as a design philosophy in programs such as Engineering Reliability Reviews and the Distribution Line Recloser Application. This circuit segmenting appears to help reduce the number of customers affected during an interruption occurrence, as can be seen in Table 4. In 2009, the Company also continued other programs intended to reduce equipment-caused customer outages. Among these are programs for feeder hardening, distribution transformer replacement, and pole replacement. Overall spending on capital projects is

also on an increasing trend since 2006, with actual distribution spending in 2009 up nearly \$20 million over 2008.

Table 4: National Grid’s Historic Customers Affected per Interruption

	2005	2006	2007	2008	2009
Average number of customers affected per interruption	113	118	104	92	87

Tree-related outages had the second greatest impact on National Grid’s interruption performance for 2009. In an interesting trend, the total number of tree-caused interruptions seems to be increasing, while the average number of customers affected and hours customers are interrupted are generally decreasing, which thus tends to decrease the effect experienced by the customer for each interruption. This could be a result of the increased segmenting of the circuits discussed earlier. The Company notes that while tree growth was responsible for substantially fewer interruptions, limbs and falling trees had a greater impact this year. The Company acknowledges there is still more progress to be made to reduce the number of tree-caused interruptions and is continuing to work towards that goal.

NEW YORK STATE ELECTRIC AND GAS

Table 5: NYSEG’s Historic Performance Excluding Major Storms

Metric	2005	2006	2007	2008	2009	5-Year Average
Frequency (SAIFI)	1.12	1.12	1.20	1.11	1.08	1.12
Duration (CAIDI)	1.96	2.01	2.22	2.08	2.00	2.06

Approximately 840,000 customers are served by NYSEG. The Company is primarily located in the Binghamton and Finger Lakes regions, but does have localized service regions, including areas near Plattsburgh, Brewster, Mechanicville, and Lancaster.

NYSEG’s performance in 2009 showed improvement over 2008, continuing a three-year trend. NYSEG’s frequency performance of 1.08 was better than

the performance in 2008 and was the best in five years. The 2009 duration performance of 2.00 was also better than the performance in 2008 and was better than the five year average.

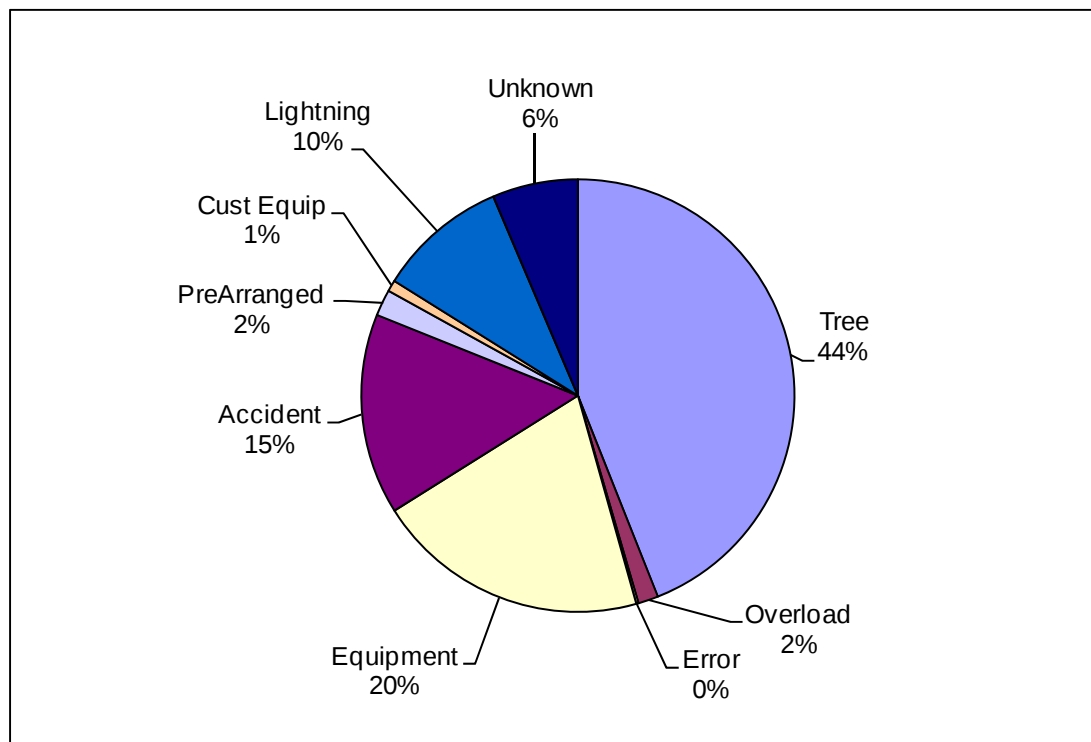


Figure 7: NYSEG's 2009 Interruptions by Cause

As shown in Figure 7, above, tree contacts and equipment failures have been and remain the predominant causes of interruption throughout NYSEG's twelve operating divisions. In 2009, tree contacts accounted for 44%, equipment failures accounted for 20%, accidents accounted for 15% and lightning accounted for 10% of the interruptions. While there is an improvement in overall performance from the previous year, NYSEG should continue to focus on improving its distribution vegetation management program and reducing equipment related outages.

Another issue of concern to Staff is NYSEG's ongoing modifications to employee levels. In 2007, when NYSEG failed to achieve its reliability targets, the Commission directed that NYSEG perform a self assessment of the impact of labor force changes on reliability.

With the outcome of the pending rate case still unknown and not expected until the August 2010 Session, no specific recommendation are proposed at this time. Staff, however, will continue to monitor these issues.

ROCHESTER GAS AND ELECTRIC

Table 6: RG&E's Historic Performance Excluding Major Storms

Metric	2005	2006	2007	2008	2009	5-Year Average
Frequency (SAIFI)	0.79	0.79	0.83	0.78	0.59	0.76
Duration (CAIDI)	1.87	1.78	1.73	1.85	1.80	1.80

RG&E serves approximately 360,000 customers. Although the Company is comprised of four service areas, its Rochester division accounts for approximately 80% of its customer base. As a result, its overall reliability statistics mirror that of the Rochester division.

With regard to service reliability, RG&E continues to be one of the better performing utilities within the state. The Company has not failed to achieve its RPM targets of 0.90 for frequency and 1.90 for duration as established in its rate orders. As shown in Table 6, above, RG&E's performance for frequency and duration continues to be fairly consistent with its five year average, although there was significant improvement in frequency in 2009. The Company's frequency performance of 0.59 in 2009 is the lowest in the past five years. RG&E's duration performance of 1.80 in 2009 was better than in 2008 and matches the five-year average. Figure 8 shows that the two major contributors to interruptions continue to be equipment failures (29%) and tree contacts (22%). The levels are slightly higher than the five year averages of both equipment failures and tree contacts.

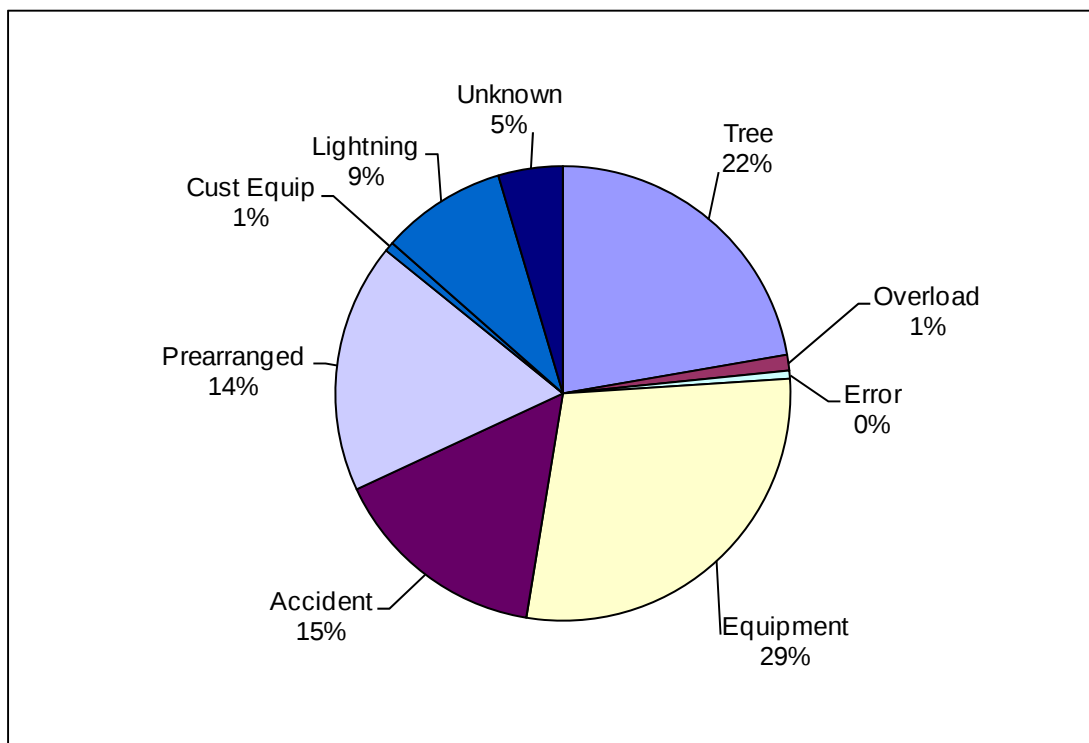


Figure 8: RG&E's 2009 Interruptions by Cause

RG&E reports that several major distribution capital investments were made in 2009 which it expects will reduce the level of equipment-caused outages. Staff will monitor the impact of these projects on the reliability performance. Large projects include a circuit voltage conversion, a substation transformer replacement, and bus and breaker replacement.

RG&E also has a rate case filing (Case 09-E-0717) pending before the Commission, as does NYSEG. RG&E is also reducing personnel and Staff has the same concerns it raised earlier in regard to NYSEG. Staff will continue to monitor these issues.

CENTRAL HUDSON GAS AND ELECTRIC

Table 7: Central Hudson's Historic Performance Excluding Major Storms

Metric	2005	2006	2007	2008	2009	5-Year Average
Frequency (SAIFI)	1.44	1.59	1.42	1.27	1.37	1.42
Duration (CAIDI)	2.70	2.58	2.43	2.47	2.22	2.48

Note: Data presented in red represents a failure to meet the RPM target for a given year.

Central Hudson serves approximately 298,000 customers in the Mid-Hudson Valley region. The Company's territory is mainly suburban and rural. Central Hudson does serve some urban regions, such as the cities of Poughkeepsie and Newburgh.

Central Hudson's frequency performance of 1.37 in 2009 was 0.10 which is worse than 2008 less than its five-year average (Table 7, above). The Company's duration performance of 2.22 in 2009, on the other hand, was a five-year best. Figure 9 shows that 35% of customer interruptions were due to tree related issues, followed by accidents at 25%.

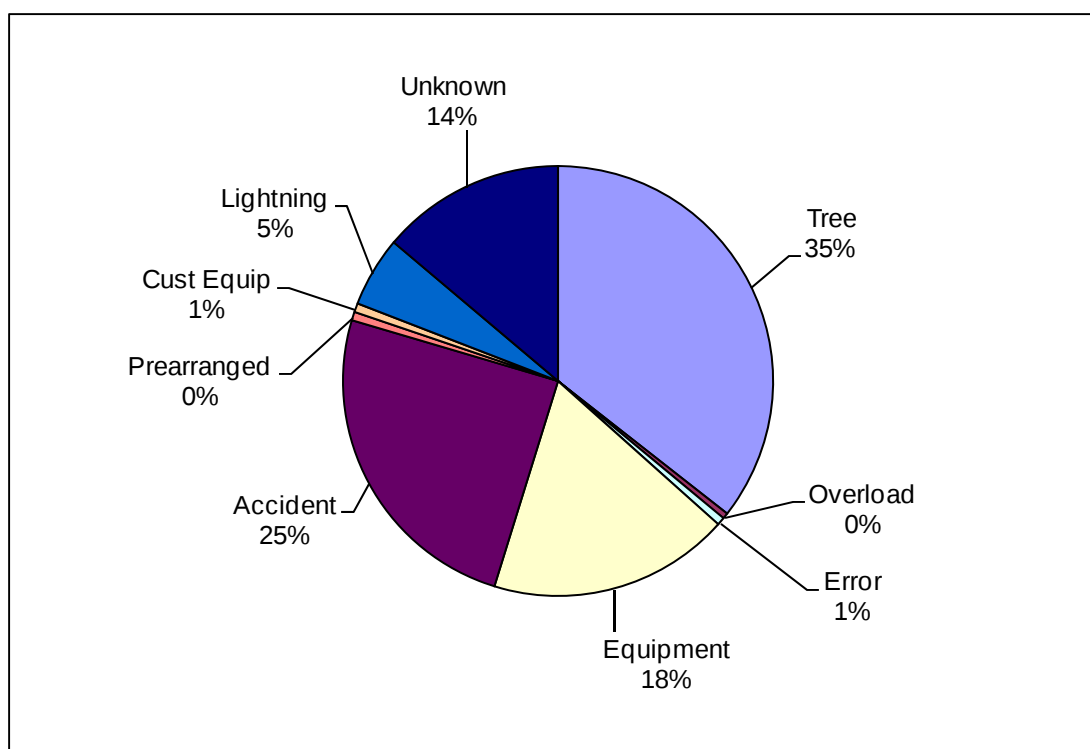


Figure 9: Central Hudson's 2009 Interruptions by Cause

As is the case with most overhead distribution utilities, trees are a primary cause of outages (Figure 9, above). For the past several years Central Hudson has embarked on a systematic program to reduce tree outages throughout its territory. Following recommendations from its consultant, it modified its line clearance specification, especially with regard to overhanging limbs.

Equipment failures cause a large number of electric interruptions as is the case with most electric utility companies. Central Hudson has several programs to decrease the number of these interruptions, including programs for substation breaker replacement, porcelain cutout replacement, 14kV paper and lead cable replacement, automatic load transfer switch installation, and aging recloser replacement (including remote communication). In addition, the Company has a program to upgrade individual circuits.

ORANGE AND ROCKLAND

Table 8: O&R's Historic Performance Excluding Major Storms

Metric	2005	2006	2007	2008	2009	5-Year Average
Frequency (SAIFI)	1.36	1.23	1.03	1.19	0.96	1.16
Duration (CAIDI)	1.71	1.51	1.60	1.83	1.66	1.66

Note: Data presented in red represents a failure to meet the RPM target for a given year.

Orange and Rockland serves approximately 217,000 customers in three New York counties along the New Jersey and Pennsylvania border. In 2009, the Company met both its reliability performance mechanism target for frequency and duration. As the table above shows, the 2009 frequency and duration performance levels were both much lower than last year's. Particularly with regard to duration performance level, which the Company failed to achieve in 2008, a sizable improvement in 2009 is again in accordance with historical performance.

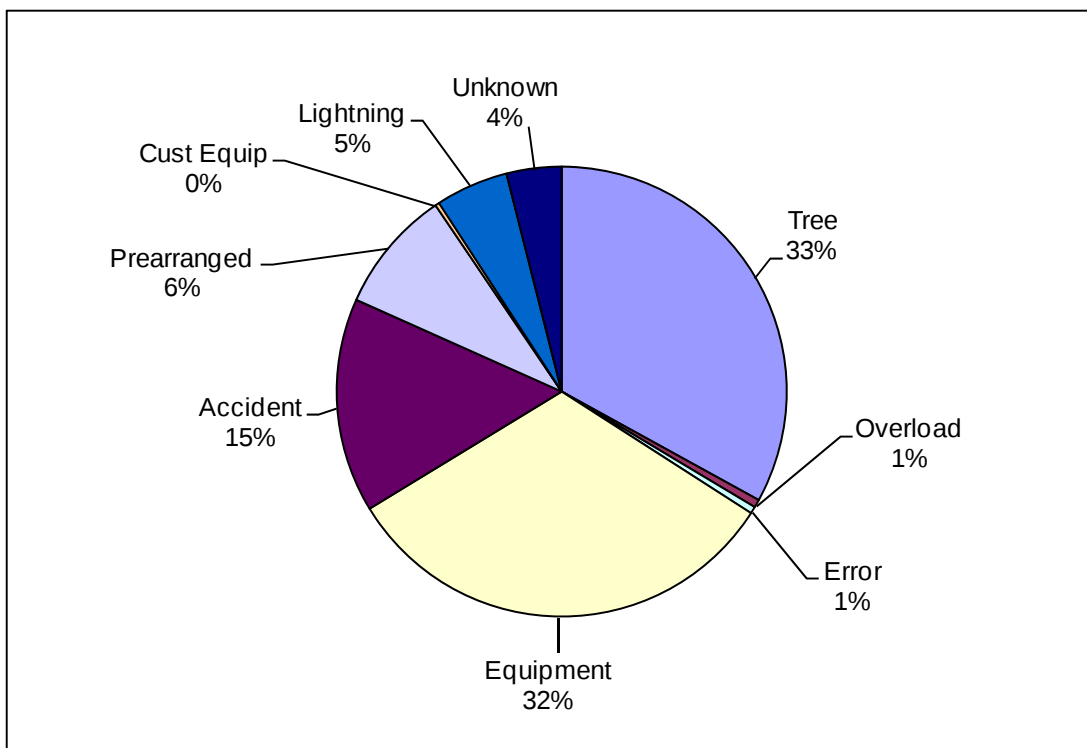


Figure 10: Orange and Rockland's 2009 Interruptions by Cause

As shown in Figure 10, tree contacts (33%) and equipment failures (32%) caused the majority of interruptions in 2009. Orange and Rockland is addressing reliability issues resulting from equipment failures through capital improvement programs such as the Distribution Automation Program, the Underground Cable Maintenance and Rebuild Program, and a number of service reliability improvement projects directed by the circuit priority-rating methodology.

The Company is addressing concerns regarding tree-related outages through increased efforts on its line clearance programs. In addition to the four-year cycle based tree trimming program, the Company has continued to identify and perform supplemental trimming to address areas with recurring tree related outages. These programs are expected to reduce the impact of tree contacts on the Company's electrical system through the coming years.

Equipment failures and tree contacts continue to be the major causes of interruptions as they have been for the past five-years. This performance trend remains consistent throughout each operating division although Orange and Rockland has been

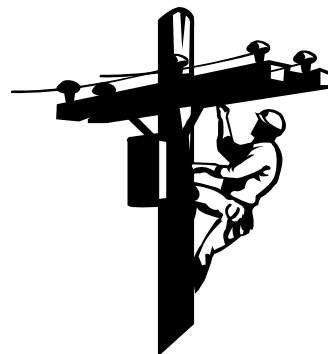
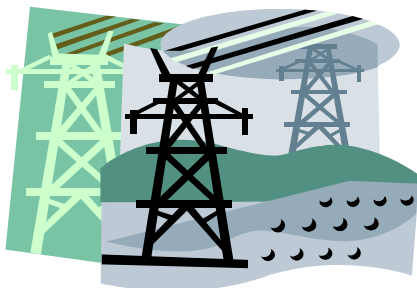
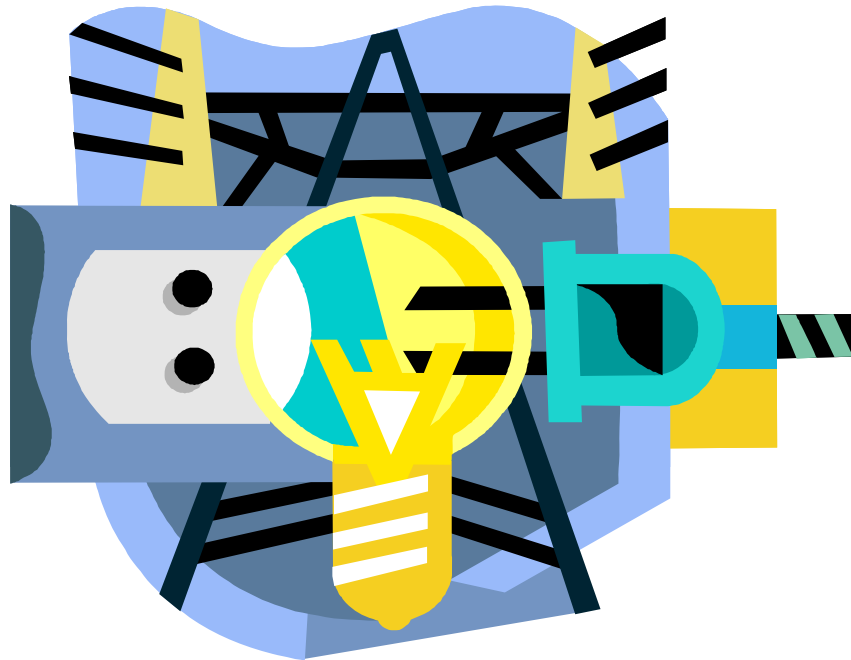
striving to control tree and equipment related interruptions for several years now. Although the nature of these causative factors does not lend itself to immediate drastic measures, small and steady improvements are expected in the years to come with the implementation of reliability projects. Even though immediate drastic changes are not anticipated due to the nature of the causes, small and steady improvements are expected in the years to come with the finalization of additional reliability projects. The Company is considering the development of a new system or enhancing its existing system to better analyze outages associated with equipment failures and tree contacts.

Staff believes that Orange and Rockland will improve reliability by a balanced approach of installing distribution automation equipment, increasing tree trimming efforts, and its capital improvement projects. Staff will continue to monitor the impact of the increased distribution automation equipment on overall duration performance.

APPENDIX

2009 INTERRUPTON REPORT

The 2009 Interruption Report



Office of Electricity, Gas, and Water
June 2010

June 2010

ATTACHMENT
Definitions and Explanations of Terms Used in the 2009
Statewide Electric Service Interruption Report

Interruption is the loss of service for five minutes or more.

Customer hours is the time a customer is without electric service.

Customers affected is the number of customers without electric service.

Customers served is the number of customers as of the last day of the **current year**. For example, for the calendar year of **2009**, customers served is the number of customers as of 12/31/2009. For indices using customers served, the **previous** year is used.

Frequency (SAIFI) measures the average number of interruptions experienced by customers served by the utility. It is the customers affected divided by the customers served at the end of the **previous** year, i.e., 12/31/2008.

Duration (CAIDI) measures the average time that an affected customer is out of electric service. It is the customer hours divided by the customers affected.

Availability (SAIDI) is the average amount of time a customer is out-of-service during a year. It is the customer hours divided by the number of customers served at the end of the **previous** year, i.e., 12/31/2008. Mathematically, it also is **SAIFI** multiplied by **CAIDI**.

Interruptions Per 1000 Customers Served is the number of interruptions divided by the number of customers served at the end of the **previous** year, i.e., 12/31/2008, divided by 1,000.

Major Storm is defined as any storm which causes service interruptions of at least ten percent of customers in an operating area, or if the interruptions last for 24 hours or more.

Operating Area is a geographical subdivision of each electric utility's franchise territory. These areas are also called regions, divisions, or districts.

Most of the data is presented two ways, with major storms included and major storms excluded. Major storms tend to distort a utility's performance trend. Tables and graphs that exclude major storms illustrate interruptions that are more under the utility's control. It portrays a utility's system facilities under normal conditions, although this can be misleading because interruptions during "normal" bad weather are included and it is difficult to analyze from year to year.

The first two tables show frequency and duration indices for the last five years for each utility and Statewide with and without Con Edison data. Con Edison has by far the lowest frequency numbers and tends to distort the Statewide data. Much of Con Edison's distribution system consists of a secondary network. In a secondary network, a customer is fed from multiple supplies, making the probability of an interruption relatively rare.

**COMPARISON OF SERVICE RELIABILITY INDICES
(EXCLUDING MAJOR STORMS)**

	2005	2006	2007	2008	2009	5 YR AVG
CHGE						
FREQUENCY	1.44	1.59	1.42	1.27	1.37	1.42
DURATION	2.70	2.58	2.43	2.47	2.22	2.48
CONED						
FREQUENCY	0.14	0.16	0.16	0.13	0.10	0.14
DURATION	1.99	8.23	1.97	2.27	2.27	3.35
LIPA *						
FREQUENCY	0.85	0.75	0.90	0.77	0.74	0.80
DURATION	1.07	1.37	1.20	1.36	1.17	1.23
NAT GRID						
FREQUENCY	0.98	1.01	0.96	0.75	0.88	0.91
DURATION	2.32	2.05	2.01	1.96	1.91	2.05
NYSEG						
FREQUENCY	1.12	1.12	1.20	1.11	1.08	1.12
DURATION	1.96	2.01	2.22	2.08	2.00	2.06
O&R						
FREQUENCY	1.36	1.23	1.03	1.19	0.96	1.16
DURATION	1.71	1.51	1.60	1.83	1.66	1.66
RG&E						
FREQUENCY	0.79	0.79	0.83	0.78	0.59	0.76
DURATION	1.87	1.78	1.73	1.85	1.80	1.80
STATEWIDE (WITHOUT CONED)						
FREQUENCY	1.01	1.00	1.01	0.88	0.89	0.96
DURATION	1.95	1.92	1.88	1.89	1.79	1.88
STATEWIDE (WITH CONED)						
FREQUENCY	0.65	0.65	0.65	0.56	0.56	0.61
DURATION	1.95	2.57	1.89	1.93	1.83	2.03

* LIPA is not regulated by the NYS PSC.

** For those indices that use Customers Served, Customers Served is the December value from the previous year.

**COMPARISON OF SERVICE RELIABILITY INDICES
(INCLUDING MAJOR STORMS)**

	2005	2006	2007	2008	2009	5 YR AVG
CHGE						
FREQUENCY	1.83	2.20	1.51	2.15	1.63	1.86
DURATION	3.27	4.12	2.51	5.76	2.48	3.63
CONED						
FREQUENCY	0.15	0.23	0.18	0.14	0.11	0.16
DURATION	2.32	12.31	3.12	2.71	3.06	4.70
LIPA *						
FREQUENCY	1.07	1.17	1.03	1.09	0.80	1.03
DURATION	1.42	1.99	1.37	1.65	1.25	1.54
NAT GRID						
FREQUENCY	1.28	1.48	1.31	1.37	1.01	1.29
DURATION	2.76	7.18	2.70	4.32	2.01	3.79
NYSEG						
FREQUENCY	1.77	1.79	1.71	2.14	1.47	1.77
DURATION	3.27	10.32	3.62	7.07	2.68	5.39
O&R						
FREQUENCY	1.83	1.81	1.17	1.64	1.08	1.51
DURATION	2.42	2.15	1.92	2.94	1.90	2.27
RG&E						
FREQUENCY	0.93	0.98	1.16	1.36	0.74	1.03
DURATION	1.90	2.14	1.80	3.77	2.03	2.33
STATEWIDE (WITHOUT CONED)						
FREQUENCY	1.36	1.48	1.31	1.51	1.07	1.35
DURATION	2.60	6.02	2.56	4.62	2.09	3.58
STATEWIDE (WITH CONED)						
FREQUENCY	0.85	0.96	0.83	0.93	0.66	0.85
DURATION	2.58	6.65	2.61	4.50	2.16	3.70

* LIPA is not regulated by the NYS PSC.

** For those indices that use Customers Served, Customers Served is the December value from the previous year.

STATEWIDE (WITHOUT CON ED)

Excluding Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	54,434	55,211	55,425	53,758	55,781	54,922
Number of Customer-Hours	8,631,869	8,439,916	8,439,464	7,399,179	7,089,970	8,000,079
Number of Customers Affected	4,433,386	4,400,072	4,495,428	3,910,426	3,961,884	4,240,239
Number of Customers Served	4,415,079	4,434,324	4,436,307	4,429,635	4,440,421	4,431,153
Average Duration Per Customer Affected (CAIDI)	1.95	1.92	1.88	1.89	1.79	1.88
Average Duration Per Customers Served	1.97	1.91	1.90	1.67	1.60	1.81
Interruptions Per 1000 Customers Served	12.39	12.51	12.50	12.12	12.59	12.42
Number of Customers Affected Per Customer Served (SAIFI)	1.01	1.00	1.01	0.88	0.89	0.96

STATEWIDE (WITH CON ED)

Excluding Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	65,019	65,752	66,746	65,403	70,716	66,727
Number of Customer-Hours	9,506,355	12,603,322	9,429,452	8,326,562	7,864,277	9,545,994
Number of Customers Affected	4,873,534	4,905,844	4,996,967	4,319,550	4,302,324	4,679,644
Number of Customers Served	7,602,291	7,652,745	7,681,104	7,701,361	7,732,164	7,673,933
Average Duration Per Customer Affected (CAIDI)	1.95	2.57	1.89	1.93	1.83	2.03
Average Duration Per Customers Served	1.26	1.66	1.23	1.08	1.02	1.25
Interruptions Per 1000 Customers Served	8.61	8.65	8.72	8.51	9.18	8.74
Number of Customers Affected Per Customer Served (SAIFI)	0.65	0.65	0.65	0.56	0.56	0.61

* LIPA is not regulated by the NYS PSC.

** For those indices that use Customers Served, Customers Served is the December

STATEWIDE (WITHOUT CON ED)

Including Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	66,767	70,872	61,753	73,150	61,627	66,834
Number of Customer-Hours	15,493,419	39,413,242	14,848,512	30,962,269	9,896,845	22,122,857
Number of Customers Affected	5,960,730	6,548,910	5,808,516	6,705,414	4,737,540	5,952,222
Number of Customers Served	4,415,079	4,434,324	4,436,307	4,429,635	4,440,421	4,431,153
Average Duration Per Customer Affected (CAIDI)	2.60	6.02	2.56	4.62	2.09	3.58
Average Duration Per Customers Served	3.53	8.93	3.35	6.98	2.23	5.00
Interruptions Per 1000 Customers Served	15.20	16.05	13.93	16.49	13.91	15.12
Number of Customers Affected Per Customer Served (SAIFI)	1.36	1.48	1.31	1.51	1.07	1.35

STATEWIDE (WITH CON ED)

Including Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	77,937	86,734	74,261	85,548	76,967	80,289
Number of Customer-Hours	16,612,929	48,437,221	16,630,252	32,188,186	11,019,521	24,977,622
Number of Customers Affected	6,442,863	7,282,114	6,379,276	7,158,329	5,104,233	6,473,363
Number of Customers Served	7,602,291	7,652,745	7,681,104	7,701,361	7,732,164	7,673,933
Average Duration Per Customer Affected (CAIDI)	2.58	6.65	2.61	4.50	2.16	3.70
Average Duration Per Customers Served	2.20	6.37	2.17	4.19	1.43	3.27
Interruptions Per 1000 Customers Served	10.32	11.41	9.70	11.14	9.99	10.51
Number of Customers Affected Per Customer Served (SAIFI)	0.85	0.96	0.83	0.93	0.66	0.85

* LIPA is not regulated by the NYS PSC.

** For those indices that use Customers Served, Customers Served is the December

CENTRAL HUDSON

Excluding Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	6,911	7,538	6,386	6,857	6,705	6,879
Number of Customer-Hours	1,125,389	1,201,109	1,021,859	933,993	910,250	1,038,520
Number of Customers Affected	416,547	464,765	420,769	377,564	410,516	418,032
Number of Customers Served	292,816	295,368	298,386	300,621	299,557	297,350
Average Duration Per Customer Affected (CAIDI)	2.70	2.58	2.43	2.47	2.22	2.48
Average Duration Per Customers Served	3.89	4.10	3.46	3.13	3.03	3.52
Interruptions Per 1000 Customers Served	23.91	25.74	21.62	22.98	22.30	23.31
Number of Customers Affected Per Customer Served (SAIFI)	1.44	1.59	1.42	1.27	1.37	1.42

CENTRAL HUDSON

Including Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	8,309	10,066	6,681	9,887	7,609	8,510
Number of Customer-Hours	1,735,705	2,649,690	1,117,802	3,705,277	1,211,827	2,084,060
Number of Customers Affected	530,319	643,778	444,813	642,949	488,732	550,118
Number of Customers Served	292,816	295,368	298,386	300,621	299,557	297,350
Average Duration Per Customer Affected (CAIDI)	3.27	4.12	2.51	5.76	2.48	3.63
Average Duration Per Customers Served	6.00	9.05	3.78	12.42	4.03	7.06
Interruptions Per 1000 Customers Served	28.74	34.38	22.62	33.13	25.31	28.84
Number of Customers Affected Per Customer Served (SAIFI)	1.83	2.20	1.51	2.15	1.63	1.86

* Customers Served is the number of customers served at the end of the current year.

** For those indices that use Customers Served, Customers Served is the December value from the previous year.

CON ED (SYSTEM)

Excluding Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	10,585	10,541	11,321	11,645	14,935	11,805
Number of Customer-Hours	874,487	4,163,407	989,988	927,383	774,307	1,545,914
Number of Customers Affected	440,148	505,772	501,539	409,124	340,440	439,405
Number of Customers Served	3,187,212	3,218,421	3,244,797	3,271,726	3,291,743	3,242,780
Average Duration Per Customer Affected (CAIDI)	1.99	8.23	1.97	2.27	2.27	3.35
Average Duration Per Customers Served	0.28	1.31	0.31	0.29	0.24	0.48
Interruptions Per 1000 Customers Served	3.35	3.31	3.52	3.59	4.56	3.67
Number of Customers Affected Per Customer Served (SAIFI)	0.14	0.16	0.16	0.13	0.10	0.14

CON ED (SYSTEM)

Including Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	11,170	15,862	12,508	12,398	15,340	13,456
Number of Customer-Hours	1,119,510	9,023,979	1,781,740	1,225,917	1,122,677	2,854,765
Number of Customers Affected	482,133	733,204	570,760	452,915	366,693	521,141
Number of Customers Served	3,187,212	3,218,421	3,244,797	3,271,726	3,291,743	3,242,780
Average Duration Per Customer Affected (CAIDI)	2.32	12.31	3.12	2.71	3.06	4.70
Average Duration Per Customers Served	0.35	2.83	0.55	0.38	0.34	0.89
Interruptions Per 1000 Customers Served	3.53	4.98	3.89	3.82	4.69	4.18
Number of Customers Affected Per Customer Served (SAIFI)	0.15	0.23	0.18	0.14	0.11	0.16

* Customers Served is the number of customers served at the end of the current year.

** For those indices that use Customers Served, Customers Served is the December value from the previous year.

CON ED (NETWORK)

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	4,967	4,274	5,571	5,485	8,650	5,789
Number of Customer-Hours	59,566	2,947,306	316,477	252,964	273,705	770,004
Number of Customers Affected	13,406	48,467	176,430	40,301	52,994	66,320
Number of Customers Served	2,339,622	2,363,897	2,361,145	2,385,760	2,403,818	2,370,848
Average Duration Per Customer Affected (CAIDI)	4.44	60.81	1.79	6.28	5.16	15.70
Average Duration Per Customers Served	0.03	1.26	0.13	0.11	0.11	0.33
Interruptions Per 1000 Customers Served	2.14	1.83	2.36	2.32	3.63	2.45
Number of Customers Affected Per Customer Served (SAIFI)	0.006	0.021	0.075	0.017	0.022	0.028

* Customers Served is the number of customers served at the end of the current year.

** For those indices that use Customers Served, Customers Served is the December value from the previous year.

CON ED (RADIAL)

Excluding Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	5,618	6,267	5,750	6,160	6,285	6,016
Number of Customer-Hours	814,921	1,216,101	673,511	674,419	500,602	775,911
Number of Customers Affected	426,742	457,305	325,109	368,823	287,446	373,085
Number of Customers Served	847,590	854,524	883,652	885,966	887,925	871,931
Average Duration Per Customer Affected (CAIDI)	1.91	2.66	2.07	1.83	1.74	2.04
Average Duration Per Customers Served	0.97	1.43	0.79	0.76	0.57	0.90
Interruptions Per 1000 Customers Served	6.67	7.39	6.73	6.97	7.09	6.97
Number of Customers Affected Per Customer Served (SAIFI)	0.51	0.54	0.38	0.42	0.32	0.43

CON ED (RADIAL)

Including Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	6,203	11,588	6,937	6,913	6,690	7,666
Number of Customer-Hours	1,059,944	6,076,673	1,465,264	972,954	848,971	2,084,761
Number of Customers Affected	468,727	684,737	394,330	412,614	313,699	454,821
Number of Customers Served	847,590	854,524	883,652	885,966	887,925	871,931
Average Duration Per Customer Affected (CAIDI)	2.26	8.87	3.72	2.36	2.71	3.98
Average Duration Per Customers Served	1.26	7.17	1.71	1.10	0.96	2.44
Interruptions Per 1000 Customers Served	7.37	13.67	8.12	7.82	7.55	8.91
Number of Customers Affected Per Customer Served (SAIFI)	0.56	0.81	0.46	0.47	0.35	0.53

* Customers Served is the number of customers served at the end of the current year.

** For those indices that use Customers Served, Customers Served is the December value from the previous year.

LIPA

Excluding Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	17,728	18,634	18,736	18,135	17,795	18,206
Number of Customer-Hours	999,412	1,129,275	1,190,411	1,166,613	958,679	1,088,878
Number of Customers Affected	931,276	823,396	995,077	856,405	821,723	885,575
Number of Customers Served	1,103,162	1,108,540	1,110,853	1,114,716	1,117,281	1,110,910
Average Duration Per Customer Affected (CAIDI)	1.07	1.37	1.20	1.36	1.17	1.23
Average Duration Per Customers Served	0.91	1.02	1.07	1.05	0.86	0.98
Interruptions Per 1000 Customers Served	16.17	16.89	16.90	16.33	15.96	16.45
Number of Customers Affected Per Customer Served (SAIFI)	0.85	0.75	0.90	0.77	0.74	0.80

LIPA

Including Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	21,317	24,905	20,077	20,471	19,003	21,155
Number of Customer-Hours	1,675,011	2,564,134	1,564,559	1,998,270	1,121,723	1,784,739
Number of Customers Affected	1,177,059	1,289,698	1,142,365	1,208,292	894,595	1,142,402
Number of Customers Served	1,103,162	1,108,540	1,110,853	1,114,716	1,117,281	1,110,910
Average Duration Per Customer Affected (CAIDI)	1.42	1.99	1.37	1.65	1.25	1.54
Average Duration Per Customers Served	1.53	2.32	1.41	1.80	1.01	1.61
Interruptions Per 1000 Customers Served	19.44	22.58	18.11	18.43	17.05	19.12
Number of Customers Affected Per Customer Served (SAIFI)	1.07	1.17	1.03	1.09	0.80	1.03

* LIPA is not regulated by the NYS PSC.

* Customers Served is the number of customers served at the end of the current year.

** For those indices that use Customers Served, Customers Served is the December value from the previous year.

NATIONAL GRID

Excluding Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	13,680	13,665	14,606	12,939	15,915	14,161
Number of Customer-Hours	3,598,884	3,289,340	3,045,363	2,334,754	2,645,775	2,982,823
Number of Customers Affected	1,551,448	1,607,461	1,518,634	1,188,585	1,387,131	1,450,652
Number of Customers Served	1,585,383	1,589,949	1,594,179	1,583,311	1,589,810	1,588,526
Average Duration Per Customer Affected (CAIDI)	2.32	2.05	2.01	1.96	1.91	2.05
Average Duration Per Customers Served	2.28	2.07	1.92	1.46	1.67	1.88
Interruptions Per 1000 Customers Served	8.66	8.62	9.19	8.12	10.05	8.93
Number of Customers Affected Per Customer Served (SAIFI)	0.98	1.01	0.96	0.75	0.88	0.91

NATIONAL GRID

Including Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	16,211	16,279	16,222	18,301	17,060	16,815
Number of Customer-Hours	5,568,127	16,813,162	5,605,931	9,410,833	3,214,148	8,122,440
Number of Customers Affected	2,020,066	2,341,235	2,075,480	2,177,786	1,599,090	2,042,731
Number of Customers Served	1,585,383	1,589,949	1,594,179	1,583,311	1,589,810	1,588,526
Average Duration Per Customer Affected (CAIDI)	2.76	7.18	2.70	4.32	2.01	3.79
Average Duration Per Customers Served	3.52	10.61	3.53	5.90	2.03	5.12
Interruptions Per 1000 Customers Served	10.26	10.27	10.20	11.48	10.77	10.60
Number of Customers Affected Per Customer Served (SAIFI)	1.28	1.48	1.31	1.37	1.01	1.29

* Customers Served is the number of customers served at the end of the current year.

** For those indices that use Customers Served, Customers Served is the December value from the previous year.

NYSEG

Excluding Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	10,190	9,682	10,317	10,027	9,643	9,972
Number of Customer-Hours	1,872,868	1,913,315	2,299,142	1,980,213	1,848,599	1,982,827
Number of Customers Affected	955,009	953,941	1,034,113	953,105	922,448	963,723
Number of Customers Served	854,508	859,440	859,963	857,517	858,712	858,028
Average Duration Per Customer Affected (CAIDI)	1.96	2.01	2.22	2.08	2.00	2.06
Average Duration Per Customers Served	2.21	2.24	2.68	2.30	2.16	2.31
Interruptions Per 1000 Customers Served	12.00	11.33	12.00	11.66	11.25	11.62
Number of Customers Affected Per Customer Served (SAIFI)	1.12	1.12	1.20	1.11	1.08	1.12

NYSEG

Including Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	14,364	12,835	12,928	17,008	11,948	13,817
Number of Customer-Hours	4,926,508	15,787,602	5,314,914	12,974,501	3,369,824	8,474,670
Number of Customers Affected	1,504,612	1,529,247	1,469,825	1,836,251	1,257,464	1,519,480
Number of Customers Served	854,508	859,440	859,963	857,517	858,712	858,028
Average Duration Per Customer Affected (CAIDI)	3.27	10.32	3.62	7.07	2.68	5.39
Average Duration Per Customers Served	5.80	18.48	6.18	15.09	3.93	9.90
Interruptions Per 1000 Customers Served	16.91	15.02	15.04	19.78	13.93	16.14
Number of Customers Affected Per Customer Served (SAIFI)	1.77	1.79	1.71	2.14	1.47	1.77

* Customers Served is the number of customers served at the end of the current year.

** For those indices that use Customers Served, Customers Served is the December value from the previous year.

O&R

Excluding Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	2,718	2,688	2,596	2,993	2,773	2,754
Number of Customer-Hours	493,591	397,977	356,514	470,431	348,186	413,340
Number of Customers Affected	289,022	264,121	222,895	256,943	209,368	248,470
Number of Customers Served	214,546	216,268	215,694	217,373	217,884	216,353
Average Duration Per Customer Affected (CAIDI)	1.71	1.51	1.60	1.83	1.66	1.66
Average Duration Per Customers Served	2.32	1.85	1.65	2.18	1.60	1.92
Interruptions Per 1000 Customers Served	12.80	12.53	12.00	13.88	12.76	12.79
Number of Customers Affected Per Customer Served (SAIFI)	1.36	1.23	1.03	1.19	0.96	1.16

O&R

Including Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	3,123	3,546	2,738	3,655	2,897	3,192
Number of Customer-Hours	942,127	836,046	483,938	1,043,235	445,063	750,082
Number of Customers Affected	388,553	388,164	252,650	354,315	234,456	323,628
Number of Customers Served	214,546	216,268	215,694	217,373	217,884	216,353
Average Duration Per Customer Affected (CAIDI)	2.42	2.15	1.92	2.94	1.90	2.27
Average Duration Per Customers Served	4.44	3.90	2.24	4.84	2.05	3.49
Interruptions Per 1000 Customers Served	14.71	16.53	12.66	16.95	13.33	14.83
Number of Customers Affected Per Customer Served (SAIFI)	1.83	1.81	1.17	1.64	1.08	1.51

* Customers Served is the number of customers served at the end of the current year.

** For those indices that use Customers Served, Customers Served is the December value from the previous year.

RG&E

Excluding Major Storms

	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	3,207	3,004	2,784	2,807	2,950	2,950
Number of Customer-Hours	541,725	508,899	526,175	513,175	378,481	493,691
Number of Customers Affected	290,084	286,388	303,940	277,824	210,698	273,787
Number of Customers Served	364,664	364,759	357,232	356,097	357,177	359,986
Average Duration Per Customer Affected (CAIDI)	1.87	1.78	1.73	1.85	1.80	1.80
Average Duration Per Customers Served	1.48	1.40	1.44	1.44	1.06	1.36
Interruptions Per 1000 Customers Served	8.79	8.24	7.63	7.86	8.28	8.16
Number of Customers Affected Per Customer Served (SAIFI)	0.79	0.79	0.83	0.78	0.59	0.76

RG&E

Including Major Storms

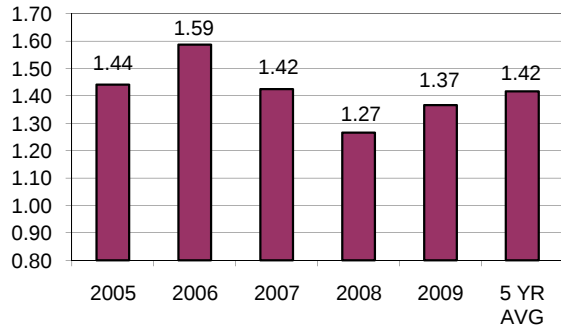
	2005	2006	2007	2008	2009	5 YR AVG
Number of Interruptions	3,443	3,241	3,107	3,828	3,110	3,346
Number of Customer-Hours	645,940	762,609	761,368	1,830,153	534,259	906,866
Number of Customers Affected	340,121	356,788	423,383	485,821	263,203	373,863
Number of Customers Served	364,664	364,759	357,232	356,097	357,177	359,986
Average Duration Per Customer Affected (CAIDI)	1.90	2.14	1.80	3.77	2.03	2.33
Average Duration Per Customers Served	1.77	2.09	2.09	5.12	1.50	2.51
Interruptions Per 1000 Customers Served	9.43	8.89	8.52	10.72	8.73	9.26
Number of Customers Affected Per Customer Served (SAIFI)	0.93	0.98	1.16	1.36	0.74	1.03

* Customers Served is the number of customers served at the end of the current year.

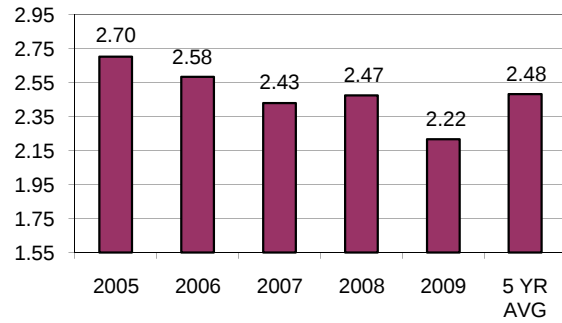
** For those indices that use Customers Served, Customers Served is the December value from the previous year.

Central Hudson Gas and Electric (Excluding Major Storms)

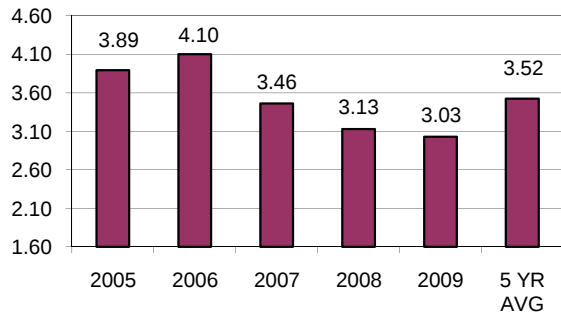
Frequency



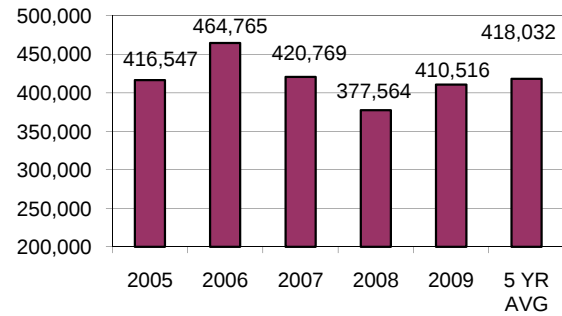
Duration



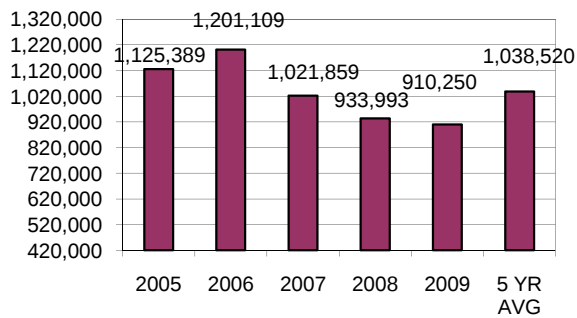
Availability



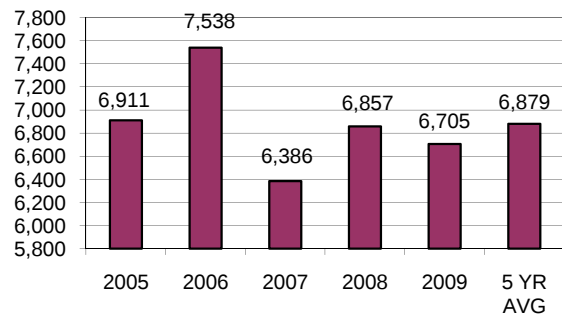
Customers Affected



Customer-Hours

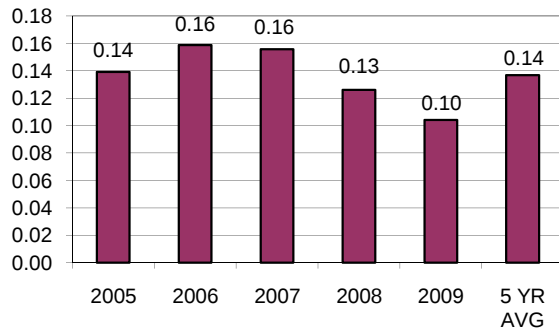


Interruptions

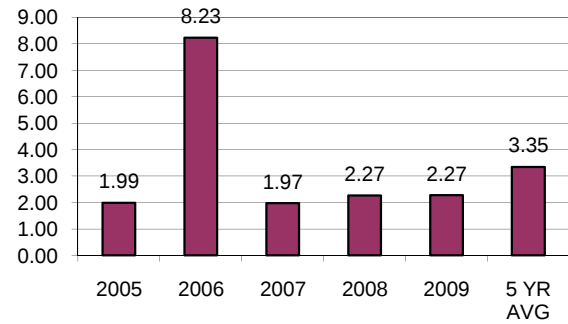


Consolidated Edison - System (Excluding Major Storms)

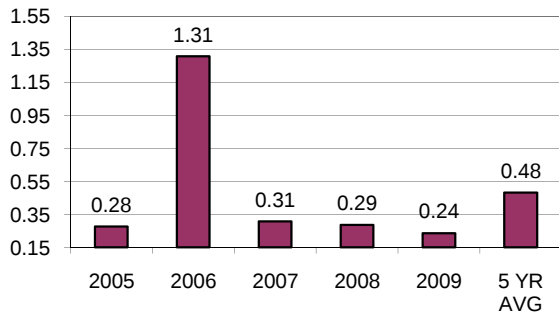
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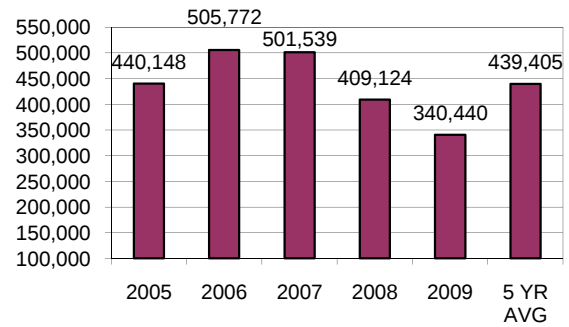
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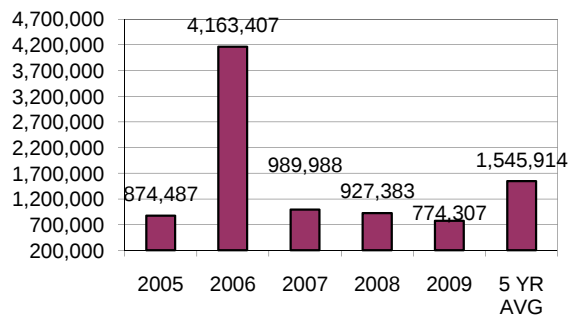
Availability



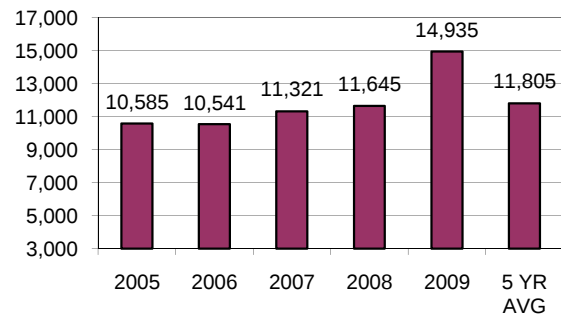
Customers Affected



Customer-Hours

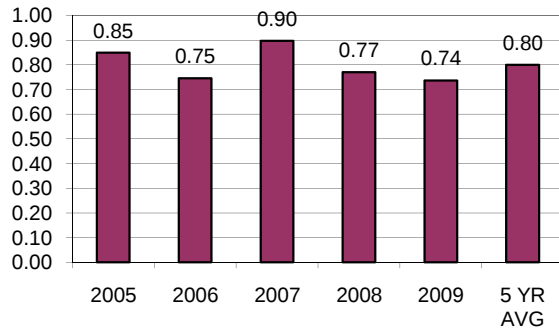


Interruptions

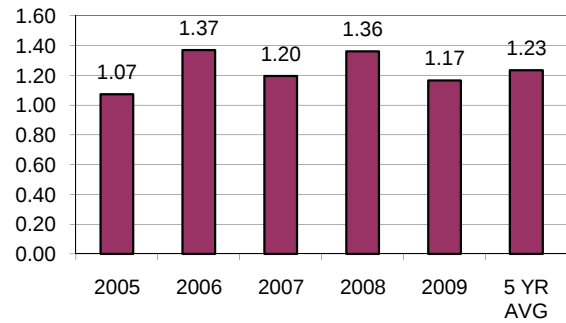


Long Island Power Authority (Excluding Major Storms)

Frequency



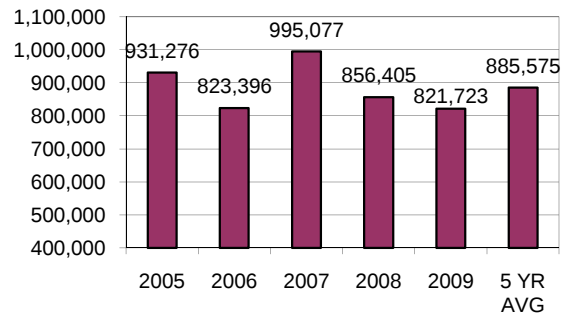
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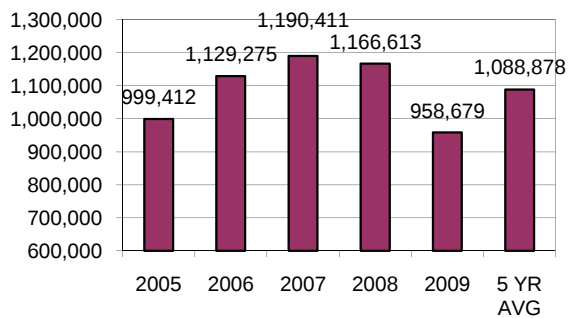
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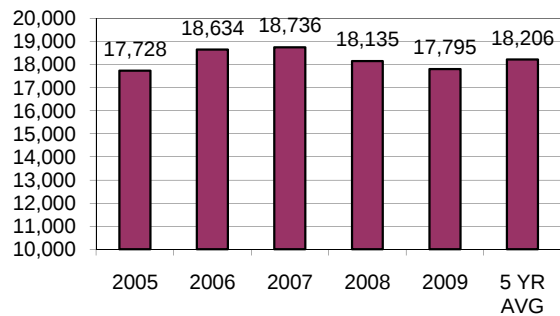
Customers Affected



Customer-Hours



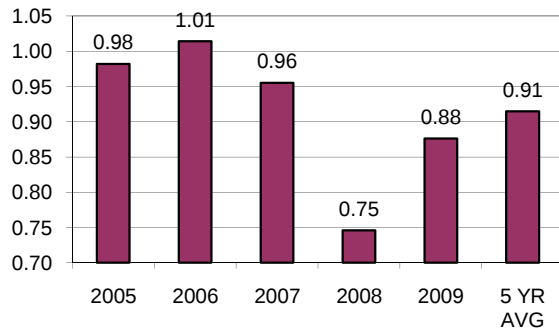
Interruptions



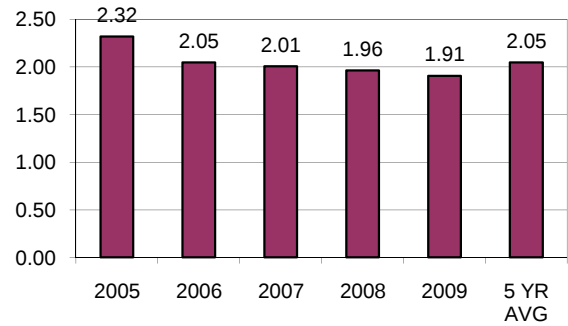
* LIPA is not regulated by the NYS PSC.

National Grid (Excluding Major Storms)

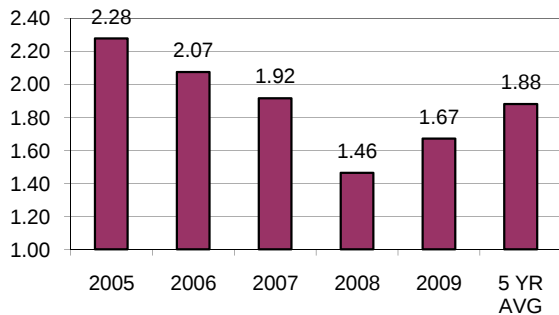
Frequency



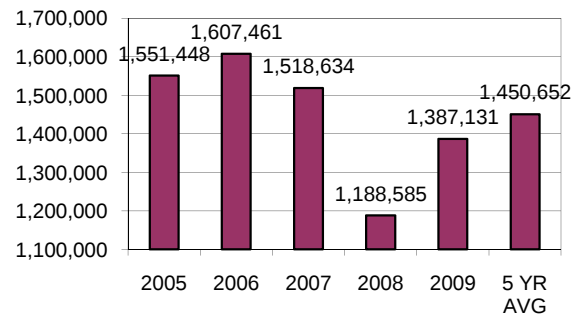
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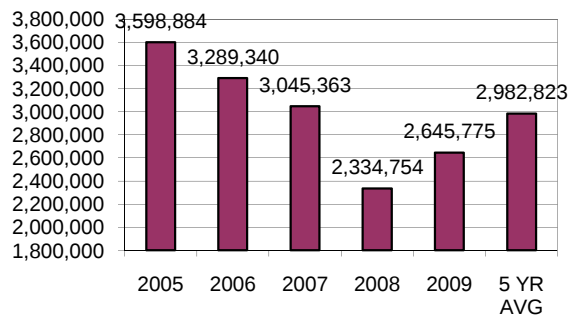
Availability



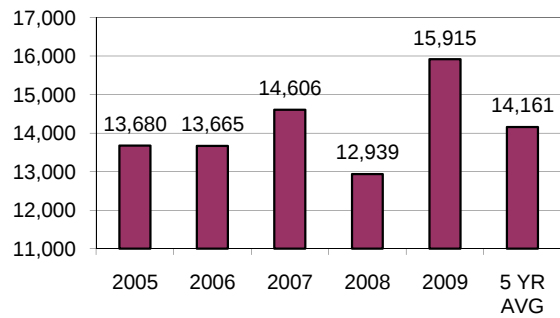
Customers Affected



Customer-Hours

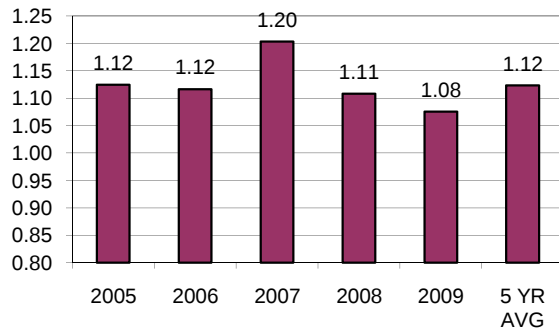


Interruptions

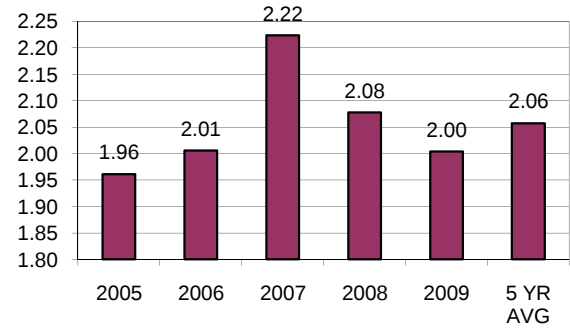


New York State Electric and Gas (Excluding Major Storms)

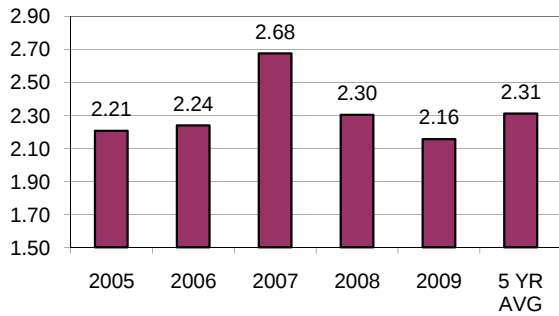
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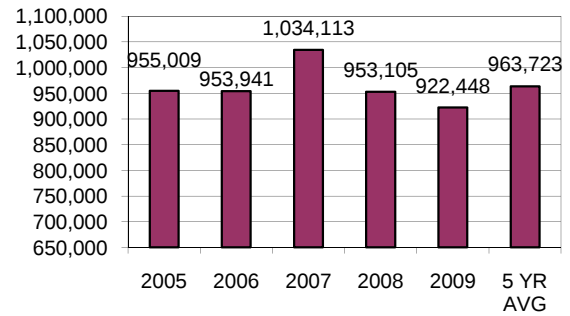
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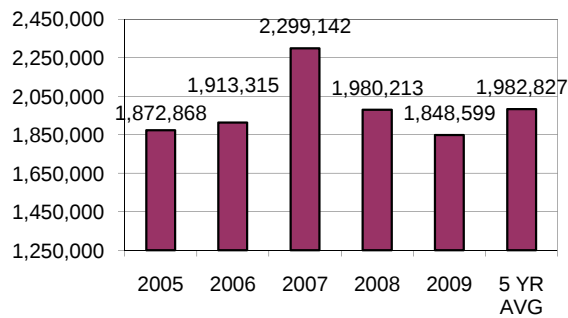
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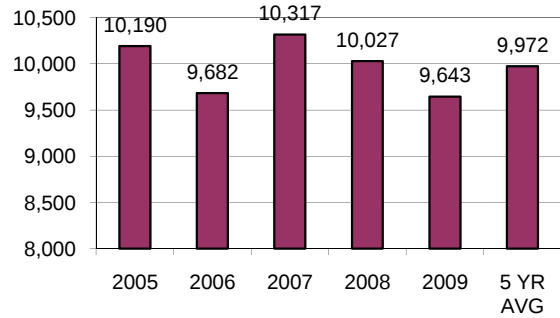
Customers Affected



Customer-Hours

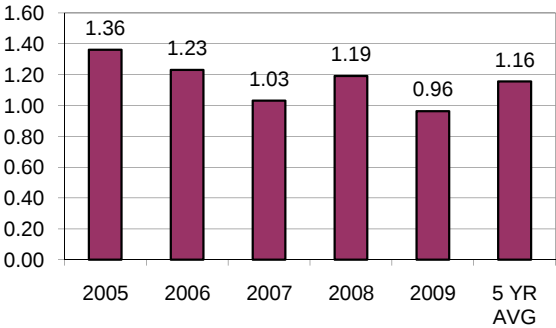


Interruptions

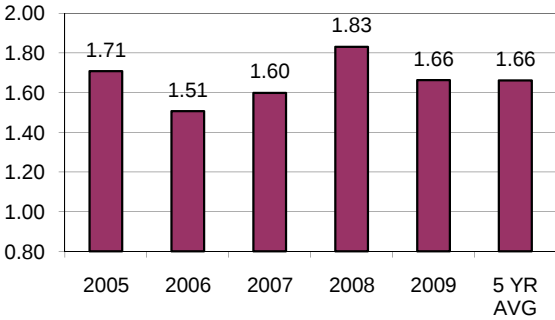


**Orange and Rockland Utilities
(Excluding Major Storms)**

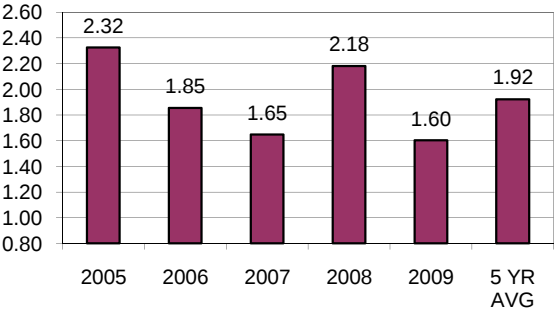
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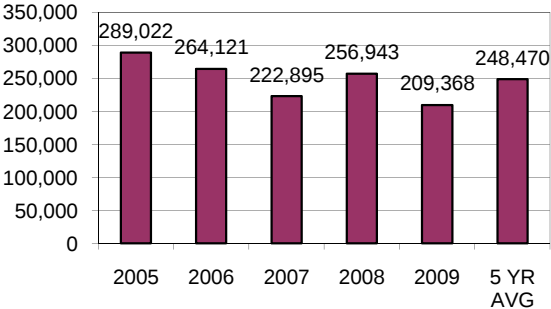
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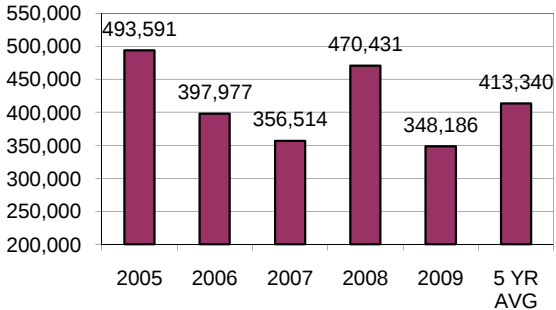
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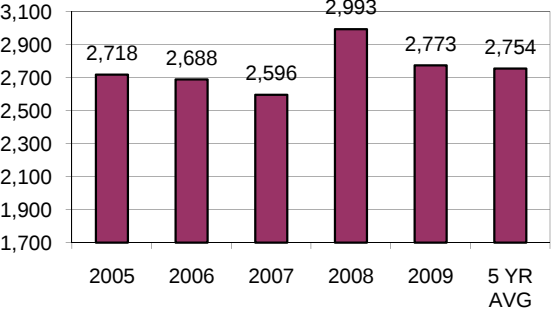
Customers Affected



Customer-Hours

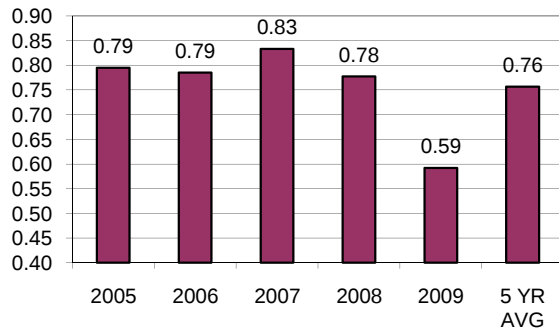


Interruptions

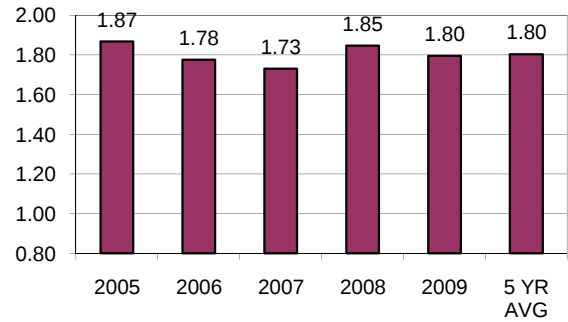


Rochester Gas and Electric (Excluding Major Storms)

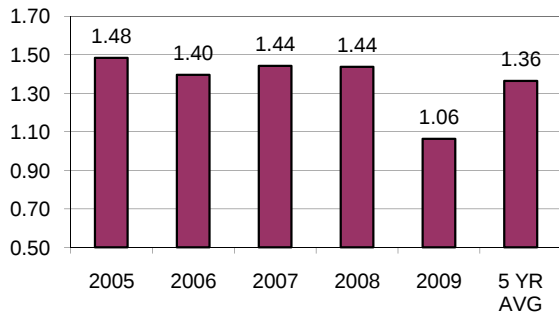
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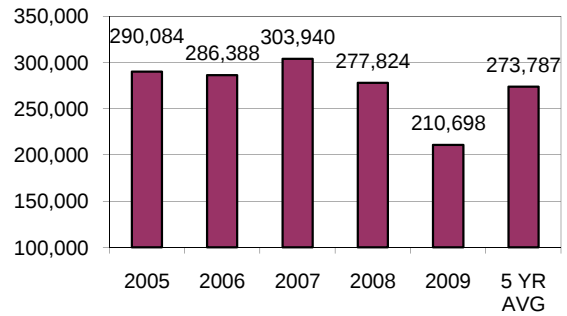
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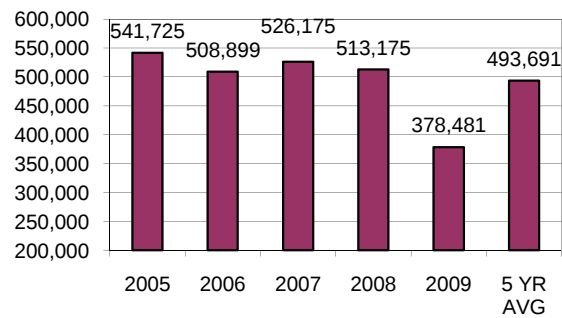
Availability



Customers Affected



Customer-Hours



Interruptions

