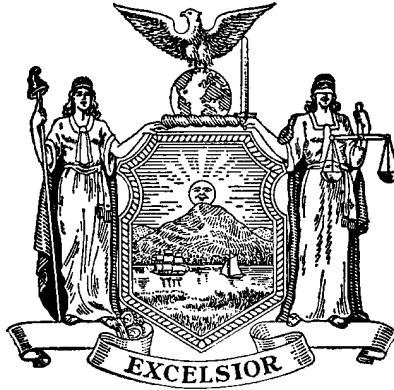


STATE OF NEW YORK
DEPARTMENT OF PUBLIC SERVICE



2011 ELECTRIC RELIABILITY PERFORMANCE REPORT

Electric Distribution Systems
Office of Electric, Gas, and Water
June 2012

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EXECUTIVE SUMMARY

The attached report presents Department of Public Service Staff's (Staff) assessment of electric reliability performance in New York State for 2011. 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. Recent data is also compared with historic performances to identify positive or negative trends. Finally, Staff reviews several other specific metrics that vary by utility to gauge electric reliability.

The statewide interruption frequency for 2011, excluding major storms, was slightly worse than 2010 as well as the five-year average. Some of this variance is attributed to National Grid's change in its data collection and reporting system. Central Hudson Gas and Electric Corporation (Central Hudson) and Orange and Rockland Utilities (Orange and Rockland) improved when compared with 2010. While the reliability performances of the remaining three of the major electric companies were not as good as 2010 levels, they generally performed satisfactorily. It should be noted that 2008-2010 were among the best years recorded, with respect to frequency.

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.

Similar to frequency, statewide duration performance was slightly worse than the previous year, but generally consistent with the history of the past four years. National Grid, Central Hudson, and Orange and Rockland performance improved over 2010. Consolidated Edison (Con Edison) had its worst performance in the past five years, while the other companies were somewhat worse than 2010.

Calendar year 2011 was the worst year ever for storm effects in the 23 years of Staff recordkeeping. Five storms in 2011 caused the most hours of interruption of customer service with Hurricane Irene and Tropical Storm Lee and a freak October snowstorm wreaking the most havoc. While these storms were excluded from the above calculations because they are circumstances over which the utilities have limited control, there might be some spillover effect in the periods following the storms that would impact the overall performances.

With respect to individual utility performance in 2011, Con Edison failed to meet its Reliability Performance Mechanism (RPM) metrics for network interruptions and duration as well as for radial duration. Con Edison is seeking exclusion of Hurricane Irene related outages affecting customers fed by overhead wires with a network source, which, the Company asserts, will result in its achieving the network targets. It also is seeking relief from the failure to meet its radial duration target because of transformer events beyond its control.³ Staff is concerned about this drop in performance despite deployment of duration reducing strategies in the several years for both the network and radial components of its system, and will be following up on this.

NYSEG and RG&E performed more poorly than 2010 in both frequency and duration. NYSEG is on the verge of failing to achieve its RPM and RG&E is performing almost as poorly. Iberdrola, their parent company, has increased capital and maintenance spending to head off this possibility. Areas targeted for improvement by Iberdrola are replacement of aging plant and improved vegetation management.

While National Grid's duration performance is consistent with previous years, its frequency performance seems poor. In the past year, however, Grid

³ Con Edison filed a request for exemption on April 2, 2012 which has yet to be presented to the Commission for final action.

transitioned to a new paperless reporting system that has affected the statistics and this may be the reason for the apparently poor performance. The Company did not fail either of its reliability performance statistics related RPM targets, which were adjusted in 2011 to compensate for the new system.⁴

Central Hudson and Orange and Rockland each had an improving year in both frequency and duration performance. Central Hudson's improving trend in frequency over the past three years could be attributed to its new tree-trimming program and a continued rollout of reclosers and load transfer schemes. O&R credits a new automated call-out system for calling in crews for after-hours outages and other efforts for helping improve its duration performance.

Overall, Staff is generally pleased with the steady electric reliability performance across the State. There are, however, individual concerns that are being addressed through various Staff efforts including two forthcoming reports on Hurricane Irene/Tropical Storm Lee and the October snow storm. This 2011 Electric Reliability Performance Report will be transmitted to an executive level operating officer of each electric utility with a letter from the Director of the Office of Electric, Gas, and Water.

⁴ National Grid incurred a \$2 million revenue adjustment for failing to meet an RPM target in 2011 related to estimating capital project accurately. Performance on this measure, however, does not affect its reliability performance.

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.⁵ 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).⁶ Analysis of the cause code data enables the utilities and 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.⁷ Staff maintains interruption information in a database that dates back to 1989, which enables it to observe trends.

The Commission also adopted electric service standards addressing the reliability of electric service. The standards contain minimum acceptable performance 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

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

⁶ 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.

⁷ 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.

to meet a minimum level under the service standards; utilities are, however, required to include a corrective action plan as part of the annual report. The service standards were last revised in 2004.

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 company-wide targets for frequency and duration; some RPMs have additional measures to address specific concerns within an individual company.

2011 RELIABILITY PERFORMANCE

The following sections provide a summary discussion of the reliability performance statewide and for each of the major utilities.⁸ Individual company discussions identify issues or actions within each company that influenced performance levels for 2011 and indicate company-specific trends where applicable. Each year, Staff prepares an Interruption Report summarizing the monthly interruption data submitted by utilities. The 2011 Interruption Report contains detailed interruption data for each utility and statewide statistics for the past five years. The Interruption Report for 2011 is attached as an Appendix.

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. 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.

Revenue adjustments for inadequate reliability performance, as well as deficiencies in other related areas, are implemented through individual RPMs which have been established in the utilities' rate orders. Con Edison, potentially failed three RPM targets regarding network performance worth approximately \$14 million. Con Edison has filed a petition with the Commission, citing Hurricane Irene, and other factors as a basis to exclude data. If the petition is granted in full, the Company asserts it would meet

⁸ Although LIPA is not regulated by the Commission, it supplies interruption data that is used to calculate statewide performance in this report.

all RPM targets.⁹ National Grid failed to meet an RPM target in a related area concerning capital project estimating accuracy and will incur a \$2 million revenue adjustment. Although National Grid failed to meet the target in 2011 it has showed positive progress in the development of its End to End management process that is focused on improving project estimating, management, planning, and quality control. It should be noted that this measurement does not directly affect reliability performance.

STATEWIDE

For many years, Staff has been combining individual utility performance statistics 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 that are generally less prone to interruptions than overhead systems, 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 0.62 in 2011; this is slightly worse than the previous three years' performances and worse than the five-year average of 0.59. National Grid, with its large customer base, contributed most (70%) to the difference in statewide non-storm interruption frequency when compared to the previous year. In 2011, however, National Grid changed over to a new reporting methodology that acquires interruption data directly from its outage management system (OMS). The new methodology, which uses more accurate data, results in a higher calculation and gives the false appearance of a decline in performance when the Company actually performed adequately. Central Hudson and Orange and Rockland had fewer customers affected by power outages in 2011 when major storms are excluded, while NYSEG, Con Edison, and RG&E had more

⁹ Con Edison filed a request for exemption on April 2, 2012 which has yet to be presented to the Commission for final action.

customers affected. The frequency performance in 2011, for utilities other than Con Edison, is 0.97, which is worse than the previous three years, and also worse than the five-year average of 0.93.

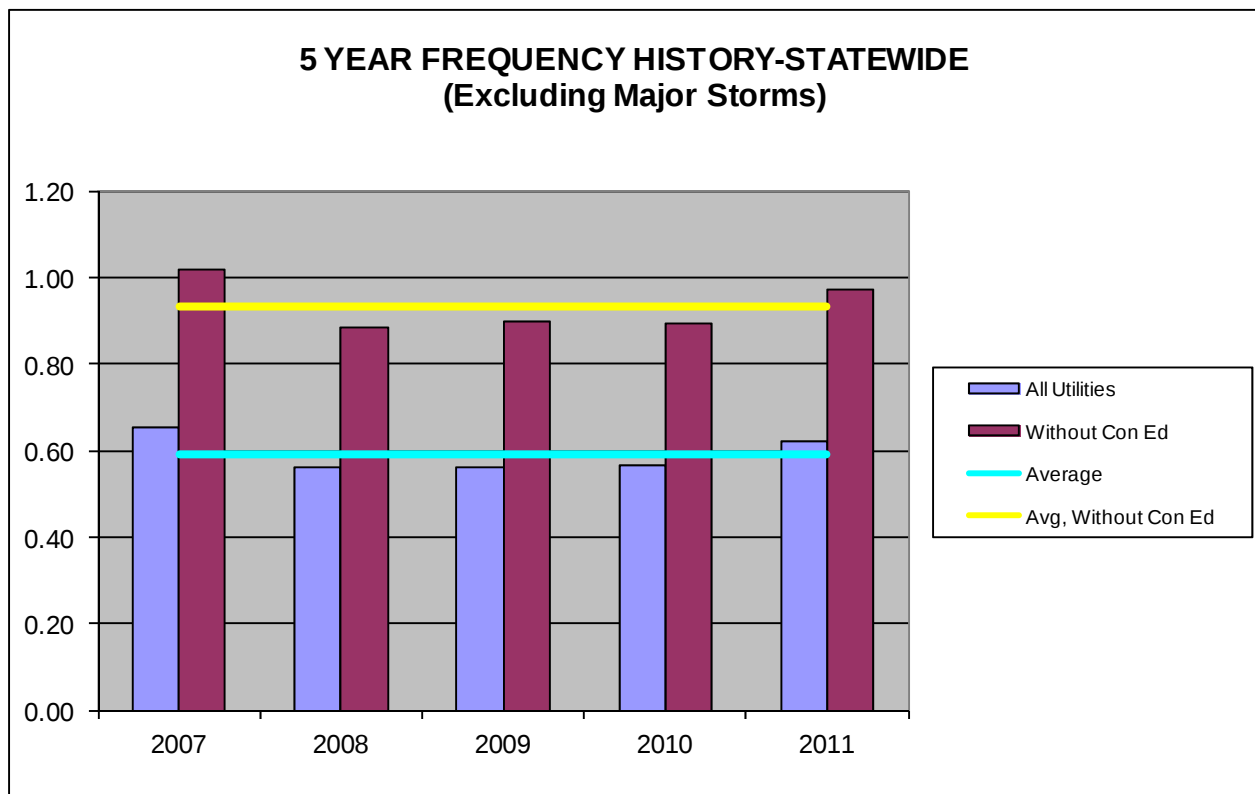


Figure 1: Statewide Frequency Performance

Figure 2 shows the historical statewide interruption duration index, excluding major storms. The 2011 overall statewide interruption duration index of 1.91 is slightly worse than 2010's duration index of 1.89, but is generally consistent with the history of the past four years. The statewide interruption duration index, excluding Con Edison, was 1.82 hours in 2011, which is the same as 2010 and better than the five year average of 1.84.

Similarly to frequency, and for the same reasons noted earlier, National Grid contributed 60% to the increase over 2010. Con Edison and NYSEG followed with 22%, with RG&E at 17%.

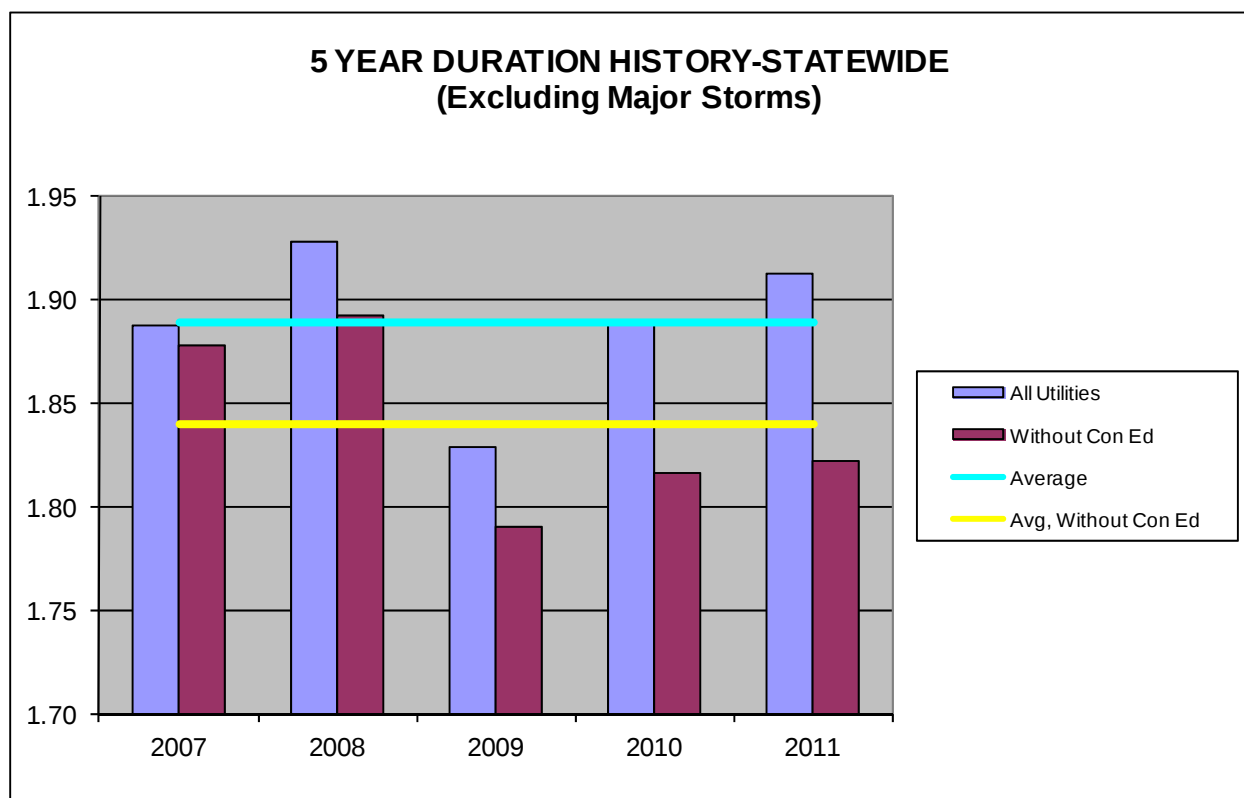


Figure 2: Statewide Duration Performance

Five storms affected New York State in 2011 and caused 2011 to have the most hours of customer electric service interruption in the past twenty years (Figures 3 and 4, below).¹⁰ The storms that caused the most disruption were Hurricane Irene, Tropical Storm Lee, and the October snowstorm. Because of the extended restoration times associated with these storms, the Commission requires the companies to file reports detailing storm-specific restoration activities.^{11 12}

- On September 5th, Tropical Storm Lee, with winds and extensive additional flooding, affected the utilities already reeling from Irene, interrupting 68,000 customers for as long as ten days.
- On August 28th, Hurricane Irene's winds and flooding affected 1.1 million customers, mostly served by Central Hudson, Con Edison, Grid, NYSEG, and O&R, for as long as nine days.

¹⁰ The major storm statistics submitted for 2011 by LIPA include rough estimates for Hurricane Irene based on load comparisons, substation information, and similar.

¹¹ 16 NYCRR Part 97, Part 105.4, requires utilities to file storm reports for outages lasting longer than three days.

¹² These reports, as well as Staff's, as they are completed, may be found on our website: <http://www.dps.ny.gov>.

- On October 29th, an early snow storm affected about 600,000 customers for as long as six days, with Central Hudson, Con Edison, NYSEG, and Orange and Rockland affected the most.
- On May 25th and 26th, wind storms affected 69,500 mostly NYSEG customers for as long as five days.
- On March 7th, an ice storm struck parts of the Hudson Valley and Capital-Saratoga regions. More than 40,000 customers, primarily Central Hudson and NYSEG's, were affected for as long as five days.

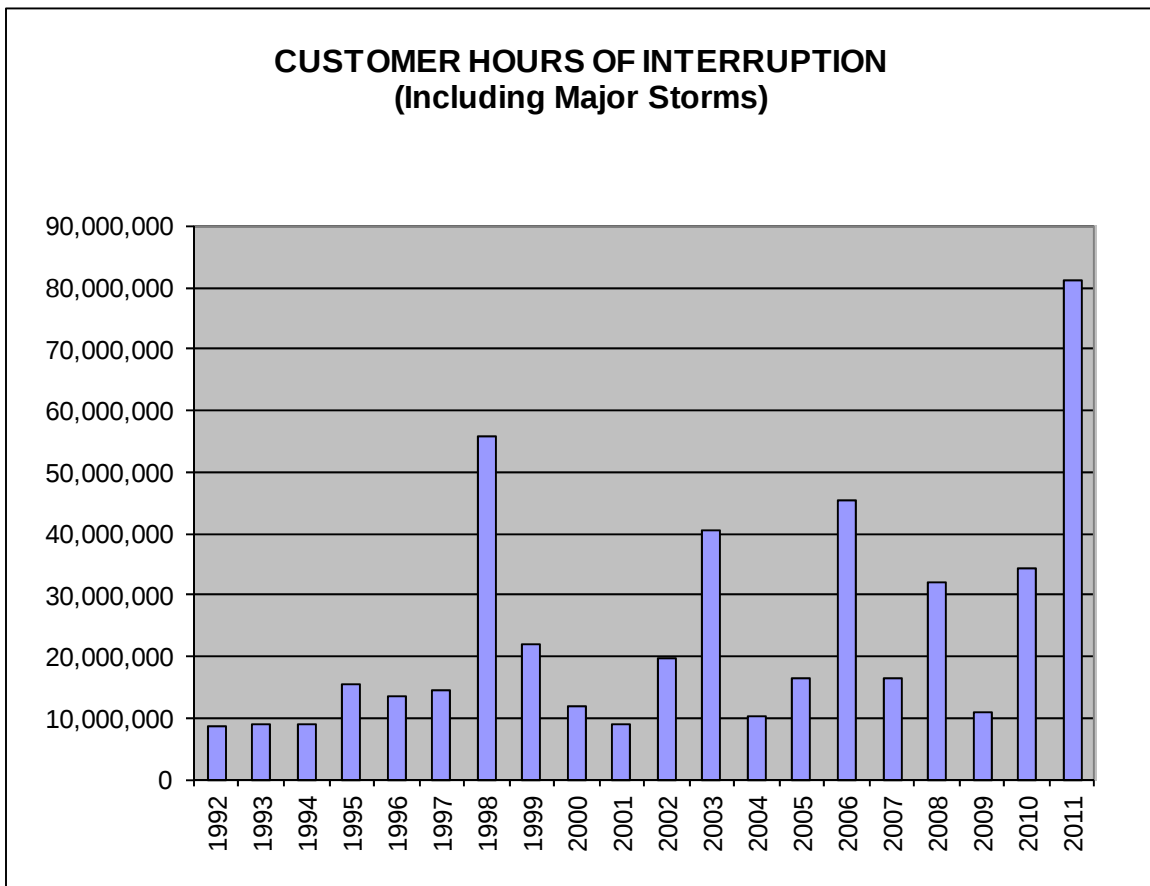


Figure 3: Customer Hours of Interruption (Including Major Storms)

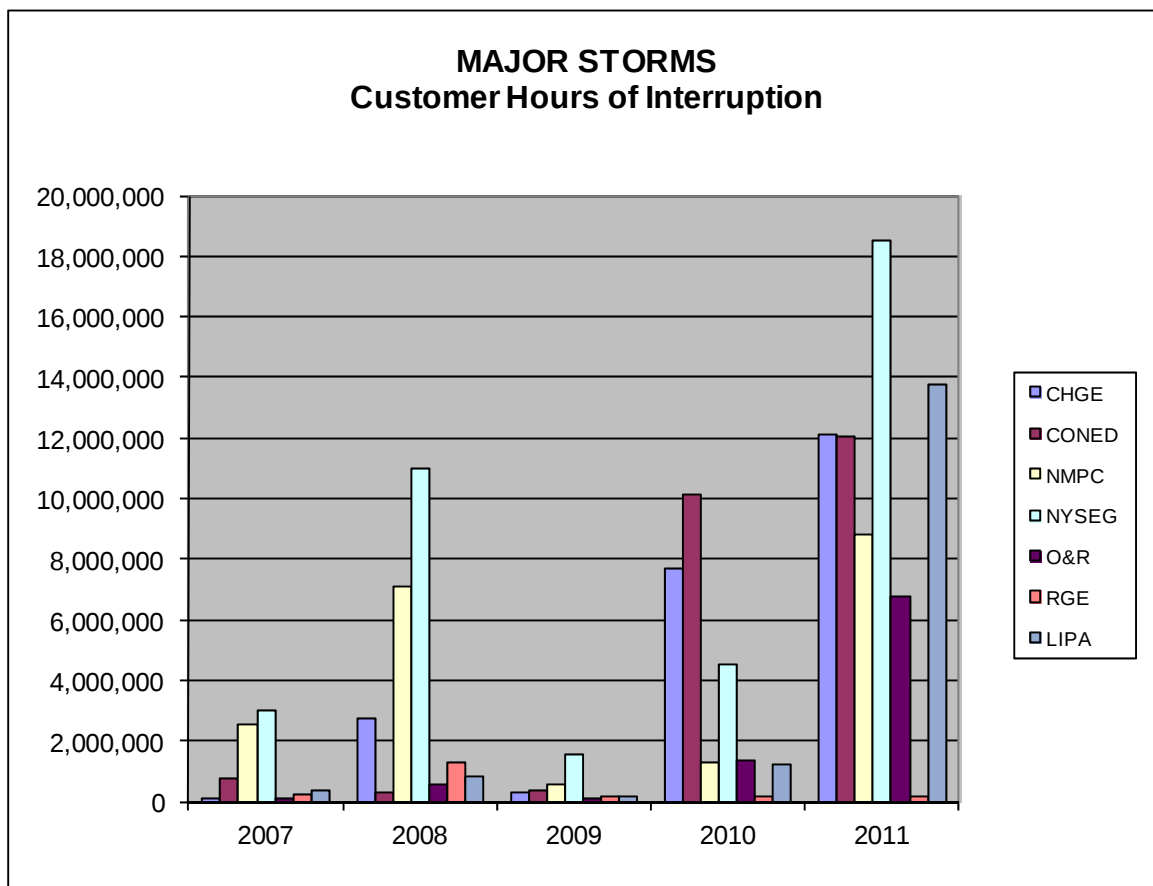


Figure 4: Major Storm Customer Hours

CON EDISON

Table 1: Con Edison's Historic Performance Excluding Major Storms

Metric	2007	2008	2009	2010	2011	5-Year Average
Network Systems ¹³						
Frequency (Int/1000 CS)			2.43	2.38	3.34	---
Duration (Hours/Int)			3.94	4.47 ¹⁴	5.29	---
Radial System						
Frequency (SAIFI)	0.38	0.42	0.32	0.41	0.49	0.40
Duration (CAIDI)	2.07	1.83	1.74	1.95	2.12	1.94

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

¹³ The duration and frequency metrics to measure network performance were replaced for 2009 with other measures.

¹⁴ The Commission determined that Con Edison should not incur a revenue adjustment in 2010 for failure to meet its Network Outage Duration due to severe weather.

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.

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 this redundancy. Given these design characteristics and underground settings, outages associated with individual service lines (services) are the leading contributor to interruptions (90%). Secondary mains represent about 8% of the total outages as shown in Figure 5. Equipment failures and accidents or events not under the utility's control represent 1% of the total outages each. The service interruption performance in 2011 was worse than the previous year. Con Edison continues to implement different relief and reliability programs to improve its network system performance.

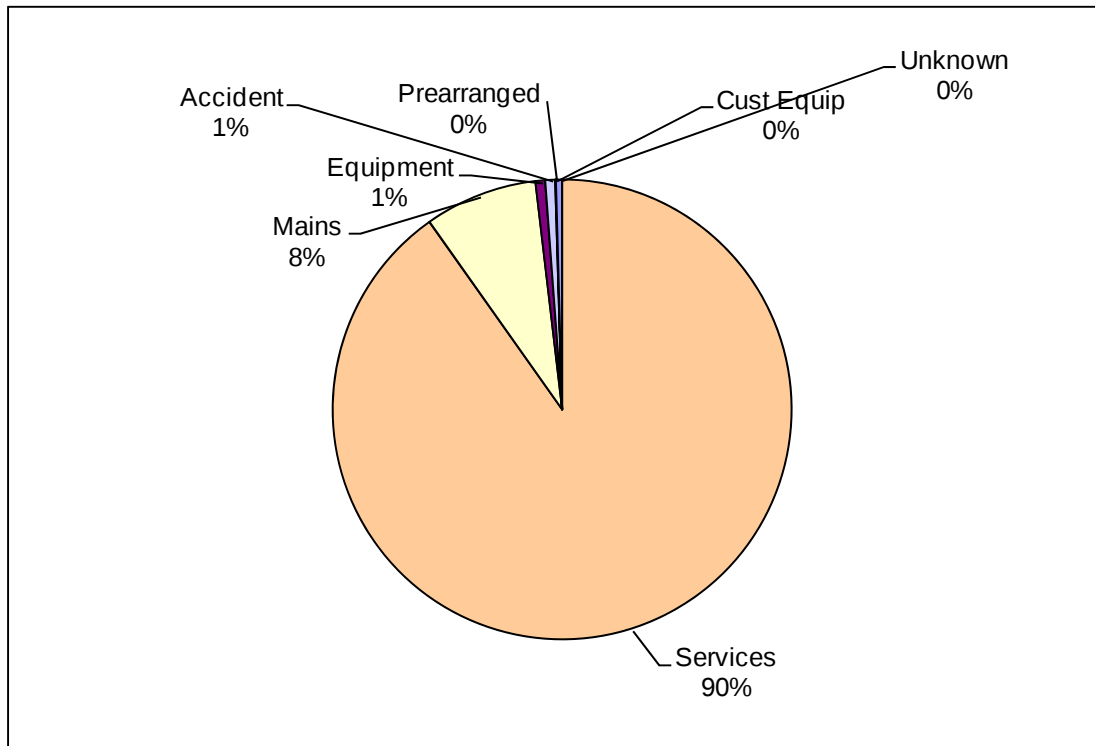


Figure 5: Con Edison's 2011 Network Interruptions by Cause

Due to concerns regarding the accuracy of the number of customers affected by an interruption in a network, Staff has been measuring network performance using two measures: the number of interruptions per 1000 customers and the average interruption duration. By using measures that are not based on the number of customers affected, we are able to monitor and trend network reliability performances without questioning the validity of the measures. In 2011, Con Edison's network interruptions and interruption duration performance was worse than its 2010 performance. The Company did not achieve its RPM target for both of these metrics in 2011. The Company attributes its failure to achieve its performance to increased outages and additional response times during Tropical Storm Irene. Outages caused by major storms, however, are not excluded from network system performance measures under Con Edison's RPM. According to Con Edison, some network customers are fed by overhead system, but with electricity supplied from a network system. The Company is seeking exclusion of these storm related outages from its network performance measures.¹⁵ The RPM threshold number of outages per 1,000 customers served is 2.50, and the Company asserts that its 3.34 performance in 2011 would be reduced to 2.49. Similarly, the RPM threshold of network duration of 4.90 would be met if 2011's 5.29 performance was reduced to Con Edison's projected 4.58. Therefore, if these exclusions are granted in full, the Company would not incur any negative revenue adjustment.¹⁶

On its radial system, Con Edison's frequency performance of 0.486 in 2011 was worse than its 2010 performance and worse than its five year average. Nevertheless, the Company met its RPM frequency target of 0.495 for 2011. Equipment failures are responsible for 78% of the interruptions on the radial system, followed by tree contact and accidents or events not under utilities control with 8% and 6%, respectively, as shown in Figure 6. Overload outages only accounted for 4% of all the interruptions.

Staff acknowledges that Con Edison invested in multiple reliability and load relief programs to improve its radial system performance, but has not noted a

¹⁵ This same type of exclusion was approved by the Commission in 2011 for interruptions associated with a tornado in Queens.

¹⁶ Con Edison filed a request for exclusion on April 2, 2012 which has yet to be presented to the Commission for final action.

corresponding reduction in outages caused by equipment failures. The Company should continue to improve the reliability of its system by installing switches and other rapid restoration technologies, and reassessing its auto loop system. Better analytical systems should be implemented to reduce equipment failures and to improve equipment performance. Con Edison should also improve its preemptive maintenance and physical inspection of distribution equipment in order to make necessary repairs before failures occur. Staff will continue to monitor the effectiveness of these programs in future reports.

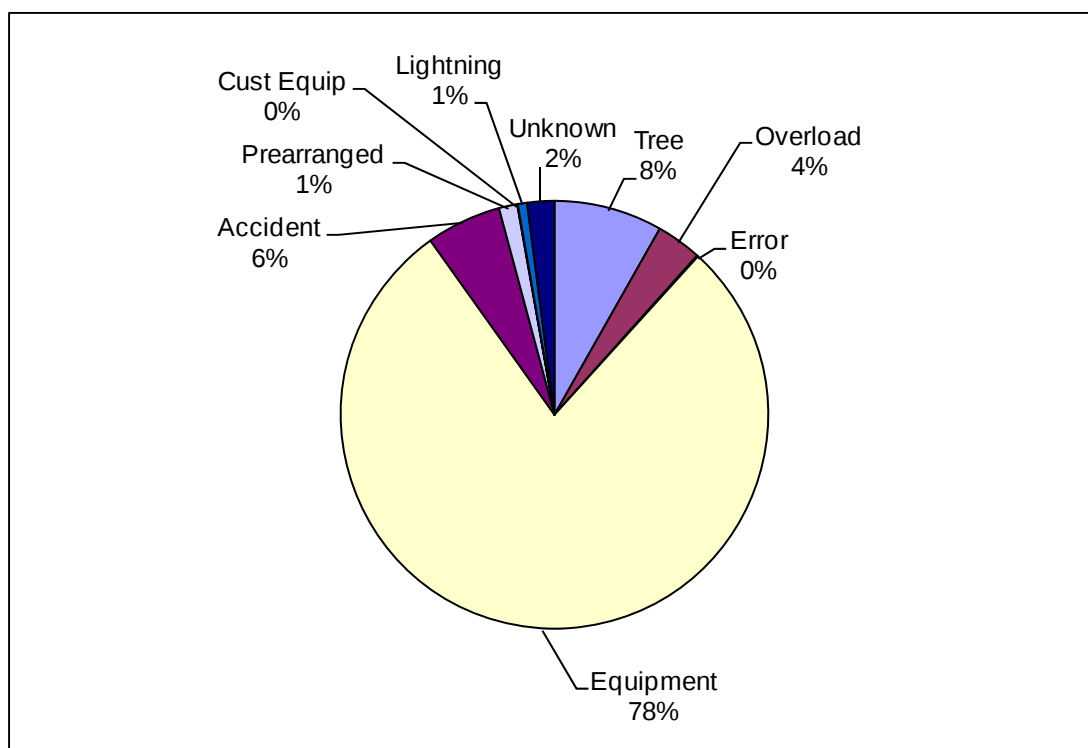


Figure 6: Con Edison's 2011 Radial Interruptions by Cause

With respect to duration, Con Edison's radial performance in 2011 was worse than the previous four years. The Company failed its RPM target of 2.04. Con Edison is seeking exclusion for its failure to meet its radial duration threshold standard due to outages it claims were beyond its control. If this exclusion is granted, the Company would meet the target and not incur any negative revenue adjustment.

Duration performance is something we and the Company are monitoring closely. Con Edison developed and implemented duration improvement strategies for both its

radial and network system in 2009. Changes were made to improve crewing efficiency and to reduce outage duration by augmenting the Company's use of first responder staffing, improving the ability to mobile dispatch work to crews, and developing better training resources. In 2010, in a response to a self assessment recommended by Staff, Con Edison stated that enhancements had been made to the process utilized for its outage management system to flag large outage jobs, and that it employed an automatic call out process for additional crews. Staff is concerned that even with all the changes implemented in the previous years, the Company still failed to achieve its radial duration metric in 2011 and its radial duration performance is worse than the previous four years. Staff will continue to monitor the effectiveness of these programs in future reports.

NATIONAL GRID

Table 2: National Grid's Historic Performance Excluding Major Storms

Metric	2007	2008	2009	2010	2011¹⁷	5-Year Average
Frequency (SAIFI)	0.96	0.75	0.88	0.80	0.98	0.87
Duration (CAIDI)	2.01	1.96	1.91	1.98	1.95	1.96

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

National Grid serves approximately 1.60 million customers across upstate New York. The Company's territories include metropolitan areas, such as Albany, Buffalo, and Syracuse, as well as many rural areas in northern New York and the Adirondacks.

In 2011, National Grid transitioned to a new reporting system. For this year, the Company achieved both of its reliability targets, comprising four consecutive years of positive performance. While the frequency level of 0.98 in 2011 is a 12 percent increase when compared to the five year average it is 15% below the new target of 1.13 for 2011. The new target is based on the Company's change over to the Interruption and Disturbance System (IDS) and National Grid attributes the frequency increase to better

¹⁷ In 2011, National Grid migrated from its paper based Service Interruption Reporting System (SIR) to its automated Interruption Disturbance System (IDS). The performance targets were adjusted to compensate for the increase in capturing outage data by the IDS.

interruption reporting data provided by the new system. The duration performance for 2011 improved over 2010, is below the historic five-year average, and better than its duration target of 2.05 for five consecutive years. On a Regional basis National Grid provided consistent service in all regions except for the Southwest Region which experienced a 54% increase in frequency and 14% increase in duration when compared to the five-year average. This increase is partly attributed to the better reporting gained through the new reporting system and unusually severe weather conditions in 2011. While the Southwest region did not experience any major storms in 2011 it did experience several high wind storms that caused sub-transmission outages affecting several distribution stations and an increase in lightning caused related outages. In light of this increase the Company is in the process of installing additional lightning arresters and adding Distribution Automation (DA) to several more sub-transmission lines. DA of sub-transmission lines has proven to reduce the number of customers interrupted for faulted lines. National Grid continues to address issues concerning reliability through its Reliability Programs (Engineering Reliability Reviews, Distribution Line Reclosers, Sub-Transmission Automation, Overhead Fusing, and Vegetation Management) and Inspection and Maintenance Program. The customer benefit, increased reliability and cost associated with these programs are under constant review by Staff.

In 2011 the leading cause of interruptions in returned from tree contacts in 2010 back to equipment failure, traditionally its leading cause code. Tree contact interruptions were down 6.4% from 2010 and 0.3% below the 5 year average while equipment failure interruptions were up 20.5% from 2010 and 13.3% over the 5 year average. National Grid's vegetation management program continues to show overall progress in part due to the aggressive removal of hazardous trees through the Enhanced Hazard Tree Maintenance Program. In the equipment failure category, National Grid's Inspection and Maintenance Program is providing increased reliability by addressing equipment issues found during inspections along with other programs (recloser additions, increased side tap fusing and Distribution Automation) that reduce the number of

customers affected by equipment failures.

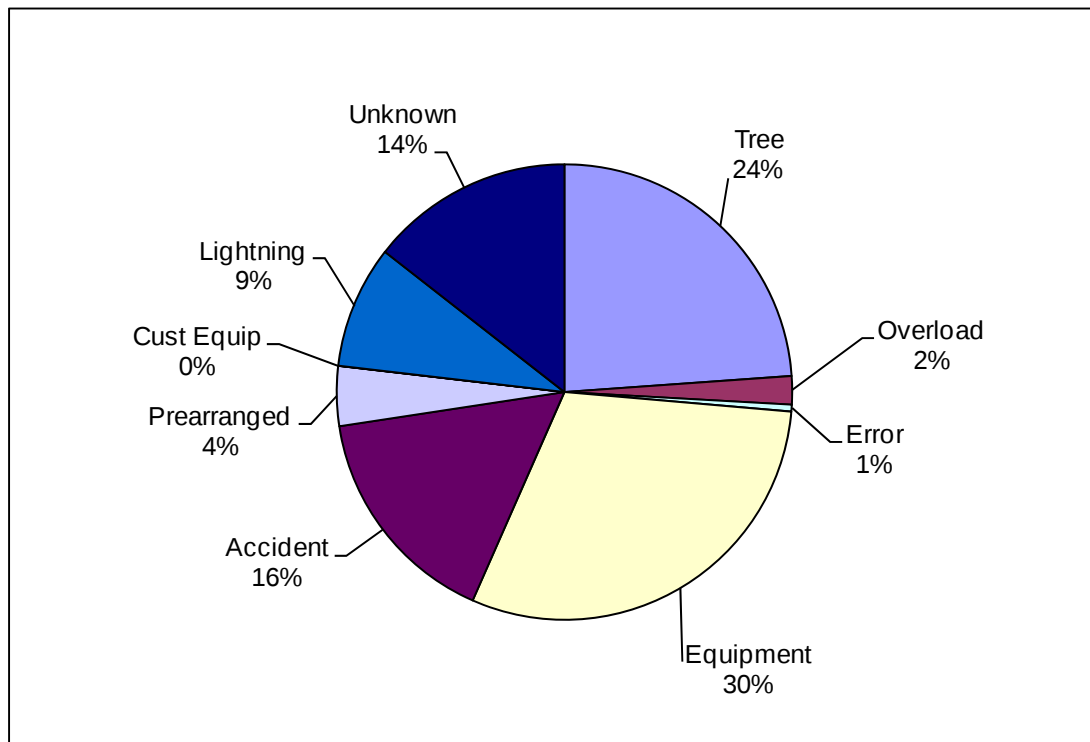


Figure 7: National Grid's 2011 Interruptions by Cause

National Grid continues to address the worst performing feeders in each region. In 2011 the Company reported on a total of 86 worst performing feeders for all regions. These feeders were individually analyzed to determine the main causes and develop a course of action to be taken. Some of the actions taken (recloser installations, side tap fusing, and animal guard installations) were completed during 2011 while other actions are planned for its next fiscal year. These projects are expected to increase the feeders' reliability.

NEW YORK STATE ELECTRIC AND GAS

Table 4: NYSEG's Historic Performance Excluding Major Storms

Metric	2007	2008	2009	2010	2011	5-Year Average
Frequency (SAIFI)	1.20	1.11	1.08	1.14	1.20	1.15
Duration (CAIDI)	2.22	2.08	2.00	1.98	2.07	2.07

Approximately 858,910 customers are served by NYSEG. The Company is primarily located in the Binghamton and Finger Lakes regions, but has localized service regions, including areas near Plattsburgh, Brewster, Mechanicville, and Lancaster.

NYSEG's frequency performance of 1.20 was worse when compared with its 2010 performance of 1.14 and worse than the five year average of 1.15. The 2011 duration performance of 2.07 was identical to its five year average. The Company met its RPM reliability targets of 1.20 for frequency and 2.08 for duration. Since both frequency and duration performances are at, or just below the threshold levels, the Company needs to be very cognizant of these areas. Staff will closely monitor these areas and continue to highlight them to the utilities during future discussions. To improve reliability, the Company has increased capital and maintenance expenditures to help address these areas as further discussed below.

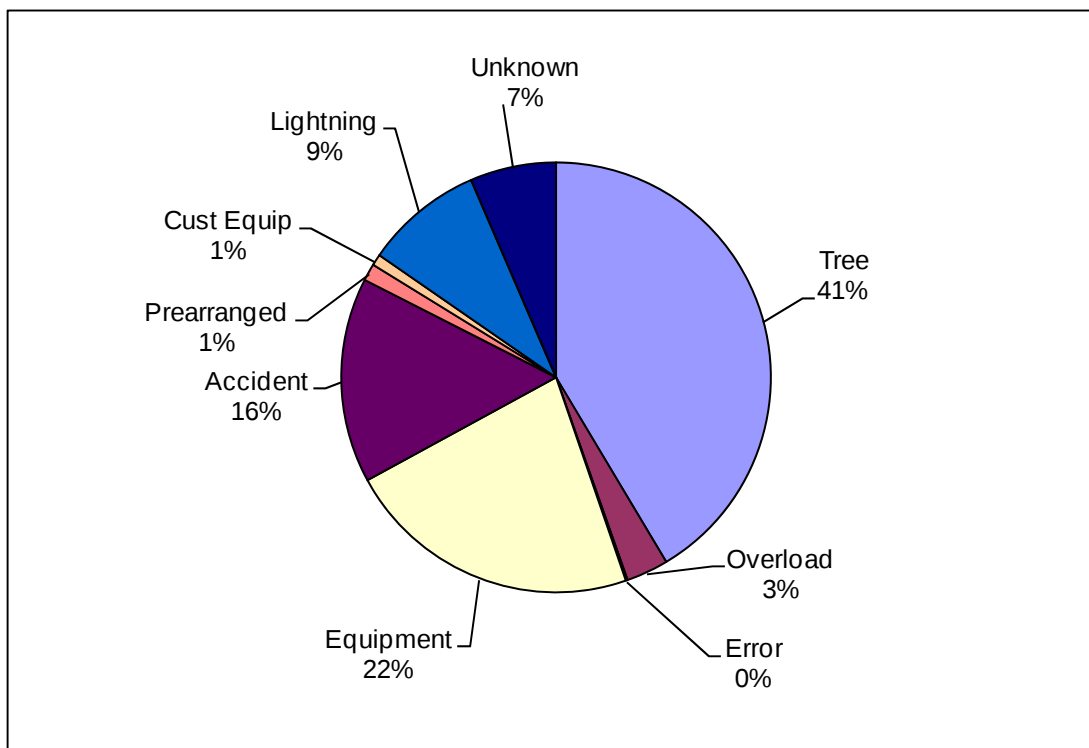


Figure 8: NYSEG's 2011 Interruptions by Cause

As shown in Figure 8, tree contacts (41%), equipment failures (22%), and accidents (15%) remain the predominant causes of interruption throughout NYSEG's twelve operating divisions in 2011. NYSEG historically has a high tree-caused frequency rate when compared to the other New York State utilities, and in 2011 was the worst in the State. As a result, NYSEG needs to continue to focus on improving its distribution vegetation management program and reducing tree related outages. To facilitate progress and performance in vegetation management, the last rate case agreements included a minimum number of vegetation clearing miles to be completed each year by the Company. If the Company did not achieve these clearing criteria, it would be subject to significant negative revenue adjustments, along with expenditure true-ups that would return to customers any underspending associated with the vegetation management program. To that end the Company exceeded its target of performing 2,700 miles of distribution clearing in 2011, achieving an actual level of 2,949 miles. In addition, the Company also expended an additional \$8.6 million in 2011 on targeted trimming directly related to achieving reliability improvements.

With respect to equipment failures, NYSEG has increased its spending on the Transmission and Distribution Infrastructure Reliability Program, which is solely devoted to proactive replacement of aging infrastructure. In 2011 the Company spent an additional \$14 million over and above its targeted forecast of \$25 million. The Company is expected to continue this level of spending through the end of the existing rate plan (2013), which is expected to yield improvement in the equipment failure levels going forward.

ROCHESTER GAS AND ELECTRIC

Table 5: RG&E's Historic Performance Excluding Major Storms

Metric	2007	2008	2009	2010	2011	5-Year Average
Frequency (SAIFI)	0.83	0.78	0.59	0.71	0.87	0.76
Duration (CAIDI)	1.73	1.85	1.80	1.71	1.85	1.79

RG&E serves approximately 362,172 customers. Although the Company is comprised of four service areas or divisions, 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 perform better than its RPM targets of 0.90 for frequency and 1.90 for duration, as established in its rate order. As shown in Table 5, RG&E's performance for frequency and duration was worse or the same in 2011 as any of the previous four years. While RG&E met the RPM targets at the corporate level, only one of the four divisions of RG&E performed well at the divisional level. The Rochester division achieved performances of 0.74 and 1.86 respectively, helping the Company meet its overall RPM targets. The Rochester division has planned a multitude of reliability projects for 2012, including replacing approximately 400 poles that are 60 years and over 25,000 ft. of underground cable replacement and upgrade projects.

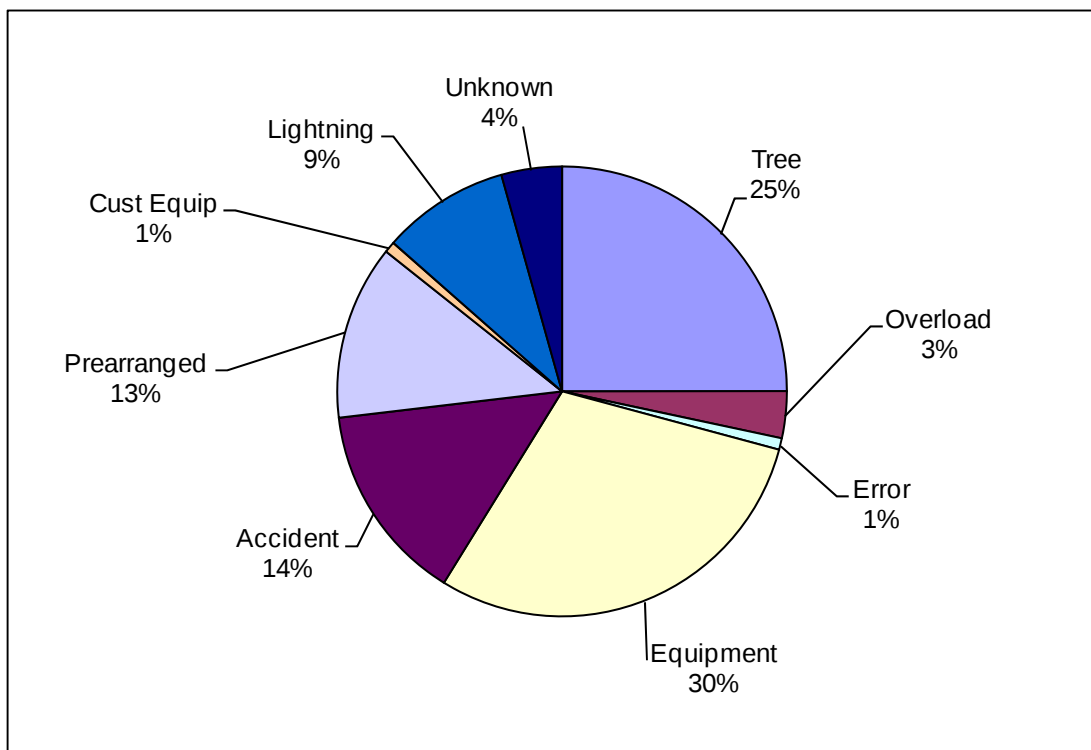


Figure 9: RG&E's 2011 Interruptions by Cause

Figure 9 shows that the two major contributors to interruptions in 2010 continue to be equipment failures (28%) and tree contacts (25%). Similar to NYSEG, funding for RG&E's Transmission and Distribution Infrastructure Replacement Program (TDIRP) was reduced due to Company financial issues in 2009 and the beginning of 2010. In the last rate case, the Commission supported expenditures for the TDIRP efforts, in the amount of \$15 million annually, to bring the Company back up to pre 2009 spending levels. The Company spent \$39 million in 2011, which was the first full year after the recent rate case. This was \$14 million over the budgeted amount of \$25 million. The Commission also supported increased expenditures for vegetation management, in the amount of \$6.6 million annually, allowing the Company to implement a full system vegetation management (tree trimming) cycle program. These efforts began late in 2010, which is too late for results to be seen in this reporting cycle. Staff believes that these two programs and associated expenditures will help reduce outages and improve the system reliability going forward.

The Canandaigua division failed to meet its objectives for both frequency and duration largely due to accidents and non-utility related interruptions; these accounted for 42.5% of total customer outage hours. The Genesee and Lakeshore divisions also encountered significant tree related interruptions accounting for 48.4% of total customer outage hours for Genesee and 47.5% for Lakeshore. In order to rectify these failures and achieve its 2011 RPM targets RG&E spent approximately \$3.4 million on additional hot spot tree trimming efforts in problem areas in its service territory. These expenditures were above and beyond the amounts allowed in rates for its approved cycle trimming program. Additionally, RG&E has scheduled approximately 660 miles of additional tree maintenance clearing in the three divisions for 2012; as well as engineered multiple circuit reliability projects for each.

CENTRAL HUDSON GAS AND ELECTRIC

Table 6: Central Hudson's Historic Performance Excluding Major Storms

Metric	2007	2008	2009	2010	2011	5-Year Average
Frequency (SAIFI)	1.44	1.28	1.38	1.27	1.20	1.31
Duration (CAIDI)	2.43	2.47	2.22	2.42	2.26	2.36

Central Hudson serves approximately 300,000 customers in the Mid-Hudson Valley region. The Company's territory is mainly suburban and rural. Central Hudson also serves some urban regions, such as the cities of Poughkeepsie and Newburgh.

Central Hudson's frequency performance of 1.20 in 2011 was better than 2010 and is a five-year best. The Company's duration performance of 2.26 in 2011 was the second-best in the past five years. Figure 10 shows that 36% of customer interruptions were due to tree related issues, followed by accidents which comprised 21%. In 2011, the Company achieved its RPM targets of 1.45 for frequency and 2.50 for duration.

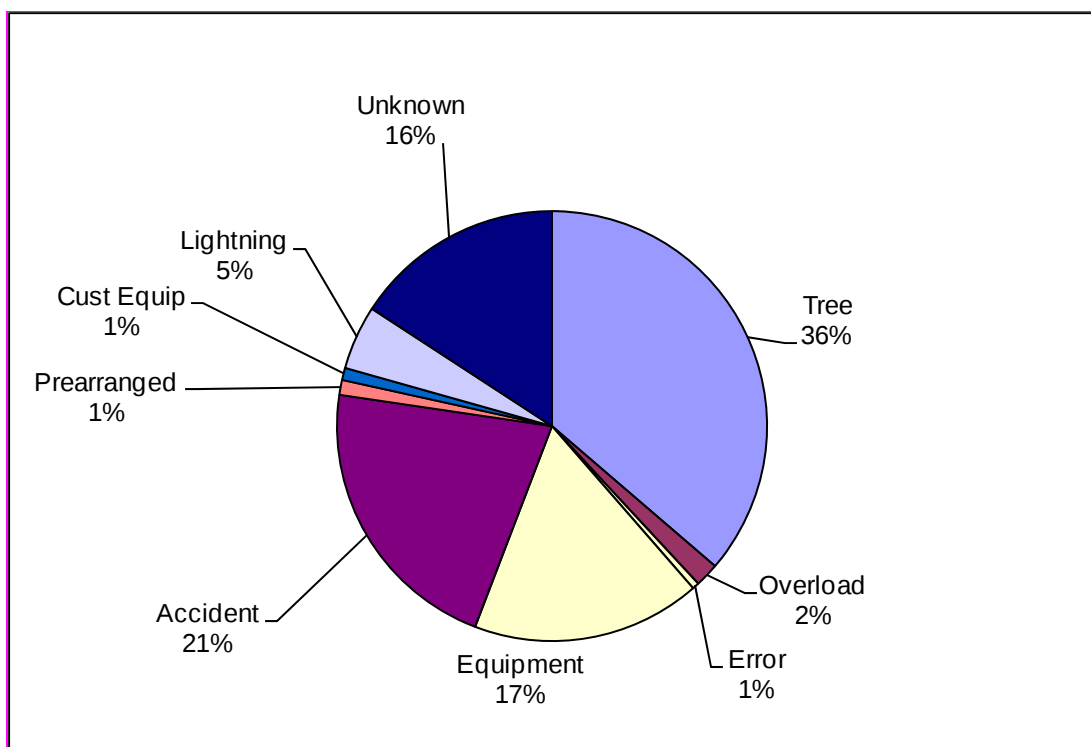


Figure 10: Central Hudson's 2010 Interruptions by Cause

As is the case with most overhead distribution utilities, trees are a primary cause of outages (Figure 10, above). The Company is trying, with some apparent success, to reduce its historically high interruptions rate. Since 2007 Central Hudson has done vegetation line clearance in accordance with a new, improved specification. In 2011, it completed the first cycle and is now working on the second cycle. While the Company is reporting decreased tree outages, Staff field reviews of circuits near, or at, the end of their trimming cycles indicate that a five-year cycle (as compared with the originally planned four-year cycle) may be too long for this service territory. Staff will continue to monitor reliability and cost trends as the second cycle progresses over time.

For Central Hudson, equipment failures also cause a large number of electric interruptions. Central Hudson is continuing several programs to decrease the number of these interruptions, including programs to address: substation breaker replacement; problematic cutout replacement; 14kV paper and lead cable replacement; automatic load transfer switch installation; aging recloser replacement (including remote communication); circuits that have numerous interruptions (10X program), keeping

circuit loading under 6MVA for 13 kV voltage and less than 1.5MVA for 4 kV; distribution line infrared surveys; and instantaneous reclose for substation breakers. In addition, the Company has a program to upgrade individual circuits when necessary to maintain reliability. More communication with devices integrated into the distribution system, such as in the recloser replacement program, provides increasing intelligence to operate the distribution system more effectively.

ORANGE AND ROCKLAND

Table 7: O&R's Historic Performance Excluding Major Storms

Metric	2007	2008	2009	2010	2011	5-Year Average
Frequency (SAIFI)	1.03	1.19	1.03	1.21	0.97	1.09
Duration (CAIDI)	1.60	1.83	1.67	1.79	1.61	1.70

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

Orange and Rockland serves approximately 219,143 customers in three New York counties along the New Jersey and Pennsylvania border.

With regard to service reliability, O&R performed better than its reliability targets of 1.20 for frequency and 1.85 for duration, recently established as part of its rate order in Case 10-E-0362. As part of that case, the Company's targets were changed from 1.36 to 1.20 for SAIFI and from 1.70 to 1.85 for CAIDI. With its poor duration performance in 2010, the Company instituted an automated call-out system for calling in crews for outages occurring after normal operating hours. Additionally, a task group was assembled to formulate ways and opportunities to improve duration. The Company asserts that these efforts are effective ways of improving duration and the 2011 performance seems to support such claims. As shown in Table 7, the Company's frequency performance of 0.96 in 2011 was an improvement from 1.21 in 2010 and its duration performance of 1.61 in 2011 was an improvement from 1.79 in 2010. Each of the Company's three divisions; Eastern, Central and Western; also met their frequency and duration targets individually.

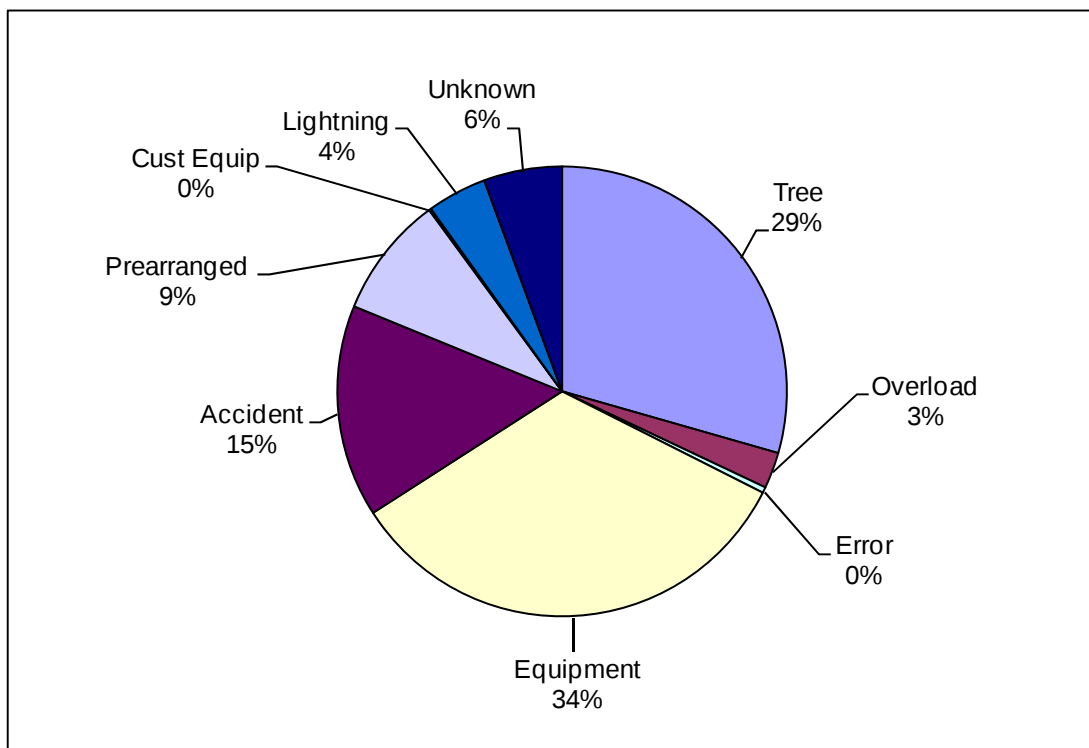


Figure 11: Orange and Rockland's 2011 Interruptions by Cause

As shown in Figure 11, equipment failures (34%) and tree contacts (29%) continue to be the cause of a majority of the interruptions in 2011; however, in 2011, tree contacts were dramatically down when compared to tree contacts over the last three years. This decrease is in large part due to the Company's continued effort in its tree trimming program, where it has accelerated the cycle to three years in certain areas, as well as its continuing effort to identify and perform supplemental trimming to address areas with recurring tree related outages. Staff will continue to monitor these programs for lower tree related outages in the future.

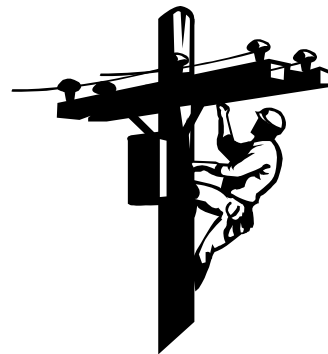
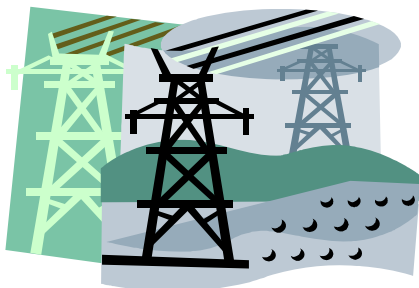
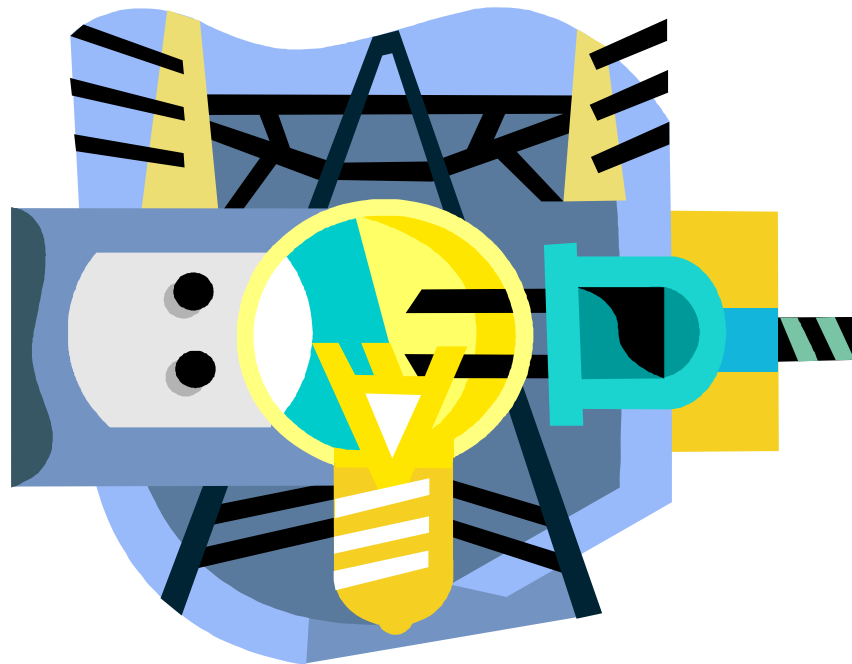
Orange and Rockland continues to address reliability issues resulting from equipment failures through capital improvement programs such as the Distribution Automation Program, the Underground Cable Maintenance and Rebuild Program, and a number of service reliability improvement projects directed by the circuit priority-rating methodology. Additionally, several new substations have been constructed and are planned to be constructed in the next several years which are expected to continue to help reduce the number of equipment failures. Each substation project includes enclosed

switchgear that helps keep animals out and minimizes failures. Outages due to equipment failures slightly decreased in 2011 after a substantial decrease in 2010. Staff will continue to verify that outages for these reasons decrease as these programs mature and new substations are put on line.

APPENDIX

2011 INTERRUPTON REPORT

The 2011 Interruption Report



**Office of Electricity, Gas, and Water
June 2012**

ATTACHMENT
Definitions and Explanations of Terms Used in the 2010
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 **2010**, customers served is the number of customers as of 12/31/2010. 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., 12/31/2009.

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., 12/31/2009. 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., 12/31/2009, 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)**

	2007	2008	2009	2010	2011	5 YR AVG
CHGE						
FREQUENCY	1.44	1.28	1.38	1.27	1.20	1.31
DURATION	2.43	2.47	2.22	2.42	2.26	2.36
CONED						
FREQUENCY	0.16	0.13	0.10	0.13	0.15	0.13
DURATION	1.97	2.27	2.27	2.57	2.71	2.36
LIPA *						
FREQUENCY	0.90	0.77	0.74	0.73	0.75	0.78
DURATION	1.20	1.36	1.17	1.11	1.14	1.20
NAT GRID						
FREQUENCY	0.96	0.75	0.88	0.80	0.98	0.87
DURATION	2.01	1.96	1.91	1.98	1.95	1.96
NYSEG						
FREQUENCY	1.20	1.11	1.08	1.14	1.20	1.15
DURATION	2.22	2.08	2.00	1.98	2.07	2.07
O&R						
FREQUENCY	1.03	1.19	1.03	1.21	0.97	1.09
DURATION	1.60	1.83	1.67	1.79	1.61	1.70
RG&E						
FREQUENCY	0.83	0.78	0.59	0.71	0.87	0.76
DURATION	1.73	1.85	1.80	1.71	1.85	1.79
STATEWIDE (WITHOUT CONED)						
FREQUENCY	1.02	0.88	0.90	0.89	0.97	0.93
DURATION	1.88	1.89	1.79	1.82	1.82	1.84
STATEWIDE (WITH CONED)						
FREQUENCY	0.65	0.56	0.56	0.57	0.62	0.59
DURATION	1.89	1.93	1.83	1.89	1.91	1.89

* 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)**

	2007	2008	2009	2010	2011	5 YR AVG
CHGE						
FREQUENCY	1.52	2.18	1.64	2.61	2.71	2.13
DURATION	2.51	5.76	2.48	10.94	15.95	7.53
CONED						
FREQUENCY	0.18	0.14	0.11	0.23	0.26	0.18
DURATION	3.12	2.71	3.06	15.05	15.45	7.88
LIPA *						
FREQUENCY	1.04	1.09	0.81	1.04	1.36	1.07
DURATION	1.37	1.65	1.25	1.84	9.69	3.16
NAT GRID						
FREQUENCY	1.31	1.37	1.01	0.98	1.48	1.23
DURATION	2.70	4.32	2.01	2.46	5.03	3.30
NYSEG						
FREQUENCY	1.71	2.14	1.47	1.84	2.44	1.92
DURATION	3.62	7.07	2.68	4.09	9.86	5.46
O&R						
FREQUENCY	1.17	1.64	1.15	1.79	2.12	1.57
DURATION	1.92	2.94	1.89	4.76	15.32	5.37
RG&E						
FREQUENCY	1.16	1.36	0.74	0.79	1.05	1.02
DURATION	1.80	3.77	2.03	2.18	1.99	2.35
STATEWIDE (WITHOUT CONED)						
FREQUENCY	1.31	1.51	1.07	1.29	1.72	1.38
DURATION	2.56	4.62	2.09	4.09	8.92	4.45
STATEWIDE (WITH CONED)						
FREQUENCY	0.83	0.93	0.67	0.84	1.09	0.87
DURATION	2.61	4.50	2.16	5.35	9.58	4.84

* 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

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	55,425	53,758	55,995	54,310	53,557	54,609
Number of Customer-Hours	8,439,464	7,399,179	7,116,848	7,197,156	7,868,243	7,604,178
Number of Customers Affected	4,495,428	3,910,426	3,976,492	3,962,829	4,319,688	4,132,973
Number of Customers Served	4,430,976	4,423,537	4,438,920	4,445,691	4,444,060	4,436,637
Average Duration Per Customer Affected (CAIDI)	1.88	1.89	1.79	1.82	1.82	1.84
Average Duration Per Customers Served	1.91	1.67	1.61	1.62	1.77	1.72
Interruptions Per 1000 Customers Served	12.52	12.13	12.66	12.23	12.05	12.32
Number of Customers Affected Per Customer Served (SAIFI)	1.02	0.88	0.90	0.89	0.97	0.93

STATEWIDE (WITH CON ED)

Excluding Major Storms

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	66,746	65,403	70,930	68,221	68,719	68,004
Number of Customer-Hours	9,429,452	8,326,562	7,891,155	8,284,480	9,195,778	8,625,485
Number of Customers Affected	4,996,967	4,319,550	4,316,932	4,385,672	4,809,183	4,565,661
Number of Customers Served	7,675,773	7,695,263	7,730,663	7,766,504	7,782,791	7,730,199
Average Duration Per Customer Affected (CAIDI)	1.89	1.93	1.83	1.89	1.91	1.89
Average Duration Per Customers Served	1.23	1.08	1.03	1.07	1.18	1.12
Interruptions Per 1000 Customers Served	8.73	8.52	9.22	8.82	8.85	8.83
Number of Customers Affected Per Customer Served (SAIFI)	0.65	0.56	0.56	0.57	0.62	0.59

* 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

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	61,753	73,150	61,841	72,135	97,586	73,293
Number of Customer-Hours	14,848,512	30,962,269	9,923,723	23,466,391	68,027,851	29,445,749
Number of Customers Affected	5,808,516	6,705,414	4,752,148	5,741,806	7,630,118	6,127,600
Number of Customers Served	4,430,976	4,423,537	4,438,920	4,445,691	4,444,060	4,436,637
Average Duration Per Customer Affected (CAIDI)	2.56	4.62	2.09	4.09	8.92	4.45
Average Duration Per Customers Served	3.35	6.99	2.24	5.29	15.30	6.63
Interruptions Per 1000 Customers Served	13.95	16.51	13.98	16.25	21.95	16.53
Number of Customers Affected Per Customer Served (SAIFI)	1.31	1.51	1.07	1.29	1.72	1.38

STATEWIDE (WITH CON ED)

Including Major Storms

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	74,261	85,548	77,181	91,471	120,005	89,693
Number of Customer-Hours	16,630,252	32,188,186	11,046,399	34,693,862	81,434,151	35,198,570
Number of Customers Affected	6,379,276	7,158,329	5,118,841	6,487,588	8,498,092	6,728,425
Number of Customers Served	7,675,773	7,695,263	7,730,663	7,766,504	7,782,791	7,730,199
Average Duration Per Customer Affected (CAIDI)	2.61	4.50	2.16	5.35	9.58	4.84
Average Duration Per Customers Served	2.18	4.19	1.44	4.49	10.49	4.56
Interruptions Per 1000 Customers Served	9.71	11.15	10.03	11.83	15.45	11.63
Number of Customers Affected Per Customer Served (SAIFI)	0.83	0.93	0.67	0.84	1.09	0.87

* 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

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	6,386	6,857	6,705	7,762	6,293	6,801
Number of Customer-Hours	1,021,859	933,993	910,250	922,392	814,052	920,509
Number of Customers Affected	420,769	377,564	410,516	380,489	359,769	389,821
Number of Customers Served	295,368	298,386	300,621	299,557	299,971	298,781
Average Duration Per Customer Affected (CAIDI)	2.43	2.47	2.22	2.42	2.26	2.36
Average Duration Per Customers Served	3.49	3.16	3.05	3.07	2.72	3.10
Interruptions Per 1000 Customers Served	21.81	23.22	22.47	25.82	21.01	22.86
Number of Customers Affected Per Customer Served (SAIFI)	1.44	1.28	1.38	1.27	1.20	1.31

CENTRAL HUDSON

Including Major Storms

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	6,681	9,887	7,609	11,994	12,076	9,649
Number of Customer-Hours	1,117,802	3,705,277	1,211,827	8,597,567	12,930,372	5,512,569
Number of Customers Affected	444,813	642,949	488,732	785,806	810,464	634,553
Number of Customers Served	295,368	298,386	300,621	299,557	299,971	298,781
Average Duration Per Customer Affected (CAIDI)	2.51	5.76	2.48	10.94	15.95	7.53
Average Duration Per Customers Served	3.82	12.54	4.06	28.60	43.16	18.44
Interruptions Per 1000 Customers Served	22.82	33.47	25.50	39.90	40.31	32.40
Number of Customers Affected Per Customer Served (SAIFI)	1.52	2.18	1.64	2.61	2.71	2.13

* 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

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	11,321	11,645	14,935	13,911	15,162	13,395
Number of Customer-Hours	989,988	927,383	774,307	1,087,325	1,327,534	1,021,307
Number of Customers Affected	501,539	409,124	340,440	422,843	489,495	432,688
Number of Customers Served	3,244,797	3,271,726	3,291,743	3,320,813	3,338,731	3,293,562
Average Duration Per Customer Affected (CAIDI)	1.97	2.27	2.27	2.57	2.71	2.36
Average Duration Per Customers Served	0.31	0.29	0.24	0.33	0.40	0.31
Interruptions Per 1000 Customers Served	3.52	3.59	4.56	4.23	4.57	4.09
Number of Customers Affected Per Customer Served (SAIFI)	0.16	0.13	0.10	0.13	0.15	0.13

CON ED (SYSTEM)

Including Major Storms

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	12,508	12,398	15,340	19,336	22,419	16,400
Number of Customer-Hours	1,781,740	1,225,917	1,122,677	11,227,471	13,406,300	5,752,821
Number of Customers Affected	570,760	452,915	366,693	745,782	867,974	600,825
Number of Customers Served	3,244,797	3,271,726	3,291,743	3,320,813	3,338,731	3,293,562
Average Duration Per Customer Affected (CAIDI)	3.12	2.71	3.06	15.05	15.45	7.88
Average Duration Per Customers Served	0.55	0.38	0.34	3.41	4.04	1.74
Interruptions Per 1000 Customers Served	3.89	3.82	4.69	5.87	6.75	5.00
Number of Customers Affected Per Customer Served (SAIFI)	0.18	0.14	0.11	0.23	0.26	0.18

* 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)

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	5,571	5,485	8,650	7,434	8,151	7,058
Number of Customer-Hours	316,477	252,964	273,705	370,405	419,830	326,676
Number of Customers Affected	176,430	40,301	52,994	54,555	61,450	77,146
Number of Customers Served	2,361,145	2,385,760	2,403,818	2,439,565	2,454,427	2,408,943
Average Duration Per Customer Affected (CAIDI)	1.79	6.28	5.16	6.79	6.83	5.37
Average Duration Per Customers Served	0.13	0.11	0.11	0.15	0.17	0.14
Interruptions Per 1000 Customers Served	2.36	2.32	3.63	3.09	3.34	2.95
Number of Customers Affected Per Customer Served (SAIFI)	0.075	0.017	0.022	0.023	0.025	0.032

* 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

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	5,750	6,160	6,285	6,477	7,011	6,337
Number of Customer-Hours	673,511	674,419	500,602	716,920	907,704	694,631
Number of Customers Affected	325,109	368,823	287,446	368,288	428,045	355,542
Number of Customers Served	883,652	885,966	887,925	881,248	884,304	884,619
Average Duration Per Customer Affected (CAIDI)	2.07	1.83	1.74	1.95	2.12	1.94
Average Duration Per Customers Served	0.79	0.76	0.57	0.81	1.03	0.79
Interruptions Per 1000 Customers Served	6.73	6.97	7.09	7.29	7.96	7.21
Number of Customers Affected Per Customer Served (SAIFI)	0.38	0.42	0.32	0.41	0.49	0.40

CON ED (RADIAL)

Including Major Storms

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	6,937	6,913	6,690	11,902	14,268	9,342
Number of Customer-Hours	1,465,264	972,954	848,971	10,857,066	12,986,469	5,426,145
Number of Customers Affected	394,330	412,614	313,699	691,227	806,524	523,679
Number of Customers Served	883,652	885,966	887,925	881,248	884,304	884,619
Average Duration Per Customer Affected (CAIDI)	3.72	2.36	2.71	15.71	16.10	8.12
Average Duration Per Customers Served	1.71	1.10	0.96	12.23	14.74	6.15
Interruptions Per 1000 Customers Served	8.12	7.82	7.55	13.40	16.19	10.62
Number of Customers Affected Per Customer Served (SAIFI)	0.46	0.47	0.35	0.78	0.92	0.60

* 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

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	18,736	18,135	17,795	17,180	16,767	17,723
Number of Customer-Hours	1,190,411	1,166,613	958,679	905,031	959,212	1,035,989
Number of Customers Affected	995,077	856,405	821,723	811,969	842,816	865,598
Number of Customers Served	1,108,540	1,110,853	1,114,716	1,117,281	1,115,815	1,113,441
Average Duration Per Customer Affected (CAIDI)	1.20	1.36	1.17	1.11	1.14	1.20
Average Duration Per Customers Served	1.08	1.05	0.86	0.81	0.86	0.93
Interruptions Per 1000 Customers Served	16.98	16.36	16.02	15.41	15.01	15.96
Number of Customers Affected Per Customer Served (SAIFI)	0.90	0.77	0.74	0.73	0.75	0.78

LIPA

Including Major Storms

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	20,077	20,471	19,003	22,867	37,368	23,957
Number of Customer-Hours	1,564,559	1,998,270	1,121,723	2,125,507	14,715,268	4,305,065
Number of Customers Affected	1,142,365	1,208,292	894,595	1,153,884	1,519,331	1,183,693
Number of Customers Served	1,108,540	1,110,853	1,114,716	1,117,281	1,115,815	1,113,441
Average Duration Per Customer Affected (CAIDI)	1.37	1.65	1.25	1.84	9.69	3.16
Average Duration Per Customers Served	1.42	1.80	1.01	1.91	13.17	3.86
Interruptions Per 1000 Customers Served	18.20	18.47	17.11	20.51	33.45	21.55
Number of Customers Affected Per Customer Served (SAIFI)	1.04	1.09	0.81	1.04	1.36	1.07

* 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

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	14,606	12,939	15,915	13,822	14,442	14,345
Number of Customer-Hours	3,045,363	2,334,754	2,645,775	2,529,126	3,048,983	2,720,800
Number of Customers Affected	1,518,634	1,188,585	1,387,131	1,277,727	1,564,208	1,387,257
Number of Customers Served	1,594,179	1,583,311	1,589,810	1,593,830	1,593,779	1,590,982
Average Duration Per Customer Affected (CAIDI)	2.01	1.96	1.91	1.98	1.95	1.96
Average Duration Per Customers Served	1.92	1.46	1.67	1.59	1.91	1.71
Interruptions Per 1000 Customers Served	9.19	8.12	10.05	8.69	9.06	9.02
Number of Customers Affected Per Customer Served (SAIFI)	0.96	0.75	0.88	0.80	0.98	0.87

NATIONAL GRID

Including Major Storms

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	16,222	18,301	17,060	15,571	20,881	17,607
Number of Customer-Hours	5,605,931	9,410,833	3,214,148	3,824,438	11,882,312	6,787,533
Number of Customers Affected	2,075,480	2,177,786	1,599,090	1,553,727	2,363,763	1,953,969
Number of Customers Served	1,594,179	1,583,311	1,589,810	1,593,830	1,593,779	1,590,982
Average Duration Per Customer Affected (CAIDI)	2.70	4.32	2.01	2.46	5.03	3.30
Average Duration Per Customers Served	3.53	5.90	2.03	2.41	7.46	4.26
Interruptions Per 1000 Customers Served	10.20	11.48	10.77	9.79	13.10	11.07
Number of Customers Affected Per Customer Served (SAIFI)	1.31	1.37	1.01	0.98	1.48	1.23

* 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

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	10,317	10,027	9,643	9,777	10,272	10,007
Number of Customer-Hours	2,299,142	1,980,213	1,848,599	1,934,747	2,127,891	2,038,118
Number of Customers Affected	1,034,113	953,105	922,448	975,375	1,028,868	982,782
Number of Customers Served	859,963	857,517	858,712	856,474	854,682	857,470
Average Duration Per Customer Affected (CAIDI)	2.22	2.08	2.00	1.98	2.07	2.07
Average Duration Per Customers Served	2.68	2.30	2.16	2.25	2.48	2.38
Interruptions Per 1000 Customers Served	12.00	11.66	11.25	11.39	11.99	11.67
Number of Customers Affected Per Customer Served (SAIFI)	1.20	1.11	1.08	1.14	1.20	1.15

NYSEG

Including Major Storms

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	12,928	17,008	11,948	14,976	19,743	15,321
Number of Customer-Hours	5,314,914	12,974,501	3,369,824	6,445,599	20,636,612	9,748,290
Number of Customers Affected	1,469,825	1,836,251	1,257,464	1,576,105	2,093,127	1,646,554
Number of Customers Served	859,963	857,517	858,712	856,474	854,682	857,470
Average Duration Per Customer Affected (CAIDI)	3.62	7.07	2.68	4.09	9.86	5.46
Average Duration Per Customers Served	6.18	15.09	3.93	7.51	24.09	11.36
Interruptions Per 1000 Customers Served	15.04	19.78	13.93	17.44	23.05	17.85
Number of Customers Affected Per Customer Served (SAIFI)	1.71	2.14	1.47	1.84	2.44	1.92

* 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

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	2,596	2,993	2,987	2,897	2,661	2,827
Number of Customer-Hours	356,514	470,431	375,064	472,939	338,760	402,742
Number of Customers Affected	222,895	256,943	223,976	263,752	211,048	235,723
Number of Customers Served	215,694	217,373	217,884	218,393	219,143	217,697
Average Duration Per Customer Affected (CAIDI)	1.60	1.83	1.67	1.79	1.61	1.70
Average Duration Per Customers Served	1.65	2.18	1.73	2.17	1.55	1.86
Interruptions Per 1000 Customers Served	12.00	13.88	13.74	13.30	12.18	13.02
Number of Customers Affected Per Customer Served (SAIFI)	1.03	1.19	1.03	1.21	0.97	1.09

O&R

Including Major Storms

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	2,738	3,655	3,111	3,646	4,223	3,475
Number of Customer-Hours	483,938	1,043,235	471,941	1,857,491	7,106,724	2,192,666
Number of Customers Affected	252,650	354,315	249,064	389,937	463,940	341,981
Number of Customers Served	215,694	217,373	217,884	218,393	219,143	217,697
Average Duration Per Customer Affected (CAIDI)	1.92	2.94	1.89	4.76	15.32	5.37
Average Duration Per Customers Served	2.24	4.84	2.17	8.53	32.54	10.06
Interruptions Per 1000 Customers Served	12.66	16.95	14.31	16.73	19.34	16.00
Number of Customers Affected Per Customer Served (SAIFI)	1.17	1.64	1.15	1.79	2.12	1.57

* 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

	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	2,784	2,807	2,950	2,872	3,122	2,907
Number of Customer-Hours	526,175	513,175	378,481	432,921	579,346	486,020
Number of Customers Affected	303,940	277,824	210,698	253,517	312,979	271,792
Number of Customers Served	357,232	356,097	357,177	360,156	360,670	358,266
Average Duration Per Customer Affected (CAIDI)	1.73	1.85	1.80	1.71	1.85	1.79
Average Duration Per Customers Served	1.44	1.44	1.06	1.21	1.61	1.35
Interruptions Per 1000 Customers Served	7.63	7.86	8.28	8.04	8.67	8.10
Number of Customers Affected Per Customer Served (SAIFI)	0.83	0.78	0.59	0.71	0.87	0.76

RG&E

Including Major Storms

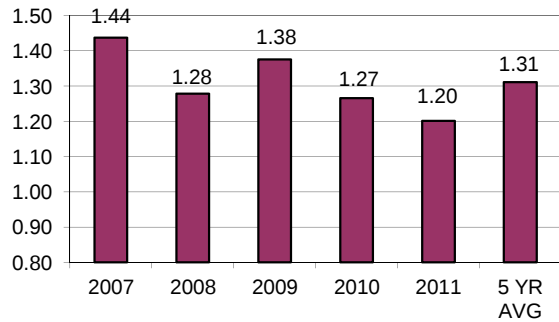
	2007	2008	2009	2010	2011	5 YR AVG
Number of Interruptions	3,107	3,828	3,110	3,081	3,295	3,284
Number of Customer-Hours	761,368	1,830,153	534,259	615,789	756,563	899,626
Number of Customers Affected	423,383	485,821	263,203	282,347	379,493	366,849
Number of Customers Served	357,232	356,097	357,177	360,156	360,670	358,266
Average Duration Per Customer Affected (CAIDI)	1.80	3.77	2.03	2.18	1.99	2.35
Average Duration Per Customers Served	2.09	5.12	1.50	1.72	2.10	2.51
Interruptions Per 1000 Customers Served	8.52	10.72	8.73	8.63	9.15	9.15
Number of Customers Affected Per Customer Served (SAIFI)	1.16	1.36	0.74	0.79	1.05	1.02

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

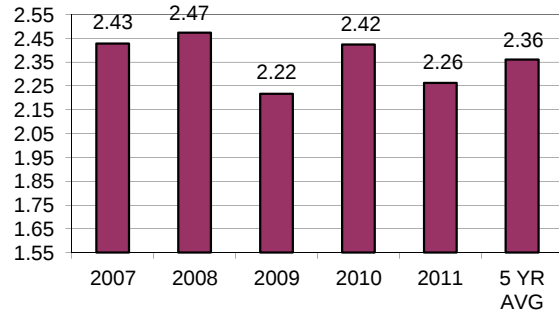
** For those indices that use Customers Served, Customers Served is the December value from the previous year.

Central Hudson Gas and Electric (Excluding Major Storms)

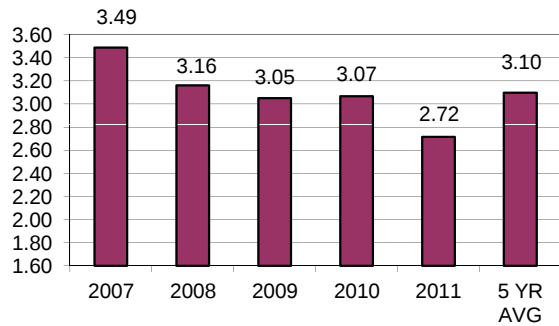
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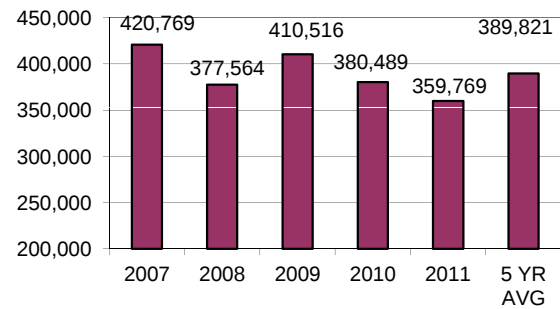
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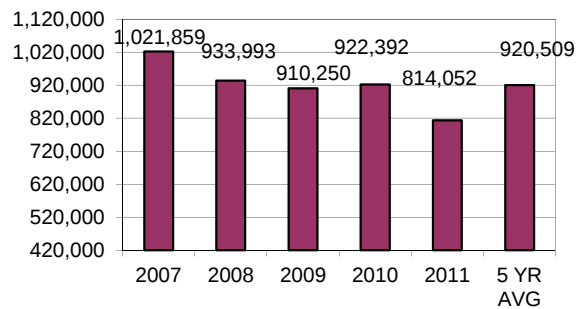
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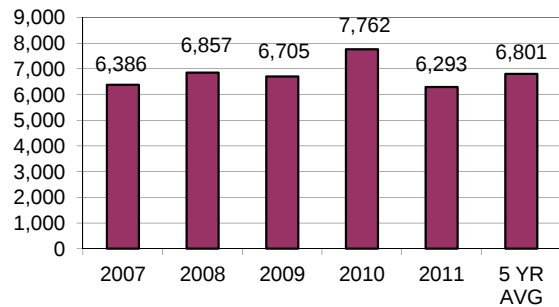
Customers Affected



Customer-Hours

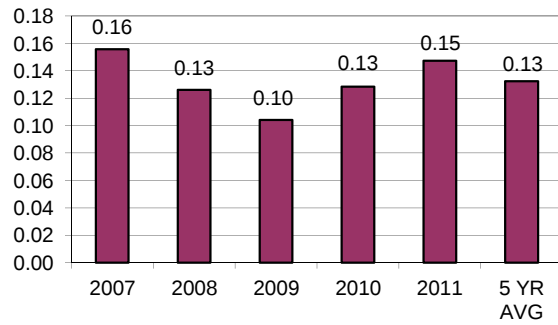


Interruptions

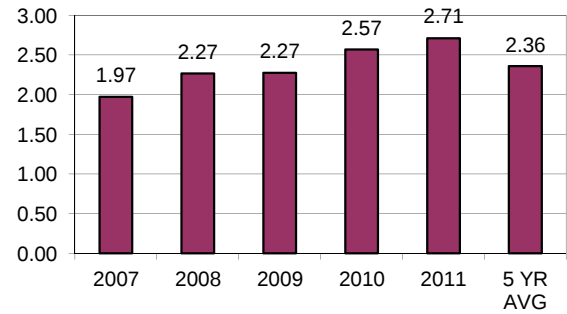


Consolidated Edison - System (Excluding Major Storms)

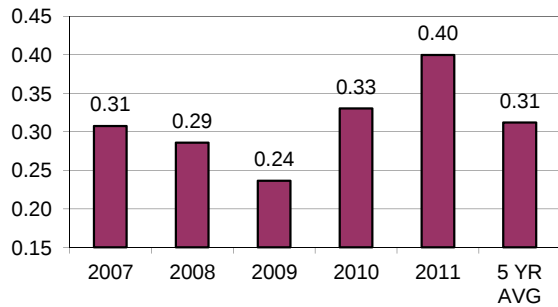
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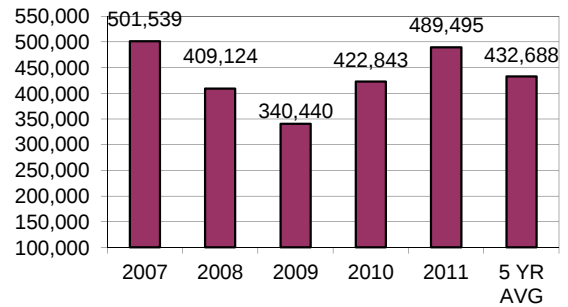
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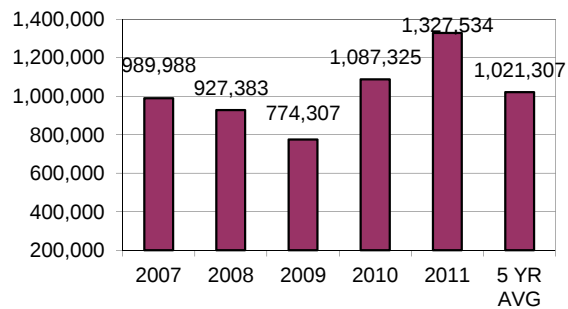
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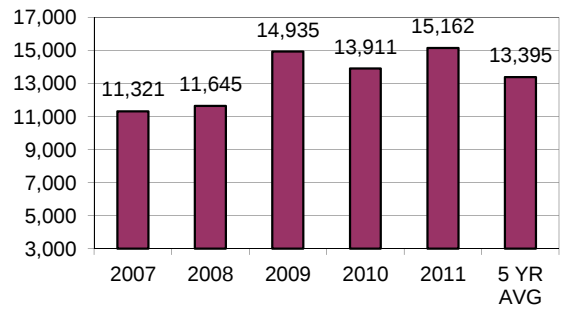
Customers Affected



Customer-Hours

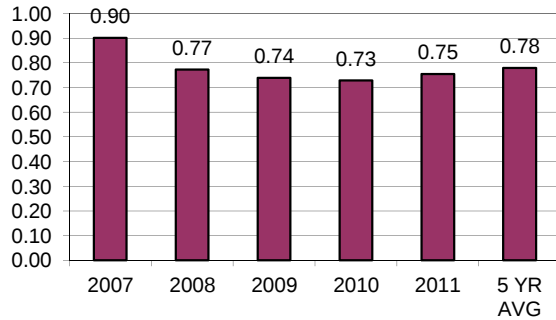


Interruptions

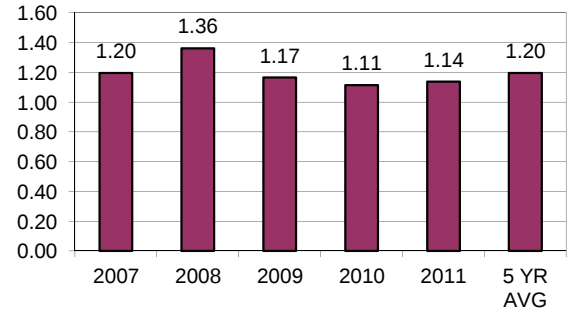


Long Island Power Authority (Excluding Major Storms)

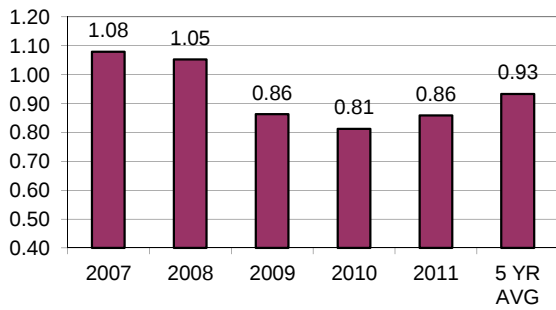
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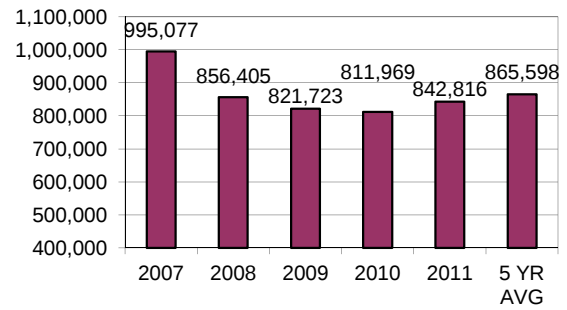
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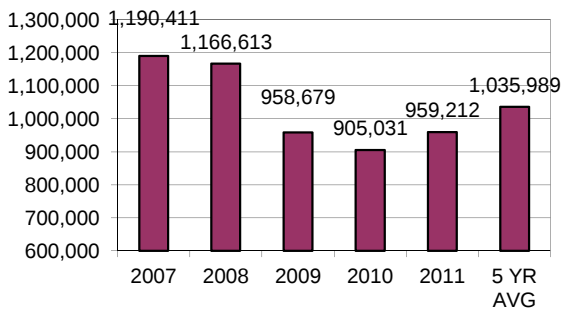
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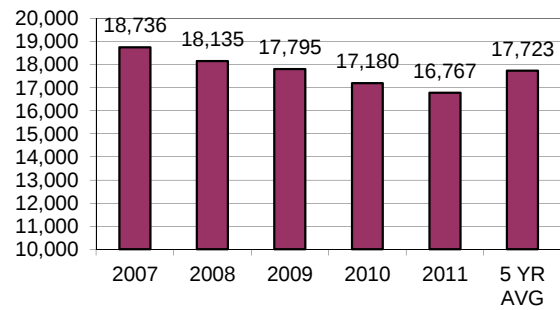
Customers Affected



Customer-Hours



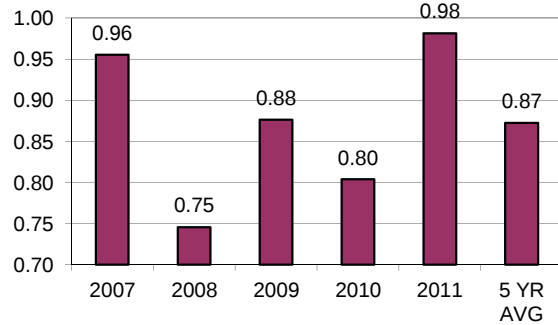
Interruptions



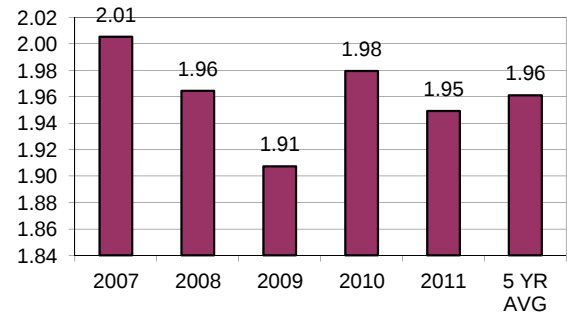
* LIPA is not regulated by the NYS PSC.

National Grid (Excluding Major Storms)

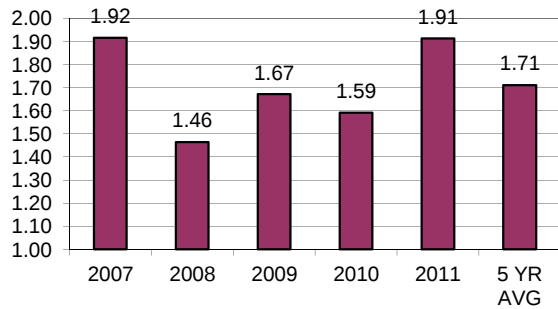
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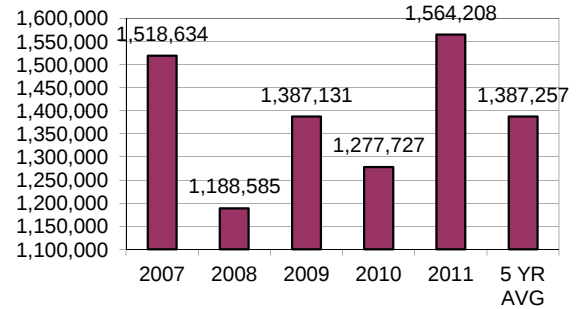
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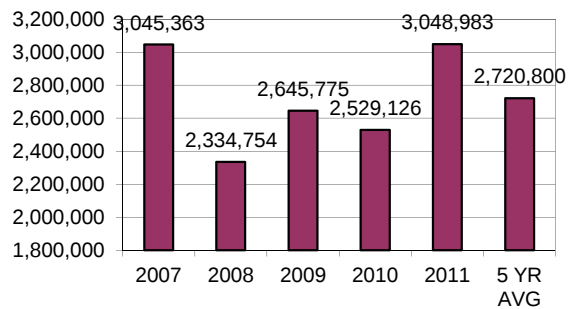
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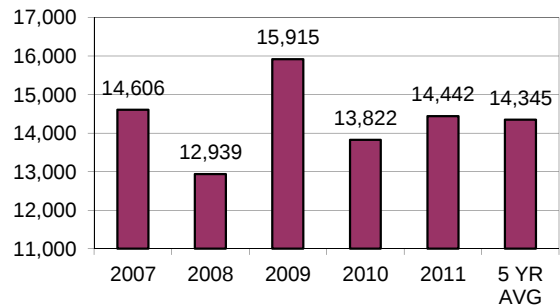
Customers Affected



Customer-Hours

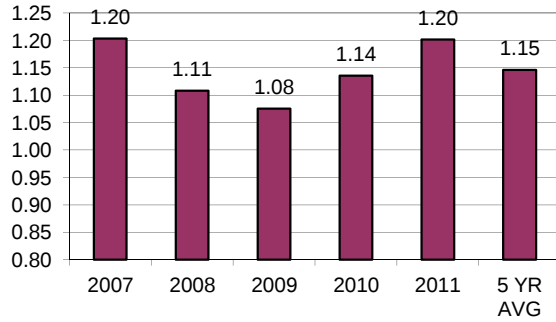


Interruptions

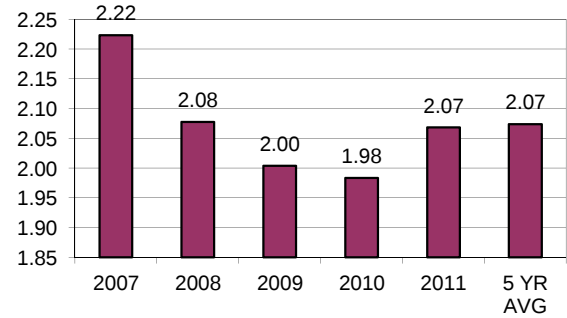


New York State Electric and Gas (Excluding Major Storms)

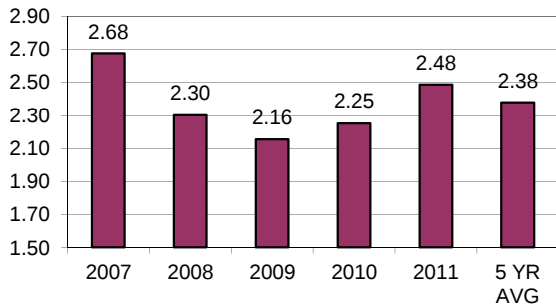
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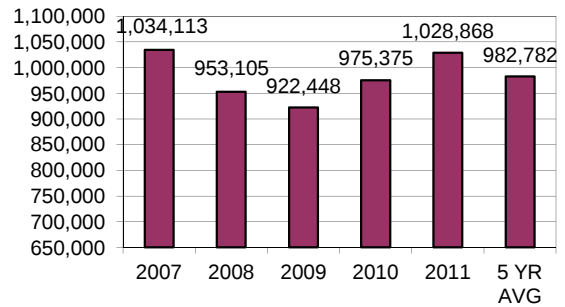
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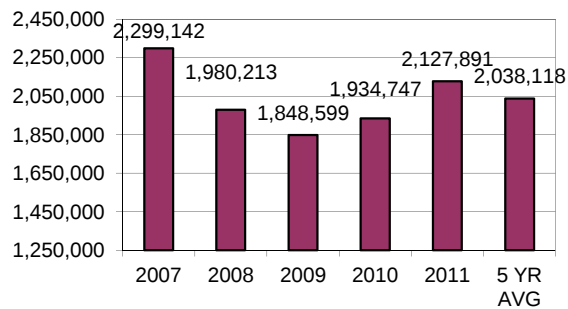
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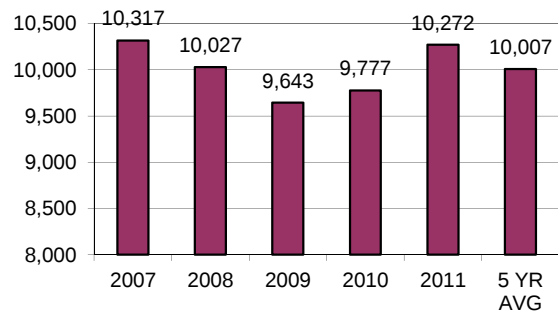
Customers Affected



Customer-Hours

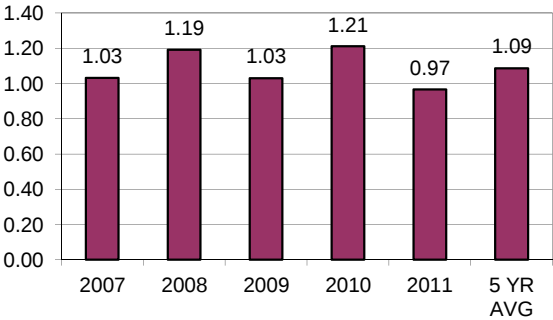


Interruptions

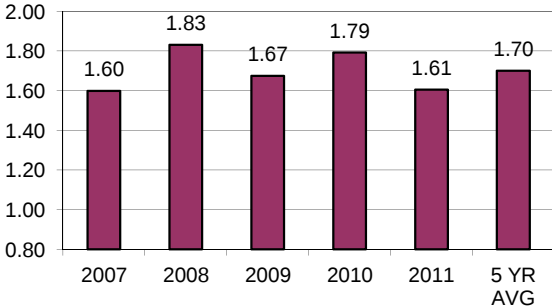


**Orange and Rockland Utilities
(Excluding Major Storms)**

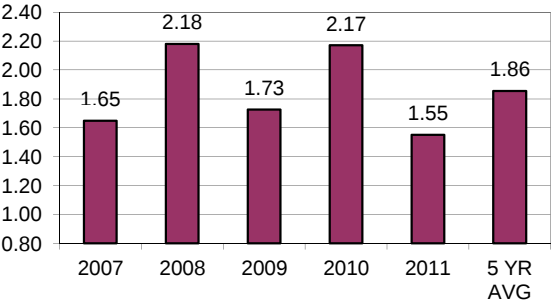
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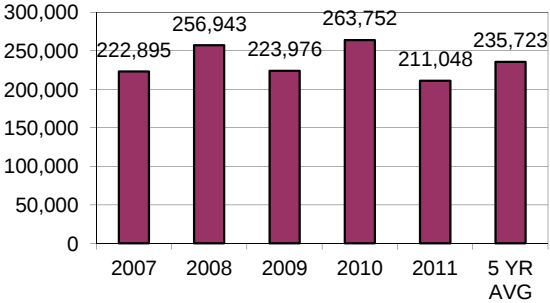
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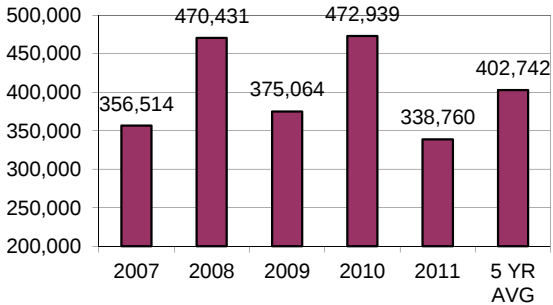
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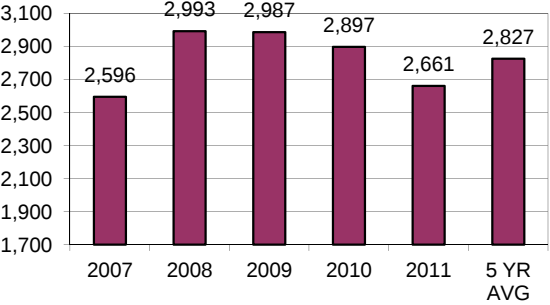
Customers Affected



Customer-Hours

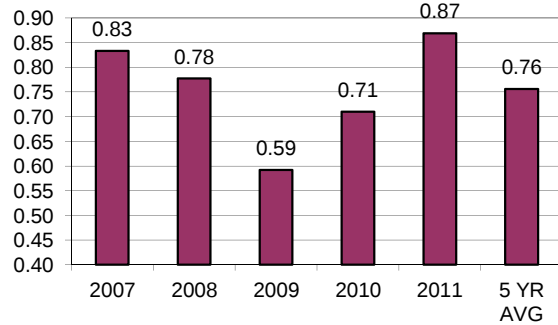


Interruptions

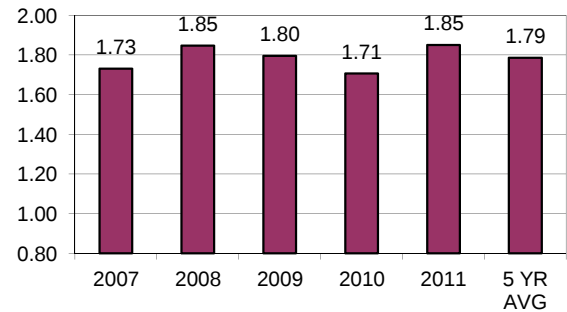


Rochester Gas and Electric (Excluding Major Storms)

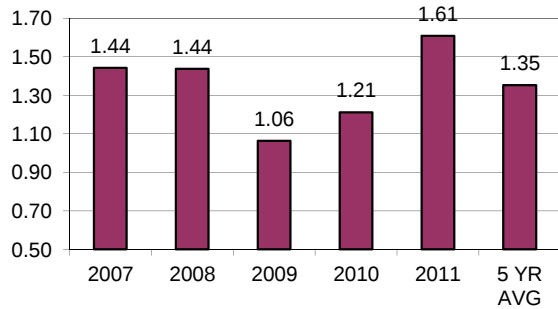
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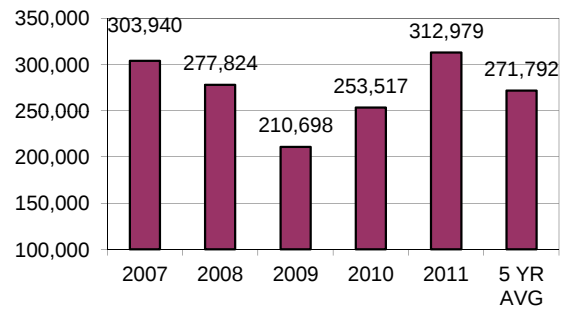
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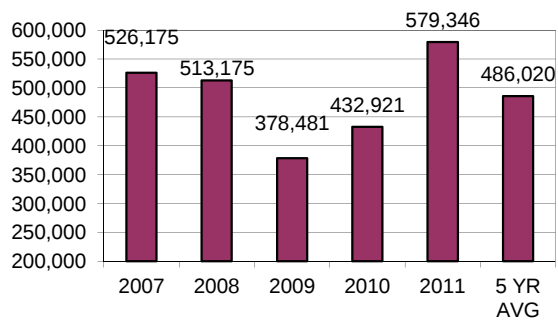
Availability



Customers Affected



Customer-Hours



Interruptions

