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January 18, 2013

Honorable Daniel R. Garodnick
Chair, Consumer Affairs Committee
New York City Council

Dear Chairman Garodnick:

I am writing on behalf of Mayor Michael R. Bloomberg to express the Administration's position on Introductory Number 985, which would direct the City's Office of Long-Term Planning and Sustainability to undertake a study of the utilization of underground power lines in the City.

As PlaNYC reflects, ensuring the reliability of the City's power delivery system has long been a key goal of the Administration. Moreover, in the wake of the widespread damage to our grid incurred during the Sandy events, Mayor Bloomberg directed that a comprehensive City-wide inquiry be undertaken to determine what changes can be made to strengthen our system. That process is ongoing now. Numerous City policy changes and recommendations relating to energy matters will undoubtedly flow from the effort being directed by Deputy Mayor for Operations Cas Holloway.

As part of our broader investigation, there is a role for an Administration examination directed at City-specific issues of reliability and cost for distribution networks. And in light of the storm damage incurred by major portions of the electric grid, the Administration also recognizes the need to examine the advantages and disadvantages of alternative protection measures, including the potential use of subterranean circuits.

Accordingly, the central inquiry that is at the heart of Introductory Number 985 should in our view be sharply focused on the relative merits of underground versus overhead distribution lines for New York City. As recent events have dramatically shown, underground networks have their own weaknesses, including vulnerability to flooding and salt deposition in coastal areas. In addition, they are both far more expensive to install, and more difficult to diagnose and repair when a failure occurs. Underground feeders are also more subject to overheating under peak summer conditions than are overhead radial systems, as was seen during the prolonged Long

Island City outage in 2006. However, the general reliability of underground networks is well recognized as being higher, and they have proven to be largely invulnerable to more typically encountered windstorms, and to snow and ice loading issues. Such countervailing considerations need to be fully evaluated before the City can develop a comprehensive policy position on the merits of undergrounding electric networks.

However, we believe that some elements of Introductory 985 as currently written are not well directed toward that end, and that certain provisions may not fully achieve what we view as the shared goals of the Administration and the City Council in ensuring that the City has the most robust electrical infrastructure practicable.

Introductory Number 985 proposes a ten-year look back period for all power outages caused by weather and climate events. This period of time is far more extensive than needed to advance an analysis of the relative value of undergrounding power lines. This is particularly true given the elaborate categories of data sought including economic losses that will be virtually impossible to quantify, especially when attempted to be calculated retroactively. Moreover, we experience very frequent small-scale weather incidents that affect limited elements of the electric distribution system. Downed trees are particularly common as a concern with overhead lines, but in practice there are only a few categories of very significant weather events for those lines in the City and its boroughs. These principally involve sustained high winds over a non-localized area, lightning strikes, and snow and ice on wires.

As the provisions of Introductory Number 985 appear to reflect, much of the detailed data sought is held by the City's principal electric utility, Consolidated Edison, and not by the City. While we are working cooperatively with the company as we pursue a number of electrical system resilience issues at the Mayor's direction, in at least some cases it is only Con Edison and the New York State Department of Public Service as the company's regulator that are privy to certain categories of information. For that reason, highly specific inquiries concerning past outages and their effects would in our view be better directed to Con Edison and in the case of the Rockaways area, to the Long Island Power Authority.

In his 2013 State of the State address, Governor Cuomo noted that utilities will be required to identify the best locations for undergrounding their most critical or most vulnerable distribution lines. More specifically, the Governor's NYS 2100 Commission Report specifically stated that "the Public Service Commission should require utilities to identify the best locations for undergrounding within the next six to twelve months, and work with utilities to devise workable plans to implement undergrounding in such areas."

In light of these recent New York State initiatives, it is clearly desirable to avoid City duplication of effort by entities that have both comprehensive regulatory authority over utility companies, and access to extensive data concerning past outages, particularly where at least some of that information may be proprietary in nature.

The Administration and the City Council share the common goal of ensuring that our electric infrastructure is highly reliable for all New Yorkers. We believe strongly that the current draft of

the bill should be narrowed to provide the best analysis possible to meet this goal. We look forward to working with the Council on Introductory Number 985 to accomplish this.

Very truly yours,

Sergej Mahnovski, PhD
Director, Long-Term Planning and Sustainability

Presented by John Miksad
Senior Vice President Electric Operations
Consolidated Edison Company of New York, Inc.

Speaker Quinn, Chairperson Chin ,Chairperson Garodnick, Chairperson Cabrera and honorable members of the City Council, my name is John Miksad and I am Senior Vice President of electric operations at Con Edison. I am responsible for overseeing the safe operation of our electric delivery system covering most of New York City and Westchester County.

I'm pleased to appear before you today to speak about Con Edison's preparation for and response to Hurricane Sandy, which devastated our region and caused unprecedented personal hardship and damage.

I would like to take this opportunity to commend the 13,000 men and women of Con Edison who worked tirelessly to restore power to more than one million of our customers impacted by Sandy and a subsequent nor'easter.

I also want to thank the Council Speaker and all members of the Council for calling these hearings that I think will benefit all New Yorkers. We look forward to a productive dialogue with the City Council, and all policy-makers on the city, state and federal level. We want to work on constructive and strategic solutions that will better protect our citizens from our region's increasingly violent and destructive weather patterns.

Of course, we had never experienced a storm of such magnitude and force before Sandy; and we never could have imagined the magnitude of its damage. But as always our workers responded immediately, in many cases putting aside their own personal hardships to report for duty and work around the clock until all our customers were restored.

We spent many days preparing for the storm before it made landfall – securing facilities where we could mobilize our workforce, and moving assets to higher ground. While the storm took an immediate and tragic toll on our region, Sandy's longer-term toll is not yet defined. In many ways, Sandy is shaping the future of our region and how we will conduct business in the future.

We are now focusing on the lessons learned and what we can do to prepare our system for the next natural disaster. Weather patterns dictate that we must think, plan and prepare in a different way. From system design to new technology, we must consider all options.

Infrastructure Investments
In the days leading up to Superstorm Sandy, Con Edison relied upon our long-standing storm preparation guidelines, coupled with on-going innovations that help our systems withstand extreme weather.

Our comprehensive preparations and preemptive actions for Sandy included guidance from our Corporate Coastal Storm Plan, training, drills, and lessons learned from previous severe weather events like Hurricanes Katrina, Rita, and Irene, as well as severe Nor'easters that have hit our region.

In recent years, we have also sought solutions and innovations to mitigate damage to equipment and service disruptions during severe weather and to expedite restoration times and improve communication to our customers and other stakeholders.

We've invested in new, smart grid technologies and innovations to allow greater flexibility and reliability in our energy systems during extreme weather. For example, for the past seven years, Con Edison has implemented a policy requiring any new building located in a flood zone to either have submersible electrical equipment installed, or to have its electrical equipment located at higher elevations.

We have also established new protocols for the installation of underground equipment located in flood zones, based on lessons learned in the aftermath of Hurricane Katrina. New transformers and network-protectors installed at the sidewalk level or below grade in the flood zone must be submersible.

Transformer and network protector equipment that is not submersible must be installed above the flood level, typically at the second floor level or above. Projects that reflect these new design requirements include the IKEA store in Red Hook, Brooklyn, the Goldman Sachs headquarters in Battery Park, and the Hunters Point Development in Queens.

We also use our ongoing investments to deploy smarter technologies to further enhance the reliability of our systems. High-tech remotely operated and automatic distribution switches and equipment in our underground and overhead systems allow our control centers to remotely monitor power flow and feeder status, and to remotely operate breakers and automatic switches to reconfigure systems. These systems provide critical capabilities for operators during severe weather.

We are able to sectionalize overhead lines ahead of a storm to improve outage restoration times and improve public safety. New underground switches designed by company engineers have been installed in the system over the past decade, allowing greater flexibility and reliability during weather events. Recently installed flood detectors in low lying substations alert operators when flood waters reach critical levels.

Con Edison's focus on preparedness and contingency planning is one of the reasons for our record reliability. Just a year ago, Hurricane Irene tested our comprehensive Corporate Coastal Storm Plan (CCSP) and, from our lessons learned, we made further enhancements. And while that storm fell short of expectations, our corporate plan met expectations. Superstorm Sandy packed the punch of five Hurricane Irenes.

Storm Preparations

In addition to Con Edison's CCSP, which governs our organizational response to impending storms, the company also takes preventive measures to enhance system reliability during storms. Following the 1992 Nor'easter, when we experienced high tides at the Battery which flooded and damaged facilities and equipment, we enhanced flood protection at many of our facilities. Critical equipment was relocated to higher elevations, flood protection pumps were upgraded, and flood gates and protective moats were installed at flood-prone facilities.

Fallen trees and limbs are the leading cause of power outages during storms. Vegetation management is therefore central to maintenance activities. Since 2006, the company has trimmed trees and managed vegetation more aggressively to reduce storm damage to power lines. In 2012 alone, we spent $17 million in tree-trimming work. We conduct monthly aerial inspections and semi-annual ground patrol inspections of transmission rights-of-way. Our vegetation work around transmission line rights-of-way further contributed to the integrity of the overhead high-voltage transmission service which never lost the ability to meet the needs of the electric distribution system during and after the storm.

On October 24th, based on National Weather Service forecasts, Con Edison's Emergency Management organization issued a 120-hour internal notification regarding Superstorm Sandy's

projected landfall and potential impact. This notification initiated our CCSP, which triggered a series of storm-preparedness actions, including having organizations throughout the company review their pre-storm preparation activities and prepare their facilities for a potential coastal storm event.

As required by the CCSP, internal organizations reviewed their 24/7 staffing plans, equipment vulnerability and inventories, protection plans for equipment in flood zones, and the need for mutual assistance. Following CCSP protocol, we reviewed underground electric, steam, and gas-distribution system equipment in flood zones. We preemptively reconfigured the electric overhead system using recently installed smart-grid technologies by sectionalizing the overhead lines with remote switching. We restored as much out-of-service equipment as possible and closed construction excavations.

To protect substations and other operating plants threatened by flooding, we installed sandbags, water dams, and other flood barriers. We relocated personnel and staged work vehicles, equipment, and supplies to higher ground to speed damage assessment and restoration response. We identified pumping contractors and potential vendors that could provide spare supplies.

When the National Hurricane Center (NHC) shifted its official track for the storm west and into the New Jersey coast on October 25th, we began to seek mutual assistance personnel for damage assessment, electric repairs, and tree removal. Because all regional utilities were in the path of the hurricane, none would release line workers and instead were seeking to acquire resources of their own.

On October 26th, we asked the Edison Electric Institute (EEI) to expand the appeal nationally, but utilities from Florida to Canada and as far west as Ohio were either seeking crews or holding their own crews in anticipation of the storm. It was only when the storm made landfall and weakened that utilities outside the affected area began to release crews.

Ultimately, more than 5,600 mutual-assistance workers and contractors—from as far west as California, as far north as Canada, and as far south as Florida and Texas— arrived to help our crews restore power as quickly and safely as possible. To expedite the arrival of crews, we secured federal government resources to use military transport planes to airlift crews, trucks, and support equipment from California.

We established five large base camps and numerous staging areas throughout our service territory to house and dispatch the thousands of out-of-town utility workers and support personnel—five times the number recruited for Irene. We had never before created base camps for mutual-assistance crews, but the magnitude of the mutual assistance workforce made these camps necessary.

We preemptively isolated 26 steam main segments, impacting 130 steam customers and shut down the East River Generating Station and the Brooklyn Navy Yard Cogeneration Plant in the flood zone to protect the public and prevent the damage that occurs when hot steam pipes come into contact with cold floodwater. Furthermore, we identified three electric networks in low-lying areas to be taken out of service in order to ensure public safety, protect equipment and enable crews to restore power more quickly once the storm passed.

On the evening of October 28th, the company mobilized its Corporate Emergency Response Center (CERC). CERC is staffed with representation from every division of the company, as well as governmental agencies and other stakeholders, including the NYC Police Department (NYPD), NYC Office of Emergency Management (NYCOEM) and the Public Service Commission (PSC). CERC allows for high level communication and coordination among participants, and conducts conference calls with command posts from across the region.

We also took the following steps to prepare for the storm:

- deployed thousands of personnel to work around the clock once the storm hit
- communicated storm preparation and safety information through press releases, web updates, and an e-mail blast to 1.3 million customers
- contacted life-sustaining equipment customers, as well as critical-care facilities such as hospitals and nursing homes, to warn of possible service outages and offer guidance on steps to take in the event of service interruption
- secured initial deliveries of dry and wet ice in anticipation of significant customer outages
- established staffing plans and Incident Command System organization charts

Storm Intensity

Superstorm Sandy was the largest storm ever observed in the Atlantic Ocean, with a diameter extending approximately 820 miles. Approximately 8.5 million customers throughout the eastern U.S. lost power during Sandy. The storm's impact on our service territory was two-fold: powerful wind gusts up to 90 miles per hour brought down trees and power lines, and an unprecedented 14-foot storm tide breached shorelines and available flood-protection measures, inundating facilities and underground equipment.

As of October 28th, the highest storm tide forecast by the National Weather Service was 11.7 feet. Sandy's actual storm surge of 14.06 feet exceeded all official forecasts, surpassing a reported historical record set in 1821 by nearly three feet. More recently, the 1992 Nor'easter brought the worst flooding we had experienced up to that time, with a storm surge that was 4 ½ feet lower than Sandy.

The toll the storm took on our electric systems was astounding. We lost five transmission substations and 4,000 megawatts of independent power generation. In total, 14 Manhattan networks, one Brooklyn network, and three Staten Island area substations were shutdown. Our overhead systems were devastated by wind and tree damage leaving nearly 70 percent of those served by the overhead systems in the dark. The overhead system suffered a loss of nearly 1000 utility poles, more than 900 transformers, and approximately 140 miles of cable. In comparison to Hurricane Irene, we lost 10 times as many poles, more than five times as many transformers, and more than four times as many miles of cable.

Overall, the storm caused more than one million Con Edison customers to lose electric power – five times the previous largest storm of 204,000 customer outages during Hurricane Irene. We also isolated roughly 30 miles of steam mains to prevent catastrophic damage and causing roughly a third, or 561, of our steam customers to lose service. Another 4,200 customers experienced gas outages as a result of the storm.

Storm Impact

Sandy's relentless winds and unprecedented storm surge caused damage across the region unlike anything we've ever seen. Catastrophic flooding and corrosive salt water destroyed electrical equipment and downed trees ravaged our overhead system, making repairs difficult and time-consuming.

When the full force of the storm started to impact the area on Monday afternoon, October 29th, and the extent of the actual storm tide produced by Superstorm Sandy became evident, we took additional actions to preemptively isolate facilities prone to flooding to protect vulnerable equipment, including:

- Electric networks in low-lying zones, including two networks in Manhattan (Fulton, Bowling Green), and one in Brooklyn (Brighton Beach). This plan was communicated in advance to state and city officials, as well as affected large customers.

- Select primary feeders in 12 other networks that were also at risk for flooding and damage to electrical equipment.

Sandy's severe winds significantly affected our transmission systems when the storm made landfall on Monday, October 29th. A total of 57 transmission feeders and 49 sub-transmission feeders either automatically tripped out, or were forced out to respond to equipment emergencies.

As the storm reached its full intensity near high tide on Monday evening, never-before seen flood levels began to impact electric system equipment. The East River, East 13th Street and Seaport substations were flooded, causing the loss of 11 electric networks that supply much of lower Manhattan. The Goethals and Fresh Kills transmission substations in Staten Island were impacted by flooding as well, which caused the loss of three area substations in Staten Island.

Prior to the shutdown of the East River and East 13th Street substations, lower-voltage equipment associated with a single East 13th Street substation high-voltage transformer failed catastrophically due to exposure to saltwater. The failure caused a dramatic arcing fault which to many looked and sounded like an explosion. (The visual was captured on YouTube and has been widely viewed.)

Preemptive shutdown of the East River and East 13th Street substations was not required or strategically advantageous because critical equipment at either substation should not have been exposed to salt water given the predicted storm tides. Further, preemptive shutdown of these substations would not have ultimately expedited their return to service. The same laborious and time-consuming process to clean, dry, or replace relay protection and station auxiliary equipment would have been required before the substations could be returned to service.

The unprecedented storm tide and flooding also impacted the steam and gas systems. Flooding overcame restraint barriers that had been built to protect critical station equipment, causing the shutdown of the 59th Street and 74th Street steam-generating stations as well as the First Avenue steam tunnel. In addition to the steam main segments that were preemptively de-energized, an additional 22 steam main segments and associated 431 steam customers were isolated due to the impact of the storm. Coastal flooding in the Bronx prompted the isolation of more than 240 gas services. Uprooted trees in Queens and Westchester damaged 33 gas services that had to be turned off.

Restoration

Amid incredible devastation, Con Edison began restoration work immediately upon the passing of the storm. The process was monumental. Many underground facilities needed to be pumped and cleared of water and debris, and then dried before crews could begin the process of inspecting and repairing equipment. Downed trees created significant challenges; roads needed to be cleared of trees, utility poles and lines before repairs could begin.

The safety of our crews and customers was, and is always, our top priority. Repairs were prioritized to restore services to hospitals and nursing homes, life sustaining equipment customers, schools and polling places in advance of Election Day and to repair equipment that would restore the largest blocks of customers. We coordinated our restoration work with FEMA as well as other state, city, and local government agencies. Throughout the restoration, we worked diligently to secure delivery of key materials including poles, transformers, and cable needed to get the job done.

We put all available resources to work on both our overhead and underground systems. Each system presents unique challenges and requires crews with different skills. Restoration of the overhead system is extremely labor-intensive and time consuming. Overhead systems are restored feeder by

feeder, block by block, and at times, pole by pole. During Sandy, there were five times as many overhead customer outages compared to Irene.

Before the arrival of the Nor'easter on Wednesday, November 7th, we had 64,000 customers still without service. By that evening, outages had increased to more than 80,000 customers, further complicating restoration efforts.

We mobilized our customer outreach vans, distributing 278 tons of dry and wet ice to customers throughout the region. We established command posts where we worked alongside city, state, and federal representatives to directly assist customers in the hardest hit communities in Staten Island, Brooklyn, and Queens.

According to company procedures, we establish a global estimated time of restoration (ETR) within 48 hours of the end of the storm. The global ETR reflects when we expect 90 percent of the customers affected by the storm will be restored. We established a global ETR of Friday November 9th, and we accomplished restoration to 90 percent of our customers on November 7th, two days earlier than anticipated.

Overall, in just under two weeks, we restored a total of 1,115,000 electric customers who lost power due to Superstorm Sandy and the Nor'easter: 234,000 customer outages in Manhattan, 178,000 customer outages in Staten Island, 162,000 customer outages in Brooklyn, 131,000 customer outages in Queens, and 76,000 customer outages in the Bronx.

By November 12th, we had restored power to the last customers residing outside flood zones whose electric equipment could be restored. We continued to work closely with the city to reenergize customers along the devastated coastal communities whose power could not be restored because of extensive damage to their own electric equipment.

Restoration of our steam system began immediately after the storm with damage assessments. We developed a restoration plan that matched available system capacity with customer demand. By Saturday, November 10th, we had increased system capacity to approximately 60 percent and had restored all steam services that were able to accept steam.

Our gas system restoration efforts also began immediately. By November 1st, gas service to the majority of the customers in the Bronx was fully restored. In the days following the storm, additional customer locations were found to have flooded basements. Water also infiltrated areas of the low-pressure gas system, which affected gas customers, particularly in the South Street/Front Street/Water Street area of lower Manhattan, and Stuyvesant Town in Manhattan. The water was removed from the mains and those customers that could take service were restored.

Throughout the restoration work, we communicated with our customers, elected officials, city agencies, regulators, and the media about progress of the work and restoration schedule. We reached out to more than 52,000 customers with life-sustaining equipment, as well as to critical care facilities such as hospitals and nursing homes. Our call centers handled more than 1.2 million calls and we called nearly 1.4 million customers to provide information on global and local service restoration estimates, voltage reduction, and potential and actual outages.

Going Forward

Superstorm Sandy was without question the largest and most devastating natural disaster to hit the New York City metropolitan area in recorded history. Tracking weather and system conditions in advance of and throughout the storm allowed us to take preemptive measures that minimized the

length of outages and system damage. Yet all of our preparations were ultimately challenged by the epic intensity of the storm.

In the wake of this unprecedented event, we will find many lessons learned to build upon for the future. We remain focused on continuously improving our systems to withstand an increasing pattern of extreme weather.

We have committed in the short term to earmark $250 million specifically on measures that can help protect critical equipment from flood damage. These measures would include raising electrical relay houses in substations, and installing stronger barriers and flood pumps.

Some additional infrastructure advances we are working on include:

- Installing additional automatic and manual sectionalizing switches in the overhead system
- Installing additional fusing and sub-fusing on the overhead system
- Installing underground isolation switches in the Brighton Beach network
- Benchmarking with other utilities and manufacturers
- Utilizing water dams to prevent flooding of our equipment in lieu of sandbags

Some of the other work we are planning or evaluating includes:

- Retrofit existing non submersible 120/208 equipment in flood zones 1&2 with submersible equipment
- Install underground switches on selected feeders to allow for proactive isolation of flood prone equipment
- Strategic and prudent undergrounding of overhead power lines
- Increase feeder supply options in the overhead system
- Isolate flood prone equipment in Bowling Green and Fulton networks so that customers that are not affected will remain in service
- Submersible 460 volt and 120 volt equipment
- Use of URD connectors and aerial cable in the overhead system
- Long term options for our flood prone Unit Substations

We are committed to working together with other stakeholders to determine the most cost-effective ways to protect our systems, the city and the public from future natural disasters.

UTILITY WORKERS UNION OF AMERICA

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STATEMENT OF JAMES SLEVIN, VICE PRESIDENT, LOCAL 1-2, NEW YORK, UTILITY WORKERS UNION OF AMERICA, AFL-CIO

COMMITTEES ON CONSUMER AFFAIRS, TECHNOLOGY AND LOWER MANHATTAN REDEVELOPMENT

FRIDAY, JANUARY 18, 2013

SPEAKER QUINN, COMMITTEE CHAIRS CABRERA, CHIN AND GARODNICK GOOD AFTERNOON. I AM JAMES SLEVIN, VICE PRESIDENT OF LOCAL 1-2. WITH ME ARE LOCAL 1-2 SENIOR BUSINESS AGENTS JAMES SHILLITTO AND ROBERT STAHL, WHO ARE EXPERTS IN CON EDISON'S ELECTRIC OPERATIONS.

THANK YOU FOR INVITING THE TESTIMONY OF OUR UNION, UWUA LOCAL 1-2, THE UTILITY WORKERS WHO KEEP THE LIGHTS ON IN NEW YORK CITY.

We appreciate the opportunity to be here today on behalf of our nearly 8,000 members, who have been working around the clock since October 29 to restore essential utility services. The importance of our efforts as first responders cannot be overstated. If our first class City is to continue to foster economic development, it has to have a first-class electric distribution system. Our members pursue this objective 24/7. And our members are not just utility workers—they are community residents, whose family lives—if not homes—were also upended by this storm.

We welcome the opportunity to be involved--both in assessing the efforts that were undertaken, and in developing ways to improve our ability to respond to future events.

In the weeks since the storm waters receded, we have begun our own internal investigation of the state of Con Edison's system, in the days leading up to the storm, through the restoration, and into the near and long-term future. Our investigation has focused on information that we have obtained from our members. They have a unique perspective to offer, in that Con Edison's working men and women have been on the front lines—both in operating the system on a day-to-day basis, and in restoring service, house-by-house, to the millions affected by Sandy.

Our investigation is ongoing, and we will be pleased to brief you on our conclusions once our assessment is complete. In the meantime, our major findings thus far include the following:

- As the Council well knows, the issues surrounding Con Ed's distribution system are long-standing. There are no doubt several causes, but a central focus should be the scope of the Company's workforce. In the years since the advent of deregulation, Con Ed has slashed its union workforce to the bone. Since 2008 alone, the Company's union workforce has been cut by nearly 1500 members. The problem is simple: there is too much work on the system for too few utility workers.

- Concerns with the system were exacerbated during last summer's ill-advised Lockout. When our members came back to work, we found that the Company's makeshift workforce had been dealing exclusively with emergency situations, while essential day-to-day maintenance was not being performed. Our members have been playing catch up ever since.

- Once the storm hit, our restoration efforts were supplemented by several thousand utility workers from other parts the country. While mutual aid is an accepted practice among utilities, and we appreciated the help, the costs and inefficiencies

of these efforts may well exceed any benefits to Con Ed's ratepayers. No two utility systems are identical, and the differences can be very significant. For example, California utilities had their trucks flown into New York City. They are too big to navigate the narrow streets of Brooklyn and Queens. Our first-hand and front-line impression is that the majority of the utility workers brought in to help had no training on performing service restoration in the unique urban utility environment in which we operate every day. As a consequence, trained Con Ed workers had to take time away from their tasks to ensure that mutual aid workers were able to conduct their operations without injuring themselves or customers.

- Inadequate materials management impeded our efforts. While Con Ed had advance warning of the storm, it failed to secure the necessary spare parts. Worse, some of the parts that were secured were the wrong ones—and there is apparently no ability to return them.

- Staffing deployments were mysterious. The few—and grossly inadequate—number of linemen responsible for addressing issues in the Bronx were diverted to Westchester while Bronx residents sat in the dark. Neither the Union nor the public has been provided an explanation for this staffing deployment decision.

- Our efforts were also hampered by simple things. Our members function as first responders, but do not have that official status. As a result, workers responding to the emergency were stuck on the same long gas lines as other City residents. Also they were turned away when vehicle restrictions were imposed by the Mayor. We suggest action to ensure that when our members are engaged in storm restoration

activities--or any power emergency--they are treated as first responders, which will facilitate entrance into and movement through the five boroughs.

- Even now, months after the storm, lower Manhattan—just blocks from the New York Stock Exchange—still has office buildings that are running off of backup generators located on City streets. Parts of the City are receiving service at lower voltage levels. Lower quality electricity service can damage consumer appliances, including home computers, and erroneously increase recorded electricity usage. The provision of service at adequate voltages is also essential for meeting the needs of high-tech industry. These service issues are, to put it mildly, inconsistent with any efforts to promote economic development. If we are to achieve this goal, we neither can nor should treat this situation as the new normal. It is unacceptable.

A recent statement from the Consumers Union to the Moreland Commission summed up the situation well, stating that "in an emergency the capacity of utilities to respond and provide good customer service comes down to the basic issue of having the people and the equipment to do the job." Based on our investigation to date, Con Ed had neither sufficient trained personnel nor all of the needed equipment.

Once our evaluation it is complete, we will be pleased to present our results, which we also plan to share with the Moreland Commission. We look forward to working with all of you to ensure that New York City is a place in which electric service is provided in a safe, reliable, and durable manner.

Thanks again for the opportunity to appear before you. I will try to answer any questions you may have.

Testimony of the Communications Workers of America – District 1, AFL-CIO
New York City Council Joint Committee Hearing on Hurricane Sandy

Hi my name is Pete Sikora and I am the New York State Legislative and Political Director for CWA District 1. I am joined by Patrick Welsh, President of the CWA District 1 Retirees who will help answer any questions. CWA District 1 includes 150,000 members in New York, New Jersey and New England. We represents workers at Verizon, AT&T and Cablevision, among other telecommunications companies.

Thank you for inviting us to testify at this important hearing. We get excited about telecommunications, and we can just go on and on about it or use jargon that nobody else understands. Please feel free to stop us at any time.

Before addressing the current crisis, let's remind ourselves: Sandy is yet another wake up call from Mother Nature. We must get serious about preventing global warming. We can't just adapt. New York City should lead by example.

As Hurricane Sandy rebuilding moves forward, it is vital to involve all communities. CWA also supports ALIGN-NY and other groups fighting for equality of involvement and results for all.

Telephone and internet services are utilities. I will skip the many reasons why communications are vital in an emergency. Clearly, high service quality and disaster preparedness is vital. These services must also be affordable and accessible to all. Yet consumer and worker protections are either non-existent or very weak.

Regulators fail to protect consumers and workers on a day-to-day basis, in non-emergency settings. Shoddy network maintenance due to inadequate headcount, equipment and investment is the norm. These problems are massively exacerbated by a disaster.

The City's regulatory powers over utilities are limited. In telecommunications, there is a crazy quilt of weak regulations at various levels of government, depending on the technology and its history.

Even absent direct regulatory authority, you should not underestimate your powers of persuasion. From Speaker Quinn on down, we have seen how you effectively jawbone behind the scenes or make a public case for particular policies. The Speaker in particular, and many Council-members, have helped on contract and organizing battles, where workers are fighting for better jobs, and for better customer service.

Also, Councilmembers Sanders, Dromm, and Van Bremer specifically urged the Attorney General to intervene with the PSC after experiencing wide-spread problems after Irene and Lee. Here are letters that they sent to OAG and the Attorney General's

intervention with the PSC. The Attorney General makes the same arguments we are making here today.

The backdrop for this situation is the weakened state of regulation. Over decades, the telecommunications industry has successfully weakened regulations or prevented new regulation of emerging technology.

The telecommunications industry argues that the "free market" is the solution to utility problems that involve multi-billion dollar investment decisions. Their position is self-serving nonsense. A "free market" will not exist where capital investment costs run from seven to eleven digits.

Please allow us to outline some of the basics of the networks and some common terms. You have probably heard of the "triple play". The triple play is a bundled service of television (aka video), internet and telephone. In New York City, Verizon, Time Warner and Cablevision offer a triple play.

Verizon is the telephone company. It provides telephone service through a network that runs on copper wire. Traditional telephone service ("Plain Old Telephone Service" or POTS) runs on a copper wire through an electric signal. DSL is simply internet service delivered though a copper telephone wire.

Verizon maintains generators at central offices, which are switching stations for the copper network. As a result, in a blackout or other power outage, traditional telephone service usually works: the line stays powered up.

The PSC, in theory, regulates telephone service. In reality, the Commission does Verizon's and the cable companies' bidding, with little or no regard for consumer or worker protections. Yet even with weak regulatory oversight, telephone service is more regulated to protect the public than cable or internet service.

Of course, Verizon is also building a high-speed Fiber-Optic-To-The-Premise ("FTTP") network. This network's brand name is "FiOS". FiOS, unlike any other service, provides a fiber optic line all the way to individual homes and buildings. FiOS also provides the triple play: video, internet and telephone.

Fiber optic cable is made of fiberglass. The signal is light, not electricity. Fiber optic cable can carry almost unlimited amounts of data. As a result, the FiOS network offers incredibly high speed internet. In practical terms, a 2 hour long HD movie takes two minutes to download in its entirety. However, fiber optic cable does not conduct electricity. *It cannot deliver power. That is a crucial problem in a disaster.* CWA represents 15,000 Verizon workers in New York State.

Verizon Wireless, a subsidiary of Verizon, is the nation's largest wireless provider. Mobile phones communicate with cell towers. Cell towers typically communicate with one another through fiber optic cable.

CWA represents 75 technicians who maintain the cellular network in the tri-state area; the rest of Verizon Wireless is entirely non-union. Management refuses to allow workers to make a choice about union representation free from harassment, intimidation and threats. AT&T does allow such a choice; AT&T mobility workers are predominantly CWA-represented.

Back in 1997, New York State passed a law surrendering its right to regulate wireless service. As a result, the State currently has limited authority over wireless. It cannot compel a range of protections that would ensure network reliability and service quality without changes in State law.

As far as we know, cities have no straightforward means of regulating wireless service. That does not mean you cannot bring useful pressure to bear on the companies to improve their service. For example, wireless providers should install auxiliary power for cell towers and you should urge them to take such obvious steps. *There are also fundamental security and privacy challenges associated with wireless communication, whose signal transmits over the air.*

Cable companies provide the third major telecommunications network. It is delivered on co-axial cable by Time Warner Cable and Cablevision. Co-axial cable does not have the massive data-transmission capacity of fiber optic cable. Cable networks also do not carry electricity to customers' homes to power the network; without electricity from the electric companies, cable does not work.

New York City, like other cities, grants the right under federal law to deliver video service through a local franchise. Franchises, usually granted for a decade or more, define cable company responsibilities to the City, consumers and even workers to some extent. The PSC formally approves the agreements that cities negotiate with cable companies, but this vote is merely a formality.

Currently, Time Warner and Cablevision hold franchises with the City to deliver video service for specific areas. Verizon also has a franchise for FiOS. Verizon is obligated to build the service throughout all five boroughs.

The video franchises are a route through which the City could pursue stronger regulatory oversight to ensure network reliability, and consumer and worker protections. The cable companies and Verizon through FiOS are obliged to meet certain standards. The City should ensure they are meeting these standards. *Good day-to-day maintenance means better survivability in a disaster.*

Cable companies also deliver telephone service. Their telephone service travels over the internet. This telephone technology is called "Voice over Internet Protocol" ("VoIP"). VoIP is currently unregulated. It is the dominant form of telephone service, surpassing the copper network in many areas in terms of subscribers.

The telecommunications industry is on a multi-state campaign to pass state laws that would pre-emptively and permanently surrender State rights to regulate VoIP service. New York State should not make the same mistake it made with wireless, and pre-emptively surrender its rights to ensure consumer and worker protections on this technology, particularly in return for nothing at all.

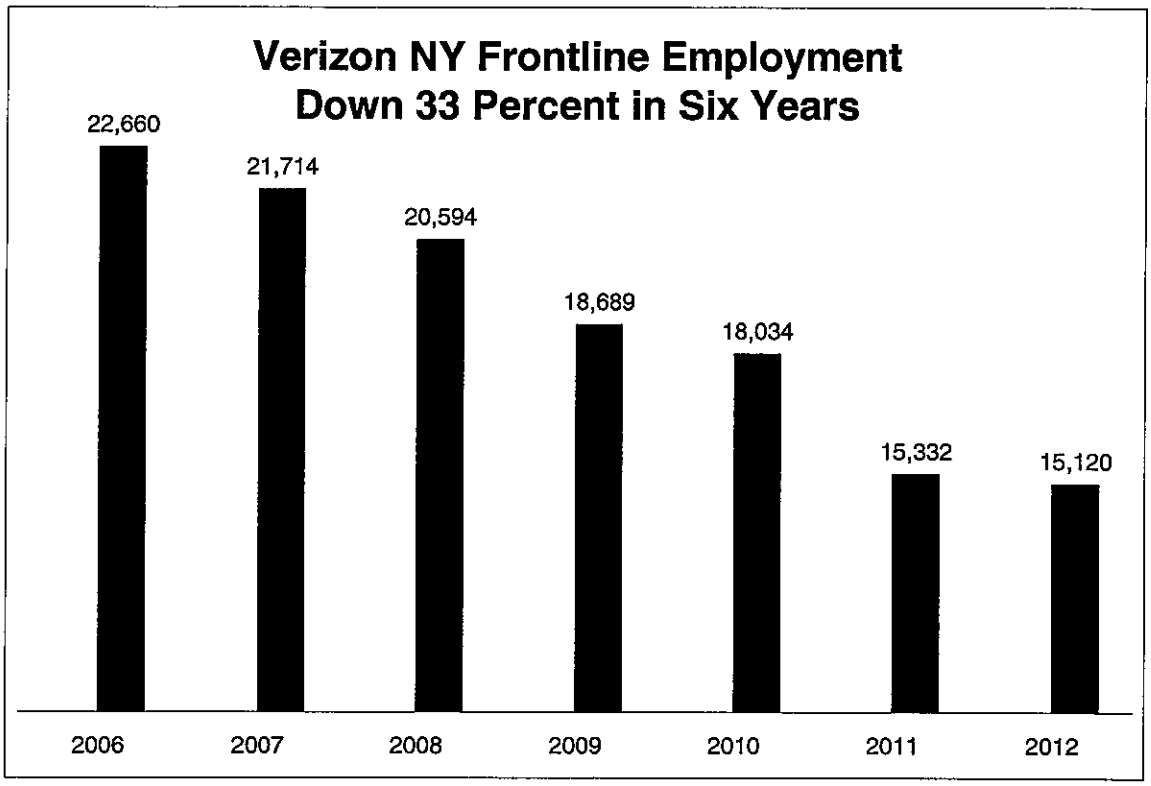
Besides delivering video service, or "cable TV", and telephone service, the cable companies also offer internet service. Time Warner internet is branded as RoadRunner. Cablevision internet is branded as Optimum.

CWA represents 282 newly-organized Cablevision workers in Brooklyn, who are facing down a fierce campaign of harassment, intimidation, and threats. They are the only union workers at Cablevision and they do not have a first contract. IBEW Local 3 represents Time Warner Cable workers. The rest of Time Warner Cable is predominantly non-union.

Sandy was a disaster. But it was not New York's first serious storm. Last year, Irene and Lee caused widespread devastation, particularly in Upstate New York. Hundreds of thousands of people were without telephone service. And there were massive problems in the City as well. Here is a New York Times story about outrageous service failures on the Upper East Side. The Rockaways were also hard hit.

Service restorations took far too long, so long that the dormant PSC even issued its first fine in many years against Verizon: a whopping $400,000, which represents .0004 percent of the company's annual revenue. $400 is also .001 percent of its 2011 EBITDA profit. Or, put another way, $400,000 is 2.5 days of compensation for Verizon's top five executives. The Moreland Commission has properly recognized that these penalties are absurdly inadequate.

Again, we want to stress that bad routine maintenance and service, and under-staffing, lead to much bigger problems during storms. CWA membership at Verizon has shrunk from almost 23,000 in 2006 to 15,000 in 2012.



And here are some examples of network maintenance problems:

[show double pole report for Verizon]
[show Brooklyn report for Cablevision]

Currently, New York City consumers, particularly in areas without FiOS, have access to the legacy copper network. They can get service even in a blackout. The network is vital to New Yorker's safety in an emergency.

The legacy copper network also provides communications redundancy for the many places that the City needs in a disaster, including police, fire, health care, and any locations such as schools that might serve as mass shelters or assembly locations for first responders. The network is already there, but it requires maintenance.

Clearly, technology change is rapid. In some places, Verizon is literally ripping out the copper network. Verizon's CEO is clear that the company is abandoning this network. Yet there are millions of New Yorkers who rely on the copper network.

Why should the City, State and Federal government allow Verizon to simply abandon the copper network, along with millions of consumers? *This City needs back-up systems, and the copper network, even after FiOS is fully built out, can serve as a backup system for telecommunications that will function even in a blackout.* Maintaining the network also protects good, family-supporting union jobs.

Moreover, for the many residents and businesses without access to fiber optic cable, there is no network with lifeline affordability requirements, service quality standards and universal access requirements. While these programs and regulatory oversight are weak, they are still important.

Since the City does not regulate telephone or internet service, you should use your persuasive powers and bully pulpit to advocate for effective State and Federal action. The City should also consider using regulatory oversight through the franchises to protect consumers and workers. While the franchises govern video delivery, which is arguably not as vital a service, the networks also deliver telephone and internet service, which are clearly vital utilities.

The City can help ensure good maintenance, customer service and even worker protections through its regulatory powers as a franchisor. Again, thank you for this opportunity to testify.

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THE COUNCIL OF
THE CITY OF NEW YORK

DANIEL DROMM

COUNCIL MEMBER, 25TH DISTRICT, QUEENS

CHAIR
IMMIGRATION

COMMITTEES
EDUCATION
PARKS & RECREATION
CULTURAL AFFAIRS & LIBRARIES
VETERANS
JUVENILE JUSTICE

October 13, 2011

Dear Attorney General Schneiderman:

As the New York City Council representative for the neighborhoods of Jackson Heights, Elmhurst, East Elmhurst and Corona, I have some very strong concerns about the business practices of Verizon Communications and the lack of oversight by the Public Service Commission (PSC). I would like to request that your office conduct an investigation into the matter.

Even before Hurricane Irene and Tropical Storm Lee, local customers, including my own District Office, had multiple issues with the quality of service and response we received to our complaints. Repair appointments were delayed by weeks before the storms. After the widespread telephone network outages, the response times for these delays were as long as two to four weeks.

My office has received complaints from constituents of their lines being out for longer than a month at a time, and never being given a clear date for when the service technician would be coming. This is a very serious concern considering that many of my constituents rely on their telephone lines and need to have a reliable phone connection to connect with family, possible employment and, most importantly, to save their lives in an emergency. Verizon has stranded customers, especially those with the most needs, our unemployed and our seniors. The company is creating needless inconvenience, damaging the economy and endangering constituents who rely on telephone service for emergencies.

Our office has been a victim of many of Verizon's poor business practices. We lost two of our phone lines for over a month, and were given conflicting dates for repair. Soon after our long awaited visit from a Verizon technician, our issues would come back again and we would have to start the process over again. We believe that the lack of long term repair and maintenance may be causing these conditions in the outer boroughs, specifically in areas where FIOS is not yet available. Exacerbating the problem, Verizon has reduced its workforce by 50% over a decade, leaving fewer workers to maintain the network. The copper wire infrastructure is not well maintained and customers in areas not covered by FIOS are being left in the dark. These

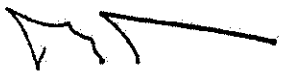
situations could be avoided if there was strong oversight of response time and better care of the equipment that supplies all of our residents with phone service.

In 2005, the Public Service Commission stopped assessing fines on Verizon for failing to meet the PSC's requirement of 80% out-of-service repairs within 24 hours. Predictably, abandoning fines as an enforcement mechanism led to worse service quality. By the third quarter of 2010, after four straight quarters of rapid declines in the 24 hour repair standard, Verizon's compliance was down to just 1.2%.

Instead of strengthening its enforcement, the PSC watered down its reporting standard, allowing Verizon to exclude about four out of five customers from its reporting. Under the new system, Verizon managed a service quality miracle: compliance on paper rose to 84.9% within 3 months. My constituents nor I have experienced this reported improvement in service quality. In fact, service quality seems to have deteriorated further in the past year and even more so in the last couple of months.

Verizon is abandoning its responsibilities to New York's telephone network customers. I urge you to initiate an investigation into Verizon's failure to provide decent service both before and after the recent storms, as well as the PSC's failure to enforce service quality. Thank you.

Sincerely,



Daniel Dromm
New York City Council Member, 25th District

Dear Mr. Schneiderman,

We are writing to persuade you to commence an investigation into the questionable practices of the Verizon Corporation as well as The New York State Public Service Commission (PSC) which is tasked with supervising and regulating all telecommunication companies in the New York region. Verizon's treatment of it's workers and consumers has fallen below ethical industry standards, yet the PSC refuses to acknowledge and regulate Verizon's blatant avoidance of commitments and unfair practices.

The New York State Public Service Commission is a regulatory agency whose responsibilities include oversight of the telecommunications industry in New York. The responsibility of PSC is to make sure corporations like Verizon treat their consumers fairly. It is an organization that we have to count on to regulate and upkeep order when corporations over-step their boundaries and begin taking advantage of the very people who helped build its foundation. Verizon has reneged on its obligation to its workers and consumers, refusing to negotiate a fair contract with its employees and to provide promised infrastructure to numerous communities who weren't as "advantageous" to its balance sheet.

We are currently faced with three problems that Verizon is refusing to address, and, consequently, PSC is refusing to regulate. The first problem strikes at the very foundation of the company – its workers. Verizon is refusing to negotiate a fair contract with its employees, choosing to outsource and cut benefits despite record profits that allow them to spend hundreds of millions of dollars in salary, bonuses and corporate perks on their top executive employees.

Verizon Wireless workers are fighting to protect their health care and standard employee benefits. Unions, such as the Communications Workers of America (CWA) and the International Brotherhood of Electrical Workers (IBEW), are fighting for the fair treatment of their members by this conglomerate corporation. Numerous organizations

have allied themselves with the unions and the 45,000 Verizon workers who are fighting for a fair contract in order to preserve the middle class and the idea of the "American Dream" in the Northeast. Some of the organizations that teamed up for the "Campaign to Save the Middle Class" include US Action, Jobs with Justice, the National People's Alliance and the community of more than 5 million members of MoveOn.Org.

The groups are launching a nationwide "iWon't Campaign", asking Americans to delay upgrading to the new iPhone on Verizon Wireless until the company agrees to a fair contract with its workers. The campaign includes online outreach by MoveOn.org and other groups, advertising, grassroots outreach and leafleting at hundreds of Verizon Wireless stores.

The coalition will also work to expose the "Verizon Tax Loopholes" that allows Verizon to pay nothing at all in federal corporate income taxes as they make billions in profits, all the while paying their top executives millions and undermining middle-class jobs. In these harsh economic times when Social Security, Medicare and hundreds of programs that the country depends on are being cut or wholly eliminated, it seems like the tax breaks given to Verizon should get a second look.

The second issue that many communities are currently facing with Verizon involves discrimination of certain "less-profitable" neighborhoods as Verizon delays building infrastructure after upgrading only certain neighborhoods. Although, Verizon never promised to make their Verizon FiOS service available in their entire local-phone service area nationwide, they did promise to deploy service to everyone in cities like DC, NYC, Philadelphia and Pittsburgh. Thus, at least in these areas, Verizon cannot pick and choose which neighborhoods get the service based on projected profits in that locality. Even if the fine print in the privately-negotiated contracts between the City and Verizon provides Verizon with enough wiggle room to stop deployment after hitting the most profitable neighborhoods, there have been sufficient promises on Verizon's behalf as well as tax cuts provided to morally bind Verizon. Verizon should not pull back on its commitment to New York City communities – and should build FiOS throughout Upstate New York's urban areas, not just downstate areas.

This dilemma leaves a large percentage of Verizon customers on last-generation infrastructure. As the initial wave of Verizon FiOS deployment is dying out, leaving many behind, there is no indication that there's going to be a "second wave" of FiOS deployment in the near nor far future. This is exceptionally preposterous in light of the $1.6 billion federal income tax rebate that was given to Verizon over a two year period, when the company paid no federal income taxes at all despite multi-billion dollar profits.

Finally, we have repeatedly complained to Verizon about unacceptably bad telephone network service. After recent snow storms, many of my constituents' telephone

and DSL service was cut off for weeks. I found myself repeatedly urging Verizon to fix the numerous outages in the Rockaways. It took many interventions and far too long to get basic service restored. My constituents were not given basic information on the status of their issues and as a consequence our office was regularly flooded with an array of complaints and requests for assistance in regards to Verizon.

In my experience, Verizon is flagrantly violating the PSC's 80% standard of repairs within 24 hours. The PSC eliminated enforcement fines in 2005. The PSC and Verizon started gaming their statistics after the 24 hour repair completion rate fell to 1.2% in the third quarter of 2010. Verizon is obligated to provide good service to consumers and the PSC is there to ensure that at least satisfactory service is provided. Verizon is blatantly economically cheating its consumers by not fixing the outages yet refusing to increase their workforce in order to be able to handle the workload. Verizon's workforce is too small to handle the problems and Verizon refuses to spend the money needed to buy replacement parts for the network or hire the qualified, experienced, unionized workers that are necessary.

Based on the facts discussed above, the numbers of people outraged by Verizon's treatment of middle class staff and individuals, and the various organizations that have joined this fight for fairness - we believe it was only proper to bring this matter to the attention of the New York State Attorney General. We hope the aforementioned will urge you to investigate the deterioration of Verizon's commitment to its consumers and employees, its extraordinary tax cuts for doing a previously assumed duty, and the lack of general fairness in its dealings.

Sincerely,

Councilmember James Sanders, Jr.
New York City Council – 31st District

January 18, 2013

Testimony before the New York City Council Committee on Consumer Affairs jointly with the Committee on Lower Manhattan Redevelopment and the Committee on Technology

RE: Int. No. 985 - In relation to underground power lines.

Oversight: Emergency Planning and Management During and After the Storm: Assessing and Improving Public Utility Risk Mitigation Measures.

Good afternoon. My name is Richard Windram. I am Director of Government Affairs for Verizon-New York. I am joined by Chris Levendos, Executive Director of National Operations. We appreciate the opportunity to appear before the City Council's Committees on Consumer Affairs, Lower Manhattan Redevelopment, and Technology to address Intro 985, Verizon's preparation of our networks and our customers for the impact of Hurricane Sandy, and our response to the storm.

Int. No. 985

Verizon believes substantial challenges exist to the undergrounding of power lines and power-related infrastructure throughout New York City. However, Verizon will participate in any study of this issue, if one is conducted.

Storm Preparation

Verizon provides wireline and wireless services to residential and business customers throughout New York City. This presentation focuses on our wireline service. Verizon recognized early on that Sandy had the potential to be highly destructive to many parts of our service territory. Internal preparations began on October 25th, followed by communications with our customers on October 26th. We posted consumer tips on company websites, issued news releases to media outlets in the threatened region, and engaged customers through social media and emails with key links for troubleshooting and reporting service problems.

Verizon crisis management teams along the East Coast closely monitored the storm's path and completed required preparations, such as confirming fuel supplies for backup generators; adding critical inventory such as spare smartphone batteries and car chargers to meet customer demand; moving vehicles and other portable equipment from low-lying areas; and stocking critical supplies in centralized locations for rapid deployment to hard-hit areas. Company equipment – including portable cell sites that can replace a damaged cell tower and mobile emergency generators – was staged in and around the mid-Atlantic and Northeast regions.

In addition, Verizon maintains a disaster recovery fleet of emergency vehicles – including a 51-foot mobile command center, two 53-foot mobile emergency calling centers, and satellite trailers – ready for deployment to areas hit by storms of this nature. Verizon also has the industry's first environmental hazmat response team, the Major Emergency Response Incident Team (MERIT), which remained on standby to deploy immediately, if needed, to manage hazardous materials emergencies involving or threatening Verizon's critical communications facilities or infrastructure, or other company assets.

Impact of Sandy and its Aftermath

The effects of Sandy were substantial, both to our infrastructure and to the many Verizon customers and employees who live in the affected areas. In spite of the many challenges presented by the storm's devastation, Verizon has made great progress in restoring customers to full service and rebuilding our damaged facilities.

Crews comprising over 700 managers and technicians were loaned from Upstate, NY, New England and Florida to assist our local teams with repair and restoration efforts throughout downstate NY. While the bulk of our outages were related to the loss of commercial power, there also was significant damage to our infrastructure due to water and wind damage. Our teams repaired switches and other electronics damaged by flood waters as well as began restoring the damaged copper infrastructure with fiber wherever possible. We served over 650 customers from mobile sites in Staten Island, Far Rockaway, Breezy Point and Beach Channel. We continue to rebuild our network damaged by Hurricane Sandy to ensure efficient and effective service restoral to all customers.

Our partnership with the City's Office of Emergency Management was critical in our ability to commence restoration efforts, coordinate with Con Ed, lessen many of the logistical hurdles we faced, and communicate with necessary stakeholders.

In the immediate aftermath of Sandy, fuel availability was a daily concern. Verizon's command center worked with fuel suppliers and federal, state and local government officials to secure the fuel essential to keep generators and service vehicles running so Internet access and voice and data communications could continue to flow.

Verizon's network was challenged by the effects of Sandy. In some areas copper cabling was rendered inoperable as the result of the unprecedented flooding, the mixture of salt water and diesel fuel in some buildings, and the loss of air pressurization systems that help protect copper cables from water infiltration. We have responded by providing a more modern and resilient network to provide services customers demand and to withstand future storms.

As part of this modernization, we have completed a major milestone in Lower Manhattan by placing more than 5,000 miles of fiber strands, which will enable us to dramatically upgrade the communications capabilities. Once the restoration is complete, the area will have the nation's most advanced communications infrastructure, providing the highest level of service and reliability. While the company has been installing the robust fiber infrastructure, it is also working with landlords as they ready their properties for the return of tenants.

As building owners and managers complete their work, Verizon is rapidly completing the work of connecting the newly laid fiber to new electronic systems and turning up service. The steps these building owners are taking, in conjunction with the new fiber infrastructure from Verizon, will provide additional protection for the communications infrastructure in lower Manhattan in the event of future large-scale weather events.

During the restoration process, Verizon has provided alternate communications solutions to thousands of small businesses and residential customers in the area and elsewhere around the metro area to get them back in business and their communications flowing. The company has provided call-forwarding capabilities to approximately 7,000 lines of consumers and small businesses so that calls are automatically forwarded to a working landline or cellphone number. In addition, the company has provided at no charge to customers more than 2,600 Verizon Wireless Home Phone Connect and Verizon 4G LTE Jetpack™ Mobile Hotspot devices.

Verizon continues to operate two command centers in New York City, where its operations and engineering teams can swiftly design and reconfigure new fiber systems and routes, and then work with building managers to identify space within their structure to locate the new equipment, electronics and cabling.

Verizon has also had an open and continuous dialogue with manufacturers and vendors that supply the industry with electronics necessary to terminate sophisticated fiber networks and the wide range of services they deliver. The great need for equipment prompted by Hurricane Sandy restoration efforts continues to put pressure on supply chains of specialized equipment, which in turn affects restoration efforts.

Customer Assistance and Community Outreach

During and after the storm, Verizon customers were able to call 1-800-VERIZON, or go online to www.verizon.com/outage to report service issues and receive updates on the status of their repairs. Call-center hours and employee work shifts were extended to better meet customers' needs, and a company state of emergency was issued on November 3rd, enabling us to deploy essential employees on 12-hour shifts. Where possible, Verizon Wireless stores remained open during and immediately following the storm to provide device charging and free domestic phone calls to all local residents – regardless of carrier. We also increased device and accessory inventories at our stores to meet customer needs.

Verizon landline customers who have reported an out-of-service condition related to Hurricane Sandy will be receiving credits and customers have been allowed to suspend their Verizon landline services free of charge if they're currently unable to live in their home or operate their small business as a result of Sandy. Verizon technical support continues to help customers determine if their equipment, such as set-top boxes or home broadband routers, is operable or needs replacement. Verizon is repairing or replacing any of our equipment damaged by Sandy, without charge. This includes FiOS set-top boxes, FiOS broadband routers, optical network terminals and High Speed Internet (DSL) broadband routers. Verizon Wireless had suspended late fees for affected customers.

Finally, Verizon Wireless and the Verizon Foundation partnered with the Red Cross to set up a Text-to-Donate program for Sandy relief. Customers could send a text message to a designated number to donate $10, which would appear as a charge on their wireless bill. Individuals who wanted to donate more could choose to text up to $50. The Verizon Foundation matched $1 million of those donations, and to date over $3 million has been committed to the Red Cross's Sandy relief by our customers and the company.

Additionally, we provided support to, City Harvest, Met Council, United Federation of Teachers, Catholic Charities, and the Stephen Siller Tunnel to Towers foundation in the immediate aftermath of the storm to help them with recovery work in some of the most devastated areas of the City. We also sponsored the historic 12-12-12 concert at Madison Square Garden.

Verizon Wireless

While these comments have focused on Verizon's landline service, our wireless service also leveraged its years of investment and planning in providing wireless service support throughout and after Sandy. Our Verizon Wireless network performed well in the immediate aftermath of Hurricane Sandy due in large part to the billions of dollars of investment made to our wireless network. Our network teams worked round-the-clock on restoration efforts, and by November 8th, the wireless network in the Northeast was once again operating at pre-Hurricane Sandy levels. Among other efforts, Verizon Wireless employed mobile generators and fueled permanent generators to replace power lost from the traditional power grid, deployed Cells on Wheels (COWs) to provide coverage and capacity, set up mobile stores-on-wheels, and stationed Wireless Emergency Communications Centers. After the storm, Verizon Wireless removed any domestic voice and text overage charges that wireless customers in the affected areas may have incurred between October 29th and November 16th.

As our restoration efforts continue, we remain committed to providing the best service to our customers in the most efficient manner possible and coordinating with local officials to expedite their recovery.

NATIONAL GRID'S RESPONSE TO THE IMPACT OF HURRICANE SANDY

TESTIMONY BY KEN DALY, NATIONAL GRID
BEFORE THE NYC COUNCIL COMMITTEES ON:
CONSUMER AFFAIRS; TECHNOLOGY;
AND LOWER MANHATTAN REDEVELOPMENT
JANUARY 18, 2013

Chairman Garodnick, Chairman Cabrera, Chairwoman Chin, distinguished NYC Council members and all our local elected representatives and others in attendance. I want to thank you for the opportunity to appear today to provide testimony on National Grid's response to Hurricane Sandy.

My name is Ken Daly. I am President, National Grid New York, and have 25 years of experience working for National Grid and its predecessor companies, KeySpan and Brooklyn Union Gas – which dates back to 1895. In my current role, I serve as the single point of contact accountable for National Grid's gas businesses in New York State – which include NYC, Long Island and Upstate NY.

In starting, I would like to take a moment to thank the Mayor's office, the NYC Office of Emergency Management, NYC Fire Department, NYPD and NYC Sanitation department and other elected officials and agencies for their leadership and partnership with National Grid on emergency response planning and execution - implementing the many lessons we learned from Tropical Storm Irene, which were so critically important in helping us prepare for Sandy.

National Grid's gas business in NYC serves 1.2 million customers in Brooklyn, Queens and Staten Island. Our gas infrastructure in NYC has 4,100 miles of pipelines and main and we are headquartered in MetroTech, Brooklyn.

I am here today to provide testimony on our response to the impact of Hurricane Sandy on National Grid's gas system in NYC.

Storm preparation

Hurricane Sandy brought unprecedented devastation to the NYC communities of Staten Island, Brooklyn and Queens, which were impacted by major flooding.

For National Grid, preparations began a week before the storm made landfall as we monitored its track and activated our extensive pre-storm checklist, which we hone each year during drills and exercises and after each event. The checklist includes:

- Monitoring meteorological data on an hourly basis
- Conducting multiple companywide gas emergency planning conference calls each day

- Coordinating with state and local government, emergency planning and public safety agencies. (National Grid staffed the NYC Office of Emergency Management 24/7 from the moment it was activated. Regular National Grid updates were provided to NYC elected officials in our service territory before, during and after the storm)
- Monitoring system pressure and contacting our pipeline suppliers in advance of the storm to ensure we had adequate supplies of natural gas for our distribution system
- Sending safety alerts to our customers to let them know of the possibility that extensive flooding along coastal areas could result in interruptions to their natural gas service. (PSAs, customer brochures/flyers, media releases and social media messages were delivered before and throughout the event)
- Identifying low-lying, flood-prone areas and natural gas facilities for potential isolation of our system;
    - Let me take a moment to explain what we mean by isolating the system. If there should be a flood in a given area, water can enter our gas distribution pipes. Water penetration in a gas system is not only a safety concern; it can also affect the long-term integrity and viability of the system. By isolating sections of our gas system within a flood zone – pre-storm or post-storm – we, we protect other parts of the gas system, and prevent water from spreading through our pipes to other parts of our distribution system outside of flooded areas.
    - So, as part of our check list, we confirm locations and accessibility of strategic isolation valves; and, mobilize staff to man these valves, with instructions to be in a position to monitor and report area conditions back to a centralized gas control team if that section of gas infrastructure needs to be isolated due to flooding

As the storm moved up the coast and it was clear that Sandy was going have its greatest impact in the NYC and LI region, National Grid initialized our Incident Command Structure (ICS) – putting all employees on emergency restoration duty on Oct 25 – four full days before landfall.

It's important to note that every one of National Grid's 10,500 New York employees has a storm assignment. Besides operations and call center assignments, these include many important behind-the-scenes back-office activities, for which they've been specially trained. As the storm loomed, our employees were ready to devote themselves 100 percent to their restoration assignments.

In addition, we alerted and called in extra crews. We do this to ensure we have the proper levels of materials and supplies, and begin to move them to areas we think will be impacted.

On Sunday, October 28, our crews began conducting tidal patrols and inspecting critical valves across low-lying areas in our service area. Regular patrols were set up and conducted as long as it was safe to do so.

By the evening of Monday, October 29, we saw tidal surges and flooding unlike any we've ever seen before in New York City. This unprecedented tidal surge, exceeded the best available storm surge models.

Damage assessment and restoration

We saw devastation in communities stretching from New Dorp, Staten Island; to Gerritsen Beach, Red Hook, Sea Gate, Coney Island and Manhattan Beach in Brooklyn; to Howard Beach in Queens; to communities in the Rockaway Peninsula, including Far Rockaway and Breezy Point; to towns and villages along Long Island's South Shore. The flood damage to these communities was at levels both unparalleled and historic for our region.

But through advanced planning, and some steps we took immediately after the storm - such as isolating sections of our gas system, *the integrity of our gas infrastructure held up* and kept customers and crews safe.

Our employees' efforts during restoration, especially in these early hours of devastation and flooding, were nothing short of heroic. Some were caught in floodwaters chest deep. They persisted, helped each other, and made it though these extremely difficult circumstances to protect the integrity of the gas system and keep our customers safe.

Many of our employees – nearly 150 – suffered devastating damage to their homes as well … and many of them came into work, day in / day out, to perform their 12-16 hour shifts, despite the hardships at home.

The street level gas system in these areas was hard hit. Many homes and businesses saw their appliances and heating equipment totally devastated. We immediately began to work with local officials to address our customers' needs regarding damaged heating equipment that could not accept natural gas.

Gas restoration is a very labor-intensive process, requiring National Grid crews to visit each individual customer and, if necessary, gain access to homes and businesses.

It requires extreme focus, and coordinated, executed plans to ensure safe and efficient operations.

To effectively deal with the massive impact Sandy had on our communities, we organized our customers into three restoration categories:

1. unable to restore
2. restore to meter
3. restore completely

We put together an aggressive plan to assist our most vulnerable of customers address their challenges. This included providing funding and support for repair and replacement work by qualified contractors.

If customers had flooding damage to their appliances, they needed to have those appliances inspected and pressure-tested by a qualified contractor before we could restore gas service. And for customers who did not suffer appliance damage, we had crews on patrol to inspect company equipment and safely relight their appliances where possible.

To put this in perspective, our gas restoration effort is perhaps the largest of its kind ever in the natural gas industry in the US. Here are some numbers to consider:

- The total number of National Grid gas customers in NYC impacted by Sandy was more than 83,000. This includes those impacted by isolation outages, high pressure regulator replacements and low pressure safety inspections
- We reinstated (re-gassed) more than 270 miles of gas main **by Nov 5** (within one week), where service could be restored
- 40,000 customers had damage to their heating systems in New York City
- We essentially rebuilt two gas distribution systems within 6 weeks - we installed a total of more than 13 miles of new gas distribution main in Breezy Point (10 miles) and New Dorp (three miles) (total $40 million investment)
- At peak, we had more than 1,600 field staff in place, including nearly 600 mutual aid crews from 46 different companies
- We safety inspected more than 72,000 high-and low-pressure services for flood damage
- We replaced more than 40,000 service regulators
- We're on track to replace more than 100,000 gas meters

Reconnecting our customers

Early on, we established a presence in the hardest-hit neighborhoods and communities to help rebuild and reconnect customers in those areas.

We established eight community outreach centers staffed with more than 100 National Grid employees. There, customers were able to receive information from a variety of sources, face-to-face, as to what steps they needed to take to

restore service and what other resources were available to help them. We also distributed the following publications:

- Recovery Assistance Information
- Restoring Your Natural Gas Service
- Hurricane Sandy Relief Programs

And at a cost of almost $4 million, we donated many supplies to customers in the hardest-hit areas, including more than 55,000 batteries, 42,000 blankets, 41,500 electric heaters, 30,000-plus flashlights and more than 100,000 bottles of water.

We also tried to brighten the holidays for these communities by donating more than 2,500 turkeys during Thanksgiving, and nearly 3,000 toys for children during the holiday season.

National Grid is a gas distribution business, and normally responsible for providing service up to the meter. Much of the damage was beyond the meter. These were not normal times, and that's why we took proactive measures and lead efforts with multiple organizations, trade allies, city and local officials to help reconnect our customers:

- We leveraged our trade ally relationships and established a network of 250 plumbers to help customers in need
- We coordinated our efforts to replace flood-damaged gas equipment and reconnected gas service to more than 12,000 customers in coordination with the NYC Rapid Repair Program

Currently, there are approximately 2,000 NYC customers remaining where we are unable to restore service due to extensive damage to their facilities. We continue to monitor this and are working with all government agencies to reconnect these customers once they are in a position to safely receive gas service.

Rebuilding our communities

To help rebuild our communities, we launched a $30 million Emergency Economic and Community Redevelopment Program to complement federal, state, city, insurance and other funding.

Administered through our partner HeartShare, the program targets gas customers – encouraging job retention and promoting installation of energy-efficient equipment and systems.

The program has three tier levels:

1. Funding plumbing inspections (one-time, $150 bill credit to eligible customers)
2. Funding heating equipment for the most vulnerable customers, with grants available up to $6,000
3. Supporting commercial redevelopment and rebuilding communities with grants available up to $250,000

To date, nearly 15,000 customers have benefited from this program.

National Grid's after- action review process

At National Grid, we take great pride in our ongoing commitment to our customers and communities and our highly skilled, trained, and dedicated workforce. Natural gas provides heat, hot water, cooking and other essentials needed for everyday life. And any interruption to that flow of gas can cause inconvenience, economic loss and even seriously affect our customers' health and well-being. For these reasons, we remain committed to continuously reviewing and updating our restoration procedures and plans to minimize any interruption to these essential services.

After every major storm, we convene all parties involved to determine what went well, what didn't, then determine what processes we can put in place to improve our performance on behalf of our customers.

We've also recently begun a Post-Sandy after-action evaluation program to review and define our strengths and potential action items. Here are some preliminary recommendations we've gathered:

- Preliminary operational assessments:
  - Pipeline replacement – reduce pipe susceptible to water intrusion in the flood zones by accelerating replacement of cast iron and bare steel pipe
  - Where appropriate, convert existing Low Pressure (LP) networks to High Pressure (HP)
  - Re-examine valve sectionalizing districts and procedures
  - Re-examine pressure regulating facilities [e.g. increase vent pole heights, remote monitoring, seals, etc.]

- Managing the logistics of bringing in nearly 600 mutual aid crews from 46 different utilities, and crews from National Grid's Upstate NY and New England region.
  - We appointed Crew Guides and Hotel Ambassadors to manage lodging, meals, and to move crews from one work location to the next. These resources freed up our field supervisors to focus on setting up and coordinating crews' work schedules.

- The Community Outreach model we used in the aftermath of Sandy – establishing community outreach centers and deploying community liaisons – was highly effective and we will plan to incorporate it in the future.

Close

Our employees performed magnificently, with expertise, hard work and dedication in the face of extremely demanding conditions. We've been here for our customers since the beginning of this event and we'll be here through the ongoing rebuilding efforts in these communities.

In closing, we remain steadfast in our commitment to keep New York State and New York City a great place to live, work and prosper. This is our home, and we're 100 percent determined to help our customers and communities recover from the devastating effects of Sandy.

Ends

The City of New York
Manhattan Community Board 1
Catherine McVay Hughes CHAIRPERSON | Noah Pfefferblit DISTRICT MANAGER

FTR

New York City Council Committee on Consumer Affairs jointly with
The Committee on Lower Manhattan Redevelopment and the Committee on Technology

Oversight Hearing on Emergency Planning and Management
During and After the Storm: Assessing and Improving
Public Utility Risk Mitigation Measures

Testimony by Catherine McVay Hughes
Chair

January 18, 2013, 1:00 p.m.
Council Chambers at City Hall

Good afternoon, Chairpersons Garodnick, Chin and Cabrera. Thank you for the opportunity to comment on Emergency Planning and Management During and After the Storm: Assessing and Improving Public Utility Risk Mitigation Measures. I am Catherine McVay Hughes, Chair of Manhattan Community Board One (CB1).

We are now approaching the third month since Monday, October 29, 2012 when 14 foot storm surges from Superstorm Sandy arrived on our shores from the East and Hudson Rivers. Most of Lower Manhattan's utility infrastructure, including electrical, steam, phone and data services, were lost.

The loss of utilities severely disrupted residents and business located in CB1 and other parts of Lower Manhattan. When we lost electricity there was no running water, which meant no flushing toilets, no showers, no dishwashers, no washing machines, and no dishwashing. Without electricity, elevators do not work and the majority of residential buildings in CB1 are high-rises. When we lost steam there was no heat and no hot water.

Electricity was restored to most customers within five days, late on November 2, but many residents and workers went additional days or weeks without basic necessities. Restarting large steam systems is complicated and causes additional delays. Steam supplies some very large residential complexes in our district, such as Southbridge Towers in the South Street Seaport area with 1,651 units, where steam heat was not restored until late Friday, November 9.

Lack of phone and data services in particular prevented many businesses, both large and small, from operating during this time. Many residents and businesses are still relying on alternative voice and data services while Verizon installs a fiber optics system.

We appreciate efforts made by Con Edison and Verizon to restore service for electricity, steam, voice and data service, in the days and weeks since Sandy. Both of these companies suffered extensive damage to their facilities: Verizon suffered damage at their headquarters at 140 West Street and their major switching center at 104 Broad Street; Con Edison sustained damage at their East 14th Street Station and additionally substations. We appreciate efforts made by Verizon

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to respond to individual problems that we brought to their attention in our effort to help our constituents resume their daily lives and work.

Con Edison worked extremely well with CB1 and the Downtown Alliance. It was particularly helpful immediately after the storm that they included the CB1 Chair in their daily conference call updates with elected officials. Con Edison's map of electricity outages was very helpful, and we recommend that they develop one for steam outages as well. We hope that in the event of a future emergency, Verizon will also include us in calls and provide similar maps.

We were informed on January 8, 2013, at a meeting convened by the Lower Manhattan Construction Command Center, that only a handful of buildings in our district remain uninhabited as a result of storm damage, indicating the substantial progress made since the storm which left almost all of Manhattan south of 27th Street without electricity.

Government at the city, state and federal levels should work with utility companies and other stakeholders to strengthen infrastructure to better withstand future emergencies such as 14 foot storm surges. CB1 has prepared a report called Emergency Preparedness Lessons Learned from Superstorm Sandy, which has incorporated input from all of our committees and will be adopted by our full board next week. Steps that should be taken should include the following:

1. **Assess whether strategies were successfully implemented in Battery Park City that can be applied to new development elsewhere** and to older infrastructure through retrofitting. Recently built infrastructure in Battery Park City fared significantly better than older infrastructure in other parts of the district. Electricity was restored in parts of Battery Park City days earlier than in the rest of the district.

2. **Implement a change in zoning regulations to allow developers, whether in the process of building or retrofitting, to install infrastructure in "flood zone-safe" locations without incurring a floor area penalty.** A majority of buildings in CB1 house mechanical infrastructure in basements and sub-basements to maximize floor area ratio for the primary function of the building. Basements in Zone A and beyond were inundated by Superstorm Sandy and some buildings still remain without utilities due to damage from flooding. This problem affected Con Edison and Verizon, contributing to a widespread loss of service.

3. **Develop circuit redundancy for all utility companies** so that if one system is damaged another can replace it. The use of solar panels to back up traffic lights and wastewater treatment plants should also be considered. The loss of electricity caused traffic lights not to work which became dangerous when vehicular traffic increased downtown. Back-up batteries would not have lasted for the five days that power was out.

4. **Make steam-powered buildings and infrastructure more resistant to storm surge and resilient when service is disrupted.** This is important because steam proved vulnerable to salt damage following Superstorm Sandy. We recognize the importance of this from direct experience as our CB1 office was among buildings that were affected and our staff worked without heat for an additional five days after Con Edison restored electrical service for a total of two business weeks.

5. **All utility companies must take steps to secure infrastructure so that it can withstand 14-foot storm surges and salt water.** We acknowledge the importance in particular of Verizon's efforts to expedite a move from copper wire to a fiber optic system that will better withstand damage from storms and other emergencies.

6. **Our constituents have expressed concern about cost increases for data services due to the conversion to fiber from copper.** Phone rates are regulated by the state and will not be affected but phone and data are sometimes packaged together and Verizon customers are concerned that their bills will increase if they use both. Verizon should be sensitive to these concerns and produce clear information about the reasons for the change and the benefits from it.

7. **Utility companies must develop ways to communicate with customers throughout emergencies and the restoration process** to provide information about the status of repairs, service restorations and timetables. Con Edison's efforts to communicate through automated telephone calls were limited in their effectiveness when phone and electrical service were inoperative. Utility companies should make use of commonly used social media platforms for updates that are effective even when electricity and phone service are lost.

8. **Utility companies should proactively reimburse customers for outages instead of billing for them and issuing rebates only when customers request them.**

9. **Plans should be in place for the use of generators and other emergency equipment when electricity is lost**. The placement of generators and the noise and exhaust they emit resulted in numerous complaints to CB1. Generators should not be located near air intake for residential buildings or playgrounds and should not be used to turn on lights and equipment not being used in buildings.

Thank you for the opportunity to testify today. We look forward to working with you to make Lower Manhattan as resilient as possible.

STATEMENT OF
MICHAEL DEERING, VICE PRESIDENT FOR
LONG ISLAND POWER AUTHORITY
ENVIRONMENTAL AFFAIRS,

NYC COUNCIL

JANUARY 18, 2013

Chairman Garodnick, Chairman Cabrera, Chairwoman Chin, distinguished NYC Council members and all our local elected representatives and others in attendance. I want to thank you for the opportunity to appear today to provide testimony on the Long Island Power Authority's response to Hurricane Sandy.

My name is Michael Deering and I am Vice President of Environmental Affairs at LIPA. I am joined by Jonell Doris, District Manager for the Rockaways for LIPA. We welcome the opportunity to address this Council and to discuss LIPA's storm preparedness and restoration activities related to Superstorm Sandy and compounded by a significant Nor'easter which followed only nine days later. In particular, I would like to recount some of the activities and efforts undertaken by LIPA and National Grid in the Rockaways to address the needs of our customers who suffered some of the worst damage and devastation delivered by this storm of historic proportions.

I want to first express my deep concern for the many residents who lost their homes, personal belongings and who have endured significant disruptions in their daily lives as a result of the storm. It is my sincere hope that the assessment process of this event, will lead to lessons learned that will be enable us to improve our systems and coordination when future storms occur.

I would also like to express my gratitude for the tireless work of the men and women from LIPA, National Grid, IBEW Local 1049, many local, state and federal agencies, in addition to emergency response organizations, various logistics support groups and "off-Island" linemen, tree trim and substation personnel. Electricity was restored to all customers that could *safely* accept power in just over two weeks' time. This was a tremendous accomplishment given the magnitude of the event and the often very difficult working conditions encountered. I am proud to say that the restoration of power was safely accomplished without the loss of life, or serious injury to any person.

LIPA and National Grid as Service Providers

As you may know, the Long Island Power Authority ("LIPA") is a not-for-profit, public power authority created by the State Legislature in May 1998. It is responsible for the supply of electric service to Nassau and Suffolk Counties and the Rockaway Peninsula of Queens County. LIPA provides retail electric service to approximately 1.1 million

customers. Approximately 30,000 of those customers reside in the Rockaways. LIPA and National Grid work together under a Management Services Agreement. LIPA owns the electricity transmission and distribution networks in the Service Area and National Grid is responsible for managing the day-to-day operations and maintenance of the electricity transmission and distribution networks which supply power to LIPA customers, providing services to LIPA's retail customers, purchasing and selling electricity on behalf of LIPA and managing the delivery of energy produced by National Grid.

Historic Superstorm Sandy and the Nor'easter

Superstorm Sandy and the ensuing Nor'easter resulted in more power outages to homes and businesses than any other storm in history to hit this region. This storm was unprecedented in scope and exceeded predictions of experts from such organizations as NOAA, FEMA and the US Coast Guard, particularly as related to the storm surge. On Long Island alone, more than 1.2 million customer outages were recorded, more than twice the number experienced in Tropical Storm Irene.

Superstorm Sandy obliterated many records along the East Coast, from its extraordinarily low air pressure, sustained wind speeds and wind gusts. The situation was exacerbated as this slow moving Superstorm with a diameter of approximately 1000 miles, winds in excess of 90 miles per hour made landfall. The toll — in lives disrupted or lost and communities washed out — was staggering. A rampaging fire reduced more than 100 LIPA customers' homes to ash in Breezy Point, Queens. Explosions and downed power lines left the lower part of Manhattan in the dark. The New York City subway system was paralyzed by flooded tunnels resulting in the worst damage in its 108-year history. The flooding in the tunnels in Lower Manhattan was so serious that the Federal Emergency Management Agency asked specialists from the Army Corps of Engineers to help. For the first time since the Blizzard of 1888, the New York Stock Exchange closed for two consecutive days due to weather.

Perhaps most significantly, Sandy's storm surge was of unprecedented magnitude, bringing water levels to between 9 and 11 feet above average high tide levels, with a surge of between 16 and 18 feet in Long Beach, many feet beyond anticipated flood levels of the N.O.A.A.

Planning In Advance of Sandy

Storm monitoring began many days in advance when a Tropical Depression was identified approximately 325 miles SSW of Kingston, Jamaica. In the coming days, based on the National Weather Service reports, which predicted a tropical storm event, pre-storm activities were commenced in accordance with LIPA's established Emergency Restoration Implementation Plans. Storm anticipation meetings were launched, the availability of key materials was confirmed, and outreach began to customers and key stakeholder groups, urging customers to "make appropriate preparations for this possible multi-day event."

Concurrently, staffing requirements for a tropical storm event and a hurricane were analyzed and based upon the National Weather Service reports of the storm expectations, LIPA and National Grid anticipated approximately 200,000 to 350,000 outages and determined that a 7 day restoration plan for a storm of the magnitude expected would require approximately 700 off-island linemen and tree-trimmers. However, in an effort to reduce that restoration period, LIPA authorized the immediate request of 1,250 off-island workers. The number of off-island support crews requested continued to rise as it became apparent that Sandy would be of far greater magnitude than the National Weather Service had initially forecasted.

Impact of the Storm and Reenergizing the System

Customers suffered peak outages on October 29, 2012 with approximately 1,071,000 without power. Because we are dealing with dangerous high voltage electricity, restoration procedures must occur in a particular sequence to return power and to ensure the safety of those working on the lines; a strategy for restoration was developed and followed. The restoration plan which was followed during Sandy was generally to 1) repair transmission lines to enable power to be supplied to area substations; 2) repair substation damage to permit power to be supplied to the distribution system; 3) restore the core infrastructure of the distribution system, which typically runs along main roadways; 4) restore the distribution feeds into the individual neighborhoods; and 5) restore small pockets / individual homes affected by storm damage. This repair sequence is common to most utilities and takes into consideration several components including the need to prioritize critical infrastructure like the Long Island Rail Road, hospitals, nursing homes, fire and police stations, schools deemed safe to be re-energized, and gas supply (due to the fuel supply shortages experienced in the New York area).

Beyond the critical infrastructure priorities, restoration efforts focused on reenergizing the largest number of customers in the shortest amount of time. It is important to note that the flooding situation experienced along the south shore of Long Island including Long Beach and the Rockaways, resulted in heavy damage to numerous substations. To address the significant impact in these communities, priority crews were immediately dispatched to those substations to assess the situation and formulate recovery plans that could address restoration requirements.

Responding to the needs of customers in flooded areas was a priority and added challenges to the overall restoration effort. Severe flooding along the south shore of Long Island and in the Rockaways damaged an estimated 100,000 homes and businesses.

Day 10: Compounding Impact of the Nor'easter

Despite the magnitude of Sandy and the competing restoration priorities that ensued, it was still anticipated that 90% of our customers would be restored by the end of day 10,

as originally projected. However, as day 10 neared, so did a Nor'easter, which brought with it wind, gusting up to 53 miles per hour, heavy wet snow and rain to the area, causing approximately 123,000 new outages. In fact, the outages caused by the Nor'easter increased the number of customers without power to more than 236,000. Therefore, the process of damage assessment and prioritization of new outages began again. Even with this set back which also necessitated that crews temporarily "stand down" due to safety concerns, restoration efforts moved forward and within 16 days of the storm's arrival, power was restored to all customers that could safely accept power at their premise.

Extensive Efforts in The Rockaways

In the Rockaways, LIPA and its contractor National Grid implemented a comprehensive and deliberate storm restoration plan which was executed in close coordination with numerous local, state and federal agencies and included a strong focus on addressing the needs of the communities we proudly serve on this peninsula. Immediately following the storm's passing and consistent with regional efforts, LIPA activated its restoration organization in accordance with its emergency response procedures.

Damage assessment teams were deployed to the Rockaways and it quickly became evident that the storm brought unprecedented flooding; surpassing the height of sandbags that had been proactively placed around LIPA substations to protect against the official projected storm surge for the area. This resulted in significant damage to these facilities and necessitated that the initial focus of restoration efforts be targeted to repairing and reconstructing these hard hit substations. The severe flooding to homes and businesses also introduced saltwater intrusion to electric panels and wiring, making it unsafe to restore power to these premises without proper inspection and repair. Conversely, a detailed survey of the overhead lines found that most had withstood the effects of the powerful storm.

Accordingly, an extremely large contingent of in-house repair personnel supplemented by experts from National Grid's neighboring service territories and other mutual assistance organizations were immediately assigned to the four severely flooded substations in the Rockaways and adjacent Woodmere substation to begin to execute the necessary repair and rebuilding of these flood devastated facilities. Within days, good progress was made in advancing repairs and in parallel, arrangements were made to site mobile generation units at various sites, providing the ability to re-energize customers that could safely accept power in advance of repairs being completed at these substations.

Coordination with Government Agencies

Recognizing the enormity of the devastation and breadth of effort required to restore power, LIPA established an Operations Center at the Rockaway Beach substation on Beach 108th Street and placed a second mobile trailer at 108th street as a post to support community relations. Given the complexity of the repair process and need to closely coordinate with residents, building owners and other key local stakeholders, LIPA brought all necessary aspects of its operations and customer businesses to the site to facilitate the process. Working through the NYC Office of Emergency Management, LIPA quickly made plans to actively engage with the New York City Housing Authority (NYCHA), New York Police Department (NYPD), Fire Department of New York (FDNY), Department of Transportation (DOT), FEMA and the Department of Environmental Protection (DEP) to develop and execute plan of action.

Priorities were identified and LIPA worked with the NYPD and NYC DOT to install generation and energize traffic and street lights to address public safety concerns. Power was also restored to FEMA's community outpost, while generation was sited at key public health and safety facilities and housing complexes across the Rockaways. Efforts were also initiated with a special taskforce consisting of LIPA, National Grid, the NYC OEM and local electricians and plumbers to begin the inspection process to determine which homes and businesses were structurally safe and fit to safely accept power.

In the coming days, efforts focused on isolating those premises unsafe to accept power while the backbone of the electric system was rebuilt. At a deliberate pace, power was restored to key facilities including hospitals, nursing homes, schools, housing complexes and MTA rectifier stations and a sense of normalcy began to return. Additionally, as homes and businesses were deemed safe, LIPA personnel were dispatched to quickly re-energize those premises; in many cases the dispatch was immediate after proper certification was provided.

Community Outreach

Teams of personnel also went door-to-door to distribute informational flyers that detailed the re-energization process and walk-in centers were established at numerous locations including the Battalion Pentecostal Assembly, Waldbaums Shopping Center, St. Francis de Sales Church, Belle Harbor and Fort Tilden Park. Employees staffed these centers around the clock and remained on site during the holidays to provide well deserved assistance to customers visiting these centers. Additionally, a LIPA engineer was assigned to work with FEMA to assist in the execution of the Rapid Repairs Program.

To date, we continue to maintain a visible presence at several command centers. We have restored service to all customers whose homes and businesses can safely accept power and are ready to connect the remaining customers that are out of service once they have made the necessary repairs. Concurrently, we are progressing efforts to further protect our equipment against future devastating storms.

Conclusion

I would like to thank the Council for giving me the opportunity to explain the facts and am eager to address any concerns raised with respect to LIPA's activities before, during and after Superstorm Sandy and the Nor'easter. On behalf of LIPA, I am ready to provide additional information in support of the statements and remain available to answer any questions the Council may have relating to these and other issues going forward. We look forward to working together to continue to strive for solutions to fortify our infrastructure to prepare for future storms.

TESTIMONY

Jonathan Gaska, District Manager

Community Board #14

January 18, 2013

Oversight –Emergency Planning and Management During and After the Storm

Good afternoon,

While it is difficult for me to comment on some of the issues that are before you today due to a lack of accurate information, I will do my best to make comments.

The Friday before the storm October 27th, we were contacted via email and phone by both our utilities Con Edison, (Broad Channel) and the Long Island Power Authority. The emails included emergency contact numbers and they assured us they were taking the storm seriously. We and our elected officials were in constant contact with LIPA in the days and weeks after the storm. In fact, LIPA which serves all of Rockaway held daily conference calls to give us updates and deal with our questions and issues.

This is in contrast to our own Office of Emergency Management which NEVER contacted us before the storm and it was not until five weeks after Sandy devastated our community that OEM reached out to us for help in identifying some property owners. I can tell you that in the almost three months since Sandy we have had exactly two phone conversations with OEM and one conversation in person.

As to the issue at hand, it is apparent that the utility companies under estimated the damage that a storm of this magnitude would cause. It is also clear that for our community and all waterfront communities that those utility companies that provide electric and gas service need to re think how they should maintain our overhead lines and place the transformers and sub stations. The utilities need to undertake a serious effort to clear trees and tree limbs that may fall on our lines in a storm with high winds.

Most importantly, the utilities need to re think where and how they place their sub stations. During the height of the storm a 5-8 foot wall of water covered 75% of our community shorting out almost all of our sub stations which were at ground level. Government must require that the substations be protected by some type of barrier or raise them to a height of at least six feet to protect them from storm surge.

By our estimate, it took LIPA and Con Edison almost three weeks to re power the overhead lines. Clearly this was too long of a time period, and it caused unmentionable suffering by ~~some~~ many. The real issue at hand is how the City devised the process for all the utilities to repower the homes, apartments and businesses. As of yesterday over 2,000 locations remain without power. This is not because of the utilities.

Four days after Sandy, Community Board 14 and the Queens Borough President's office contacted City Hall expressing our concern that we will have a severe shortage of electricians and plumbers to restore the thousands of homes in our community. You have to remember that almost every homeowner in the Rockaway west of Beach 30th Street to the tip of Breezy Point and all of Broad Channel had lost their boiler and the electrical panel for their home and was ruined. We also knew that winter was upon us and without electric there would be no heat.

We urged the City to think out of the box and put out a multi-state call for licensed electricians and plumbers to come to the city get a 60-90 day temporary license and get to work. We understood that safety should be paramount in restoration as well. They choose a different path insisting on NYC licensed electricians and plumbers only. The result is three months later 2000 homeowners still do not have heat or electric.

It is our belief that a holistic look needs to be done in regards to how utilities provide, maintain and secure the transmission of electric to our and all waterfront communities in the future. If my IPhone can be 10 times more powerful than the desk top I used in 1986 at the Comptroller's office, we certainly have the technical know how to solve this. The question remains Will We?

Thank you

Time Warner Cable

FTR

Cathleen Sims
Senior Director
Government Relations
Northeast

Good morning Speaker Quinn, Chair Garodnick, Chair Chin, Chair Cabrera, and Members of the City Council. I am Cathleen Sims, Senior Director of Government Relations for Time Warner Cable and I am grateful for the opportunity to submit testimony on this very important and serious issue.

I look forward to discussing Time Warner Cable's preparations before Hurricane Sandy made landfall, the companywide coordinated response during the storm, and the magnitude of recovery efforts in its wake that were successful in getting Time Warner Cable and its subscribers back up and running.
Hurricane Sandy, the largest Atlantic tropical system on record, proved to be the most destructive storm in U.S. history and one that changed the landscape of the eastern seaboard. The Super Storm caused unprecedented damage and disruption across an area of nearly two million square miles. New Jersey and New York City, the most densely populated areas on the East Region, were hardest hit. For Time Warner Cable which serves one million customers in Manhattan, Queens, Staten Island, Brooklyn and portions of Hudson and Bergen Counties in New Jersey, the storm posed tremendous challenges.

In the days leading up to the landfall of Hurricane Sandy, all essential functional Time Warner Cable departments came together to discuss contingency plans as we braced for the worst case scenarios. To ensure the utmost preparedness, generators were tested, extra fuel was procured, and sandbags were purchased and distributed to team members throughout New York City. A significant amount of resources were brought into the potentially impacted area, including mobile fuel pods, trailers with hundreds of generators, water pumps, chain saws, emergency operational trailers for staging and many additional employees to support the upcoming recover efforts. On Sunday, October 28th when mass transit shut down at 7:00pm, more than 60 Care employees bunkered down at Time Warner Cable Call Centers until Tuesday, October 30 in Flushing, Staten Island, Hudson Valley and Binghamton to guarantee coverage.
On Monday night, the storm made landfall and battered the area with 90 mph winds, pounding rain and surges that wreak havoc throughout the region. The Time Warner Cable Technical Operations facility at Paidge Avenue in Brooklyn sustained flooding of 4-6 feet resulting in the loss and damage of 300 vehicles. A team of 18 Technical Operations and Facilities employees spent the night at the facility where they attempted

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Time Warner Cable

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to salvage as many trucks and equipment as possible. Power outages were rampant during this time and a raging fire in Breezy Point, Queens left over 100 of our subscribers' homes in ash. During this critical time, Time Warner Cable was working around the clock to bring back essential services to the hundreds of thousands of customers affected in the New York City area.

When flood waters in Brooklyn receded and Time Warner Cable crews were successful in bringing the hub site back online, many customers used Twitter and other social media outlets to express their thanks in keeping them connected. Throughout the devastation, Time Warner Cable continued to work tirelessly to bring means of communication to our subscribers so they could make important and necessary contact to family and loved ones.

Reports of dropped lines, damaged nodes and high call volume were reported in the days following Hurricane Sandy. Time Warner Cable kept in constant communication with NYC's Office of Emergency Management by having two members of our Security team with them at all times to coordinate with City Agencies and Con Edison while gaining firsthand knowledge of the moment we could safely enter affected areas to begin repairs. Later, we were able to sit on the City's Office of Emergency Management's Down Tree Task Force whose coordination we attribute to the increased efficiency in clearing damage and debris.

By Wednesday, October 31st Time Warner Cable's massive recovery efforts were underway with thousands of NYC customers back online. With Mayor Michael Bloomberg's three-person HOV restrictions now in effect, many TWC employees take the initiative to organize carpools for their colleagues. Others walked to their respective facility with some employees walking 4-12 miles to and from work ensure our customers regained service as quickly as possible.

To help New Yorkers in hard hit areas who were without power, Time Warner Cable deployed Mobile Charging Stations to give local residents the opportunity to charge mobile devices, as well as, use of free Wi-Fi to contact loved ones, begin FEMA applications, and other needs. A public outpouring of appreciation was voiced in response and we were able to dispatch additional charging stations throughout Time Warner Cable's footprint to meet the needs of those still struggling with power loss.

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Substantial progress continued to be made with the return of commercial power and restoration of service in Manhattan. With that, a team of Direct Sales Representatives and technicians visited the most devastated neighborhoods to determine which customer accounts should be automatically suspended in order to stop billing while preserving the account. They also spoke to hundreds of customers and provided assistance with equipment and answered questions. Items such as gloves, trash bags and masks were distributed free of charge to residents.

On October 4th, a free viewing of the Giants vs. Steelers game was held at the Staten Island Time Warner Cable Store where members of the community were invited to take shelter, watch the game and enjoy refreshments courtesy of Time Warner Cable. That following Tuesday, TWC's Staten Island Store once again opened its doors offering customers a safe haven to watch election results and enjoy a warm meal.

After seven days since the storm passed, our social media presence on Twitter and Facebook continued to experience a steady stream of activity and our website was revamped to include more specific details on outages and street-by-street status updates for customers. The outage information was updated daily and also appeared in a mobile-friendly web browser.

True to Time Warner Cable's commitment to putting the customer first, Time Warner Cable launched automatic credits to our residential and commercial customers whose services were interrupted by Hurricane Sandy. Giving our customers one less thing to worry about, no action was required by the customer, a credit labeled "Hurricane Sandy Credit" appeared on statements crediting each account for any time they were without our service.

Just two weeks post-storm, Time Warner Cable was able to have 93.5% of impacted residential and commercial customers restored through remarkable expediency of our Care, Construction and Engineering teams, making our way back to business as usual to better serve our customers.

Upon request from the NYC Department of Information Technology and Telecommunications, Time Warner Cable was elated to provide communications to designated emergency management locations and FEMA tents deep into the disaster

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Time Warner Cable

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areas in Staten Island, Red Hook, Breezy Point, Coffey Park and Far Rockaway. Time Warner Cable Business Class mobilized a team to provision Voice and internet while confronting every imaginable obstacle under the most dismal conditions to get a live signal to those locations to aid in recovery efforts. Additionally in those areas, Time Warner Cable dispatched seven food trucks from local restaurants to Staten Island, Red Hook and the Far Rockaways to provide tens of thousands of hot meals to those communities still so desperate in need.

In the wake of the destruction, Time Warner Cable is proud to have given financial assistance to aid in the recovery exceeding $1 million.

The impact and aftermath of Superstorm Sandy proved once again New Yorkers have big hearts and a strong will. From pre-storm preparation to post-storm restoration, Time Warner Cable and thousands of our hardworking employees stood by and supported the residents, first-responders and leaders of the greatest city in the world. Thank you again for the opportunity to submit this testimony.

120 East 23rd Street Tel. (212)379-5984
New York NY 10010 Cell.(347)556-7034

www.newyorkstatewireless.org

January 18, 2013

Chairperson Fernando Cabrera
New York City Council
250 Broadway
New York, NY 10007

Chairperson Daniel Garodnick
New York City Council
250 Broadway
New York, NY 10007

Chairperson Margaret Chin
New York City Council
250 Broadway
New York, NY 10007

Re: Oversight: Emergency Planning and Management During and After the Storm: Assessing and Improving Public Utility Risk Mitigation Measures

Dear Chairpersons Cabrera, Garodnick and Chin:

On behalf of the New York State Wireless Association, Inc. ("NYSWA"), thank you for the opportunity to provide written comments to your respective committees of the New York City Council ("City Council") with respect to the above matter related to Superstorm Sandy.

NYSWA is a trade organization comprised of individuals and corporations in the wireless communications industry. Our membership includes representatives of Federal Communications Commission ("FCC") licensed wireless providers, infrastructure companies such as tower companies, architects, engineers, construction and real estate companies as well

as design/build firms and those providing professional legal and other services associated with wireless network development. Our mission is to provide a forum for the dissemination of information and educational opportunities, as well as the cultivation of relationships and the exchange of ideas between wireless telecommunications professionals, government officials and the public. As such, we welcome this opportunity to provide information to the City Council related to the wireless communications industry.

Wireless providers offer mobile communication services via licenses issued by the FCC; and consumers have benefitted from federal policies which have promoted and continue to promote competition in the marketplace. These policies have facilitated the availability of seemingly boundless wireless service options for consumers. Customers have embraced innovative wireless devices and increasingly available mobile data exceeding speeds that were, until recently, only available in terrestrial networks. Customer choice is evident based on the sheer number of wireless subscribers in New York City and growth outpacing wireline phone connections.

To deliver such services, providers have deployed and continue to invest billions of dollars in the necessary spectrum resources and state of the art network architecture, including mobile switching facilities, cell towers, rooftop antennas and terrestrial network capacity to connect consumers to the Internet. Additional methods of deploying service have included the installation of antennas in transportation tunnels, street light applications and the use of other municipal infrastructure in the right-of-way and on other infrastructure unique to urban environments. The wireless industry has further developed new technologies and innovated through use of distributed antenna systems in sports arenas and other locations and venues. In order to meet continuing and growing demand for advanced mobile communication services, wireless providers continue to make significant capital investments into not only network infrastructure, but also operations and personnel via high paying jobs in the Empire State. Throughout the recession and recovery, the wireless sector has been an economic leader in investment and job creation.

As part of cell site facilities, wireless providers are on record with regard to the provisioning of battery back-up power at materially all cell site locations. The capacity of a battery back-up power supply can vary from location to location depending on numerous factors including traffic and weather/environmental conditions. Based on historical electric reliability data, wireless providers have provisioned battery back-up which can support the overwhelming majority of commercial power outages that typically last less than 8 hours. Additionally, various wireless providers have incorporated fixed and/or portable generators into business continuity plans which are engaged in events such as Superstorm Sandy. Those generators may utilize natural gas, propane, diesel or hydrogen as a fuel source. The deployment of generators has been limited in New York City and other jurisdictions due to several factors including space

constraints, weight limitations local safety and environmental codes, landlord restrictions and other factors such as site access barriers.

In order to maintain operations during widespread natural disasters, each wireless service provider has in place business continuity plans which include but are not limited to planning and restoration programs specific to its network architecture. The major wireless service providers have been certified by CTIA, the Cellular Telecommunications Industry Association, as part of its Business Continuity/Disaster Recovery Program (the "CTIA Program"). The CTIA Program requires companies to (1) establish, fund, implement, maintain, and update Business Continuity and Crisis Management plans; (2) complete and monitor results of exercises and drills of the Business Continuity/Disaster Recovery program; and (3) develop plans to communicate with employees, management, other stakeholders and government representatives. The CTIA Program is comprehensive, guiding companies through all stages of the process, from project initiation to training and maintenance. At the same time, the CTIA Program elements provide the necessary flexibility to address the different issues wireless companies may face.

By all accounts, Superstorm Sandy was unprecedented. In the days prior to Sandy making landfall in the New York City area, wireless providers pre-planned in accordance with each of their Business Continuity/Disaster Planning and Recovery plans. Such planning included the sharing of information with each company's respective customers regarding preparations and tips to be utilized by customers in the event of extended commercial power outages. As experienced during Superstorm Sandy, the impacts to wireless networks can be unique, wide spread, and multi-faceted. Superstorm Sandy included high winds which caused significant damage to trees, power lines and aerial electric utility infrastructure, while record storm surge during a full moon at high tide perpetuated historical coastal flooding. Only a few days later a Nor'easter storm brought snow, ice and cold temperatures into the region and hampered restoration efforts and bringing more hardship to already hard-hit communities. The record-breaking storm overwhelmed the preparation of numerous organizations, flooding multiple tunnels and the subway system - a first in 108 years. These dynamics of Superstorm Sandy principally resulted in widespread loss of commercial power and disruption to backhaul of communications from cell sites to switching centers. Wireless providers operated under extremely challenging conditions and communicated in accordance with their plans while coordinating with multiple governmental agencies, power utilities and backhaul facilities providers. Notwithstanding prudent preparation, robust preposition and aggressive and relentless recovery efforts, the storm was a quintessential *force majeure* event beyond the exclusive control of the wireless providers.

Based on the projected path and impacts of the storm, wireless providers took many actions to prevent and mitigate service disruption despite the extraordinary environment. Before the

storm, providers communicated with their customers as detailed above. Wireless providers each pre-staged thousands of mobile generators and personnel for deployment and dispatch to impacted cell sites as soon as conditions proved safe and requisite access to the many communities which were under states of emergency could be achieved. During the storm, providers relied extensively on private diesel fuel reserves and a supply chain for repeated refueling of thousands of generators; given the fuel lines and shortages, wireless providers were not able to depend on localized fuel sources, but had to import enormous quantities of fuel over great distances following the storm at considerable expense. Wireless providers have established such relationships with fuel suppliers in response to previous lessons learned from other crisis. Some carriers with technically compatible networks also agreed to allow roaming without fees where services within their networks were impacted. Carriers also deployed numerous temporary facilities known as a cell on wheels ("COWs") or cell on light trucks ("COLTs") to provide service or support emergency responders' efforts in some of the hardest hit areas of New York. Frequent and routine communication occurred between providers and government officials—both during regularly scheduled briefings and spontaneous inquiries--regarding restoration efforts and resources to support public officials in their efforts. The record-breaking, region-wide power outage was the largest power outage from a hurricane in U.S. history. In response, providers undertook unprecedented actions and efforts to restore service to customers and support government efforts.

Given the magnitude of Superstorm Sandy and its impacts, the Federal Communications Commission ("FCC") will conduct field hearings in both New York and New Jersey on February 5, 2013.[1] FCC Chairman Genachowski noted, "[t]he field hearings will focus on the unique challenges faced by communications service providers, state and local officials, emergency personnel, and consumers before, during and after Superstorm Sandy as well as other natural disasters."[2] Specifically, the hearings will address power and fuel dependencies, emergency permitting, resource sharing protocols, 9-1-1 accessibility, and others.[3] The FCC intends that information examined in the hearings will inform recommendations to strengthen wired and wireless networks in the face of large-scale national emergencies.[4] In addition to these federal activities, Governor Cuomo in his State of the State Address outlined and subsequently issued a detailed report which includes specific emergency response recommendations of the New York Ready, New York Response, New York 2100 and the New York Moreland Commissions -- all of

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[1] *See* Federal Communications Commission Event Calendar – February 5, 2013, Superstorm Sandy Field Hearing, recently viewed at *http://www.fcc.gov/events/superstorm-sandy-field-hearing*

[2] *See* Federal Communications Commission Press Release, "FCC Chairman Genachowski Announces Post-Superstorm Sandy Field Hearings to Examine New Challenges to Resiliency of U.S. Communications Networks during Natural Disasters & Other Times of Crisis," dated November, 21, 2012, ("FCC Press Release") recently viewed at http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db1121/DOC-317543A1.pdf.

[3] *See* Id., for a complete list of detailed questions included in the FCC Press Release for Superstorm Sandy field hearings.

[4] *See* Id.

which were established in the wake of Superstorm Sandy.[5] The Moreland Commission has issued subpoenas and conducted hearings in both New York City as well as Long Island. As the City Council is no doubt aware, both Commissions were charged by the Governor to issue specific recommendations to improve storm preparedness and response.[6] Various members of the wireless industry, including members of the NYSWA, are actively engaged, contributing expertise and information in these efforts to further improve planning and response to such crisis within New York and nationally.

On review, New Yorkers were amazingly resilient, and the efforts by restoration crews from wireless providers, electric utilities, and mutual aid responders from near and far were often simply Herculean. Crews worked hard throughout long shifts, commonly 12-hours, day after day, until service was restored. Often wireless provider employees and their partners suffered flooding or other damage to their own homes and saw first-hand, disturbing human suffering, especially in certain coastal neighborhoods. The wireless providers understand that although they engaged in extraordinary efforts and expended sizeable sums to deploy record amounts of manpower and material, consumers expect the wireless industry to learn lessons from this event and to use that knowledge and experience to prepare better and respond better to the next event. Post event debriefing is essential to robust Incident Management Planning. An examination of what worked well and what can be improved is how organizations get stronger and improve their response in the next emergency situation. The wireless providers are committed to the various discussions with constituents and policy makers in this regard.

On behalf of our members, we thank you again for the opportunity to provide you with this information as it relates to the wireless industry and its efforts on behalf of wireless customers in the wake of Superstorm Sandy and beyond. If we can be of further assistance to the City Council in this regard, please do not hesitate to call on us.

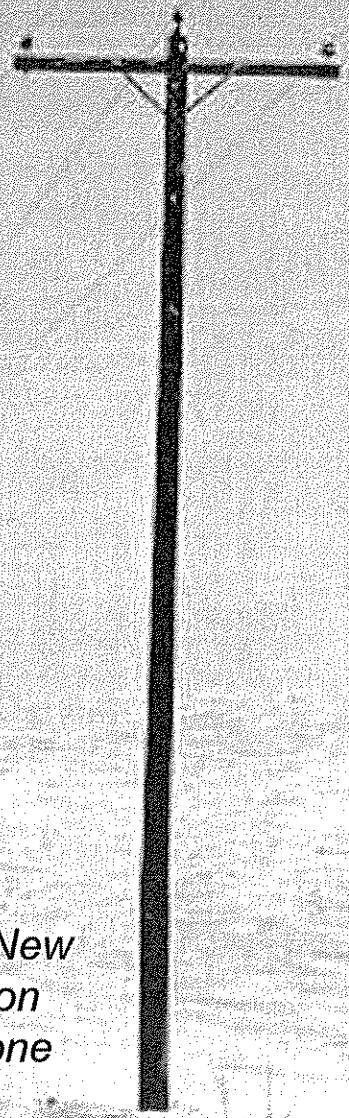
Christopher B. Fisher, President

New York State Wireless Association

[5] *See* http://184.106.78.18/press/11152012-Emergency-Preparedness; *and, see also,* http://www.governor.ny.gov/2013/emergency-response

[6] *See* http://www.governor.ny.gov/press/01092013-cuomo-agenda-2013 .

EXAMPLES OF DANGEROUS & UNSIGHTLY DOUBLE POLE CONDITIONS IN NY STATE

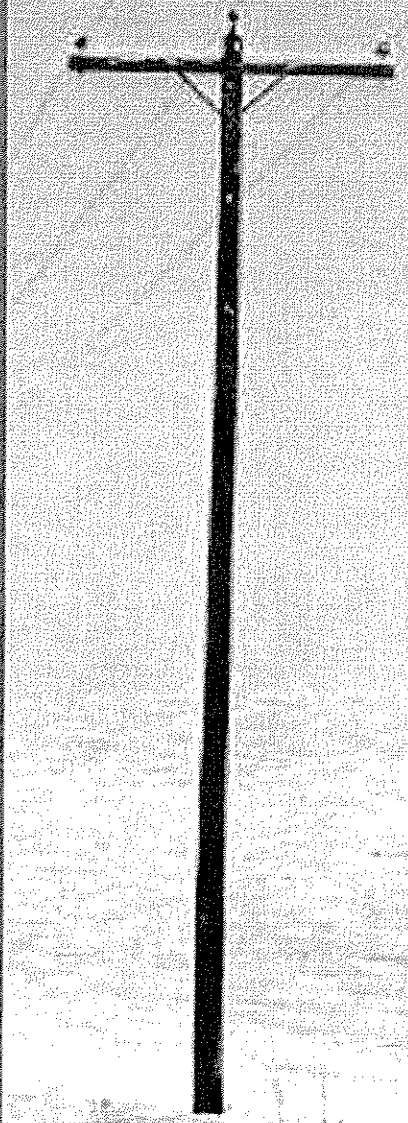


"A statement by the PSC said an estimated 5 percent of observed poles in New York were double utility poles with incomplete transfers. Telecommunication companies are usually responsible for removing old poles because telephone facilities are transferred after electric, the commission said."

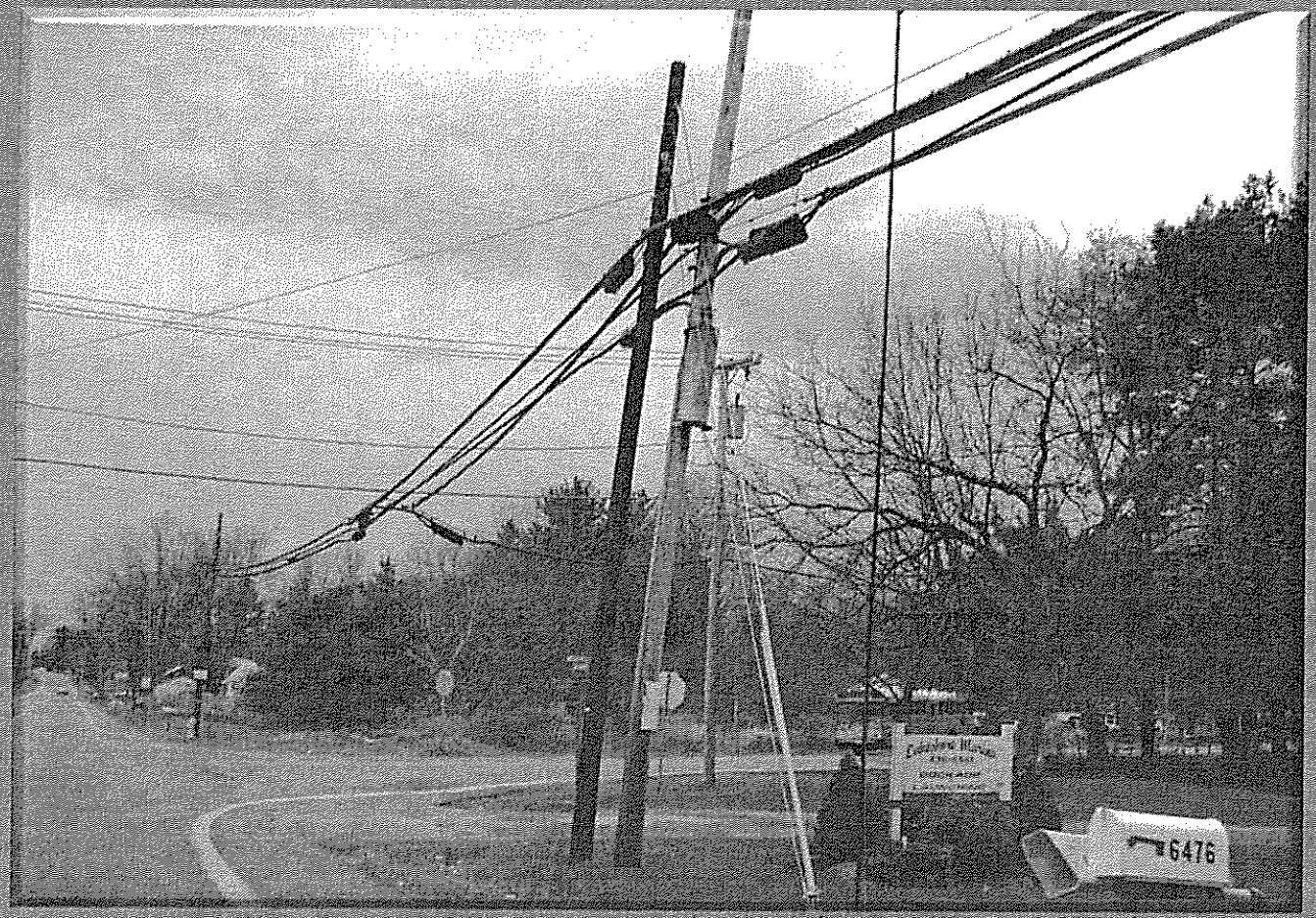
-The Journal News – July 1, 2008

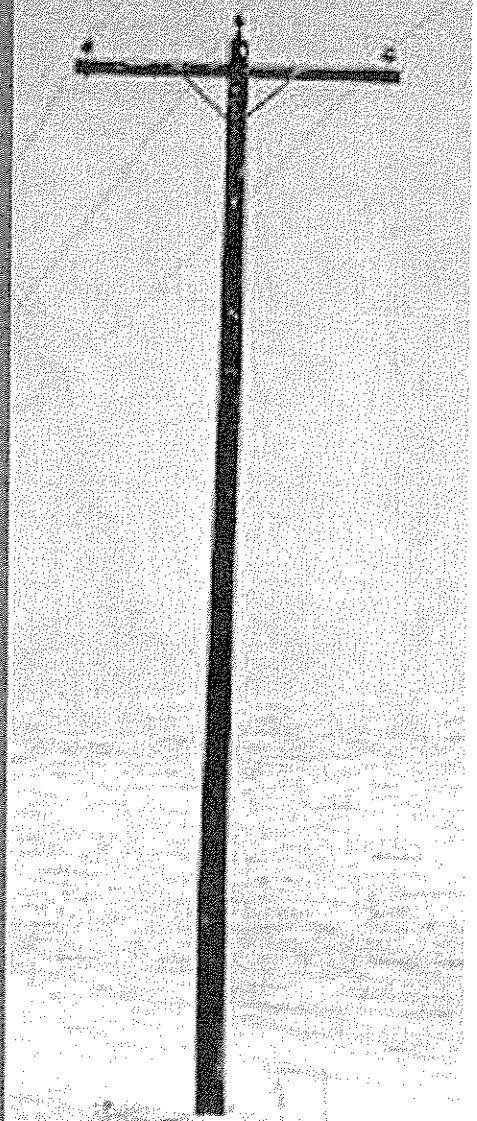
VERIZON HAS NOT FIXED DANGEROUS DOUBLE POLE CONDITIONS

- DOUBLE POLE CONDITIONS ARE WIDESPREAD
- CWA MEMBERS HAVE PHOTOGRAPHED OVER 1,000 DOUBLE POLES IN NY STATE
- PROPERLY-TRAINED UNION WORKERS SHOULD BE REMOVING THESE POLES
- VERIZON IS LAYING OFF WORKERS WHILE OUTSOURCING THOUSANDS OF GOOD QUALITY UNION JOBS
- IN 2008 ALONE, VERIZON'S PROFITS WERE OVER $6 BILLION AND VERIZON'S TOP FIVE EXECUTIVES MADE OVER $59 MILLION.



CENTRAL NEW YORK – DOUBLE POLE

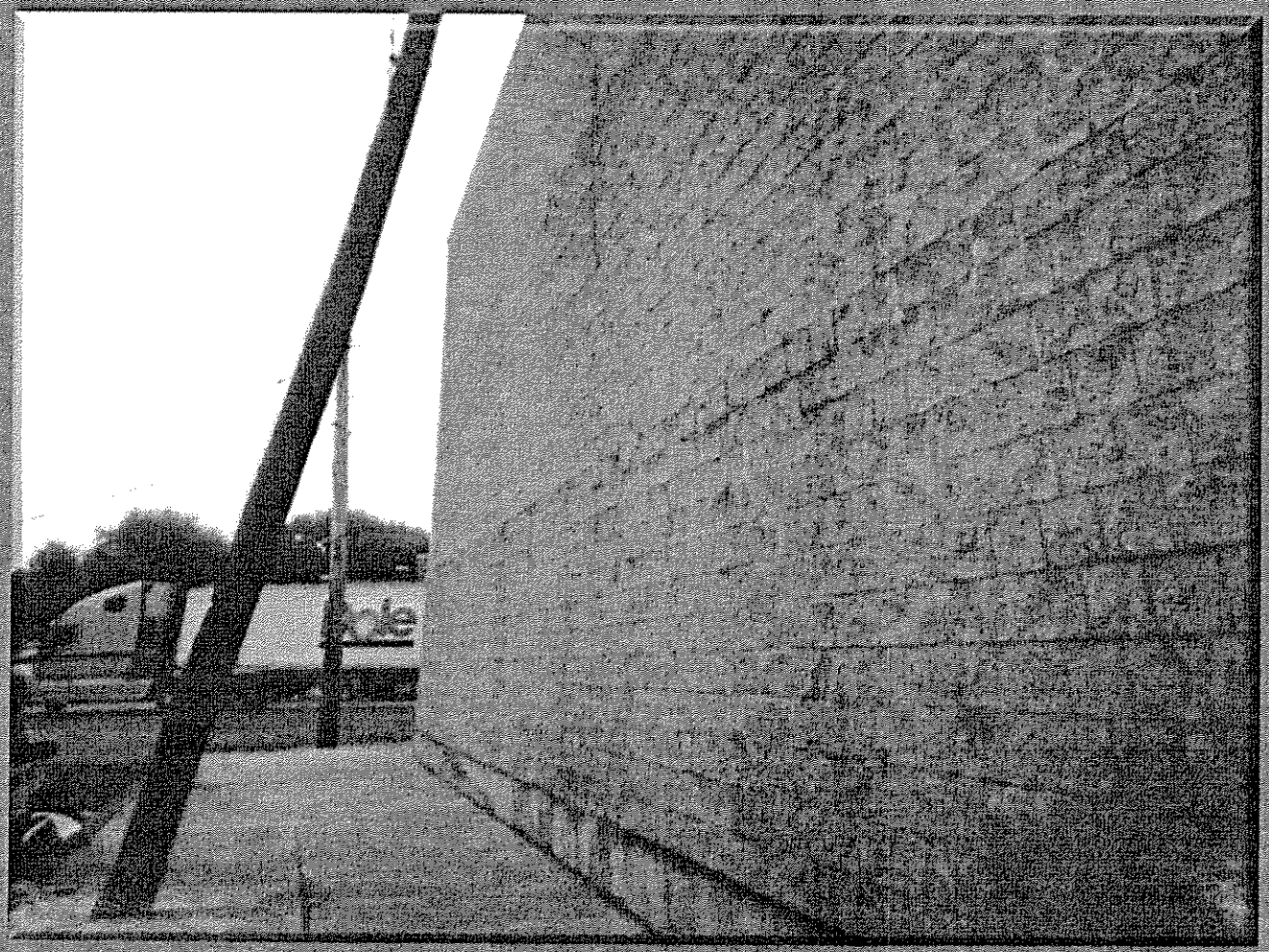


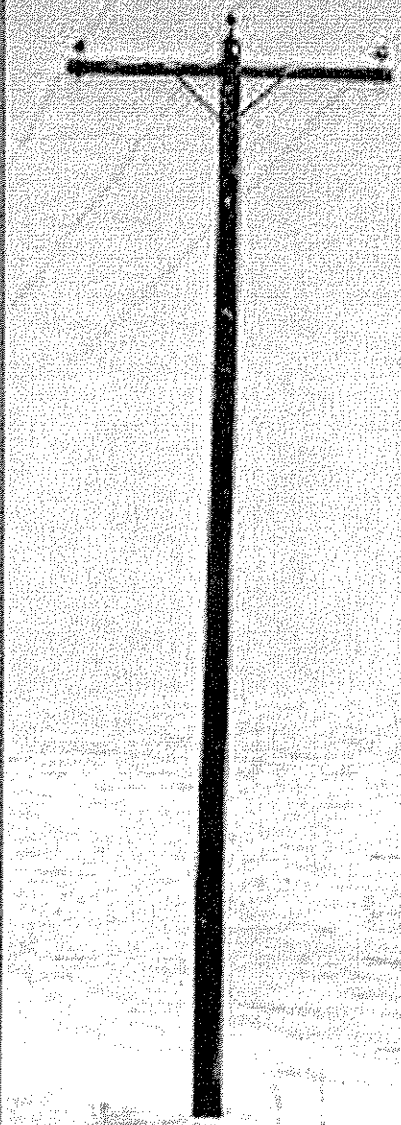


MUD MILL ROAD & LAKESHORE DRIVE CICERO

(CWA LOCAL 1123)

BRONX – LEANING POLE



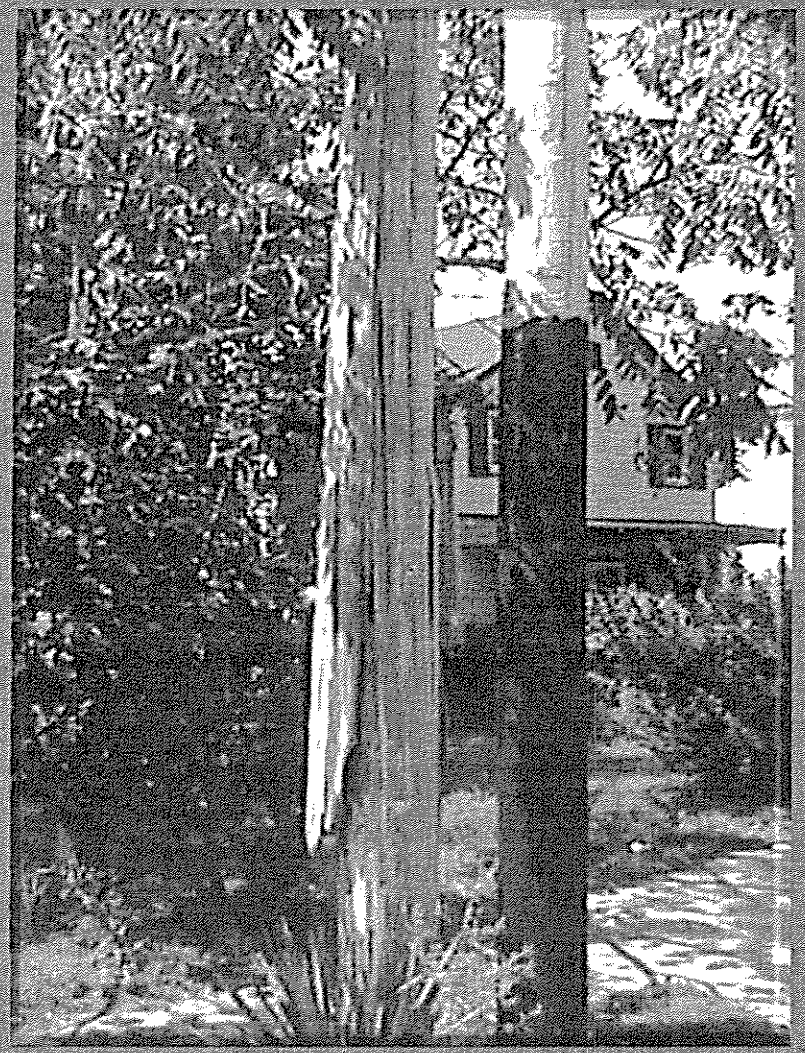


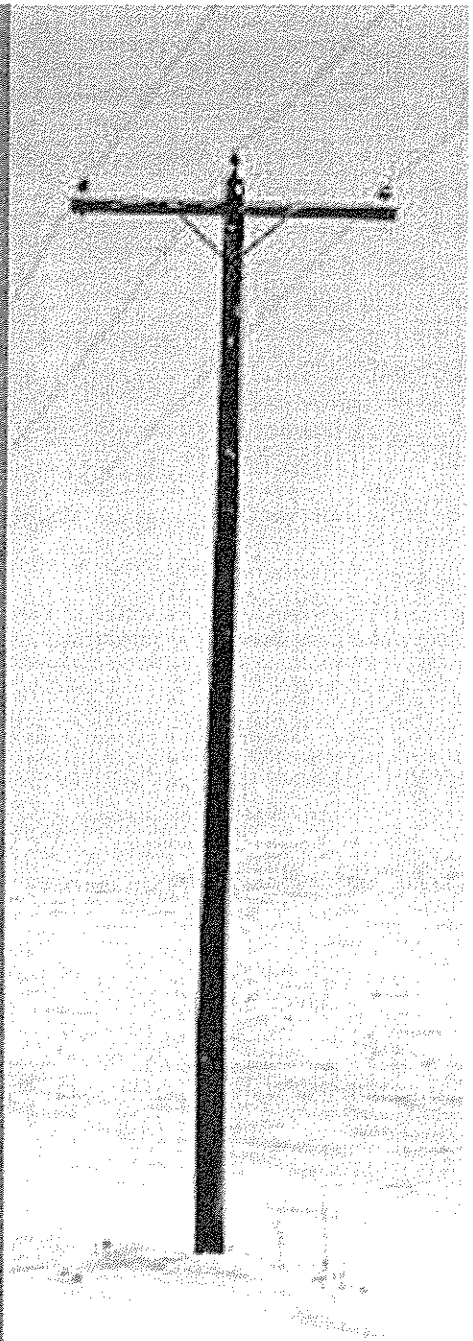
RANDALL AVENUE & WHITTIER STREET

(CONTACT CWA LOCAL 1101)

SUFFOLK COUNTY – DAMAGED

DOUBLE POLE

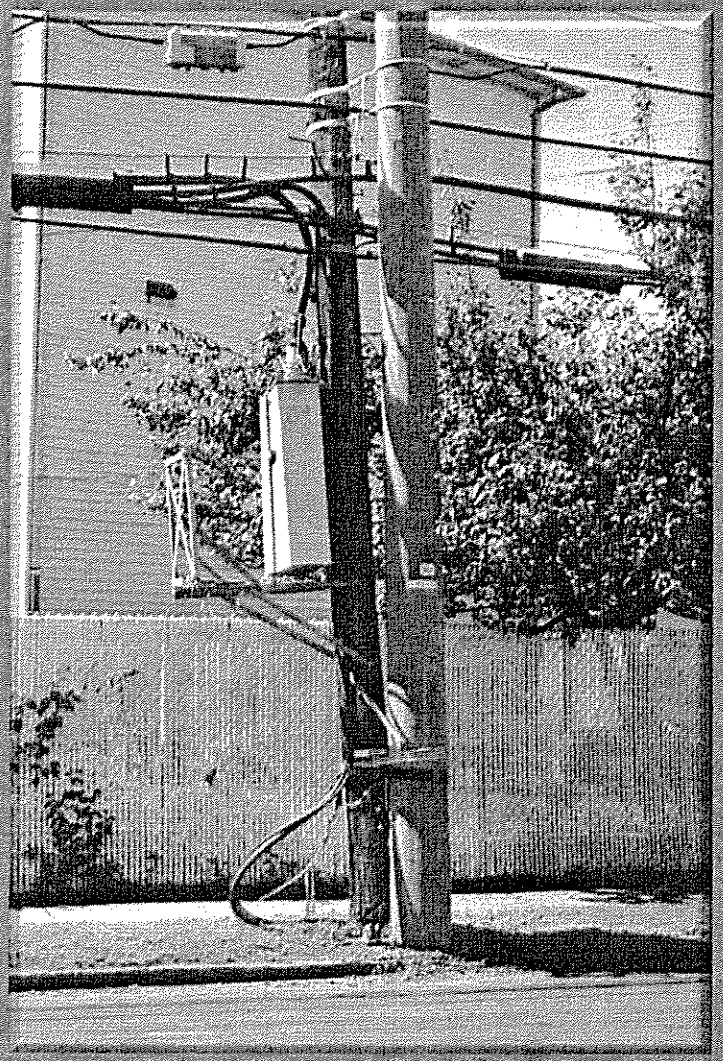


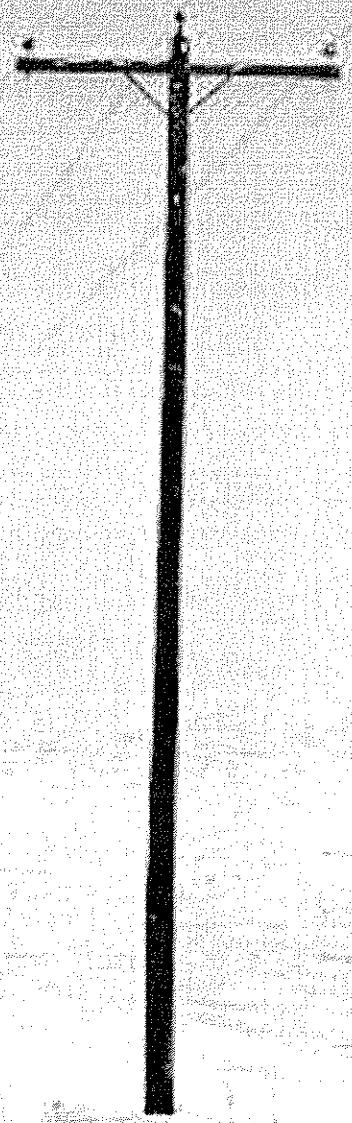


POLE 8 RIVER AVENUE S/O MONTAUK HWY

(CONTACT CWA LOCAL 1108)

Staten Island – double pole, dangling cable, low distribution box

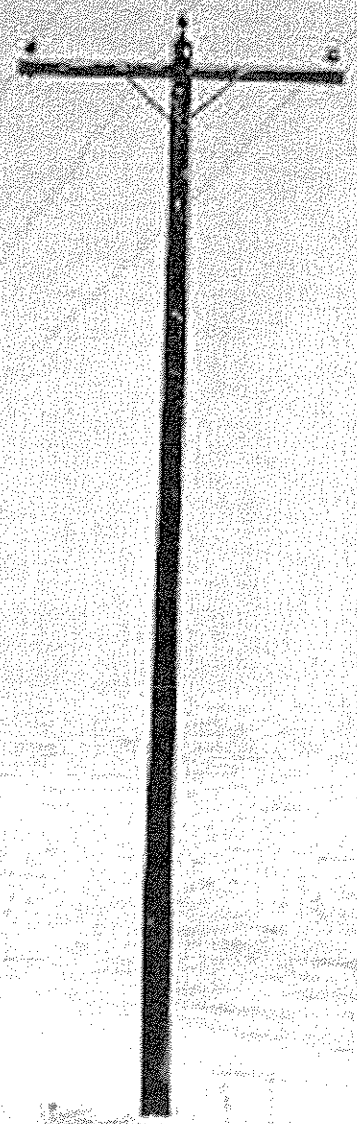




Pole 41444 Richmond Terrace & Grandview Avenue

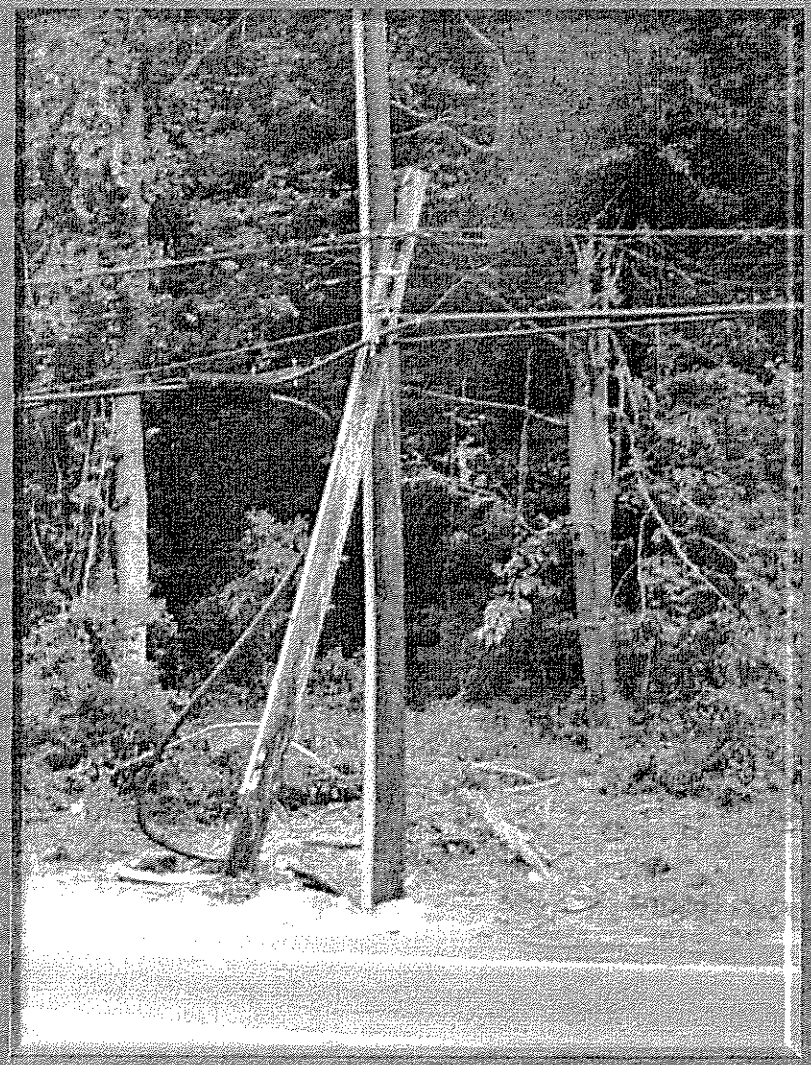
(contact CWA local 1102)

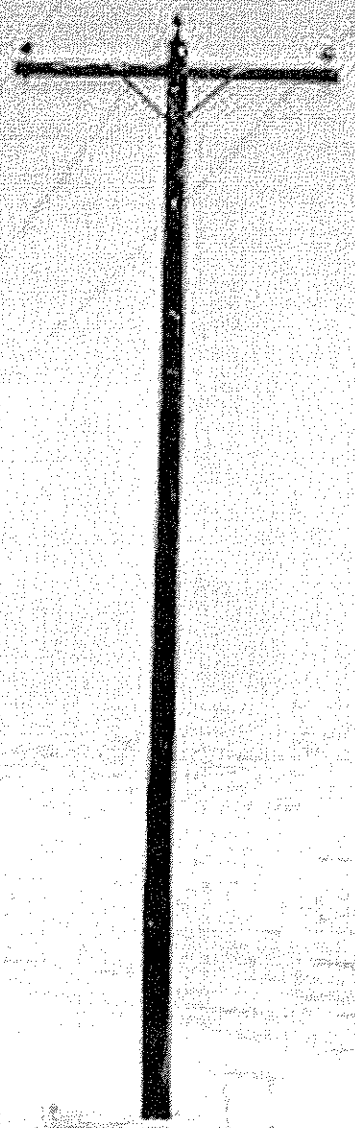
WESTCHESTER – DOUBLE POLE HELD UP BY ROPE



61 COLIGNI AVENUE NEW ROCHELLE
(CONTACT CWA LOCAL 1103)

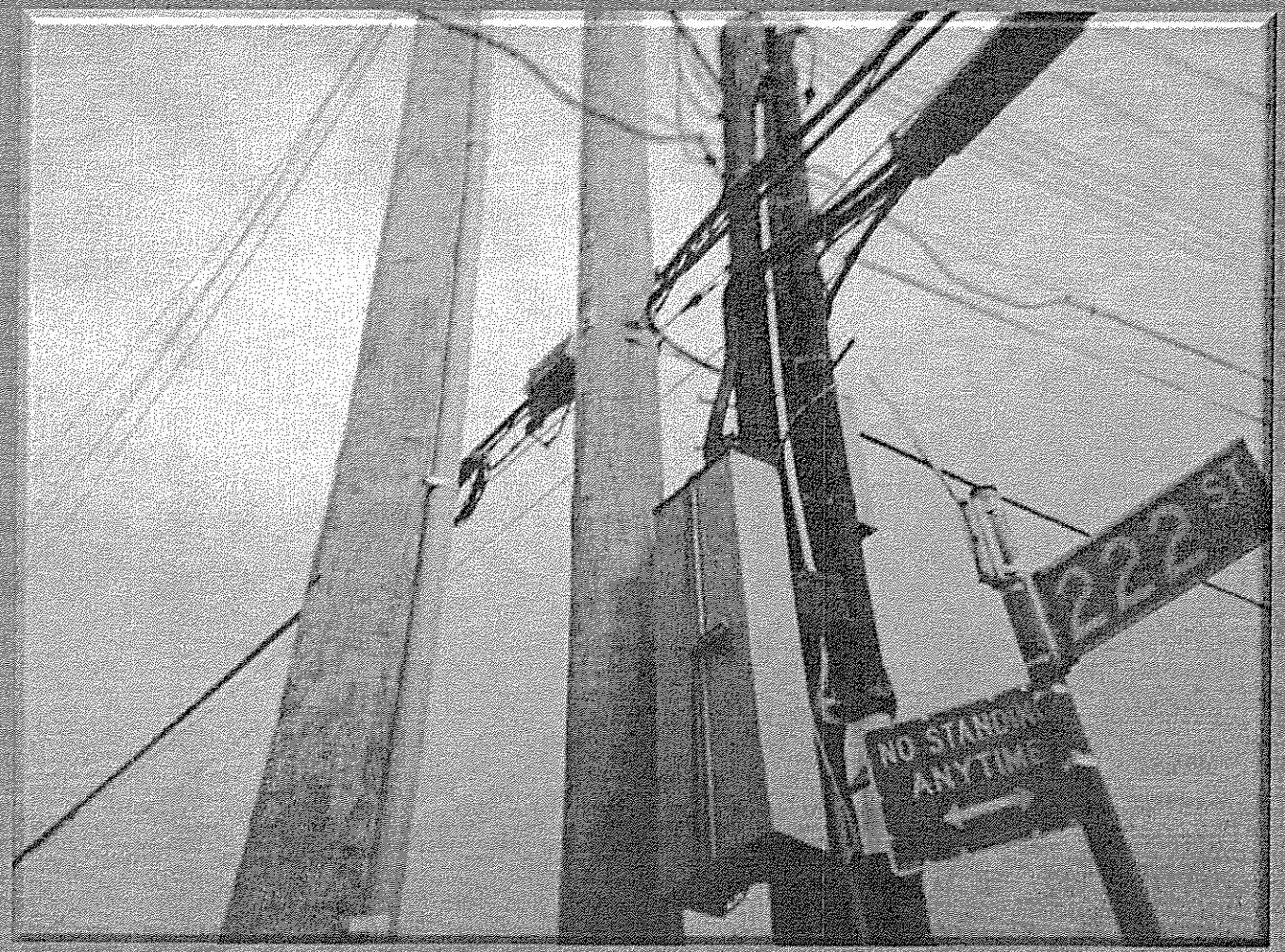
Nassau County – Double Pole with dangling cable

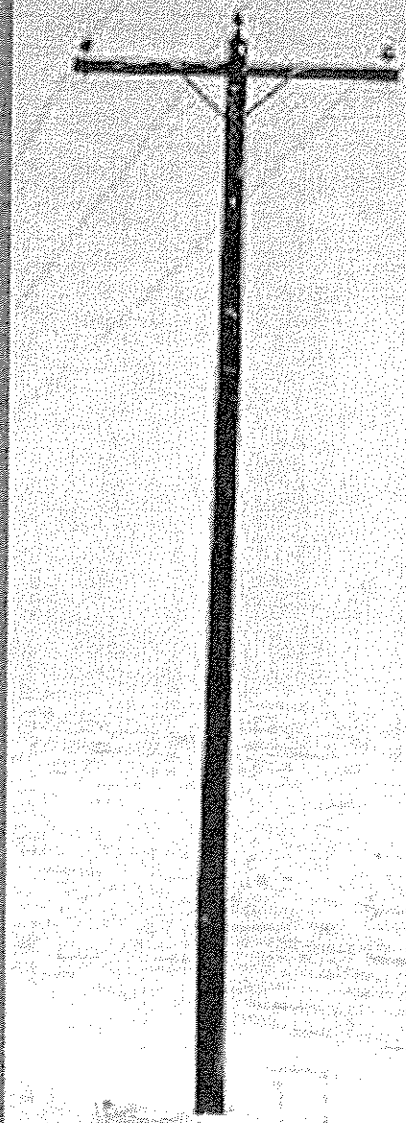




Pole 368 North Hempstead Turnpike Oyster Bay Cove
(contact CWA local 1104)

QUEENS – TRIPLE POLE





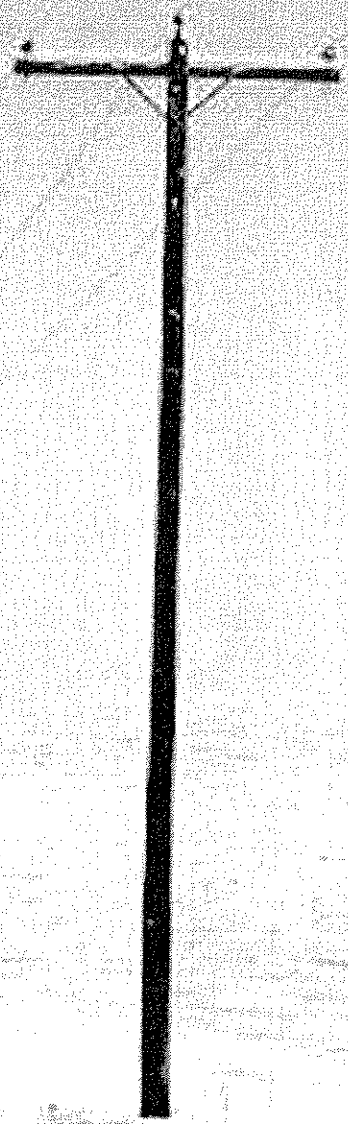
P345 222 STREET QUEENS VILLAGE, NY

(CONTACT CWA LOCAL 1106)

ROCKLAND COUNTY – DOUBLE POLE

PRE-DAMAGE

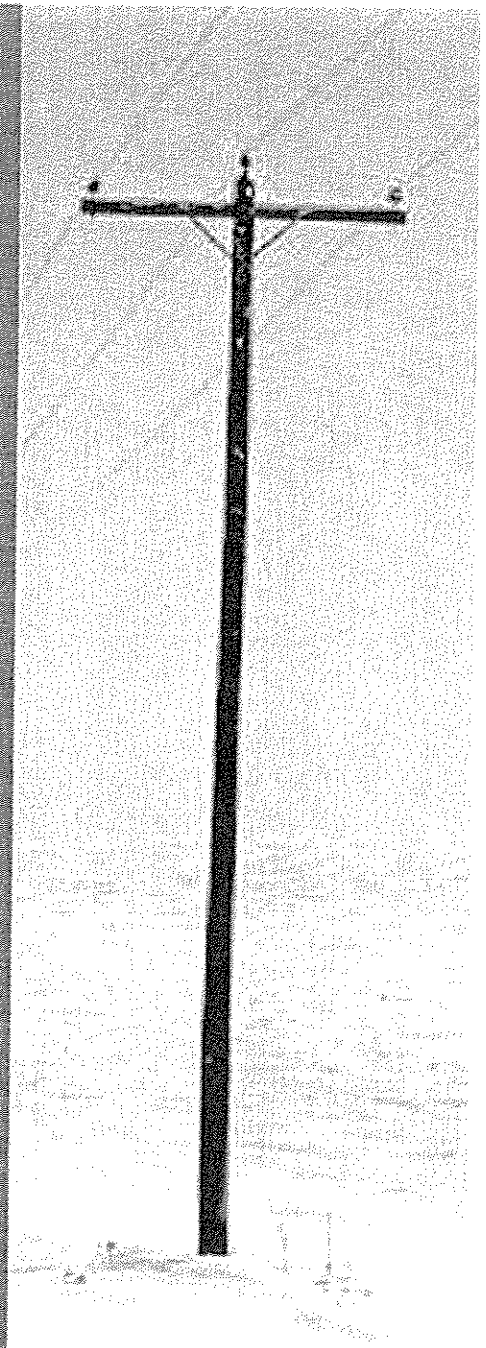
POLE 1 HARMONY ROAD SPRING VALLEY, NY
FROM GOOGLE MAPS (CONTACT CWA LOCAL 1107)



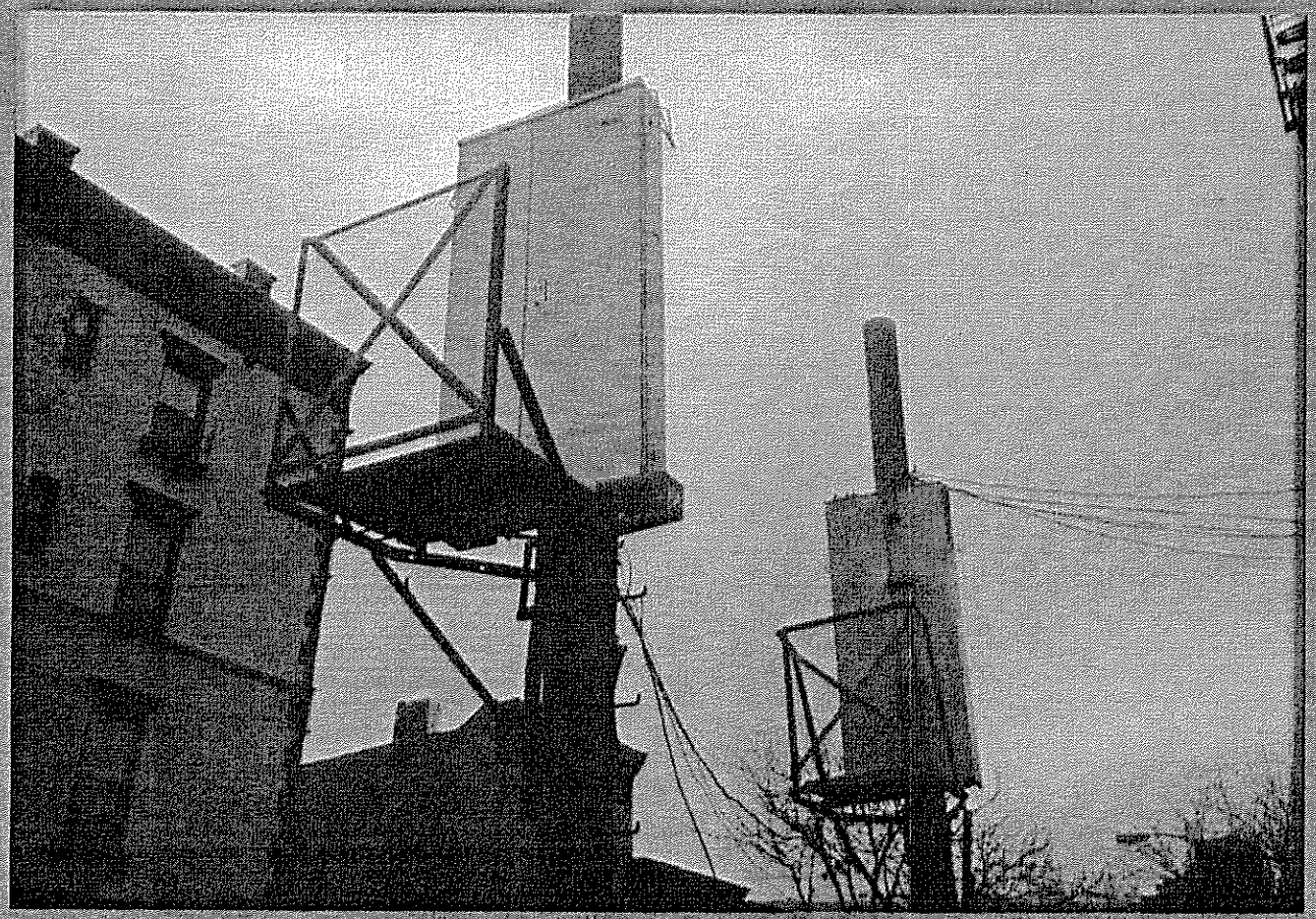
Rockland County – same double pole, up so long its damaged

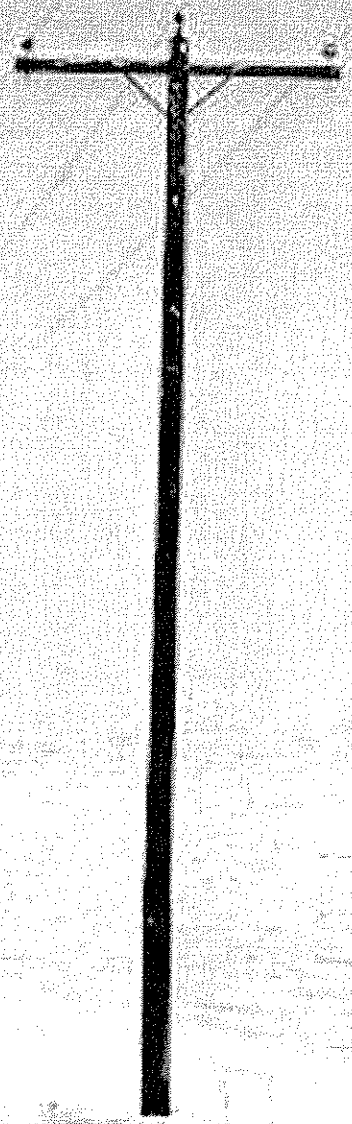
Pole 1 Harmony Road Spring Valley, NY

(contact CWA local 1107)



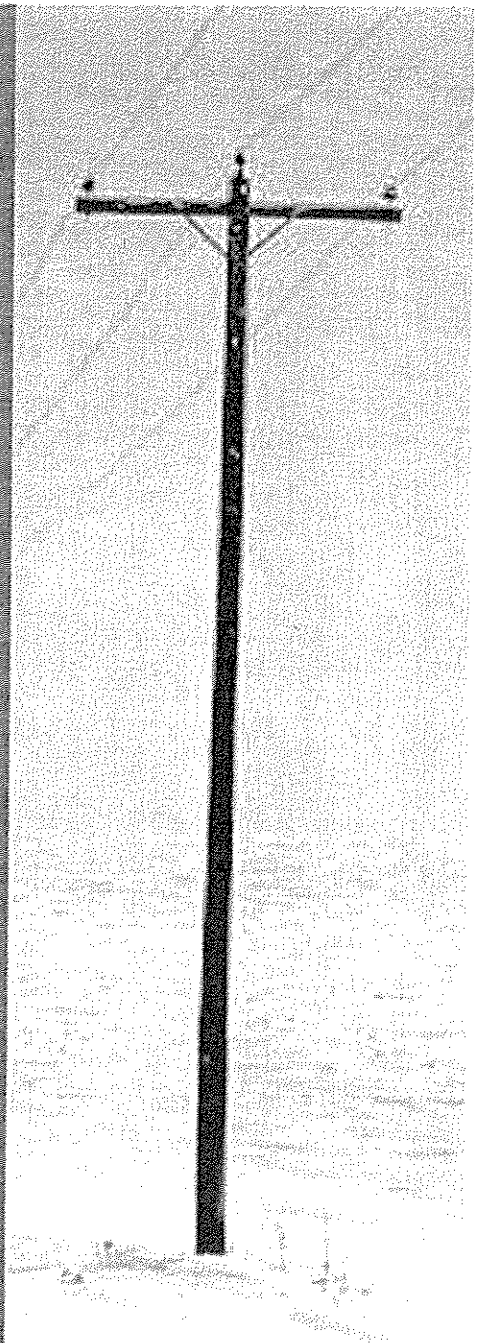
BROOKLYN – DOUBLE POLE AND DOUBLE DISTRIBUTION BOXES





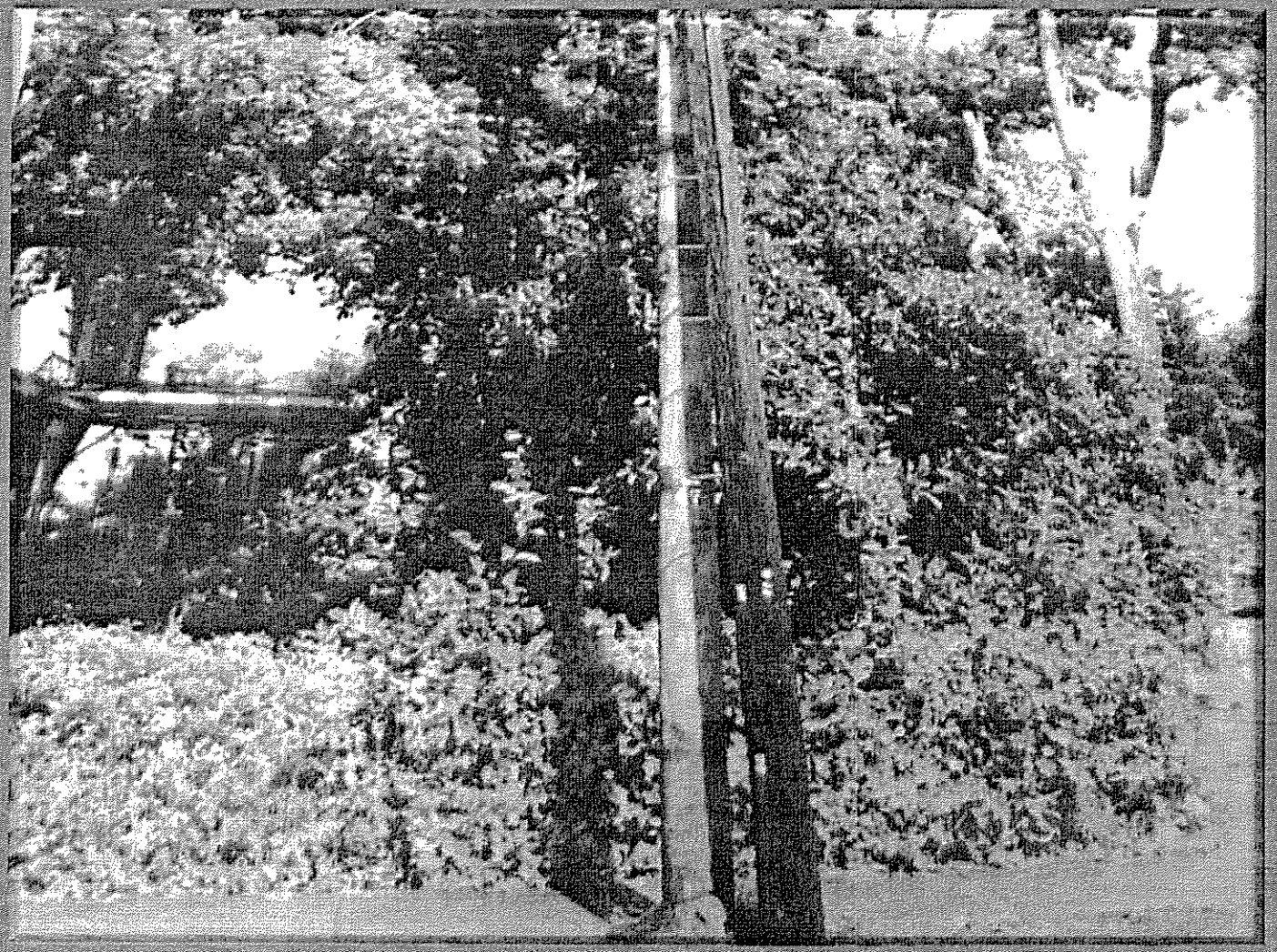
POLE 109 CARROLL STREET
(CONTACT CWA LOCAL 1109)

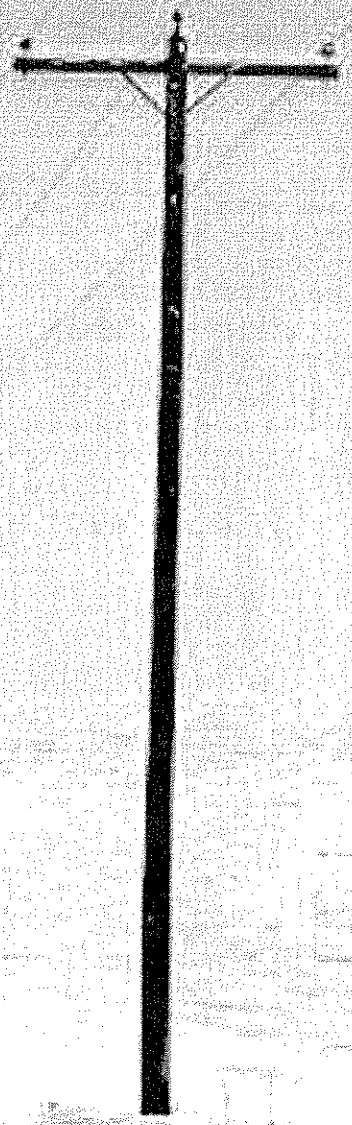
BINGHAMTON – DAMAGED DOUBLE POLE



POLE 2 GAYLORD STREET
(CONTACT CWA LOCAL 1111)

Western New York – double pole

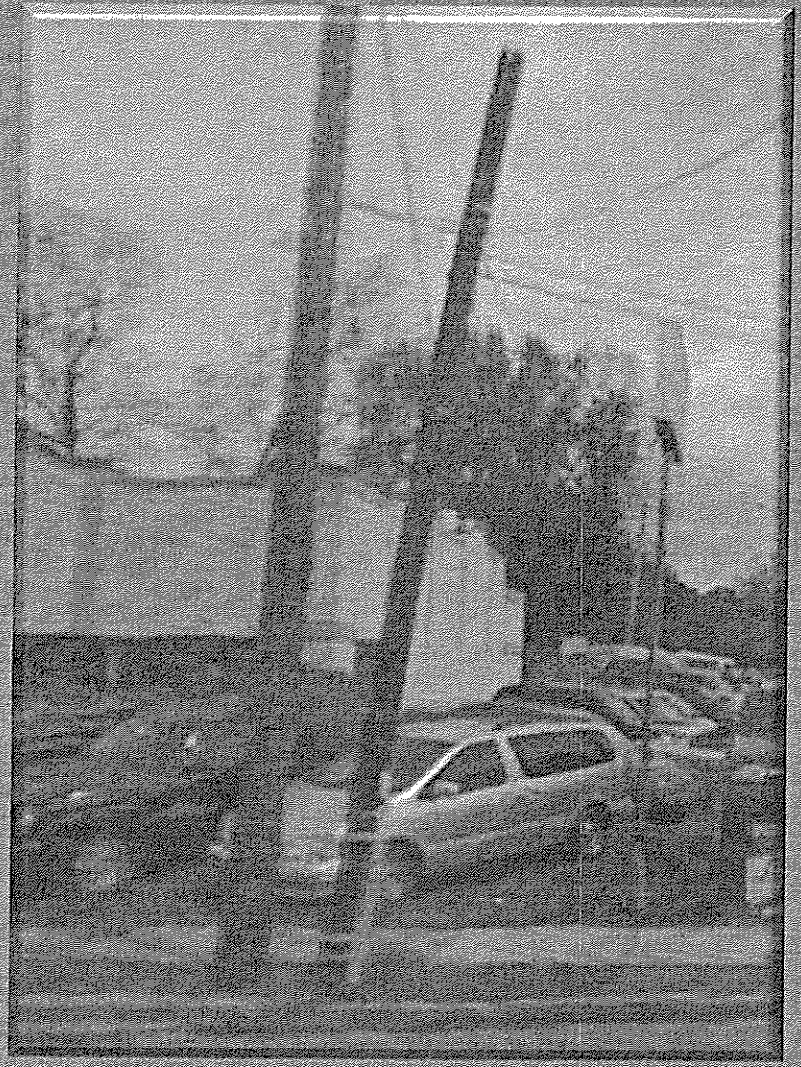




Springville, Pole 47

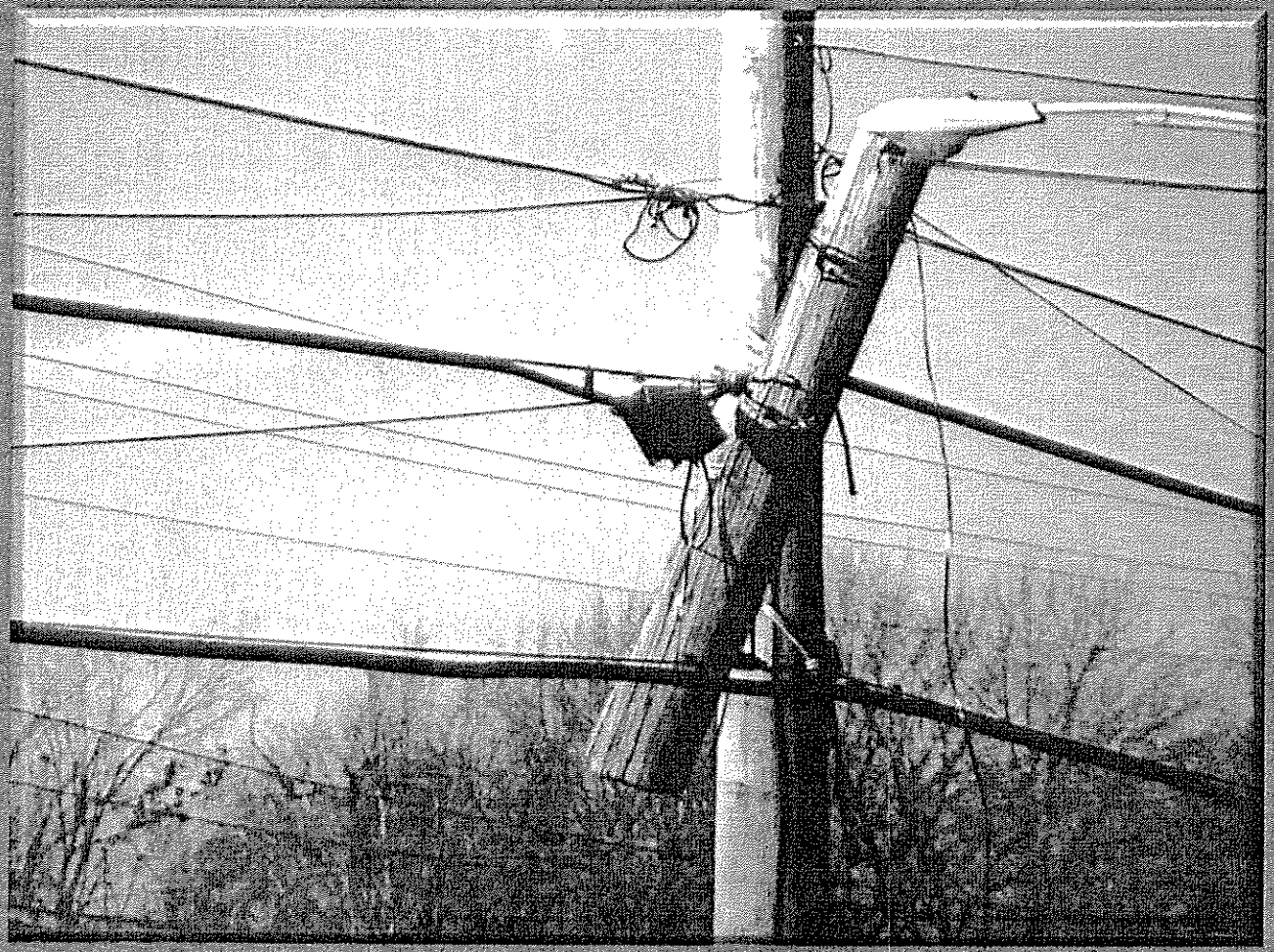
(contact CWA local 1115)

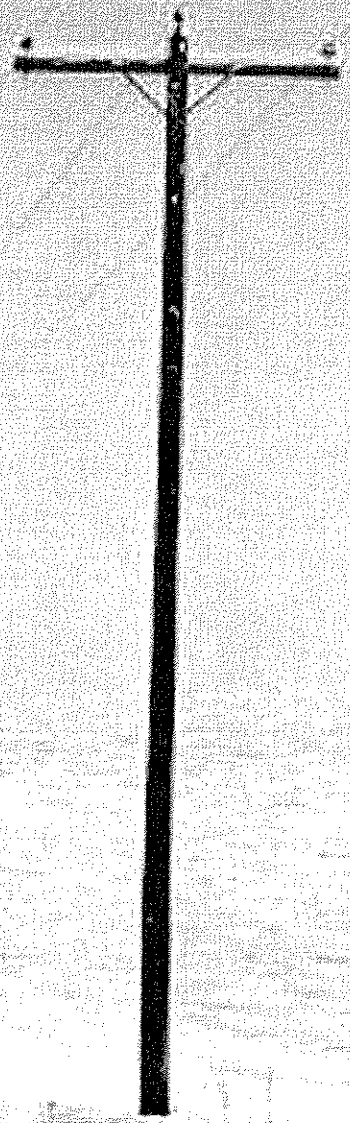
HUDSON VALLEY – LEANING DOUBLE POLE



BROADWAY EAST OF WISNER AVENUE NEWBURGH
(CONTACT CWA LOCAL 1120)

WESTERN NEW YORK – DOUBLE POLE HELD UP BY WIRING

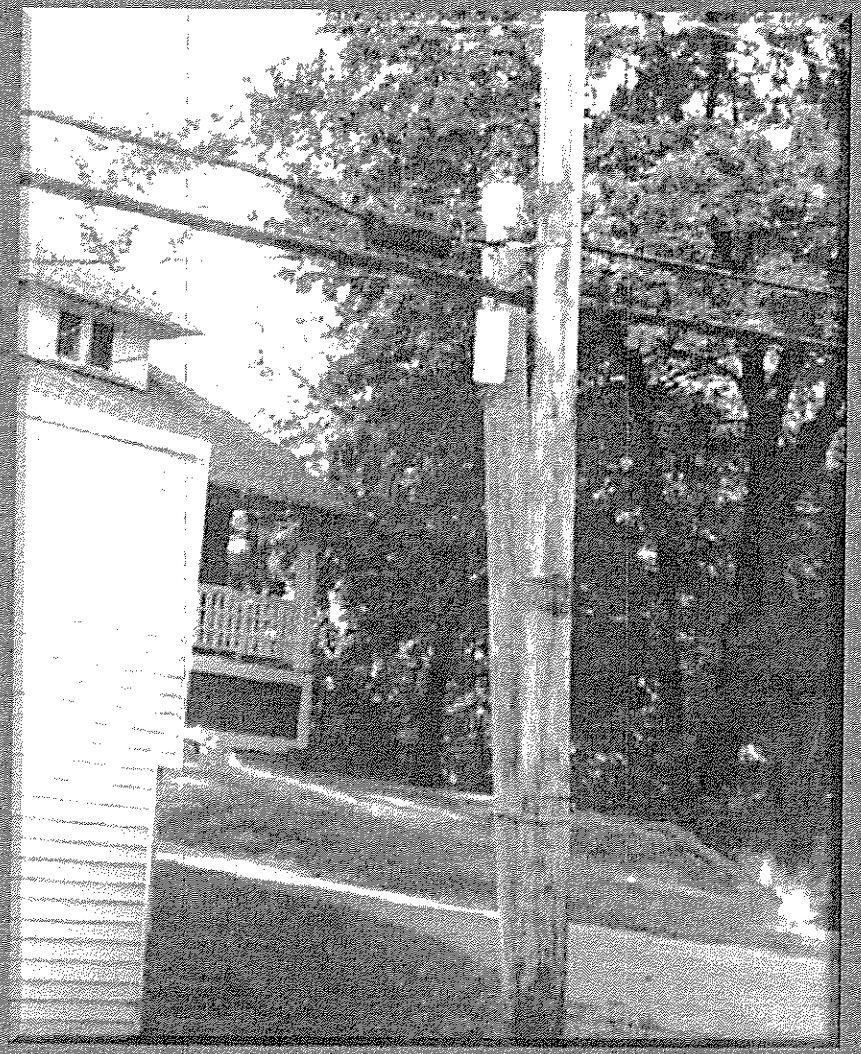


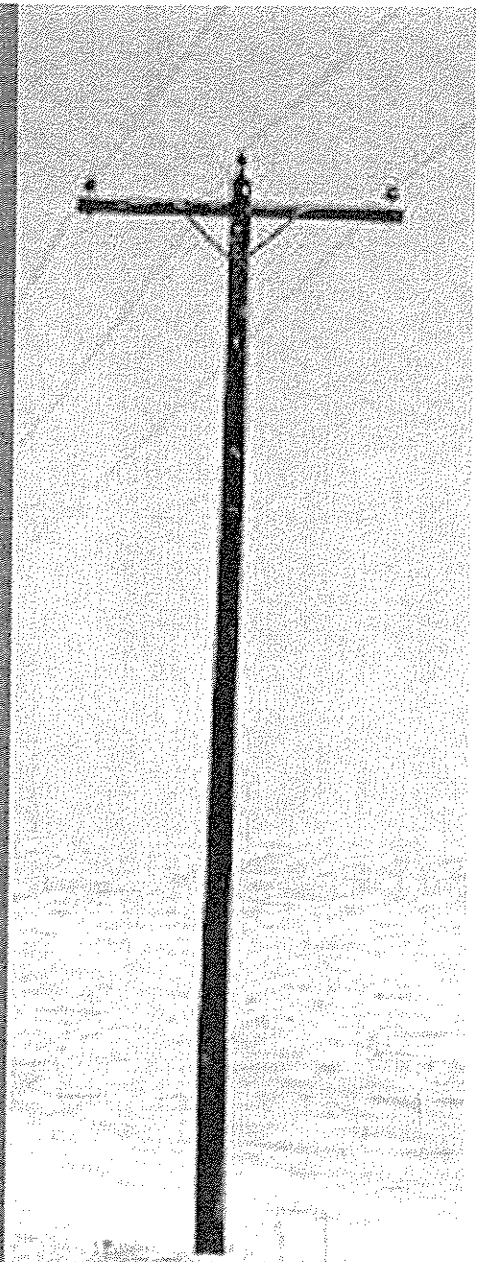


POLE 188 DIVISION STREET TONAWANDA

(CONTACT CWA LOCAL 1122)

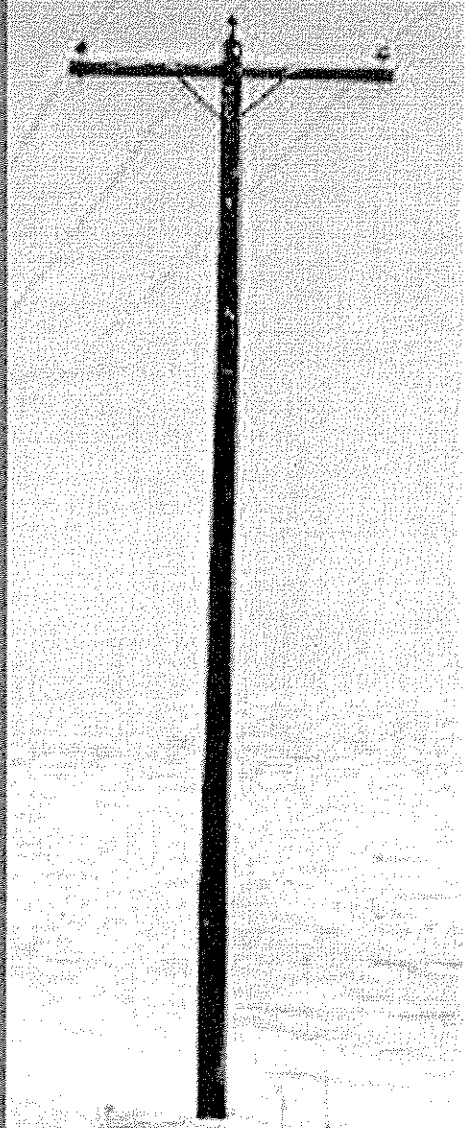
Capital Region– double pole





Milton Avenue, Amsterdam
(contact CWA local 1118)

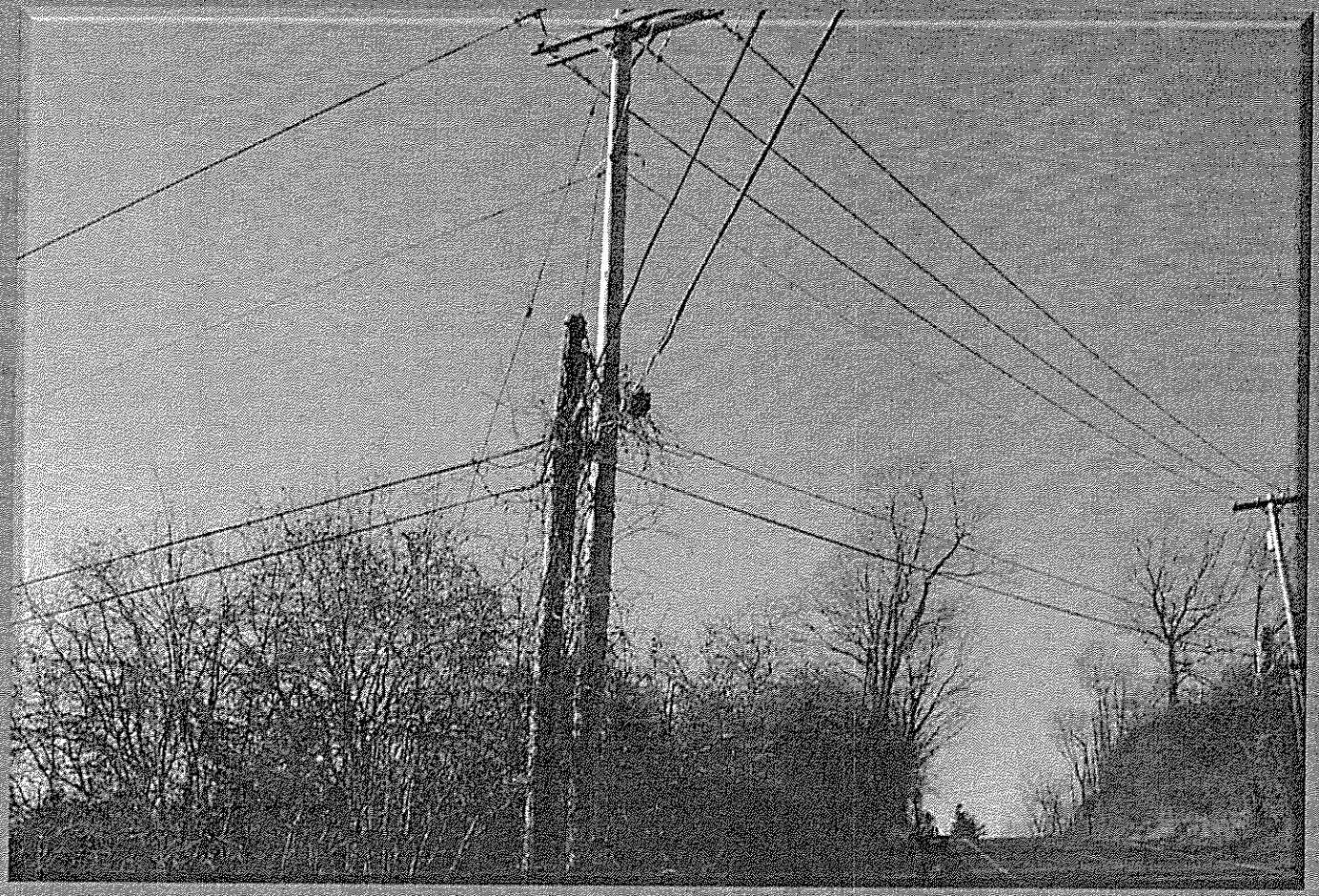
UTICA – LEANING DOUBLE POLE

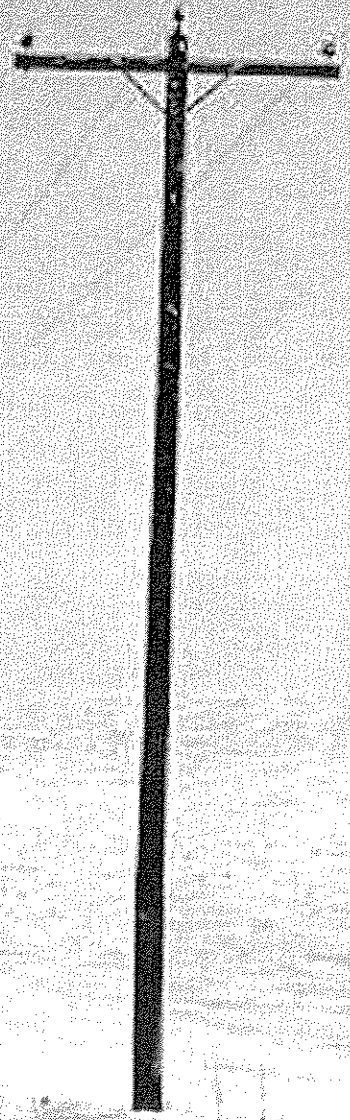


SOUTH STREET & HOWARD STREET, NEW YORK MILLS

(CONTACT CWA LOCAL 1126)

NORTH COUNTRY – DOUBLE POLE SO OLD IT'S GROWING

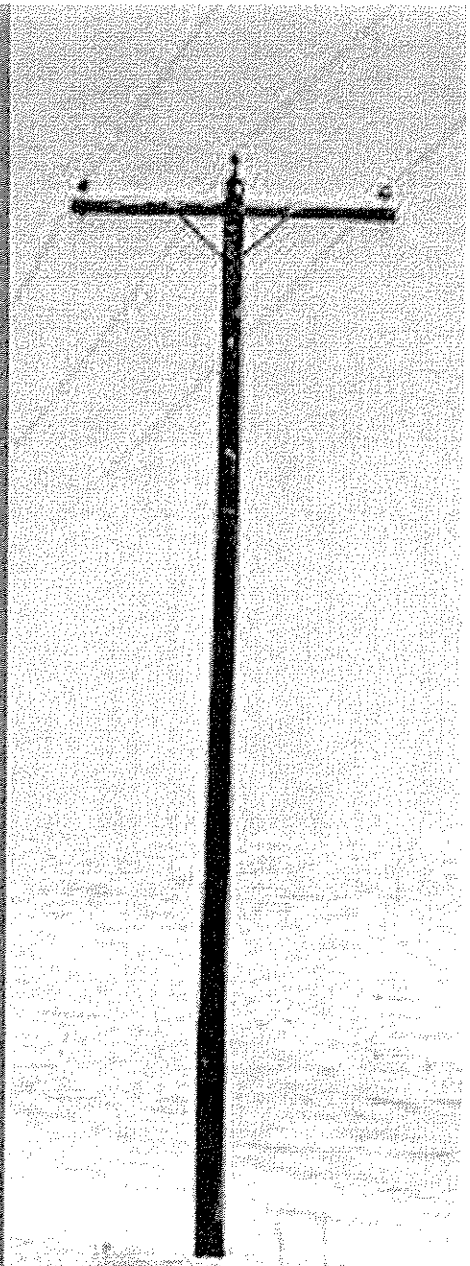




POLE 24 L3082 CITY ROUTE 159 WATERTOWN
(CONTACT CWA LOCAL 1124)

Co-Sponsor & Pass S.7469/A.10577 To Ensure Verizon Removes Double Poles

- New York's workers, businesses and the public are the losers when Verizon fails to remedy double pole conditions
- CWA members need good quality jobs
- Verizon should stop outsourcing union jobs and should fix double pole conditions
- New York State and local municipalities should require Verizon to fix these conditions



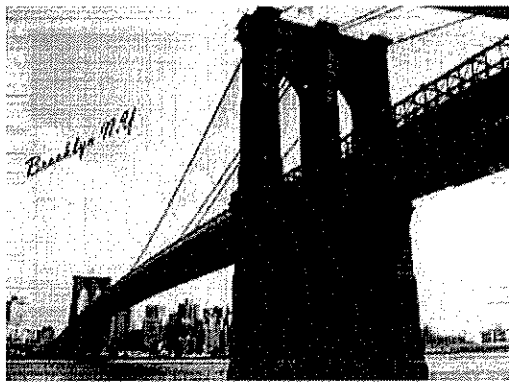
Cablevision:

Leaving Brooklyn Behind

A report by the Communications Workers of America

CEO James Dolan to Brooklyn: Drop Dead.

- In January of 2012, Brooklyn Cablevision employees voted to form a union with the Communications Workers of America.
- Cablevision CEO James Dolan is on record saying his plan to break the union is to "Leave Brooklyn Behind."
- Abandoning Brooklyn is bad for consumers, workers, and business.

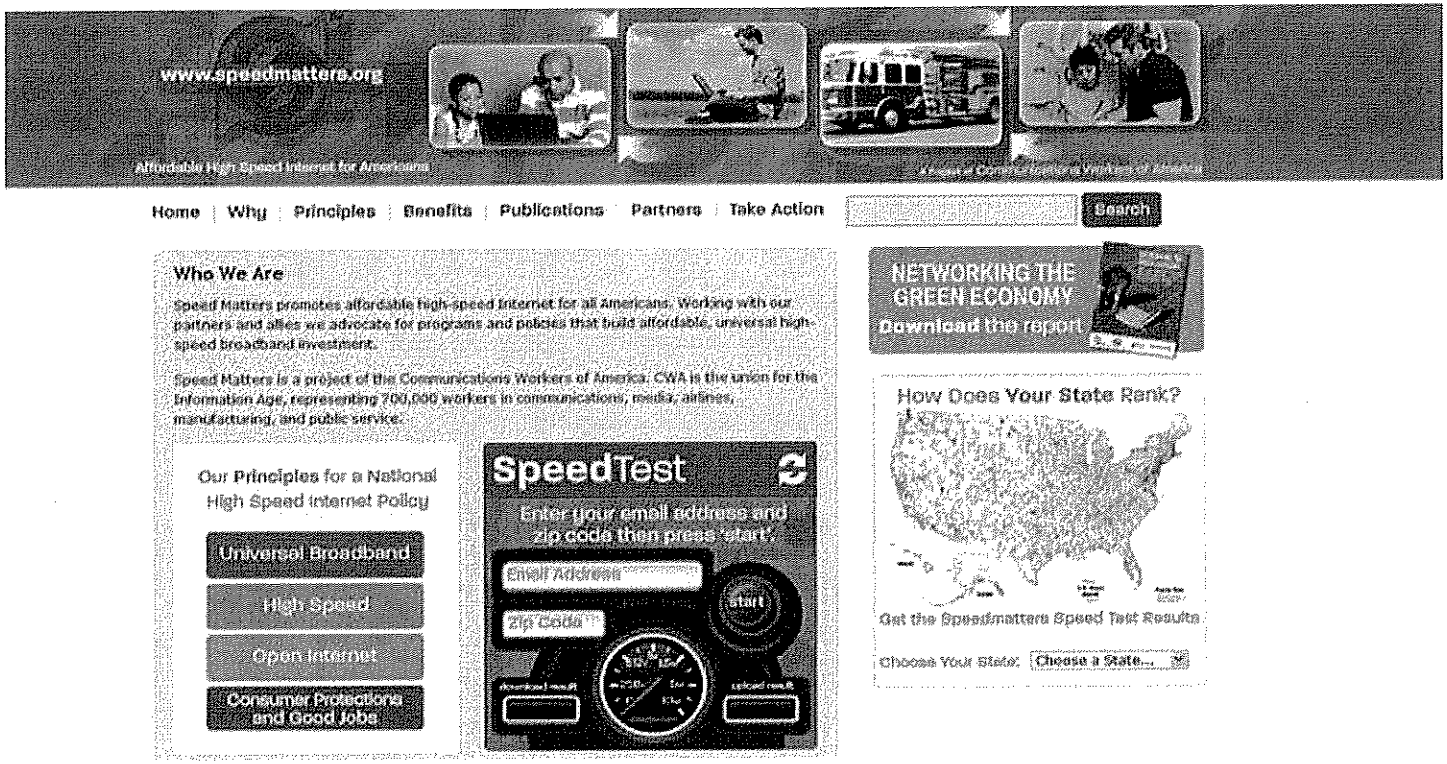


Leaving Brooklyn Behind

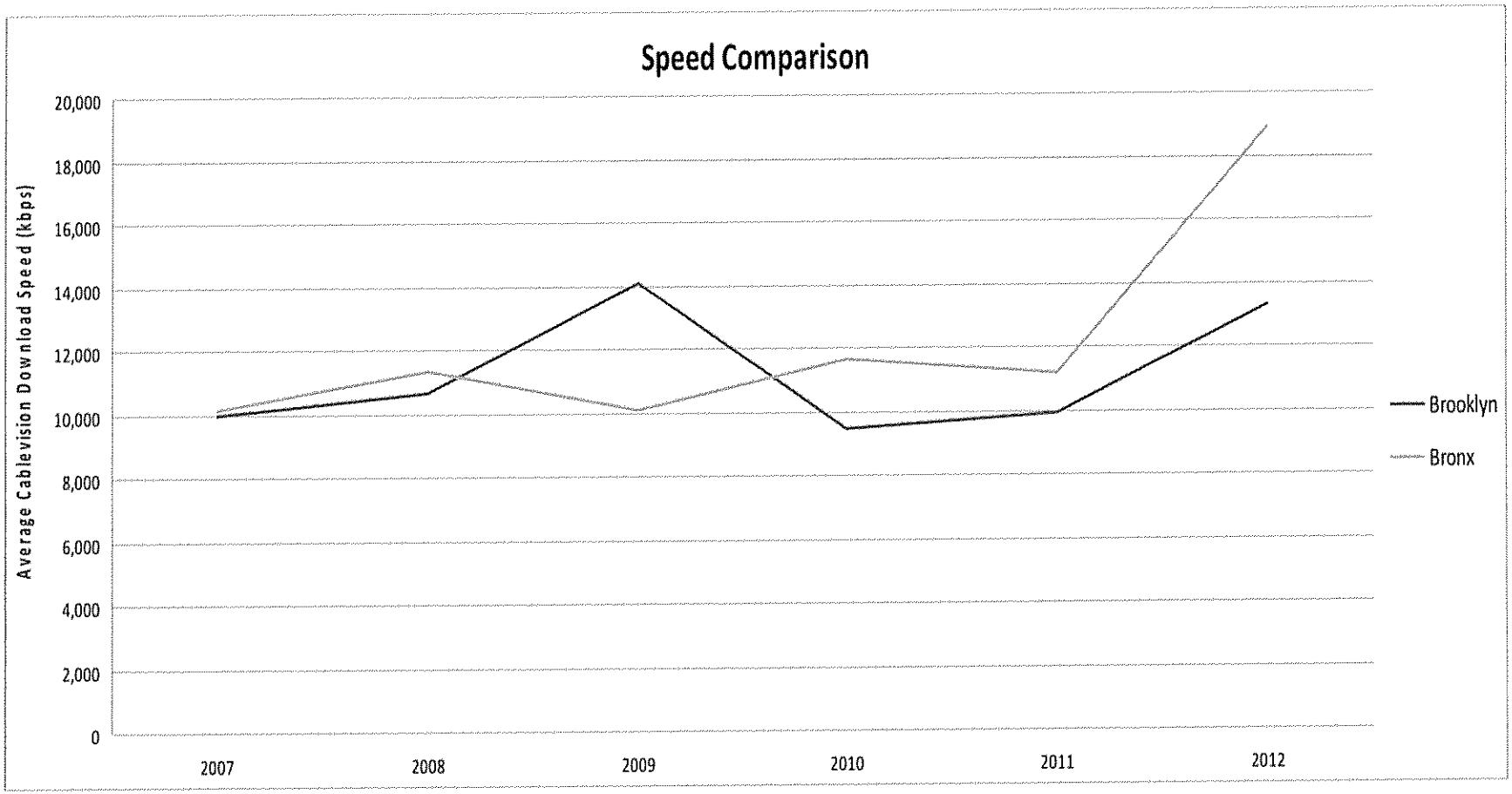
- Slower Speeds
- Faulty Equipment
- Customer Dissatisfaction
- Violating Brooklyn Workers Rights

Speed Test

- CWA has helped customers test their internet speeds for the past 5 years. We have data from thousands of Cablevision customers in the Bronx and Brooklyn.



The Data is Clear:
Cablevision is letting Brooklyn fall behind



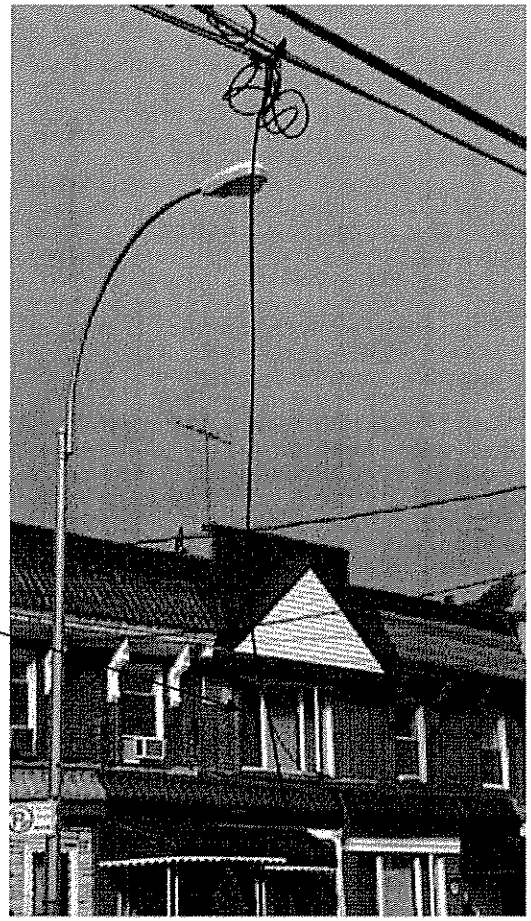
Faulty Equipment

- Low hanging wires
- Old antiquated equipment
- Safety issues
- Risks of stray voltage
- Fire hazards

Ropes are tied from the fire escape to cable and the loops, which could be dangerous to children in the building. Also, the box pictured on the pole is extremely old and rarely used these days.
This antiquated box will lead to slow speeds.

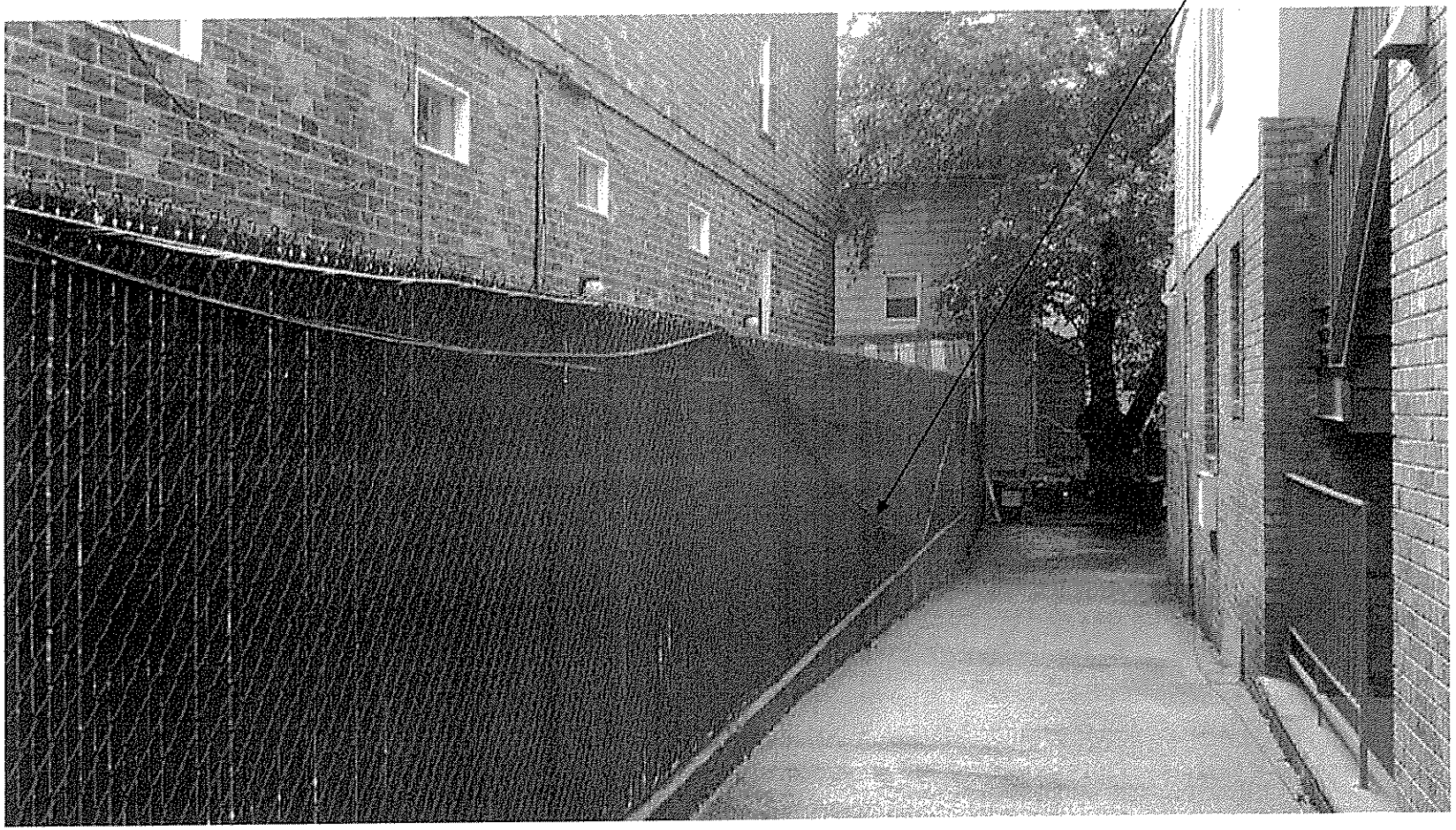
1717 E 8 St. Brooklyn NY

Low hanging wire drops to the street.
This is dangerous and in reach of anyone walking by.



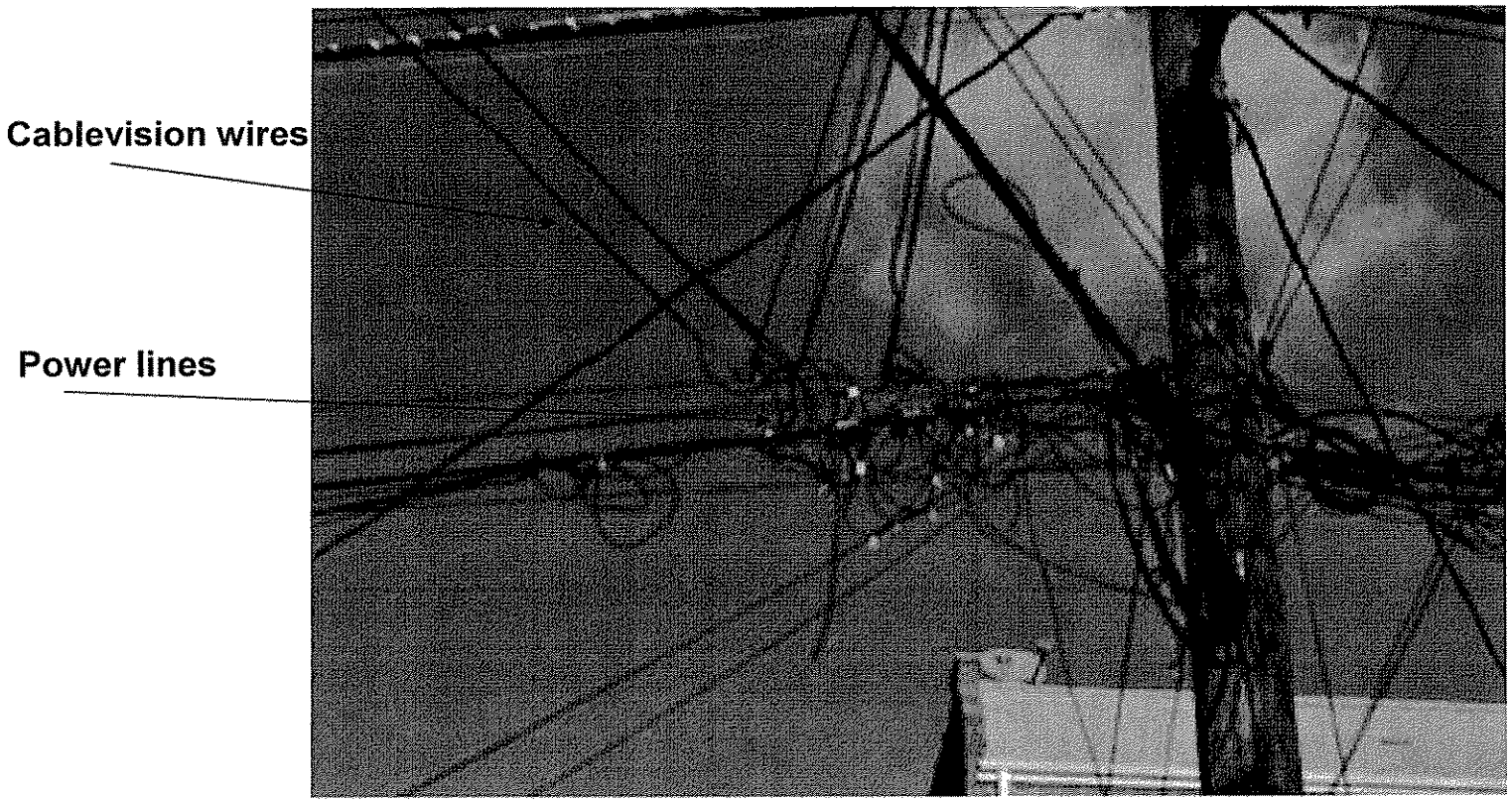
1717 E 8 St., Brooklyn, NY

Cable runs along the fence, which is in itself dangerous. Cable then dips down along the fence into the reach of children.



2022 Jerome Ave. Brooklyn, NY

The wires that bring service into the customer home are leaning against the power lines. Voltage could jump to the cable line and cause serious damage to a customer's home or seriously injure someone.

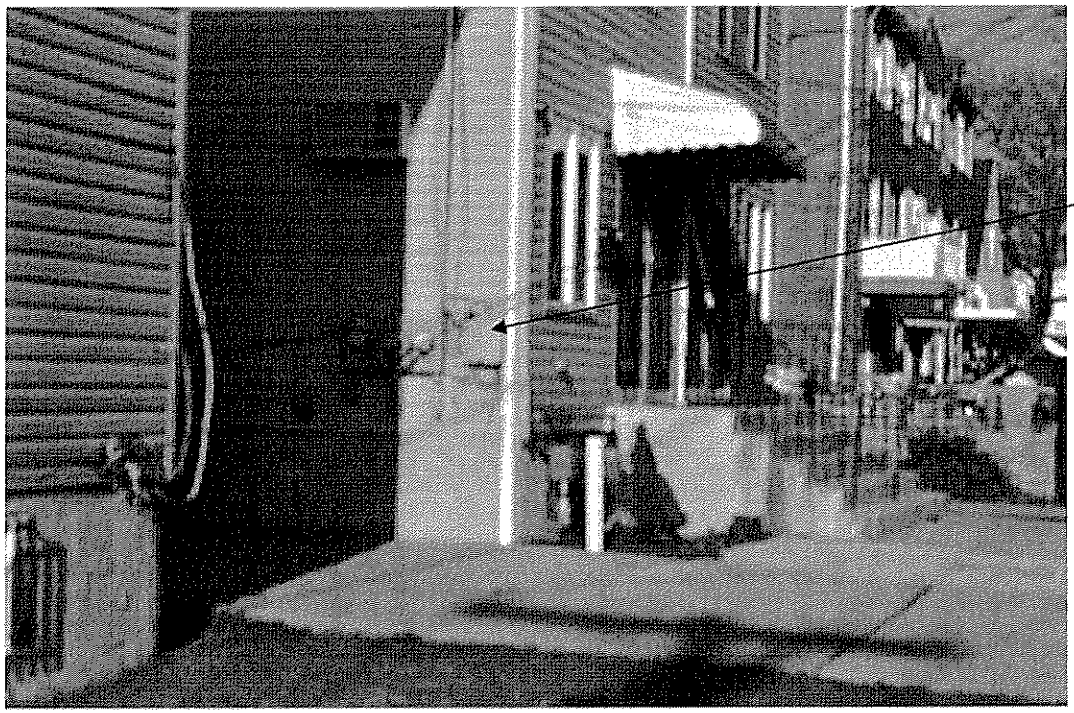


Located at Ave M and East 86th St., Brooklyn, NY

Here is broken hardware that should be connected. In this condition, the entire cable could snap in every direction. The equipment was being held together with duct tape. The worst part is that this is in somebody's backyard, no higher than 6 feet off the ground.

2022 Jerome Ave. Brooklyn, NY

The low hanging wires are going directly on to the house.
Stray voltage could go straight into the home.



Ave M and East 86th St. Brooklyn, NY

These wires are hanging so low they are a threat to public safety. If there was stray voltage someone could be seriously hurt. It is so dangerous we could not walk away without reporting it to the fire department.

Ave M and East 86th St. Brooklyn, NY

Hundreds of Equipment Problems Likely

- These photos were all captured in just a few hours of driving around Brooklyn. We believe they are just a small sample of hundreds of Cablevision equipment problems facing Brooklyn residents.

Customer Dissatisfaction

- CWA randomly surveyed about 700 people in Brooklyn as they exited the subway in their neighborhood over the course of several days.
- Most were dissatisfied with the quality of the services provided.
- And most believed they were paying too much for their services.

Survey: Service and Billing

- Over a third of people said Cablevision has been late to a service appointment. Nearly all of those people were not credited when this occurred.
- Almost a quarter of those surveyed said it took longer than 7 days to install their cable.
- A quarter of people had their services improperly terminated in the last year.
- And a third of those surveyed experienced improper charges on their bill.

➢ All of these are violations of Cablevision's franchise agreement with the city of New York.

Survey: Over All Satisfaction

When asked how they would rate their Cablevision service overall a majority did not rate it positively.

- 23% rated it “poor” or “terrible”
- 38 % rated it merely “fair”
- Only 37% rated it favorably

Survey: Internet Speed

When asked how they would rate their internet speed:

- 27% rated their speed poor
- 34% rated it fair
- Only 38% rated their speed favorably

Survey: Television Quality

- Only half of people surveyed rated their picture quality favorably.
- And only half rated the equipment (set top box) favorably.

Survey: Costs

- 90% of people surveyed pay over $100/month for their Cablevision services
- 88% thought the costs were too high for the services they were receiving.

Daily News Reports Customers Unhappy with Speed

Brooklyn Cablevision customers say internet lags

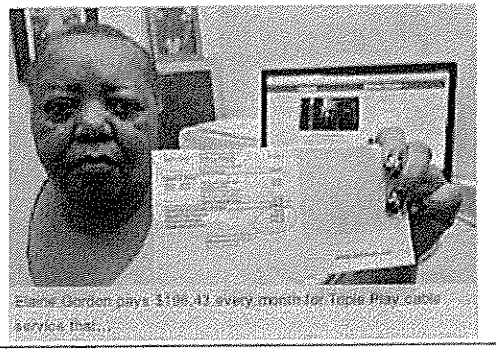
REUVEN BLAU
Monday, October 15, 2012

By REUVEN BLAU

NEW YORK DAILY NEWS

Brooklyn may be the fastest growing borough, but Cablevision customers are getting 25% slower internet service than their counterparts in The Bronx, according to a union report.

Brooklyn-based Cablevision subscribers have approximately 15,000 kilobits per second (kbps) download speed, compared to 20,000 in the Bronx, based on data collected by the Communications Workers of America on speedmatters.org.



Hurricane Relief

- While Verizon and Time Warner automatically waved internet and cable bills for storm victims, Cablevision required customers to call and give notice that they were not in their homes.
- Cablevision argued they made customers aware of this abnormal policy. However when CWA called 50,000 people in storm-ravaged areas, 6,500 of them had been unaware of this policy and pressed one to connect with Cablevision to cancel their service for the month.

Cablevision Took the Low Road on Hurricane Relief

Cablevision: Sandy customers must call to request lost service refunds

DONALD KAPLAN
Tuesday, November 13, 2012

VICTIMS HARDEST hit by Superstorm Sandy will have to take time out of their recovery efforts to find a phone and beg Cablevision for refunds on their cable bills.

The cable giant has refused to join Time Warner Cable, which broke ranks with its competition by automatically providing credits to customers without power, television or Internet service in areas knocked off the grid by the storm.

â€œBy posting credits automatically to customersâ€™ accounts in the hardest hit parts of our service area, we hope these affected residents and businesses will have one less call to make as they recover from the storm,â€ said John Quigley, regional vice president of operations for the Time Warnerâ€™s New York system.

A Lindenhurst, L.I. firefighter surveys the ruins of a home destroyed by...

Violating Workers' Rights

- Last January, 282 Brooklyn Cablevision technicians voted overwhelmingly to form a union.
- They withstood Cablevision's campaign of harassment and intimidation.
- A few weeks after the Brooklyn workers' vote, Cablevision gave pay raises between $2 per hour and $9 an hour to its technicians, except those in Brooklyn

Violating Workers' Rights

- James Dolan told non-Brooklyn technicians that Brooklyn would be left behind for new technology and investment.
- Since January, Cablevision has not offered any significant improvements in Brooklyn workers wages, benefits or working conditions.
- Cablevision has continued its harassment and intimidation campaign directed at Brooklyn workers.
- Cablevision's contractors also violate their workers' rights.
- CWA has filed numerous Unfair Labor Practice (ULP) charges with the National Labor Relations Board (NLRB).

Daily News Column on Cablevision's Anti-Worker Tactics

www.nydailynews.com/new-york/guest-gertrude-villegas-article-1.1181262#ixzz29NQyphTS

Cablevision's bargaining tactics aim to bust worker support for union

Be Our Guest columnist Gertrude Villegas charges management intimidating fellow workers seeking better pay, conditions

Comments (5)

BY GERTRUDE VILLEGAS / NEW YORK DAILY NEWS

PUBLISHED: MONDAY, OCTOBER 15, 2012, 4:00 AM
UPDATED: MONDAY, OCTOBER 15, 2012, 4:00 AM

conEdison

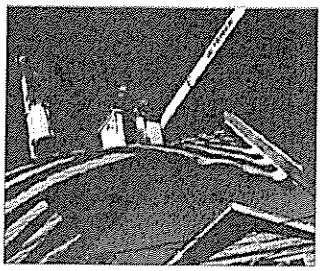
Con Edison's Preparation and Response to Superstorm Sandy

Presented by John Miksad
Senior Vice President Electric Operations

January 18, 2013

Overview

- Infrastructure Investments
- Storm Preparations
- Sandy's Scope and Intensity
- Sandy's Impact
- Restoration
- Going Forward



Infrastructure Investments

Infrastructure Investments

Flood Prevention

- Since 1992 nor'easter
  - Raised critical equipment to enhance flood protection
  - Upgraded pumps and flood gates
  - Installed protective moats
- Since Hurricane Katrina
  - New transformers and network protectors in flood zones must be submersible or installed above flood level

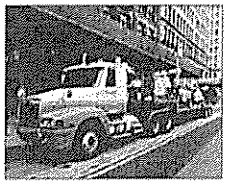
Infrastructure Investments

- Limiting Damage to Overhead System
  - Aggressive tree trimming to reduce storm damage to power lines
  - Monthly aerial inspections and semi-annual ground patrol inspection of transmission line rights-of-way
- Additional Investments
  - Control centers can remotely monitor power flow, feeder status, and switches
  - Operators can remotely operate breakers and switches to manage the grid and improve restoration lines

Storm Preparations

Storm Preparations: Guided by Corporate Coastal Storm Plan

- Plan triggered Oct. 24 based on National Weather Service forecasts
- Reviewed:
  - 24/7 staffing plans
  - Inventories
  - Protection plans for equipment in flood zones
  - Need for outside assistance



Storm Preparations

- Deployed thousands of personnel to work 24/7
- Communicated safety information through press releases, Web updates, and an e-mail blast to 1.3 million customers
- Contacted customers who use life-sustaining equipment, and critical-care facilities to warn of possible service outages and offer guidance on what to do in the event of an emergency
- Established Corporate Emergency Response Center (CERC)
  - Enables high-level communication between Con Edison departments and governmental agencies

Storm Preparations: System Safety

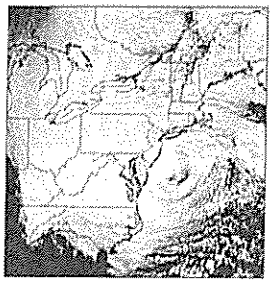
- Steam System
  - Preemptively isolated steam mains and shut down East River generating plant, in flood zone, to prevent damage
  - Preemptively isolated 200 steam services
- Electric System
  - Took out of service three electric networks in low-lying areas for public safety, to protect equipment and enable quicker restoration
  - Preemptively isolated feeders in 12 other networks
- Gas System
  - Secured gas supply, prepared liquefied natural gas (LNG) facility, and shut down four gas regulator stations

Storm Preparations: Workforce

- Request for mutual aid crews began Oct. 25
- Between Oct. 28 and 30, we doubled the number of crews requested
- More than 5,700 mutual-aid workers and contractors from as far as California and Canada arrived to help

Sandy's Scope and Intensity

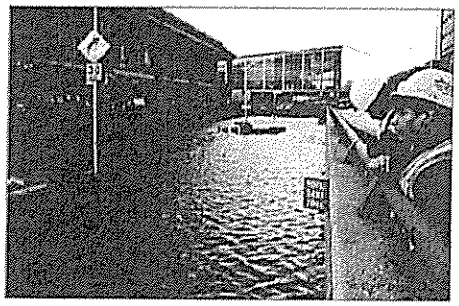
An Unprecedented Event



- Largest Atlantic storm on record, spanning more than 800 miles
- More than 8.5 million power outages across 21 states
- Sustained winds reached 64 mph at LaGuardia Airport with peak gust of 90 mph on Staten Island
- Storm tide recorded at the Battery – 14.06'

13

Storm Surge: Exceeded Expectations and Set Record



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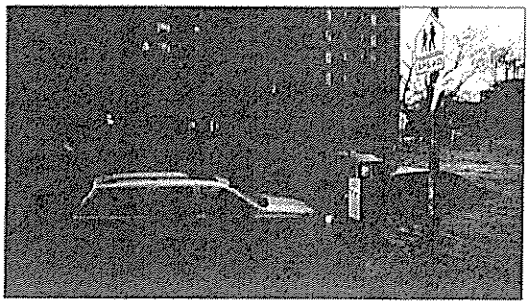
Sandy's Impact

15

Sandy's Impact

16

Sandy's Impact



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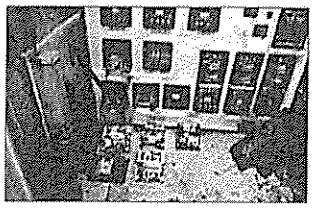
Sandy's Impact: 13th Street Event

- Water overcame 12.5' flood barriers
- Flooding of critical electrical equipment caused shutdown of East 13th Street and majority of Manhattan customer outages
- Preemptive shutdown of 13th Street substation would not sped restoration



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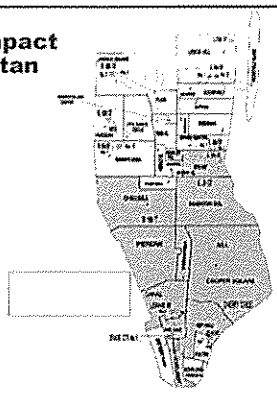
Sandy's Impact on Manhattan Networks



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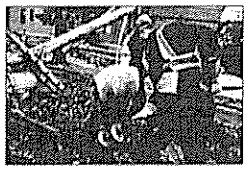
Sandy's Impact: Significant Damage to Overhead System



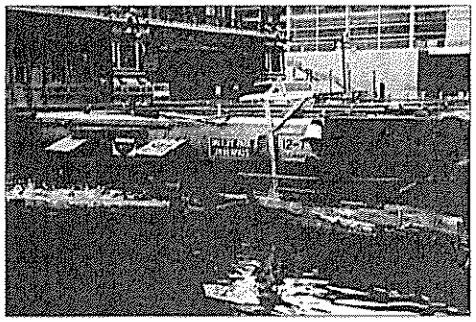
- 70 percent of customers served by overhead systems lost power
- Primary concern of safety issues
- Worked with city to clear roads of trees and debris

20

Restoration

21

Restoration Amid Devastation



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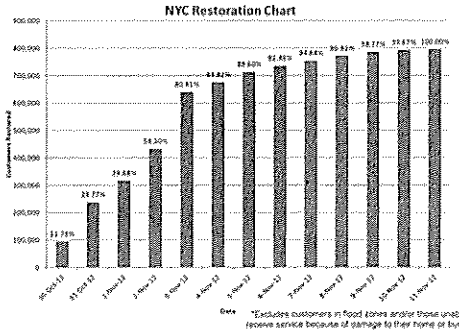
Con Edison's Daily Power Restoration Count

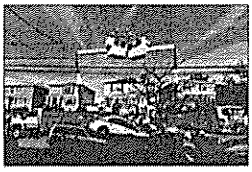


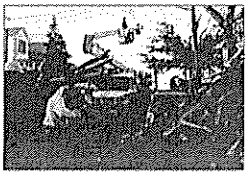
*Excludes customers in flood zones and/or those unable to receive service because of damage to their home or business

23

Restoration Strategy

- Coordinated with FEMA, city, state, and local agencies
- Focused on public safety
- Prioritized restoration
- Distributed dry and wet ice
- Set up command buses and outreach sites





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Restoration

25

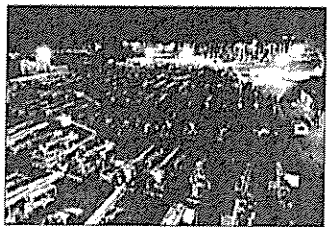
Restoration: Hardest-Hit Areas

- Damage to customer equipment
- Certification process
- Continuous process

26

Restoration: Mutual Aid

- Established five base camps
- Managed logistics
  - Provided housing and meals
  - Acquired materials needed, including fuel
  - Supported restoration efforts in flood zones



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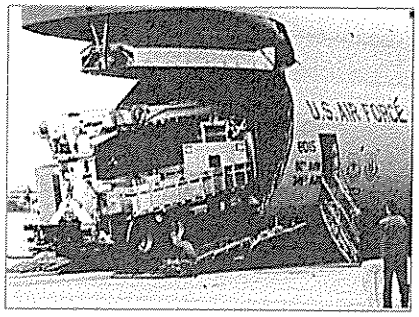
Restoration: Military Assistance



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November 7 Nor'easter

29

Restoration: Totals for Sandy & Nor'easter

781,000 electric outages in New York City

- 234,000 Manhattan outages
- 178,000 Staten Island outages
- 162,000 Brooklyn outages
- 131,000 Queens outages
- 76,000 Bronx outages

30

Restoration: Communications

- Outreach to customers, elected officials, city agencies, municipalities, regulators and media
- Call centers handled more than 1.2 million calls
- Company called nearly 1.4 million customers

Restoration: Social Media

- Pre-Sandy: 6,500 Twitter followers
- After Sandy: More than 23,000 Twitter followers
- Press releases retweeted more than 2,500 times
- 25 videos about preparation and response that were viewed more than 100,000 times
- About 140,000 views on Flickr of restoration efforts

Going Forward

Going Forward:

- Protecting Electric Substations and Steam Generating Facilities
  - Raise critical equipment
  - Protect pumping plants
  - Install watertight doors, flood barriers, and flood pumps
- Benchmarking with other utilities and manufacturers

Going Forward:

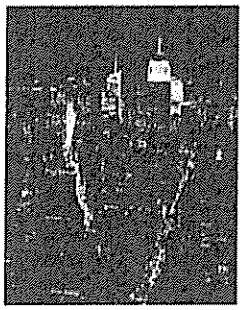
- Protecting Electric Distribution Equipment
  - Reconfigure networks in flood zones
  - Assist customers in relocating their critical equipment
  - Work with manufacturers on developing submersible equipment
- Isolate flood prone equipment to minimize impact to customers

Going Forward:

- Harden circuits that feed critical load
- Revisit possibility of burying overhead wires
  - Cost to Customer: installation and maintenance
  - 60% longer to repair underground equipment
- Develop new overhead designs
- Add overhead switches to help isolate damaged equipment

Going Forward: Fortifying Our Future

- Review all options
- Collaborate with key stakeholders
- Continue system hardening
- Continue to improve restoration process
- Continue to improve communications with stakeholders
- Review technology solutions



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THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Catherine Hughes

Address: _____

I represent: CB 1

Address: _____

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THE CITY OF NEW YORK

Appearance Card

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☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: PETE SIKORA - CWA DISTRICT 1

Address: 80 PINE ST 37TH FL. NEW YORK 10005

I represent: CWA DISTRICT 1

Address: _____

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THE CITY OF NEW YORK

Appearance Card

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☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Catherine McVay Hughes

Address: 49-51 Chambers Street Suite 715

I represent: Community Board # 1 (Chair)

Address: _____

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THE CITY OF NEW YORK

Appearance Card

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☐ in favor ☐ in opposition

Date: _____

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Name: Bob Rowe

Address: Hicksville NY

I represent: National Grid Electric Services - LIPA

Address: Hicksville, NY

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Appearance Card

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☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Ken Daly

Address: Metrotech Center, Brooklyn

I represent: National Grid

Address: Metrotech Center, Brooklyn

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THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Brian McMorrow

Address: ~~[redacted]~~ Metrotech Brooklyn

I represent: National Grid

Address: Metrotech Brooklyn

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Date: 1/18/2013

(PLEASE PRINT)

Name: Jonathan Gaska DM

Address: _____

I represent: Community Board 14 Queens

Address: 1931

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THE CITY OF NEW YORK

Appearance Card

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☐ in favor ☐ in opposition

Date: 1-18-13

(PLEASE PRINT)

Name: JAMES SIEVID

Address: 5 WEST 37 ST NY 10018

I represent: UWUA Local 1-2

Address: 5 WEST 37 ST NY 10018

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THE CITY OF NEW YORK

Appearance Card

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☐ in favor ☐ in opposition

Date: 1/18/13

(PLEASE PRINT)

Name: James Shillitto

Address: 5 W 37 ST

I represent: U.W.U.A Local 1-2

Address: 5 W 37 St

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THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: 1/18/13

(PLEASE PRINT)

Name: Robert Stahl

Address: 21-47 75ST

I represent: local 1-2 UWUA

Address: 5 West 37ST N.Y.

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THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: 1/18/13

(PLEASE PRINT)

Name: Jannel Dorés

Address: 46 Franklin Ave

I represent: LIPA

Address: 333 Eagle Owington, Blvd Uniondale

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Michael Deering

Address: 333 Eagle Ovington Blvd, Uniondale, NY

I represent: Long Island Power Authority

Address: _____

Please complete this card and return to the Sergeant-at-Arms

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THE CITY OF NEW YORK

Appearance Card

1-18-2013

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: RICH WINDRAM & CHRIS LEVENDOS

Address: _____

I represent: VERIZON

Address: _____

Please complete this card and return to the Sergeant-at-Arms

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: 1/18/13

(PLEASE PRINT)

Name: JOHN MIKSAD

Address: 4 IRVING PLACE, NY, NY 10003

I represent: Con Edison

Address: Same

Please complete this card and return to the Sergeant-at-Arms