

**Comments of Consolidated Edison Company of New York, Inc. on
The Draft Report of Department of Public Service Staff on
The July 2006 Power Outages in the Long Island City Network**

Consolidated Edison Company of New York, Inc. (“Con Edison” or “the Company”) welcomes the opportunity to provide the Staff with comments on its Draft Report on the investigation of the July 2006 events in the Long Island City (LIC) network. Clearly, Con Edison’s performance during the event did not meet the expectations of our customers and the expectations that we have set for ourselves. Despite our best efforts, the power outage in LIC created hardships for tens of thousands of customers, hardships that cause us great concern. We have established and are acting on “lessons learned” as a result of the event. We believe many of Staff’s recommendations have merit, and we look forward to working with Staff and other stakeholders in improving Con Edison’s electric system. These comments focus on some of the issues that Staff may wish to consider as it finalizes its Report. We anticipate additional discussions with stakeholders on points not directly addressed in these comments when the final report is issued.

OVERVIEW

The electric outage that took place in a part of the LIC network – one of Con Edison’s 57 electric distribution networks – is uncharacteristic of the Company’s service record. The reliability provided by Con Edison to its customers exceeds, by a wide margin, that of all other utilities in the U.S. and is seven and one half times better than the average utility. In 2005, Long Island City network customers experienced service reliability of less than three interruptions per thousand customers served, which puts the LIC network in the top quartile of Con Edison networks, and is more than 400 times better than the average customer experience in New York State.

In order to achieve such high levels of reliability, the Company makes substantial investments in its electrical infrastructure and has historically done so well before the Long Island City event. As recognized in Staff’s Draft Report (p. 129; Appendix E), from 2000 through 2005 Con Edison spent about \$4 billion for capital improvements to the electric transmission and distribution (T&D) system, about \$1.2 billion more than was covered by its rates. Of the \$2.8 billion that was spent for improvements to the electric distribution system, 29% (\$0.8 billion) was invested in the Brooklyn/Queens distribution system that includes the Long Island City network. In addition, the Company spent during the same period nearly \$1.9 billion in Operations and Maintenance (O&M) expenditures for the Electric T&D system. Of the \$1.2 billion spent for electric distribution O&M, one third was for O&M spending in the Brooklyn/Queens distribution system.

During three consecutive days in early August 2006, the temperatures in New York City reached or exceeded 100 degrees. During this period, the Long Island City network performed well with no significant problems. This performance further demonstrates the fundamental soundness of our engineering and operational approach to our network areas and the customers they serve. The performance also represents further evidence of the uniqueness of the LIC incident that occurred in July as we fully described in our report on the incident. Since the event, we have invested tens of millions of dollars in emergency response, permanent repairs, and ongoing improvements to strengthen the LIC network.

The Company's investigations subsequent to the Long Island City event have been substantial and have resulted in numerous recommendations. Some of these recommendations have already been implemented while others are in the process of being implemented. The investigations and recommendations have focused on and address the root causes of the events which led to the outages in addition to examining peripheral issues that should be considered. The Company's efforts to address the recommendations include both rectifying deficiencies and making improvements in a number of areas. These include our substation circuit breakers and relays, transformer monitoring systems, operational processes and procedures, training, communication practices, customer counting methods, demand reduction efforts and emergency response plans. Many of the recommendations in Staff's Draft Report are similar to the Company's recommendations, and many of the Company's current and planned actions address Staff's proposed recommendations. Indeed, we are applying "lessons learned" from this incident across our entire system.

We believe the Company's response to the unique events that triggered the outages in a portion of the LIC network avoided a shutdown of the entire network, which would have interrupted service to all 115,000 customers in the network, including industrial plants, high-rise buildings, schools, and major transportation systems serving Queens and Manhattan, including several subway lines and the Long Island Railroad. A shutdown of the entire network would have had an enormous impact on the people living, working or commuting through the neighborhoods covered by the LIC network. We preserved electric service to the many unaffected customers and the public by repairing and restoring feeders and working closely with City agencies and customers to reduce demand for electricity during the event. By expediting the restoration of 27,000 volt feeders, by mitigating the impact of feeder outages by balancing loads, and by working with large customers to reduce electric demand, among other things, the Company avoided the need for a network-wide shutdown and power outage. In addition, we restored service to those customers who were affected as expeditiously as possible by utilizing all available Company, contractor and mutual assistance resources for this effort.

SPECIFIC COMMENTS

The following are some limited and constructive technical comments on the draft report that may help Staff clarify some of its conclusions as it finalizes its report. These technical comments are followed by the Company's comments on Staff's recommended follow-up proceeding. As noted earlier, we anticipate additional discussions with all stakeholders when the final report is issued.

NETWORK RESTORATION

Staff Comment:

The recovery cost for the Long Island City network event is likely to exceed \$100 million. Moreover, permanent repairs are still ongoing, nearly five months after the event. (Draft at 66)

Response:

While the draft report acknowledges that the Company conducted a vigorous and well-managed recovery effort, it does not mention that at the same time Con Edison was engaged in repairing event-related damage it was also using this opportunity to conduct upgrade and reinforcement

work unrelated to the event. Thus it is confusing to suggest that permanent repairs took five months. Some examples of this additional work included:

1. Transformers that were replaced due to corrosion or mechanical failure (i.e. neither thermal failure, secondary bushing failure, nor high gas). This was the bulk of the transformer replacements and would include all primary and secondary cable work associated with them.
2. Most new conduit installations and all structure enlargements were proactive steps toward future system growth/reliability and were not completed as a result of any damage. This work included 170 structure enlargements and over 24,000 trench feet of new conduit systems.
3. All secondary main work triggered by inspections but NOT associated with shunt locations could be the result of damage prior to the LIC event.
4. Making RMS system upgrades (over 300 transmitters visited and repaired or replaced) were not due to damage associated with the event.
5. Some of the work was reinforcement (additions) to the existing system because of load growth in a very local area. This was just over 200 sections of 120 volt cable.

For the same reason, the draft is incorrect to state that the recovery cost will exceed \$100 million because it combines expenditures to repair event-related damage with costs to upgrade and reinforce the network. Unless corrected, the report will create a false impression and confuse the public.

CUSTOMER COUNTS

Staff Comment:

While the Company eventually estimated that 25,000 metered customers might have been out of service, Staff estimates, based on survey evidence described in Section 4.3 of this report, that there could have been as many as 65,000 customers that were either out of service or experiencing such low voltage that their electrical appliances were unusable. (Draft at 23)

Response:

This statement creates the incorrect impression that the Company's outage estimate was significantly lower than the actual number of customers without service. The field surveys conducted by the Company during the event estimated only customers without power. Staff's survey number combines customers without service together with customers with service but with any level of low voltage. To conflate the two categories is confusing, unless it is made clear that a significant portion of the 65,000 customers had power but suffered various levels of low voltage for an unstated period of time at some point during the event. In addition, a possible flaw in the survey question appears to be how much room it leaves for interpretation by the individual being surveyed. We would also point out that customers with low voltage were being restored to normal service as the primary feeder restoration progressed and after we removed the entire network from an 8% voltage reduction.

Staff Comment:

Unfortunately, despite a wealth of information and indicators available to Con Edison officials from the start of the event, the Company stuck to its traditional, conservative methods for estimating the number of metered customers out of service, and ignored many indications that the outage was significantly more widespread and damaging than they thought. (Draft at 23)

Response:

It would be more helpful to the public if Staff distinguished between customer outages in network systems and customer outages in the more common radial system and to also point out that Con Edison is able to identify significant customer outages in a radial system without relying on calls from customers. As for networks, Staff should explain at the beginning of its discussion that the common and traditional method used by almost all utilities in the country in the case of outages in parts of a network is to rely on calls from customers and that such reliance is required due to the nature of a network system. To provide balance in its report, Staff should also mention that, prior to the LIC event, such reliance was deemed reasonable due to the high reliability of network systems and the fact that widespread outages in a network system are highly unusual. Con Edison has only experienced five wide-spread network outages in the past 40 years when the network remained in service.

The Company agrees that it must examine technologies and techniques to estimate network outages and low voltage conditions as accurately as possible. Nonetheless, Staff's recommendation that the Company report within 90 days on the "changes it will implement" (Draft at 29) is an inadequate period to undertake Staff's recommendation. The Company proposes to report its progress on this matter within 90 days.

Staff Comment:

Although the [STAR] program did not produce the same number of metered customer outages as provided by the Company surveys, Staff believes its use at least would have identified the severity of metered customer outages much sooner than relying solely on consumer calls. (Draft at 26)

Response:

Aside from the inherent limitations of using STAR in a network distribution system, the models for using STAR in Brooklyn and Queens were under development at the time of the event and results produced during the test runs, as the Staff noted in its draft report, were highly unreliable. The Company has developed an alternative system to better identify outages within a network.

Staff Comment:

It also puts in question the validity of data used to determine the level of service reliability, which has an impact on the degree of revenue adjustments the Company should face for not complying with service reliability requirement in a network system. (Draft at 27)

Response:

Clearly, the outage system did not reflect the actual number of customers affected for an outage of this scale. But almost all partial network outages in the past were caused by individual mains and services and not by network wide and primary side driven issues. In networks, because outages are almost always driven by problems with mains and service lines in defined local areas affecting easily identified numbers of customers, the Company's customer counting methods have historically been accurate. In addition, crews provide physical field verification of the actual numbers of customers out of service and the field verified data is used for reporting purposes.

The customer count difficulties associated with the LIC network event were entirely atypical of network outage events and do not support Staff's recommendation (App A, p. 16) that the Company reexamine and report on the customer count associated with every outage event since the commencement of the Company's current rate plan. In any event, Staff's concern would be adequately addressed by a review of larger outage events whose customer count presented the potential for determining whether the performance threshold was achieved or not. Accordingly, the recommendation, if retained, should only apply to past network outages involving a minimum of 500 customers.

LSE CUSTOMERS

Staff Comment:

Of the three LSE [life-sustaining equipment] customers who had reported to the Company that they had LSE, only one reported being called by the Company during the network failure. (Draft at 31)

Response:

The survey question asked the individual if he or she had been contacted and not whether contact had been made to anyone within the household. The question also assumed that, if contact had been made, the person responding to the survey phone call would necessarily have known that someone else in the household had been contacted. The Company placed calls to all LSE accounts, and the data reflects full notification to all LSE customers. If Staff would provide us with the name or telephone number of the two customers, we may be able to determine if they are LSE customers listed on the Company's records and whether they simply did not know that some other member of the household had been contacted. If they were not previously identified LSE customers, we would enroll them if they are qualified.

Staff Comment:

In addition, Staff's broader telephone survey of consumers in the Long Island City network, discussed previously in this Report, revealed a significant number of consumers who have not formally identified themselves to Con Edison as having life support equipment relied on in their homes. These consumers should be identified, even if they are not Con Edison customers of record (e.g., consumers whose rent includes electricity costs or who are sub-metered). (Draft at 44)

Response:

The statement incorrectly implies that Con Edison's list of LSE customers does not include customers that do not have an individual meter. The Company does identify non-customers who have life-sustaining equipment, and we have an existing program that encourages all LSE users, customers and non-customers alike, to notify us. If Staff would provide us with the name or telephone number of the customers whom Staff believes are not identified as LSE customers, we will be able to determine whether and why they have not been previously identified as such.

There are several ways we receive this information from new customers. When they apply for service we ask about life sustaining equipment use in the household as part of the process to establish the account. In addition, we send mailings to customers describing the program. One is included in the "Your Rights and Responsibilities" which goes out each year and the second is in Customer News.

We also send a letter each year to LSE service-related providers (medical and surgical equipment suppliers, repair service providers), hospitals, rehabilitation centers, home health care providers, and emergency responders, such as police, fire, and ambulance/ambulette services. This annual mailing asks these organizations to alert their clients to register with Con Edison and encloses a survey brochure that their clients can complete to advise us of the use of life-sustaining equipment.

TRANSFORMER INRUSH CURRENTS

Staff Comment:

The 1Q21 breaker had been upgraded to the new rack-out style breakers in the spring of 2006. The breaker was inspected and tested on March 7, 2006 and operated on April 18, 2006. This means that the misaligned and improper contact between the sliding contact fingers of the rack-out breaker that led to the trip of the 3S bus occurred sometime between April 18 and Monday, July 17, 2006. During this period of time no Con Edison employee noticed the condition of the contact fingers on the breaker or identified the defect in the breaker circuitry, because apparently the test procedure did not check out the supervisory controls that went back to the Regional Control Center. This is not acceptable and Con Edison needs to address the substation breakers' testing and inspection process to ensure this does not happen in the future. (Draft at 98)

Response:

The statement incorrectly implies that the substation employees and the regional control center operator should have been able to detect the misaligned contacts. This is inaccurate as the misaligned contacts are not visible when the equipment is in service. Thus, no employee in the area could have noticed that the contacts were misaligned.

Supervisory alarms are local indications only and would not be available at the regional control centers.

Staff Comment:

In its October 12 report, the Company addresses the in-rush issue by stating that it will be reviewing circuit breaker relay settings on feeders within the network with 32 MVA or more of connected load by this coming summer. It offered virtually no analysis on this issue [(In rush). (Draft at 100)

Response:

The statement that the Company offered no analysis regarding in-rush is not correct. The Company did perform a detailed analysis which was discussed with Staff and even further analysis is being conducted by Siemens PTI.

The analysis used to change the settings was based on PQ Node measurements, PST field measurements and the increase in CIOA's vs. the increase in the average MVA increase on the feeders in the last 10 years.

Staff Comment:

In response to the network event and occurrence of inrush on the system, the Company has been simply raising the mechanical relay trip settings to their upper limits. The change in relay trip settings, however, has resulted in fault current protection margins well below the Company's 50% preferred fault current margin. The Company also plans to install in the Long Island City network, by December 31, 2007, new microprocessor relays on the circuit breakers, which it

states can identify inrush current much better than the existing relays in place, and will help avoid tripping of the breaker due to inrush current. Con Edison should not be raising the trip settings without having first performed a thorough risk analysis of the safety issues that it creates. It is possible that equipment will operate beyond acceptable limits and thus would not be taken out of service in a timely manner, possibly creating a hazard to the public. It is also possible the higher limit could pose a hazard to relay technicians. Beyond the concern about safety, raising the relay limits could cause equipment damage. Raising the settings to prevent one feeder failure, in and of itself, is not warranted. (Draft at 100)

Response:

This statement should be deleted because it is inaccurate. An assessment was performed for each relay, regarding the effect of raising the relay settings in the LIC network. This process is continuing for other networks containing primary feeders with greater than 32 MVA of connected transformer capacity. The assessment consists of evaluating the increase in tripping time resulting from the proposed change in settings, and ensuring that this is consistent with normal relay engineering practice in balancing the various constraints on settings. These new tripping times are still well within equipment ratings, and will not cause any unusual adverse effects to equipment, personnel, or the public.

The recommendation to reverse the relay settings lacks analysis. The assertion that the corrections made by the Company could result in safety hazards to the public or relay technicians has not been substantiated.

The Company strongly disagrees with the last statement that concludes that the settings have been raised to prevent one feeder failure. There were at least four CIOA feeder failures during the LIC event itself in addition to prior and subsequent events in the LIC network and other networks. On July 17th during the restoration of Bus section 3S, feeder 1Q07 CIOAed due to inrush and the fault diagnostic process subsequently created another fault that did not pre exist. This lengthy feeder outage occurred at a critical juncture which compounded the impact of the prior unusual events leading to the recursive cycle of primary feeder outages.

Staff Comment:

Con Edison should be required to finalize draft procedure EO-2147 in 30 days and submit it to the Department for review and ensure that all relays in-service on all Long Island City network feeders that meet the 25MVA connected criteria identified in procedure, are in compliance, by June 1, 2007. (Draft at 102)

Response:

The Company's draft procedures do not mention a 25MVA limit. Draft EO-2147 (Responsibilities for 13, 27 and 33kV feeder protection) has incorporated all field comments. A final draft will be issued to all concerned parties for final comments next week. Final specification will be issued before 2/15/07.

The new microprocessor relays are less susceptible to inrush even with the lower settings. The Company plans to install new relays on all Long Island City network feeders by December 31, 2007. The recommended date of June 1, 2007 is impractical because of the need to schedule bus section outages to install these relays. The Company requests that Staff's recommendation provide for completion of this work by year end.

EMERGENCY PREPAREDNESS

Staff Comment:

Although Con Edison supports the drills, and the participants take them seriously, the Company fails to take corrective action for the failures identified during the drills. For example, the 2004, 2005, and 2006 drills highlighted the need to quickly identify customer outage counts and the geographic boundaries of the affected area.. (Draft at 60-63)

Response:

The statement is incorrect. The Company does take corrective actions after drills. As Staff is aware, after each drill specific "Opportunities for Improvement" are listed. These are reviewed and acted upon as appropriate. Accordingly, the statement that Con Edison routinely fails to take corrective action is erroneous.

Staff's comment mischaracterizes the corrective actions identified by the Company following the 2004-2006 drills. The three exercises – 2004, 2005 and 2006 – highlighted issues concerning customers, but, contrary to the statement in the draft, these issues were unrelated to total customer outage counts from secondary system failures.

The 2004 CERC Exercise Report resulted in three Process Improvement Teams who completed their actions. One of the teams was concerned with the ability to identify specific customer outage counts for all energy commodities. This issue addressed the general consensus that a number of Company personnel wanted to have a single location where they could see Outage Manager data displayed by energy commodity. It was resolved by displaying outage numbers for all commodities – electric, gas, and steam – on a single display using Status Central for customers without service. Outage Manager was the source of this information for electric power outages.

The 2005 CERC Exercise Report resulted in five Process Improvement Teams. One of the teams concentrated on issues concerning the ability to identify customer impacts and boundaries impacted by the Company's Load Shed Management Plan. Once again, this was not a customer count issue. This team's actions have been completed.

The 2006 CERC exercise report resulted in the formation of three Process Improvement Teams. In addition, one exercise player said the Company should be able to identify specific customer outage counts within a fixed geographic boundary placed on a map. For example, how many electric customers reported on Outage Manager as being without service are in the area bounded by 14th St (N), Astor Place (S), 5th Ave (W) and the East River (E) in Manhattan. This comment was listed as an Opportunity for Improvement. A software program using updated Census data, and the Company CIS customer data accomplishes this task. This software program allows the identification of specific customer outage counts within a fixed geographic boundary.

CABLES

Staff Comment

Paper insulated lead cable is replaced through a variety of efforts. The Company's "program" is not fully planned, but rather relies to a large extent on failures and load growth. The Company should continue to replace paper insulated lead cable at its current rate under each of the programs that replace such cable. Further, the paper insulated lead cable in the Long Island City network should be replaced prior to the summer of 2009. (Draft at 75)

Response

Con Edison's Reliability Index is a more appropriate means of determining the most efficient use of capital to improve system reliability. Given the small percentage of PILC cable in the LIC network, the recommended program's benefit to the network would be minimal. Only one of the 54 primary feeder failures during the LIC event was related to PILC cable. Reliability improvements in a particular network are more effectively achieved by performing a reliability study to quantify and weigh the benefit of this recommendation and other potential such as changing out elastimold joints. In addition, targeting reliability improvement resources to remove PILC cable in the LIC network that already has a low percentage (13%) of PILC cable skews resources away from other networks that would receive a greater benefit from these resources.

Con Edison's program for the removal of PILC cable has been extremely effective and efficient. PILC cable represented 75% of the primary cable on the system in 1984. That percentage has declined steadily to 65% in 1991, 44% in 1999, 30% in 2004, and about 26% currently. The program efficiently uses targeted removals along with the variety of feeder outage opportunities that present themselves during ordinary operations (burnouts, load relief, new business) to remove PILC. The Company is committed to continuing this program until all PILC cable is removed. However, we do not believe that setting a fixed deadline for complete system removal is warranted particularly since the Company is also removing all elastimold stop joints associated with PILC cable by the end of 2008. The removal of these stop joints will have a much greater reliability benefit than categorically replacing all PILC cable by June 1, 2009 as recommended by Staff.

Staff Comment:

When field crews take a random sample of the failed cable instead of the actual failed section, it does little to no good for the purposes of an autopsy and for learning what happened. This was an unacceptable oversight by the Company. In the future, the Company needs to recover the actual failed cable sections and joints when crews remove equipment from the system after a failure has occurred. (Draft at 76)

Response:

Given the extraordinary efforts undertaken by the Company to retain failed cable, transformers and other equipment and the enormous volume of such cable and equipment that was preserved and the logistical challenges the Company had to overcome to achieve this unprecedented recovery of failed cable and equipment, we believe this comment is inappropriate and not consistent with the facts. Electric Operations has a procedure that covers failure specimen retrieval. This was given to Staff through an interrogatory response. We track the retrieval performance of the regions with the CAJAC scorecard. In 2006, Queens had a 96% retrieval rate. A small number of specimens could not be recovered because of practical reasons, e.g., splices are re-made and this results in no sample. The reasons for not having samples in limited instances are noted in the report card and do not constitute an unacceptable oversight by the Company nor the need to develop a new procedure as recommended by Staff.

Staff Comment:

The Company instead relies on an ambient earth temperature constant of 30° C (86° F) for calculation purposes. This constant parameter does not take into account the actual ambient temperature and its effect on all the other thermal conditions associated with high heat events. Accordingly, Con Edison needs to adjust its primary cables normal and emergency load ratings to take into account the actual ambient temperatures experienced within its service territory, instead of just using a constant ambient temperature. (Draft at 77)

Response:

The statement confuses ambient temperature with actual underground cable environment temperatures and needs to be deleted together with the associated recommendation to adjust the normal and emergency rating of cables. The Company has several years of earth temperature measurements that support the 30 degree C ambient temperature level (summer of 2001 was a hot summer and the average earth temperature measured in Manhattan and Brooklyn/Queens was 24.2 degrees C). The ambient temperature rarely exceeds 30 C. In addition, the Company cable rating methodology uses a conservative estimate (0.65 versus 0.75 average) for the earth's resistivity (ability to dissipate heat).

Staff Comment:

There were six instances identified where secondary cable failures and/or fires within manholes or conduit duct vents caused primary feeder failures. Congestion and spacing are known problems within many existing structures in Con Edison's underground network system. (Draft at 77) Con Edison should initiate a formal program to reduce congestion within manholes and providing additional spacing between primary and secondary cables. The Company should make congestion and spacing issues a top priority. (Draft at 78-79)

Response:

Congestion is not, by itself, a problem and has not been found to be the direct cause of secondary fires affecting primary feeders. Primary failures due to secondary fires inside manhole is, on average, less than 5 percent of all primary cable failures. Accordingly, congestion is one factor to be considered in planning reliability work. Making congestion relief a top priority would require resource intensive efforts imposing significant costs on customers with limited benefits. Pursuant to recommendation 6B of the Company's own report on the LIC event, the Company is currently investigating methods to protect primary feeders from heat and fire. The Company proposes that Staff's recommendation be modified to permit the Company to complete its investigation and report the results to Staff.

Staff Comment:

Currently, the Company does not include infrared or temperature testing of cables and joints within its underground inspection criteria. Con Edison, however, is reviewing the advances in this field by neighboring utilities, but has no specific plans to move forward with infrared testing at this point. Inclusion of this type of testing during normal inspections could help reduce cable and joint failures before they occur by identifying weak spots that are more prone to failure. Accordingly, Con Edison should perform infrared testing of underground cables and joints when conducting its normal underground inspections (footnote omitted). (Draft at 81)

Response:

Con Edison's response to Staff Interrogatory 390 (cited by Staff in support of its recommendation) states that "Infrared technology provides a surface temperature of the subject specimen which renders it ineffective on the UG and Aerial cables as they are wrapped in several layers of arc-proofing or outer jackets that prevent one from obtaining accurate records of copper temperatures." Arc proofing on primary cable tends to spread out the heat and, therefore, hides the problem. Infrared technology may have some benefits for the secondary system. The Company proposes that the recommendation be modified to require the Company to examine this issue and report to Staff before a program is mandated.

Staff Comment:

Finally, given the extensive damage to the network and the variety and breadth of problems discovered during the recovery effort, the Company should also inspect all manholes and service boxes in the network and make repairs as soon as possible. (Draft at 87)

Response:

There are over 15,000 manholes and service boxes in the LIC network. The Company has inspected about 2,300 of these structures during the recovery effort. The Company identified the selected structures by conducting studies to identify high loading scenarios that could have damaged cable. By prioritizing its structure inspections, the Company has already inspected and repaired the structures that are more likely to have been damaged. The Company's ongoing inspection program will complete the remaining structure inspections by the end of 2009, consistent with the five year inspection cycle established in the Commission in its Electric Safety Standards. The acceleration of the LIC structure inspections would draw from resources working in other Brooklyn/Queens load areas to the detriment of inspections in those areas.

Staff Comment:

In addition, the Company needs to investigate alternatives to the use of current limiters, which essentially are rudimentary fuses. During the event current limiters did not coordinate well under the multiple contingencies (i.e., primary cable feeder failures), and thus, they failed to adequately protect the secondary network system. ... Con Edison should investigate alternatives to current limiters and provide a report to Staff within 90 days of this Staff Report. (Draft 87-88)

Response:

Investigating alternatives to current limiters and determining an appropriate implementation will require substantially more than 90 days. The Company proposes to provide progress reports to Staff at 90 day intervals.

MONITORING SECONDARY SYSTEM

Staff Comment:

As noted elsewhere in this Report, the Company concentrated on and monitored the cascading failures of the primary feeders and essentially ignored the secondary system. Disregard of the secondary system is unacceptable, especially in light of the severe damage to the secondary system, lengthy service interruptions, and low voltage conditions for consumers, which occurred during this event. (Draft at 87)

Response:

The concentration on preventing the cascade of primary feeders was the major method used to escape the recursive cycle that leads to secondary damage and potentially the widespread loss of service. Primary feeder restoration was the most expeditious method to minimize the extent of the secondary damage. Appeals to customers to reduce load was also used. The operators were continually monitoring conditions to the secondary network and at no point disregarded the information they were receiving. The draft incorrectly states that the Company ignored the secondary system. If Staff's point is that new engineering tools should be developed to allow the Company to do a better job of monitoring the secondary system and doing so on a real-time basis, then we would agree.

Staff Comment:

The Company needs to take a more active approach toward monitoring the secondary systems to understand system status during primary feeder failures. Possible tools/methods that could aid in monitoring the secondary system include advanced metering options that can provide feedback data, monitoring of selected portions and locations within the secondary network, and/or manual monitoring (Draft at 87). Con Edison should investigate ways to improve its monitoring of the secondary system. If it is unable to develop an adequate technical solution by June 1, 2007, it should develop a manual solution. The Company should report the outcome of its investigation and plans by June 1, 2007. (Draft at 88)

Response:

The Company requires additional time beyond June 1, 2007 to develop and validate an adequate technical or manual solution.

Staff Comment:

Con Edison should establish a protocol for an overall inspection program for network secondary mains program that includes taking current and voltage measurements for all of the Company's secondary networks. The protocol should include a sampling strategy that would develop information on the degradation on network components which could be incorporated into Company's planning and contingency modeling analyses. A draft of the protocol should be provided to Staff within 90 days of the issuance of the expected Order concerning this Staff Report. (Draft at 122)

Response:

Con Edison already conducts a 5 year inspection program targeting 270,000 underground facilities for inspection. In order to determine the condition of secondary mains, a visual inspection notes any degradation such as exposed copper or deficient connections. Voltage and current readings do not determine the health of the cable and do not contribute to load flow analysis because design conditions are based on peak demand and would be ineffective during an overall inspection program. Also, the invasive nature of taking voltage readings, i.e. piercing the insulation makes it impractical to take voltage measurements on cables. We recommend that we maintain the 5 year inspection cycle and continue ongoing R&D efforts to understand the degradation of insulation on low voltage insulation such as the UCONN materials study

TRANSFORMERS

Staff Comment:

The network protector switch is designed to open, upon sensing a problem or fault on the secondary system, to prevent current from the secondary system feeding back on to the primary system. (Draft at 88)

Response:

The draft incorrectly states that the network protector switch is designed to open upon sensing a problem or fault on the secondary system. It is designed to sense a problem or fault on the primary system. Accordingly, this comment should be modified.

Staff Comment:

Con Edison's transformer specification states that the design ambient temperatures are based on a 24 hour constant average summer ambient temperature of 79°F. Design ambient temperatures

should not be an average over the entire day; but should rather reflect the hottest periods of the day when the loading is the highest. (Draft at 91)

Response:

This paragraph refers to EO-2002, which is the application and design specification for the manufacturing of transformers. The limits are established for the design of the equipment for the general application under normal, first and second contingency designs. The ambient temperature represents the average 24 hour summer day temperature that is used to evaluate the designs of the equipment. This procedure is in accordance with national industry (IEEE) standards. It would be unreasonable to design the equipment based solely on the possible occurrence of an extraordinary event as this would significantly reduce the utilization capacity of the equipment.

Staff Comment:

Looking at the primary feeder failures, it is clear that every feeder failed well below its emergency ratings, and most failed below their normal ratings as well. Since most of these feeder failures occurred due to transformer failures, this pattern suggests that the Company's ratings assumptions are deficient (notwithstanding the fact that this was an extraordinary event). As noted above, once a piece of equipment has been overloaded and overheated for an extended period of time, its carrying capacity deteriorates and its remaining service lifetime is shortened. When it is working in concert with other equipment that is being similarly stressed, all of the equipment becomes less predictable and each is likely to fail at lower operational point than either its design or rated capacity. Thus, as a result of the strains placed upon the surviving transformers by the Long Island City network outage, Con Edison should lower its normal and emergency ratings for these transformers and factor those ratings into its planning to improve network predictability and reliability. (Draft at 91-92)

Response:

It has been acknowledged that the feeders that opened due to transformer failures were below their ratings. The reason for this is that the transformers that were overloaded were localized to certain load pockets resulting in only a portion of the transformers on a feeder being overloaded, which did not result in a feeder overload.

The ratings for transformers are established to ensure the operation of transformers during a second contingency. The fact that many transformers were overloaded above their second contingency ratings without failure, through this extraordinary event, demonstrates the validity of the ratings. In addition, with the use of supplemental cooling, transformers are able to operate beyond their second contingency ratings without failure.

Operation of transformers marginally above design rating does not necessarily increase likelihood of failure. The Company conducted extensive diagnostic testing and inspections of transformers that had been operated above design to confirm their integrity.

Staff Comment:

The high quantity of transformers found to have corrosion is alarming. It indicates that the Company's previous inspection procedures have failed to adequately identify those transformers with corrosion issues. While the Company is currently installing cathodic protection on new transformers installed within the system, this entirely prospective approach, while a step in the right direction, does not go far enough and fails to address concerns about the numerous transformers currently operating throughout the entire system. The transformer inspection requirement for compliance with the Commission's five year inspection cycle must include a pressure test and gas-in-oil analysis. (Draft at 92-93)

Response:

Corrosion of exposed underground transformers will occur over time due to the harsh environment of our underground vaults. The transformers that were identified with corrosion during the accelerated inspections in the LIC Network were within the range normally found during the inspection process. Most of the transformers removed due to corrosion from the LIC network were tested and still had remaining service life. They were removed prematurely, prior to failure, based on the indication that with continued corrosion the integrity of the tank could be compromised before the next inspection.

The statement that the Company's cathodic protection program is limited to new transformers is incorrect. The statement that the Company is not addressing corrosion on currently operating transformers is also incorrect. Since the end of 2005, Con Edison has been installing cathodic protection on all existing transformers. In addition, the gas-in-oil analysis (DGOA sampling) became a standard practice system wide in mid 2005 and the pressure test has historically been performed during inspections.

Staff Comment:

During the Long Island City network event, there were several cases where the network protector switches on the transformers did not open as designed. If a network protector does not operate properly, then a condition known as "alive on back feed" can exist. This condition occurs when a primary feeder opens automatically and is out of service, but the network protector switch stays closed instead of opening, which allows voltage and current to flow in reverse direction from the secondary to the primary system. This condition hampers restoration efforts because, until cleared, crews cannot safely start their repair efforts. Failure to clear the condition puts crews at risk of electrocution from the back feeding of voltage and current. This condition was identified by the Company as one of the issues that slowed feeder restoration efforts during the event.

Due to the number of primary feeders out of service, it was found that some areas of the secondary system were experiencing very low voltage conditions. These voltages, in some cases, were below the level needed for operation by the network protector relays. Thus, some of the relays did not operate as designed and thus, failed to open the network protector switches to prevent the alive on back feed condition. Currently, there are three types of relays used for network protectors: micro-processor, solid-state, and electro-mechanical. The electromechanical relays require a minimum of 60 volts to operate properly; the solid-state relays require 50 volts; and the micro-processor relays require only 13 volts. ... Con Edison should replace the nearly 600 non micro processor relays in the Long Island City network and provide a cost analysis for replacing the nearly 13,000 non- microprocessor relays system wide. Priority should be given to those feeders with loading above 25 MVA. (Draft at 94-95)

Response:

The reason some network protectors did not operate to prevent backfeed was not because of design. The protectors operated correctly based on the type of relay. This was an extraordinary event and there is no indication in previous history where secondary voltages were below design of relay thresholds.

Staff's recommendation to replace nearly 600 non-microprocessor relays in the LIC network by June 1, 2008 would require a substantial commitment of resources and achieve questionable benefits. Approximately half of the ABF protectors during the LIC event were microprocessor relays. Therefore, replacing all of the microprocessor relays in the network would not have a significant impact on the event.

Con Edison introduced microprocessor relays into its system in 1991. Since 1998, we have installed microprocessor relays on all new and replacement protectors. The only problem that had been identified with the existing relays was with the solid state relays in the fringe of the networks and on spot networks, and all of these have been replaced with microprocessor relays.

Instead of requiring the replacement of nearly 13,000 relays system wide, Con Edison proposes that the recommendation be modified to require the Company to study the issue, including the feasibility and cost of a complete replacement program and alternate programs, such as the installation of remote wireless systems on the network.

Staff Comment:

In paragraph 3 – Fifth sentence – report states “Con Edison’s relay specifications.” (Draft at 95)

Response:

The text should read “Con Edison’s RMS specifications.”

Staff Comment:

Given the high incidents of failure found here due to intensive need for inspections it appears that Con Edison’s existing methods for transformer inspections are inadequate. (Draft at 119)

Response:

The primary reasons for the routine (visual) inspection of underground transformers is to identify units that have corrosion. In 2005, the Company implemented a program to retrofit sacrificial anodes for cathodic protection to arrest corrosion on existing transformers, during the routine inspection visit. The program is to fully retrofit the system with cathodic protection by 2010, targeting the transformers with the highest risk for corrosion in the first few years.

As indicated in the Draft Report, the transformers identified for removal as part of the LIC inspections, were not failures due to overheating, but were primarily identified for removal due to corrosion. Our existing method of inspection, with the installation of the sacrificial anodes, addresses this concern.

TEMPERATURE DESIGN CRITERIA

Staff Comment:

It should also be noted that Con Edison’s design temperature criterion of 86°F was not exceeded during the outage event. On July 17 and 18 when the ambient temperatures reached into the low 90’s, the temperature variable was calculated to be 81°F for both days. During the course of our investigation, however, it was shown that important network components, such as transformers and primary feeders, exceeded their normal and emergency ratings during those times. Therefore, the Long Island City network event draws into question the sufficiency of the normal and emergency ratings of feeders and transformers given the occurrence of overheating and/or overloading of that equipment at lower temperatures. The Company needs to evaluate how the reference temperature is applied and its impact on the system and all associated equipment. Currently, the temperature variable gets factored into many of the system equipment load rating calculations. Thus, changing this variable would have a direct impact on the operational ratings of the equipment. (Draft at 105)

Response:

The temperature variables for the July 17 and 18, 2006 were 83.8 F and 85.4 F, respectively.

Planning and Forecasting determines the projected peak loads on the system and networks for the coming summer based on temperature variable of 86° F.

Those projected values are used in the PVL load flows to make sure the cable loadings and transformer loadings are not exceeded under base case and all combinations of second contingencies load limits which are the design limits. During the LIC events, the overloads occurred under operating contingencies exceeding the second contingency design limits. The overloads in LIC were not related to the design temperature variable of 86°F.

RESTORATION

Staff Comment:

Gas Crews did site safety to ensure the safety of the public around dangerous electric equipment. (Draft at 108)

Response:

We suggest that the word “dangerous” be removed as it is unnecessarily alarming to the public. The equipment in question are shunts that are insulated and fully protected from the public contact by boxing, barricading or burying. The Company should not be criticized for adding an extra measure of safety during this event that included manning of shunts by Gas crews until the shunts were removed.

Staff Comment:

Staff is troubled by the Company’s inability to use the six mobile generators that it owns. 2 MW generators would have been useful in the Long Island City network and in fact, many similar sized generators were used. If the connection configurations don’t allow the use of these generators in a network such as Long Island City, a very common design configuration throughout the Company’s service territory, Con Edison needs to come up with a configuration that does work. Finally, while the two other Company-owned units were small, Staff does not understand any justification for keeping these units in Westchester as a precautionary measure – the Long Island City network was already is a catastrophe. (Draft at 114)

Response:

Most of the Company-owned generators were designed to support the 4kV systems during contingencies and hence are larger than necessary for most of the network customers in LIC. During the event, the Company developed a configuration design to allow the use of these 2MW units via 4kv/120-208v padmount stepdown transformers. However, after considering that such a configuration required greater field resources (primary and secondary splicing), staging obstacles (generator, transformer and primary/secondary cable layout), and additional delivery resources (generator and transformer), it was decided to use the smaller vendor units. These smaller units were available.

As a result of storms in Westchester, there was a likelihood that some generators would be needed locally. In light of the availability and delivery timeframes of vendor-supplied generators, it was most expeditious to direct the vendor resources to the Astoria area rather than redeploy Company transformers from Westchester. Had we depleted available vendor units, the other Con Edison units would have been re-deployed.

CUSTOMER OPERATIONS

Staff Comment:

Generally, an interactive response system plays pre-recorded voice prompts to which callers respond by pressing numbers on their telephone keypads to select the options they desire. A properly designed system should connect callers to their desired services promptly and with a minimum of difficulty. As Con Edison received information about large scale outages both in Westchester and Queens Counties, the Center began providing recorded information updates for the system to address both locations and other matters of general interest. At the height of the crisis, callers desiring to report outages in Queens had to listen first to messages lasting nearly three minutes that reported on the status of outages in both counties and also explained what they should do in the event of a billing problem. (Draft at 42)

Response:

The recorded messages were used in part so that the Company would comply with the Outage Notification Incentive Mechanism. The length of the messages was driven by the need to comply with the content requirements of the mechanism. In addition, at times during high volume periods, we provided a message to give customers with emergency calls quicker access by asking customers with billing questions to call us back at a different time. The change made on July 24th was intended to allow customers with follow-up calls to get through to a representative since the messages would not provide them with any new information.

The automated system also provides self-service functionality for customers, which is not referenced in much detail in the report. Customers selecting the option to report an electric emergency were provided with the information noted above. In addition, they were able to use our self-service system to report their service problems or they could transfer to a representative to report it. While we have enhanced the self-service application based upon benchmarking efforts since the event, the systems were adequate to allow customers to report their outages while we also maintained compliance with the Outage Notification Incentive Mechanism.

Staff's associated recommendation states that "Con Edison should modify its automated call system to enable callers to bypass the interactive voice response message and be placed in queue within 15 seconds to reach a Customer Service Representative to report service problems or obtain information during future emergencies. Within 30 days after the issuance of this Staff Report, the Company should advise Staff of the additional procedures and protocols it has put in place to comply with the intent of this recommendation." (Draft at 48) In addition to being inconsistent with the Outage Notification Incentive Mechanism, this recommendation would significantly hinder the ability for customers to report their outages in the most efficient manner and would inhibit the Company's ability to communicate important event information to callers.

The Company provides event messaging on the telephone switch in order to communicate as much relevant event information as available. This is a very important mode of communication – particularly so that persons who have called to report their service outage can better understand the event and make plans accordingly. As a follow-up to our experience this summer, we have refined our messages to provide event information as efficiently as possible so and to encourage customers to report their individual outages.

As a result of benchmarking with other utilities with significant experience in handling large-scale outages, we have also streamlined and enhanced our self-service applications to make it simpler and quicker for customers to report their outages, as well as check the status of service

restoration, by voice response unit rather than conducting the transaction with a customer service representative ("CSR"). This makes CSRs more readily available to handle more complex reports of service problems. Staff's recommendation would decrease customer use of what has become industry "best practice" technology. Increasing the reliance on CSR reporting would certainly delay customer reporting of outages, increase customer frustration, and slow the analysis of trouble reports by our operations groups.

We are working on additional enhancements to our messaging process to segment callers so they hear only about the outage in their area during events in multiple areas. Use of the self-service technology and improved messaging will enhance and improve the reporting and information communication process.

Staff Comment:

Con Edison should make arrangements to have portable telephone banks available in communities affected by outages that are projected to last more than 48 hours. (Draft at 145)

Response:

This activity presents a potentially large, expensive, open-ended, and unmanageable commitment, particularly for an electric utility with no core competency in or authority over local telephone service. There is no limit to the number of neighborhoods that could be involved during a major storm, protracted, severe heat event, or regional blackout. Having phone banks in limited locations would provide very limited benefits. A more practical approach is to require the Company to encourage people to store (along with the typical emergency supplies) an inexpensive corded telephone for use during an electric outage when cordless telephones do not work.

Staff Comment:

Although the [Company outreach] van personnel reported that the crowds were initially "in the hundreds" they also reported that they were unaware of the extent of the outages because they couldn't see beyond their immediate surroundings ... Apparently, there were no instructions from senior Company officials to survey the area and report back information about outages. (Draft at 44)

Response:

The primary purpose of the van is to establish a field presence for customers to be able to see Company personnel for customer care issues and information. The van is not utilized for the purpose of surveying areas with respect to outages. To the extent field surveys are appropriate, the Company can employ separate measures to gather this information.

PUBLIC AFFAIRS

Staff Comment:

Staff interviewed 13 public officials who represent citizens in northwest Queens. Staff found that Con Edison's communications with these public officials was inadequate, and in some cases, non-existent. The majority of these officials stated they were not told the magnitude of the outage by Con Edison nor were they kept updated by the Company. They stated that they did not receive copies of the press releases issued by the Company. Con Edison did contact federal officials, but it did so through their Washington offices rather than through their district offices, which led to some delay in imparting information even to those officials. (Draft at 37)

Con Edison should establish a new program to ensure adequate communication with federal elected officials that provides specific procedures to communicate with the local offices of federal officials during emergencies, as well as the offices located in Washington, D.C. The Company should, within 90 days of the date of the issuance of this Staff Report, provide Staff with documentation that its procedures have been modified to ensure that federal officials are contacted at both their local and Washington offices. (Draft at 39)

Response:

The statement is not correct. There were extensive, regular communications with all elected officials throughout the week on a 24 hour schedule. Until the Company discovered the scope of the outage, it was not in a position to communicate information it did not have. But once the extent of the outage was identified, there was an enormous undertaking to communicate with all public officials. As for federal representatives, they determine – not Con Edison - who they want to receive the information. Some Congressional offices tell us to have their district staff handle communications with the Company while others tell us to communicate with their Washington staff. As for local public officials, a Con Edison staff member was available 24 hours a day to answer any questions of the elected officials and their respective staff member based on the information available. Data concerning the extensive contacts with both federal and local representatives has been made available to Staff and clearly indicates that the forms of communication used by Public Affairs worked during the event.

Staff Comment:

The Company, curiously, did hold conference calls with municipal and public officials in Westchester County during the outages in July and in September, but chose not to hold any conference calls with similar officials during the Long Island City network event. (Draft at 38)

Response:

The staff of Government Relations was in constant contact with the representatives of the affected districts in the Long Island City network and was available to the representatives on a twenty-four hour basis. Given the smaller number of representatives requiring notification in Queens the Company chose to notify them personally. The contacts were documented in the Company's reports and discovery responses, and Staff has reviewed such documentation; yet, the report fails to mention the vast amount of communication with municipal and public officials in the area of the LIC network.

Staff Comment:

Many of the officials stated that they wanted to partner with Con Edison to be liaisons between their constituents and the Company, but the Company did not provide them with the necessary information to be able to provide this useful role (Draft 38). Con Edison should develop a new public liaison program that establishes procedures to partner with public officials, community based organizations, and critical care/large facilities willing to serve as liaisons between their constituents and Con Edison. The Company should submit a description of the new program, including operating and recruitment procedures, to Staff for its review before June 1, 2007 of its progress in establishing partnership arrangements with such officials. (Draft at 39-40)

Response:

Public Affairs already has an established process for contacting these parties, and the duly elected officials determine who to relay this information to based on their assessment of the situation. The core mission of the Company's Public Affairs organization is to communicate with elected officials, community organizations, and large facilities so that they, in turn, can communicate that information to their constituents. During the event, while some employees were staffed at

headquarters, an additional team was assigned to the affected areas. These employees met with elected officials, community groups, and large facilities; they also provided claims information and supplemented the activities of Customer Outreach. The staff of Public Affairs was available on a 24-hour basis.

Staff Comment:

Con Edison should, by June 1, 2007, be ready to post essential and up-to-date information about emergency events prominently on the home page of its website or use a pop up box or a running banner. The Company should notify Staff when such capability has been implemented. (Draft 53)

Response:

During a 2005-2006 Web site redevelopment initiative, prior to the LIC network outage, Con Edison added a "news and highlights" box to its Web home page. The box is a different color than the rest of the page in order to highlight its presence. During the LIC event, all relevant news releases as well as customer information messages were posted to the message box so that all visitors to the site, including customers, officials, and the news media, could find information directly on the Con Edison home page.

The already implemented news and highlights box on the home page is an effective, prominent location to provide information about emergency events, as well as other timely information. The prevalence of pop-up blockers (which are integrated into all of the major Internet browsers as well as toolbars available from Google and Yahoo in order to stop unwanted advertising) indicates that Web visitors do not prefer pop-ups and decreases the usefulness of pop-ups as a customer information tool.

ENERGY SERVICES

Staff Comment:

Staff spoke during its investigation with several administrators of [critical care/large facility and government agency] facilities to gather information to gauge the effectiveness of Con Edison's communications with them. Many of these administrators reported that they were not given timely or accurate information by Con Edison. As many of the facility locations provide housing for senior citizens, the lack of working elevators or air conditioning due to loss of power or low voltage was a serious concern because it created a potential health problem. Facility administrators stated that they wanted and needed information about what to expect as a result of low voltage and when to expect full restoration of power. One hospital in particular reported that the outage posed major problems. The hospital had to reduce its patient load, cancel surgeries, and go on "Official Diversion Status" where patients were diverted from its emergency room to others. The lack of correct information regarding restoration times was a significant contributing factor to the hospital's problems.

Some of the administrators reported that they sensed a major disconnect between the Con Edison "employee on the street" and Con Edison's "upper management" and indicated that they were given conflicting information, in particular, about whether they should go back on the grid or not. Some large facility/critical care facility administrators, however, said they were never contacted at all by Con Edison during the event.

While some facilities reported that they were provided with mobile generators, some of the generators were too small and some were never turned on. This added to the ongoing confusion. (Draft at 53-56)

Response:

This statement is contradicted by the documentation provided in the Company's reports concerning the extensive contact efforts with all Large / Critical customers. The Draft Report should recognize those communications and the effort made by the Company to stay in close contact with such facilities and to assist them during the outage. Given the fluid nature of the loss of feeders and on-going feeder restoration efforts, customer updates were frequent. With the stabilization of the primary system on Thursday, July 20, all Large / Critical customers were contacted again to confirm their status: restored from the distribution system or on generation.

Following the repair of the primary distribution system, those large and critical customers directly supplied by multi-bank installations were encouraged to go back on to our system.

With respect to the size of generators, a mobile generator was dispatched to Mt. Sinai Hospital. Initially the generator was sized to correspond with the hospital's emergency back-up generator and not for the full load of the hospital. Subsequently, we supplied a larger generator at the facility's request.

CLAIMS

Staff Comment:

The Company, however, denied more than 2,000 claims – more than 1,400 from residential customers and more than 650 from commercial customers. The denials were primarily of the claims from people who were not Con Edison customers of record or who requested reimbursement for losses of property, which is not permitted under the provisions of the tariff (see Appendix X). (Draft at 56-60)

Response:

As previously stated, Con Edison is the only utility in the state that pays claims for spoilage of perishable merchandise due to service outages. The Company's electric tariff provides for reimbursement to both direct and indirect customers. The Company reimbursed claims from several thousand indirect customers who lived in the affected areas. The majority of indirect-customer claim denials involved situations where the customer-of-record for the claimant's premises had already been reimbursed.

We have reviewed the claim regarding the damaged air conditioning unit that is cited by Staff (Claim # C-37972EE). Staff's reliance on this claim to support the recommendation that Company representatives not make assurances to customers concerning payment of claims is unfounded. The complete text of the CSR's response to the customer is as follows:

“You can send the claim for the air conditioner and when it is received it will be forwarded to the Claims Department for review. They will let you know if the claim will be honored.”

Contrary to Staff's assertion, the CSR's response was not “misleading and inappropriate.” Although the Company disagrees with Staff's conclusion, we concur with the recommendation (Draft at 60) that the Company “instruct its Representatives to not make assurances to consumers concerning payment of claims, except to the extent those Representatives are the decision makers and will ensure that the claims decision they impart is carried out.”

FINANCIAL

Staff Comment:

Con Edison should commence budgeting (capital, and operations and maintenance) by electric network beginning with any budgeting activities related to calendar year 2008 that it performs effective immediately. (Draft at 132)

Con Edison should commence tracking of actual work volumes and expenditures (capital, and operations and maintenance) by electric network on January 1, 2008. (Draft at 132)

In addition, the Company should track and report to Staff all other operations and maintenance expenses and capital costs for the Long Island City network until further notice. (Draft at 134)

Response:

We feel it would be more beneficial and productive to track capital (and O&M) work volumes and then use average unit cost to come up with the dollar costs. This would allow us to concentrate on where the investments are planned and actually made and normalize the impact of any one region's unit cost across all networks. Nonetheless, implementing this work volume / unit cost approach will require extensive IT solutions since many of the existing work management and accounting subsystems would need to be modified – requiring substantial time to develop, test, and implement to make sure we meet Sarbanes-Oxley standards, as well as to make sure the information is reasonably accurate.

Otherwise, budgeting and tracking actual cost by network and by program without a comprehensive IT solution would require the creation of several thousand new account numbers, adding approximately 13,000 new capital work orders, 4,800 new Company account numbers, and 2,200 new project identifiers. Implementing this recommendation would be time and labor intensive and create additional burdensome responsibilities for the field forces, engineering, and administrative groups. Transition to this level of accounting would take time to complete, especially because there are many thousands of project or program layouts already existing within current work management and accounting applications. Con Edison recommends that it be allowed to review what type of IT changes will be required to implement this recommendation and be required to report back to Staff by June 1, 2007.

Staff Comment:

Con Edison should file a detailed five year capital budget with the Commission by January 31 of each year until further notice. (Draft at 132)

Response:

Con Edison requests that this date be extended to March 1 of each calendar year to better align with our capital budget approval process.

DEMAND REDUCTION

Staff Comment:

The Company also initiated an 8% voltage reduction on Monday, July 17. The eight percent voltage reduction took over two hours to implement because of problems with the voltage reduction circuitry at the substation and had to be implemented manually. (Draft 111)

Response:

The Company records indicate that it took 55 minutes to implement voltage reduction.

FUTURE REGULATORY PROCEEDINGS

Staff's investigation of the LIC event has been vigorous and comprehensive. We believe Staff's efforts will help Con Edison's system in the long run. However, in terms of the procedural setting in which to move the stakeholders forward in addressing these events, we believe it is very important to proceed under a regulatory framework that has the greatest potential for cooperative and constructive input by stakeholders; that maximizes the potential for prevention of a recurrence of the LIC events; and, that focuses stakeholders on improvements to provide better electric service and a better electric system. We do not believe Staff's proposal for a prudence proceeding will achieve these important objectives, and we do not believe the institution of such a proceeding is otherwise in the public interest.

A prudence proceeding is not needed to allocate costs arising from the LIC event. The Company has already absorbed significant costs relating to the LIC event and has voluntarily committed to not seek recovery of those costs and to ensure that they are not reflected in future electric rates. Specifically, as noted in Staff's draft report (Draft at 134-135; App. F), the Company has incurred close to \$50 million of operation and maintenance costs related to the LIC incident and has committed that it will not seek to recover from customers any of those costs. Similarly, the Company has agreed to keep ratepayers harmless with respect to the approximately \$15 million in food spoilage claims paid.¹

In addition to these significant financial losses, the Company has already incurred significant financial penalties under the reliability performance mechanism of its current rate plan. This performance mechanism, which establishes the automatic imposition of penalties for service interruptions above set thresholds (subject to limited exclusions, such as for storms that are beyond Con Edison's control) has resulted in \$9.0 million in penalties for the Long Island City outage.

Significantly, as noted in Staff's report (Draft at 128), the Company is subject to penalties of up to \$56.5 million per year for failing to meet all of the specified targets under the reliability performance mechanism and an additional \$36 million per year for failure to meet all of the specified targets under the customers service performance mechanism, with no incentive whatsoever for the superior performance it has generally achieved. As noted above, these mechanisms have caused the Company to incur a penalty of \$9 million for the LIC event. Adopting Staff's proposed recommendation to pursue additional penalties for this event would retroactively revise the agreed-upon rate and regulatory framework for Con Edison, which would ultimately harm customers.

The Company's existing rate plan, which was adopted by the PSC, reflects agreement by the Company, Staff and the other interested parties on the potential penalties to which the Company could be subject for departure from stipulated performance levels, including during events such as the LIC outage. The imposition of penalties in addition to the substantial penalties specified in the Company's current rate plan is not appropriate. Such action would adversely

¹ Staff's concern (p. 140) that customers may somehow be required to bear a portion of these costs if the Company's earnings for the rate year ending March 2007 would otherwise exceed the sharing threshold is not a basis to commence a prudence proceeding. Customers have no reasonable expectation to earnings above the threshold; rather, they have an opportunity to realize a portion of such earnings if and when actually achieved by the Company. To the extent the actual costs incurred by the Company for LIC prevent the Company from achieving earnings above the threshold, customers are not entitled to any sharing of earnings. Moreover, Staff's concern is unrealistic because, based on current projections, it is highly unlikely that earnings will otherwise exceed the earning sharing threshold.

affect investor confidence in the regulatory compact under which the Company operates and on which investors place reliance. The Commission is aware of the public interest in maintaining investor confidence if the Company is to continue to be successful in accessing on reasonable terms the significant amount of capital required to support the Company's infrastructure investment program. The application of predictable, reasonable and non-punitive regulatory policies, including at times when the regulatory system is tested by unusual events, is essential in that regard.²

More fundamentally, a prudence proceeding would divert the Company's operating and customer focus for an indeterminate and potentially long period of time, with potentially long-term adverse impact on customers. The principal focus of the Company and the PSC Staff should be on promoting improved service for the state's consumers, including the identification of improvements to utility service and systems to be undertaken to prevent recurrence of past concerns. The resources and attention must be focused on using lessons learned from experience in a cooperative effort to meet the growing energy needs of the Company's customers through a strong and reliable system.

It is no coincidence that the Commission's focus in reviewing similar service disruption events has not been on utility "prudence" but on forward-looking system and operating improvements. In numerous other cases involving the response of New York State utilities, including Con Edison, to various storms and extreme weather situations resulting in the interruption of service to customers, the Commission has investigated a utility's handling of an outage without commencing a prudence proceeding. The Commission directed Staff to conduct a full examination of the outages and report its findings and recommendations to the Commission and then required the utility to implement certain corrective actions and provide periodic status reports on its implementation. Some of these events adversely affected many utility customers and resulted in extensive review of operating practices and resource commitment. Yet, in each of these cases, the Commission took a forward-looking approach. The Commission should do the same in this proceeding, again, focusing on what is in the best interest of the customers.

It is also no coincidence that the Public Service Law, with some exception, is forward-looking in concept and in practice, and places at its core forward-looking improvement in the rendition of utility service. We look forward to addressing the LIC events in a spirit of cooperation and constructive dialogue with the Staff and other interested stakeholders. A prudence proceeding will work at cross purposes with those objectives and it is not in the public interest.

Dated: January 31, 2007

² During 2006 alone, Con Edison raised more than \$550 million in equity and \$1.5 billion in new debt.