

**STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION**

**CASE 06-E-0894 - Proceeding on Motion of the Commission to Investigate the Electric Power Outages in Consolidated Edison Company of New York, Inc.'s Long Island City Electric Network.**

**CASE 06-E-1158 – In the Matter of Staff's Investigation of Consolidated Edison Company of New York, Inc.'s Performance During and Following the July and September Electric Utility Outages.**

**IMPLEMENTATION OF ORDER DIRECTIVES No. 1, 2, 9, and 16**

The Public Service Commission's "Order Implementing Outage Recommendations," issued July 20, 2007, ("Order") directs Consolidated Edison Company of New York ("Con Edison" or "the Company") to file with the Commission additional information in conjunction with the Company's annual filing pursuant to Part 105 of the Rules of the Department of Public Service ("DPS") (16 NYCRR 105) as follows:

**Directive No. 1**

(1) ... a report on the effectiveness of the predictive models in any instances of their application during the preceding year.

**Directive No. 2**

(2) ... report on the readiness of the outage identification system and details of any instances of its use during the preceding year.

**Directive No. 9**

(9) ... notification ... that the Company carried out the necessary actions under the LSE identification program.

**Directive No. 16**

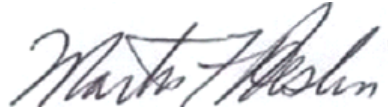
(16) ... certify by affidavit signed by the President of Con Edison that each employee in a position in the emergency response organization received training, to a level

commensurate to the position occupied, in the Incident Command System and National Incident Management System, establish a plan for annual renewal of training...

As required by Part 105, Con Edison's Corporate Electric Emergency Plan is being filed on April 1, 2011. Con Edison is filing herewith the information required by directives 1, 2, 9, and 16 of the Order.

Dated: April 1, 2011  
New York, New York

Respectfully submitted,

A handwritten signature in cursive script that reads "Martin F. Heslin".

Martin F. Heslin

Attorney for  
Consolidated Edison Company of  
New York, Inc.  
4 Irving Place, Room 1815-S  
New York, NY 10003  
(212) 460-4705

**Cases 06-E-0894 and 06-E-1158**  
**ORDER IMPLEMENTING OUTAGE RECOMMENDATIONS**  
**April 1, 2011 Filing Requirements**

Directive No. 1 - Effectiveness of Predictive Model ..... 2  
Directive No. 2 - Outage Response..... 3  
Directive No. 9 - LSE Notification Program ..... 4  
Directive No. 16 - ICS Training Affidavit..... 6

**Cases 06-E-0894 and 06-E-1158**  
**ORDER IMPLEMENTING OUTAGE RECOMMENDATIONS**  
**April 1, 2011 Filing Requirements**

**Directive No. 1 - Effectiveness of Predictive Model**

*(1) ...a report on the effectiveness of the predictive models in any instances of their application during the preceding year.*

On April 1, 2009, the Company shifted the Deep Thunder project from the developmental phases into an operational testing phase. During this phase, a methodology for validating high-resolution weather forecasts was developed which incorporated ground observations collected at surface weather stations in Westchester County and weather forecasting performance trending commenced. Overall, Deep Thunder's daily weather forecast for Westchester County was usually more accurate in predicting temperature, wet bulb temperature, and wind speed, in 2009 when compared to other weather services.

The Company has continued to operationally evaluate the Deep Thunder weather and damage model in Westchester County during 2010. The Deep Thunder weather forecast is validated against surface weather observation stations spread across Westchester County. At this point in our evaluation, we see that the Deep Thunder weather forecast model is usually closer to the actual temperature and wind speed values than that of the other weather services.

The damage model uses the weather forecast generated by Deep Thunder and a historical database filled with prior damage information dating back to 2004 to base its predictions of impact on the overhead electrical system in Westchester County. As we add additional (data points) events to this database, the damage model has more information on which to base its predictions.

In 2010, there were two significant events that caused customer outages that the damage model failed to identify. The first was the February 25 heavy/wet snow snowstorm which caused tree limbs to break under the weight of the precipitation. Historically, snow had not been a direct driver of damages to the Con Edison system, but the unique atmospheric conditions during this event caused this snow to be extremely wet and hence stick to and then break trees' branches similar to the effects of ice. Since this was a unique case, this type of weather event had not been included in the damage model. As a result, the damage model did not predict any impact to the system. Tracking of similar snow events in the future may provide information that could be useful in tuning the model into these types of events.

On March 13, 2010 saturated soil from snow melt and torrential rain, combined with high wind gusts from a Nor'easter, caused whole trees to be uprooted. The damage model did predict impact to the Con Edison system; however, the forecast of damages was low because the model did not have a historical reference to set such a high upper threshold of damage. A storm of this magnitude had not been experienced within the ConEdison territory during the historical (2004-2009) database period and thus was not part of the historical database of storms that the model uses to make its predictions. Therefore, the model did not correctly extrapolate the damage forecast.

For some smaller scale wind events in December, the impact model did provide a prediction that was closer to the actual damage. The model also had a few false alarms for storms that did not cause any impact. We continue to examine these events and add our findings to the historical database in an attempt to improve the model's predictions. Our evaluation will continue through 2011.

**Cases 06-E-0894 and 06-E-1158**  
**ORDER IMPLEMENTING OUTAGE RECOMMENDATIONS**  
**April 1, 2011 Filing Requirements**

**Directive No. 2 - Outage Response**

(2) ... a report on the readiness of the outage identification system and details of any instances of its use during the preceding year.

**Background**

As indicated in the 2010 response, the System Trouble Analysis and Response (STAR) and Network Trouble Indicator (NTI) technology enhancements continue to provide improvements in outage identification. Additionally, the Reactance-To-Fault (RTF), Contingency Analysis Program (CAP) and Heads-Up Display (HUD) systems were designed to assist operators to better locate feeder faults, review and analyze potential problems, and determine the impact on customers and equipment. Control center and engineering personnel continue to receive training on the use of these applications (several courses are offered on-line) and each operating region participated in training exercises that included the use of the applications.

The Customer Count Team (CCT) is made up of regional engineering and control center personnel and is mobilized during periods of extreme weather to evaluate underground network or prolonged overhead events. When necessary, they will deploy Customer Assessment Teams (CAT) to gain an understanding about the scope and boundaries of a particular event. When the NYC-OEM deploys a Power Outage Response Team (PORT), the company will designate a PORT Liaison to act as the primary field contact for NYC-OEM and will coordinate the information obtained by the CAT personnel.

**2010 CAT Mobilization**

There were 4 instances in 2010 where the CAT was mobilized due to outage calls and reports of low voltage.

**Brooklyn/Queens**

On February 26, 2010, the CAT team was deployed in the Bay Ridge network to investigate outage complaints in the area bounded by 29<sup>th</sup> St, 32<sup>nd</sup> St., 4<sup>th</sup> Ave, and 5<sup>th</sup> Ave. The outage was restored within an hour of the deployment of the CAT team.

On June 28, 2010, in response to low voltage / partial outage complaints, the CAT team was deployed in the Williamsburg network in Brooklyn. The area boundaries were Driggs, Nassau, McGuinness, and Diamond Ave. Low voltage was confirmed in the area due to voltage reduction and multiple feeder outages.

On July 7, 2010, in response to outages in Bay Ridge network, the CAT team was deployed to Sunset Park area on 50 St. between 8<sup>th</sup> and 9<sup>th</sup> Ave. The outage was confirmed along with its boundaries, and crews deployed to restore the area.

On July 9, 2010, in response to outages in the Bay Ridge network, the CAT team was deployed to Sunset Park. The area boundaries were 59<sup>th</sup> St, 61<sup>st</sup> St., 5<sup>th</sup> Ave, and 8<sup>th</sup> Ave. CAT teams took readings ranging from normal (120V) to low voltage (98V) in the area.

**Cases 06-E-0894 and 06-E-1158**  
**ORDER IMPLEMENTING OUTAGE RECOMMENDATIONS**  
April 1, 2011 Filing Requirements

**Directive No. 9 - LSE Notification Program**

(9) ... notification ... *that the Company carried out the necessary actions under the LSE identification program.*

**Status:**

Con Edison developed the program outlined below to reach out and encourage customers and other consumers who rely on life-support equipment to register with our Life Sustaining Equipment (LSE) program. (Printed copies of mailings are attached in Appendix "A.")

**Master-Metered and Elevator-Building Mailing - Sent out May 27th 2010**



Multiple Dwelling &  
Elevator Building Letter

Attached is a sample of the letter that was sent out to Building/Development Managers. Among other matters, the letter encourages building managers to urge users of life-sustaining equipment to contact Con Edison. The letter explains that LSE users who do not have a Con Edison account, because utilities are included in their rent, may not think to register their LSE use with Con Edison. The letter was sent on May 27<sup>th</sup> 2010 to building/development managers for 4,301 buildings where tenants have their electricity costs included in rent and as well to tall buildings with elevators.

**Physician – Medical Facility – Manufacturer Mailing – Sent out June 7<sup>th</sup> 2010**



Physician-Medical  
Facility-Medical Manual

Attached is a sample of the letter that was sent out to Medical Facilities, Physicians, and Medical Equipment Manufacturers. The letter asks that they partner with Con Edison so that people who use life sustaining equipment are aware of Con Edison's Life-Sustaining Equipment program and that they are well-prepared in the event of an electrical power outage. The letter was sent out on June 7<sup>th</sup> 2010 to 16,296 Physicians, Medical Facilities, and Medical Equipment Manufacturers.

**Annual LSE Customers' Mailing – Sent out May 26<sup>th</sup> 2010**



LSE Customer  
Letter.pdf

Attached is a copy of the letter that was sent out to customers enrolled in our Life Sustaining Equipment program. Included with the letter was an "Emergency Action Planner" magnet with room for key telephone numbers and our "Power Problems? Let us know!" brochure. It was sent on May 26<sup>th</sup>, 2010 to 3,072 customers enrolled in the Life Sustaining Equipment program.

**Cases 06-E-0894 and 06-E-1158**  
**ORDER IMPLEMENTING OUTAGE RECOMMENDATIONS**  
**April 1, 2011 Filing Requirements**

**“Customer News” Publication – May-June Edition**



Customer News  
(English).pdf



Customer News  
(Spanish).pdf

Attached is a copy of our May-June “Customer News” publication sent to all of our customers. It is also printed in Spanish for those customers who receive bill messages in Spanish. The publication informs customers of the importance of identifying themselves to Con Edison as users of life-support equipment and provides enrollment information.

**NYCHA Journal Advertisement – In June/July 2010 edition**



NYCHA Journal Ad  
2010.pdf



NYCHA Journal Ad  
Spanish 2010.pdf

The attached ads in English and Spanish encouraging tenants who use life sustaining equipment to contact Con Edison appeared in the June edition of the New York City Housing Authority (NYCHA) Journal. The journal is for NYCHA's 415,000 tenants.

**Summer Outreach Community Group Mailing – Sent out May 19<sup>th</sup> 2010**



Community Organization  
Letter.pdf

Attached is a sample of a letter that was sent out to 1,060 community based organizations. In addition to requesting the organization's updated contact information, the letter requested that the recipients encourage persons who use life-sustaining equipment to register with Con Edison.

**Cases 06-E-0894 and 06-E-1158**  
**ORDER IMPLEMENTING OUTAGE RECOMMENDATIONS**  
**April 1, 2011 Filing Requirements**

**Directive No. 16 - ICS Training Affidavit**

*(16) ... certify by affidavit signed by the President of Con Edison that each employee in a position in the emergency response organization received training, to a level commensurate to the position occupied, in the Incident Command System and National Incident Management System, establish a plan for annual renewal of training...*

**Status**

As indicated in the 2010 filing, Emergency Management created training levels for the ICS Command Structures utilized for CERC (Corporate Emergency Response Center) type incidents/events and for ERP (Emergency Response Program) type local or regional incidents/events, using the guidance prescribed in C.I. 260-4. See training requirements listed below. A Basic ICS on-line course was completed last year and can now be used in lieu of the classroom Basic course.

CERC level staffers have been identified and scheduled by Emergency Management. Electric Operations Emergency Management (EOEM) has identified employees in the electric regions who would staff the ICS organization for regional events.

Each Company employee who is designated as of April 1, 2011 to occupy a position in the ERP or the CERC response structures for mobilization at a "serious" event level and above has received training in the Incident Command System to a level commensurate with the position held. Lists of the employees currently identified and trained to occupy a position in the ERP or the CERC are maintained by Emergency Management and are updated as employees are identified for positions and are trained.

The training certification affidavit is provided in Appendix "B." The names of employees are redacted per 16 NYCRR 105.4(e)(2).