



Recovery Award

For EEI Electric Company Members in their own service area

****For emergency recovery during the period December 2009-December 2010****

Emergency Recovery

EEI's Emergency Response Awards recognize companies that faced untoward circumstances caused by extraordinary events and that put forth an outstanding effort to restore service to the public. If you believe that your company or another EEI member company should be recognized for its recovery from such an event, please complete this form and return with the contact form to EEI.

**Edison Electric Institute – Emergency Response Awards
Emergency Recovery**

Company Name: **Central Hudson Gas & Electric Corp.**

- 1. When did the event occur?**
 - a. Date (s) of the event: **Feb. 23 – 27, 2010**
 - b. Date (s) of the recovery period: **Feb. 23 – Mar. 4, 2010**

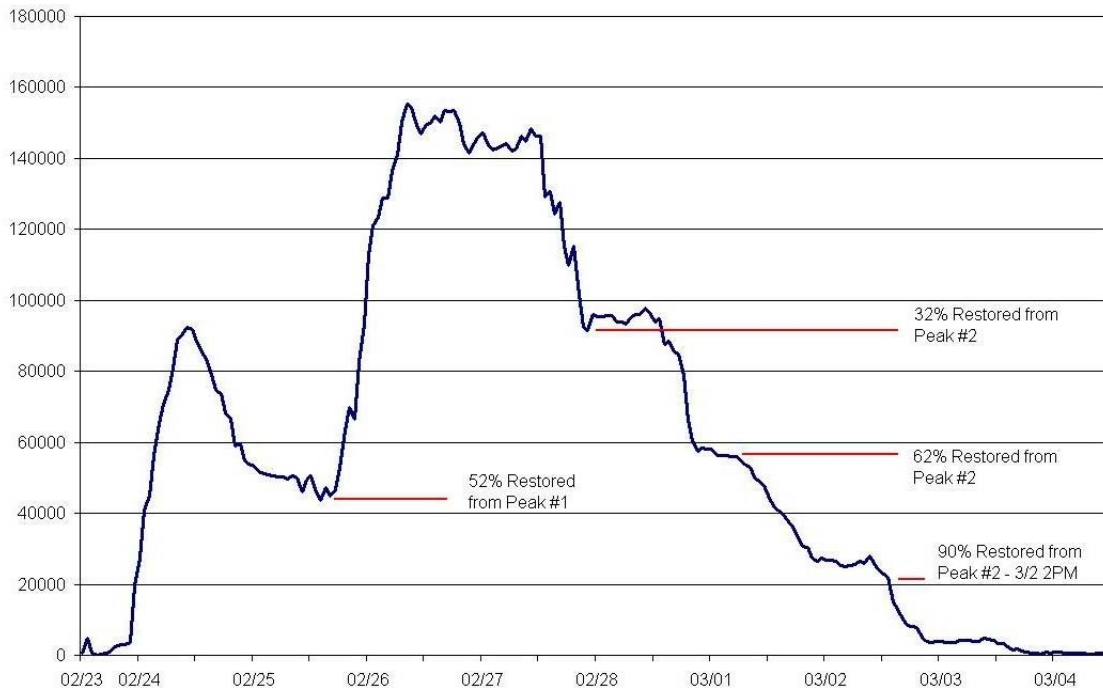
- 2. What type of event was it?** **Back-to-back heavy snowstorms**

- 3. Please try to quantify the damage to your system, if possible:**
 - a. Distribution Line**
 1. Miles replaced: **12.2 miles**
 2. Number and percent of company's total distribution feeders affected: **239 circuits (81 percent)**
 3. Number of feeders locked out: **66**
 4. Total number of trouble cases (note that one customer being out twice in an event would count as two trouble cases): **4,532**
 - b. Distribution Poles**
 1. Number replaced: **134**
 2. Estimate your total number of distribution poles: **214,000**
 - c. Distribution Transformers**
 1. Number replaced: **151**
 2. Estimate your total number of distribution transformers: **98,000**
 - d. Transmission Line**
 1. Number of transmission circuits locked out: **17**
 2. Percent of company's total transmission system: **23 percent**
 - e. Transmission Towers**
 1. Number of transmission structures replaced: **None**
 - f. Substations**
 1. Note any damage and repairs: **Minor damage only**
 - g. Generation**
 1. Note any damage and repairs: **N/A**

- 4. Outages**
 - a. At peak, number of customers with sustained (not momentary) outages: **155,244**
 - b. Percent of company's total customers: **52 percent**
 - c. In some cases, the total number of customer outages is higher than the peak customer outage, due to the length of the event or the timing of the outages and repairs. If this was true, please provide the total number of customer outages (note that one customer being out twice would only count as one customer outage): **203,293 (68 percent of customers)**

5. **Restoration** – Please note below the percent and number of customers restored after 1 day, 2 days, 3 days, etc. until 100% restoration is reached. (Note: 100% restoration is defined to include only those customers who are able to take power.) **See charts, below:**

CENTRAL HUDSON GAS & ELECTRIC
Hourly Customer Outages
Feb. 23 - Mar. 4, 2010 Snowstorms



Date	Customers Out	Customers Restored	% Restored
2/24/2010	92,441	0	0
2/25/2010	43,681	48,760	52.75
2/26/2010	155,244	0	0.00
2/27/2010	95,949	59,295	38.19
2/28/2010	58,075	97,169	62.59
3/1/2010	27,340	127,904	82.39
3/2/2010	3,786	151,458	97.56
3/3/2010	1,036	154,208	99.33
3/4/2010	0	155,244	100

See note 1

Notes:

1. More than 50 percent of the outages caused by the first weather event on February 24 were restored when the second storm hit on February 26. Restoration progress is reset to zero due to the additional outages caused by the second storm.
2. The number of actual customers restored is higher due to outages reported and restored on the same day. Restoration percent is based on peak number of outages each day and total outages remaining at the end of the day.

If there were a significant number of customers who could not take power, please provide an estimate: **Number of customers in this situation was not significant.**

6. **Cost**
 - a. Estimated financial cost to the company: **\$22.4 million gross storm cost (filed \$19.4 M)**
 - b. Estimated man-hours spent by your company and regular contractors: **230,000 hours**
 - c. Estimated man-hours spent by visiting contractors and assisting companies: **57,000 hours**

7. **If assistance was received from other utilities or contractors, please summarize as best you can below:**
 - a. Approximate number of electrical workers: **453**
 - b. Approximate number of tree/vegetation workers: **175**
 - c. Approximate number of other workers: **91**
 - d. From what states did the workers come? **Pennsylvania, New Jersey, Ohio, Michigan, Massachusetts, Connecticut**

8. **Safety**
 - a. Number of OSHA Reportable personnel accidents: **One (initially a first aid treatment, and later the employee was treated by a chiropractor and accident was reclassified)**
 - b. Number of DOT Reportable vehicle accidents: **None**
 - c. Please provide details on accidents, if possible, especially lost-time accidents (e.g. sprained ankle, lacerated finger, vehicle collision due to inclement weather, etc...): **1- slip down embankment (minor cut); 1 - minor fall from pole (later reclassified as OSHA reportable when the employee was treated by a chiropractor – see above)**
 - d. Were there any fatalities in the restoration? Please provide details: **None**

9. **Description of Event:** Please attach a description of the event (limit one page). Briefly describe the event, the extent of damage, and any specific situations that made responding to the disaster particularly difficult. **See attached.**

10. **Description of Recovery Efforts:** Please attach a description of your recovery efforts (limit two pages). Describe the accomplishments in restoring service. Emphasize, as appropriate:
 - a. Emergency preparedness plans and drills
 - b. Successful management of the situation
 - c. Effective communication with the public
 - d. Innovative techniques or unique solutions used in the response efforts
 - e. Revisions to the response plan, based on this experience

See attached

11. **If there were any especially unusual events or human-interest stories, you may add an additional ½ page explanation. See attached**

12. **Optional Photos:** You may also send a few photos of the damage, work crews, maps or other supporting material. Please limit to three pages. (NOTE: We reserve the right to use these items, at our discretion, at the awards ceremony or in other awards activities.) **See attached**

9. Description of Event

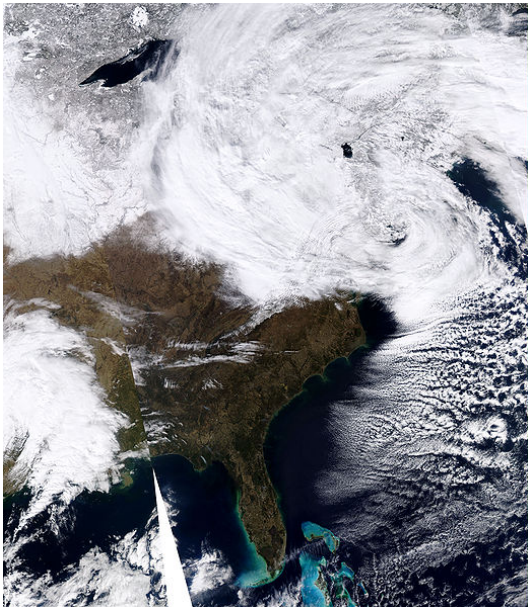
A major winter storm, the most significant storm event in Central Hudson's 110-year history, struck the Hudson Valley region from Feb. 23 through 27, 2010. Two distinct weather systems brought heavy, wet snowfall to our service area, with some areas experiencing accumulations of greater than six feet over the course of the back-to-back storms. In total, the storm affected 203,293 or roughly two-thirds, of our customers.

At the peak of the first storm, 92,441 customers were out of service, primarily in the central and northern parts of our service area. This storm alone was the third worst event in Central Hudson history in terms of customers affected. The restoration effort for this storm was underway, and crews restored power to half the affected customers when the second storm hit, also bringing heavy, wet snow for another three days over most of our service territory, primarily in the southern area. At peak 155,244 customers were affected by the combination of the first and second storms, more than half of the entire customer base.

Electric service was restored to substantially all of our customers within a week of the first storm, utilizing a workforce of electric line and tree trimming crews nearly five times our normal complement. These crews addressed 4,532 damage locations, often working in extremely challenging conditions. In total, more than 1,500 personnel including employees, mutual aid and contract crews worked round-the-clock to clear roads, repair lines, replace damaged equipment and provide customer support functions during this unprecedented natural disaster.

The severe weather blocked roadways and hampered access to the most heavily damaged areas of our service territory. States of emergency were declared by several regional counties and municipalities, including Orange, Greene and Putnam counties; the towns of Wappinger, Fishkill, and East Fishkill; and the City of Beacon. Interstate 84, the major route through the southern portion of our service area and in the center of one of the hardest hit areas, was closed for many hours, stranding hundreds of motorists from Newburgh to the Connecticut border, due to heavy snow and vehicular accidents.

The heavy, wet snow dropped by the storm weighed down trees and branches and caused many to break or fall onto power lines. The storm caused 17 transmission circuit lock-outs, 66 distribution circuit breaker lock-outs, 134 broken poles and damage to hundreds of individual service lines. Blocked roads and deep snow necessitated the use of snowshoes by line crews in some areas to access and repair damaged lines. Our Outage Management System (OMS) successfully processed more than 97,000 individual trouble orders over the course of the storm, and more than 223,000 pounds of dry ice and 71,000 bottles of water were distributed at 15 separate locations.



Satellite photo of the storm, from the Wikipedia page, "The Third North American blizzard of 2010," http://en.wikipedia.org/wiki/Third_North_American_blizzard_of_2010

Photo source: NASA

10. Description of Recovery Efforts: Please attach a description of your recovery efforts

1. Emergency preparedness plans and drills

Central Hudson follows a thorough Electric Emergency Plan when addressing outages following storms events, and storm drills are conducted to keep skills and procedures fresh. For this storm every available Central Hudson employee was assigned a task directly related to restoring electric service or providing critical support functions including material delivery, computer systems support, purchasing and procurement, dry ice/bottled water distribution, customer communications and meal deliveries to field crews. We also implemented lessons learned from past storms, particularly the December 2008 ice storm, including more rapid damage assessment, enhanced communications with municipal officials and greater use of mutual aid assistance.

2. Successful management of the situation

We began monitoring weather reports five days in advance and participated in conference calls with the National Weather Service. Although none of the forecasts had predicted the severity brought about by the storms, we immediately began to secure resources and placed our contract line and tree trimming crews on alert. As the storm developed, daily storm restoration planning meetings were held. Beginning on Feb. 24, Central Hudson initiated mutual aid requests from the New York Mutual Aid Group members, and began to seek resources from electric line contractors. Within the first 24-hours, 30 electric and 30 line clearance contract crews were secured, and through continued efforts private contract crews continued to arrive from as far away as Michigan, together with 65 line crews from National Grid. In total, 271 electric line crews and 98 line clearance crews supplemented Central Hudson's force of 62 line crews, for a total complement of 369 line and line clearance crews. We also worked closely with municipalities to safely clear and open roadways.

Consistent with our emergency plan, restoration work was prioritized to repair damage that safely restored service to the largest number of customers first, with priority to circuits supplying critical facilities. Electric service was restored to 50 percent of customers affected by the first storm before arrival of the second, and then to nearly one-third of all customers affected within 36 hours following the storm. The large contingent of Central Hudson and outside repair crews, managed by Central Hudson employees, continued to make significant progress in the days following, with electric service restored to approximately two-thirds of affected customers by the end of Sunday, February 28. On the fourth day following the combined event, more than 95 percent of our customers had service restored.

3. Effective communication with the public

Communications with customers, municipalities, counties and state officials were ongoing throughout the duration of the storm and restoration process. Call Center upfront-recorded messages were updated regularly to provide callers with the latest restoration information. Daily communications with customers on life support apparatus occurred throughout the storm. Seven daily Community Briefing conference calls were held with more than 40 municipal officials, county emergency management agencies and elected representatives almost immediately. In addition, more than 60 updates were provided to state officials and representatives, and regular telephone contact was maintained with municipalities by our district personnel. Central Hudson employees were stationed at four of the county emergency management offices with direct computer links to our Outage Management System, and 30 status reports were filed with the New York State Public Service Commission staff outlining remaining outages, crew assignments and available estimated restoration times by municipality. Central Hudson's President Jim Laurito also held regular status calls with NYS Public Service Commission Chair Garry Brown, and our operations executives also held daily calls with the Public Service Commission staff.

Status reports on repair efforts, information on dry ice and water distribution, shelter locations, and pertinent safety information were issued through 21 press releases, radio announcements and also through the StormCentral section of Central Hudson's Web site. In total, the Web site received nearly 138,000 hits, with more than 395,000 pages viewed; the StormCentral mobile site received almost 16,000 hits. Daily newspaper print and Internet reports also kept customers informed, and more than 140 calls and

interviews were fielded from the local, statewide and national news media. Five live, on-camera Web interviews of one of our executives were used for the first time by a local newspaper to provide customers with real-time updates of the restoration progress and safety information. These interviews were interactive and allowed customers to submit questions by email. The interviews were simulcast on local radio stations, and garnered nearly 226,000 hits and 778,000 viewer minutes on the newspaper's Web site.

The "Central Hudson Emergency Communications network" (CHECK) was also activated, broadcasting pre-recorded messages more than 1,100 times on 22 AM and FM radio stations on restoration updates, safety, dry ice and bottled water distribution centers and shelter locations. Our Call Center handled more than 342,000 calls during the week, which is equivalent to half the typical annual volume. Of these calls more than 61,000 were handled by live representatives, and more than 12,000 trouble reports were processed through our Web site and mobile StormCentral application.

4. Innovative techniques or unique solutions used in the response efforts

The new StormCentral feature on our web site was available to customers, the news media, and emergency response officials that mapped outage locations and provided available restoration times, as well as summary information by county and municipality. A mobile application of StormCentral for web-enabled cell phones and other portable devices was also available, having just been launched two weeks prior to the storm, which provided outage locations and available restoration times in a mobile format.

To save precious crew time and maximize work during daylight hours, we developed a practice of delivering meals to crews at their field locations. We have employed this program in previous storms, and found that it was even more critical during this event in order to maintain productivity and speed restoration. More than 7,700 meals were delivered to crews, eliminating the need to break down the job site, drive to a sandwich shop, order, eat, return to the job site and set up again. Meals were ordered and delivered by employees from other areas serving in support roles during the storm.

Deep snow conditions prompted line crews to go back to basics: they utilized snowshoes to reach otherwise inaccessible areas impacted by deep, heavy snow, up to 6 feet in some areas, to repair damaged lines. We put our automated outbound calling system to use by notifying customers of revised ETRs as needed, and to confirm conference call times with municipal officials. Line trucks were fueled at hotels and meals were delivered to line crews in the field to save time. We also obtained pelletized and pre-cut bricks of dry ice in two to three-pound bags to streamline processing and expedite delivery time.

To increase our damage assessment coverage, we teamed up less technical employees as drivers/logistic coordinators with technical damage assessors. We also utilized Stray Voltage testing and distribution inspection contractors to perform damage assessment when employee-inspectors were redeployed as Mutual Aid crew guides, and recruited company retirees as Mutual Aid guides. Qualified foremen and supervisors were used to oversee and coordinate multiple teams of Mutual Aid guides and crews, which enhanced productivity and safety. Executives visited crews in the field to show their appreciation and support, which uplifted morale and spirits.

5. Revisions to the response plan, based on this experience

Several revisions to our storm plan and additional pre-planning measures are being implemented as a result of our self-assessment, including:

- Prepackaging storm materials for mutual aid crews;
- Expanding training and documentation for phone support personnel, damage assessment and crew guides, and updated dry ice/bottled water distribution procedures;
- Working with local Emergency Management offices to improve Internet communications equipment for use by our employees stationed at 911 centers during emergencies;
- Modify ETR procedures to improve timeliness and accuracy;
- Outage Management System software upgrade;
- Improve computer application for customer call processing and callback procedures.

11. Unusual events or human-interest stories

One of the most significant accomplishments during this storm event was safety performance in that not one employee or contractor was seriously injured during the restoration effort, no lost-time incidents occurred, and only one OSHA recordable accident was reported (a reclassified first-aid incident), a remarkable achievement given the hazardous conditions. To ensure that all field forces understood and followed our safety requirements, Central Hudson's Safety Director and foremen reviewed our safe work practices with every mutual aid and contract worker upon their arrival. These briefings were particularly critical under the extraordinary circumstances during and following these storms. They helped communicate the important role safety plays in our culture, and we believe these meetings were key to achieving this outstanding safety record. Many of those who assisted returned to their companies expressing how impressed they were with the briefings and our safety program, and our Safety Director received many follow up calls.

The storm's severity caused the closure of Interstate Route 84 for nearly 40 miles, from Newburgh in Orange County through southern Dutchess County to the Connecticut border (Exits 6 to 21), stranding motorists overnight for up to 15 hours and some tractor-trailers for up to 24 hours. Northern sections of the Taconic State Parkway were also closed for a period (see <http://abclocal.go.com/wabc/story?section=resources/traffic&id=7299614>)

Our field representatives checked on customer locations, particularly those dependent on electrically operated life support apparatus, when call center representatives could not reach those customers by telephone, and delivered household supplies when customers indicated a dire need and had no other alternatives.

A Wikipedia entry covers the storm and damage it caused in the Northeast and Mid Hudson Valley, including mention as the largest storm in the Central Hudson's history (see http://en.wikipedia.org/wiki/Third_North_American_blizzard_of_2010)

Recognition and support from the public, media, elected officials and regulators was unprecedented. NYS Public Service Commission Chair Garry Brown declared Central Hudson's efforts as "heroic" in their monthly session immediately following the storm. We also received more than 70 thank you letters from customers and municipal officials, and 22 letters-to-the-editor were printed in local newspapers in appreciation of the restoration effort. By all accounts, we were able to turn the worst storm event in our history into a success story.

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