

Ellinger
Myers
Lawless
Beard
Feigel
Crosbie
McChord
Martin
Henson
Lane

SERVICES COMMITTEE

March 3, 2009

1:00 P.M.

A G E N D A

1. Man O War Truck Restrictions - Stevens (1-7)
2. Alexandria Rd 1300' Block: Remove On-Street Parking
and Create Center Turn Lane - Henson (8-17)
3. 2003 Public Utilities Task Force Ice Storm Report &
Recommendations - Gorton (18-72)
4. Items in Committee (73-74)

"Services Committee, to which should be referred matters relating to public safety, public works, urban county courts, and constitutional officers."

Council Rules & Procedures, Section 2.102(3)



Lexington-Fayette Urban County
Division of Police
MEMORANDUM
Lexington, Kentucky

DATE OF ISSUE

January 30, 2009

EFFECTIVE DATE

NUMBER

COP:2009-0048

1

TO:

Tim Bennett
Commissioner of Public Safety

SUBJECT:

Man O' War Truck Traffic

FROM:

Ronnie Bastin
Chief of Police

Please find attached memorandum from Lieutenant Doug Pape regarding Man O' War Truck Traffic. Lieutenant Pape attended an Urban County Council Services Committee Meeting in December 2008 and was subsequently asked to provide a substantive review of our ability to enforce Revised City Ordinance 18-44.

We would like to request that the Division of Police not enforce RCO 18-44 and the ordinance be reconsidered by the council.

If further is needed, please advise.

Ronnie Bastin
Chief of Police

RB/mdh

attachments



Lexington-Fayette Urban County
Division of Police
MEMORANDUM
Lexington, Kentucky

DATE OF ISSUE

January 11, 2009

EFFECTIVE DATE

NUMBER

2009-004

2

TO: Commander William Henderson
Bureau of Special Operations / Traffic Section

SUBJECT: Man O' War Boulevard – No Through Trucks

FROM: Lieutenant Douglas V. Pape
Bureau of Special Operations / Traffic Section

On December 2, 2008, I was asked to attend a Council Services Committee meeting to represent the Division in a question in reference to large truck traffic on Man O' War Boulevard.

The question posed to me was if the Division of Police could enforce Revised City Ordinance 18-44 which states:

Sec. 18-44 Truck Routes: Ky 4—New Circle Road is hereby designated as the truck route for through traffic, and no truck without a local destination shall use any other route except to gain ingress and egress to Ky 4.

This question arises from a letter written from a citizen whose backyard lies near the outer loop of Man O' War at Crosby Drive. The citizen's primary concern appears to be with the noise produced by the large number of commercial vehicles using Man O' War. His suggestion is to make Man O' War a "No Through Trucks" route. During this discussion, RCO 18-44 was evaluated.

It is my understanding that this ordinance was put in place prior to Man O' War Boulevard and I am unable to find anytime in the past when our Division has enforced this ordinance. I contacted Assistance County Attorney, Brian Mattone, and he advised me that the ordinance is able to be enforced. He did express some reservation about its use.

At recent meetings of the Transportation Technical Coordinating Committee and the Congestion Management Committee I raised this issue. Both committees responded with concern as to the impact of enforcing this ordinance.

I have listed below some considerations for the Division before enforcing this ordinance or "No Through Trucks":

- Man O' War was constructed and it's intersections reengineered to accommodate truck traffic
- Enforcement would be manpower intensive. Officers would have to follow trucks as they enter Man O' War until they left Man O' War without stopping for legitimate business needs prior to making a stop
- Currently, there is no signage advising truck traffic that they cannot use Man O' War
- Additional truck traffic would be pushed through the cities highest volume corridors; Nicholasville Road between Man O' War and New Circle Road and Richmond Road between New Circle and Man O' War

- Trucks making deliveries or having destinations along this route would still be authorized to use this route, only reducing truck traffic not eliminating the trucks
- "No Through Trucks" designation requires a traffic impact study involving city and state traffic engineering and council approval

In effect, enforcement of this ordinance is designating Man O' War as a "No Through Truck" route without weighing the effect on traffic flow in the area. It is my recommendation that we do not enforce RCO 18-44 and the ordinance be reconsidered by the council.

E-mailed

Lieutenant Douglas V. Pape
Bureau of Special Operations
Traffic Section

Commissioner Taylor stated they could look at any option the Council would want them to look at.

Several CMs asked questions regarding this issue and expressed their concerns.

A motion by CM DeCamp to remove this issue from the Services Committee based on a forthcoming recommendation to place it in Budget and Finance Committee, seconded by CM Crosbie, passed without dissent.

3. Man O War Truck Restrictions

Dr. Stevens gave background information regarding this issue.

Lt. Pape stated Section 18.44 could be difficult for officers to enforce.

A motion by Dr. Blues for the Police Dept. to report back to the committee in 60 days with their findings from the surveillance of the area and a plan of enforcement, seconded by CM Crosbie, passed without dissent.

4. Items in Committee

No motion came from this item.

The meeting adjourned at 2:23 pm.

LEXINGTON-FAYETTE URBAN COUNTY COUNCIL
Memorandum

TO: Services Committee

FROM: Paul Schoninger
Staff to Council

DATE: February 25, 2009

SUBJECT: Man O' War Truck Restrictions

The issue of prohibiting truck traffic from Man O' War Blvd will be discussed at the March 3, 2009 Services Committee. As I understand it, constituents contacted former Councilmember David Stevens concerned about traffic and associated noise and suggested that LFUCG prohibit truck traffic from Man O' War Blvd.

The concern I have on such a proposal is the impact to New Circle Rd. According to Planning staff, average daily traffic on MOW is between 27,800 – 46,100 vehicles. They have also estimated that truck traffic makes up between 3-8% of that total. If those figures are accurate up to 3,000 truck trips would be added to New Circle Rd on a daily basis. It would also impact Nicholasville Rd between MOW and New Circle as well as portions of Richmond Rd and Winchester Rd.

At present there is an ordinance 18-44 which designates New Circle Rd as a truck route for through truck traffic. I don't believe this ordinance has ever been enforced by LFUCG although Police could better address the enforcement issue.

Council could sign Man O' War Blvd with "No Thru Trucks" signs but this would need enforcement from Police to be effective. Police would need to allocate resources to this activity.

I also believe that such action would require approval from the MPO Policy Committee and possibly the Kentucky Transportation Cabinet or the Federal Highway Administration but Planning or the MPO staff may need to address the approvals.

Should you need any further information please do not hesitate to contact me at 258-3208.



Paul Schoninger
Staff to Council

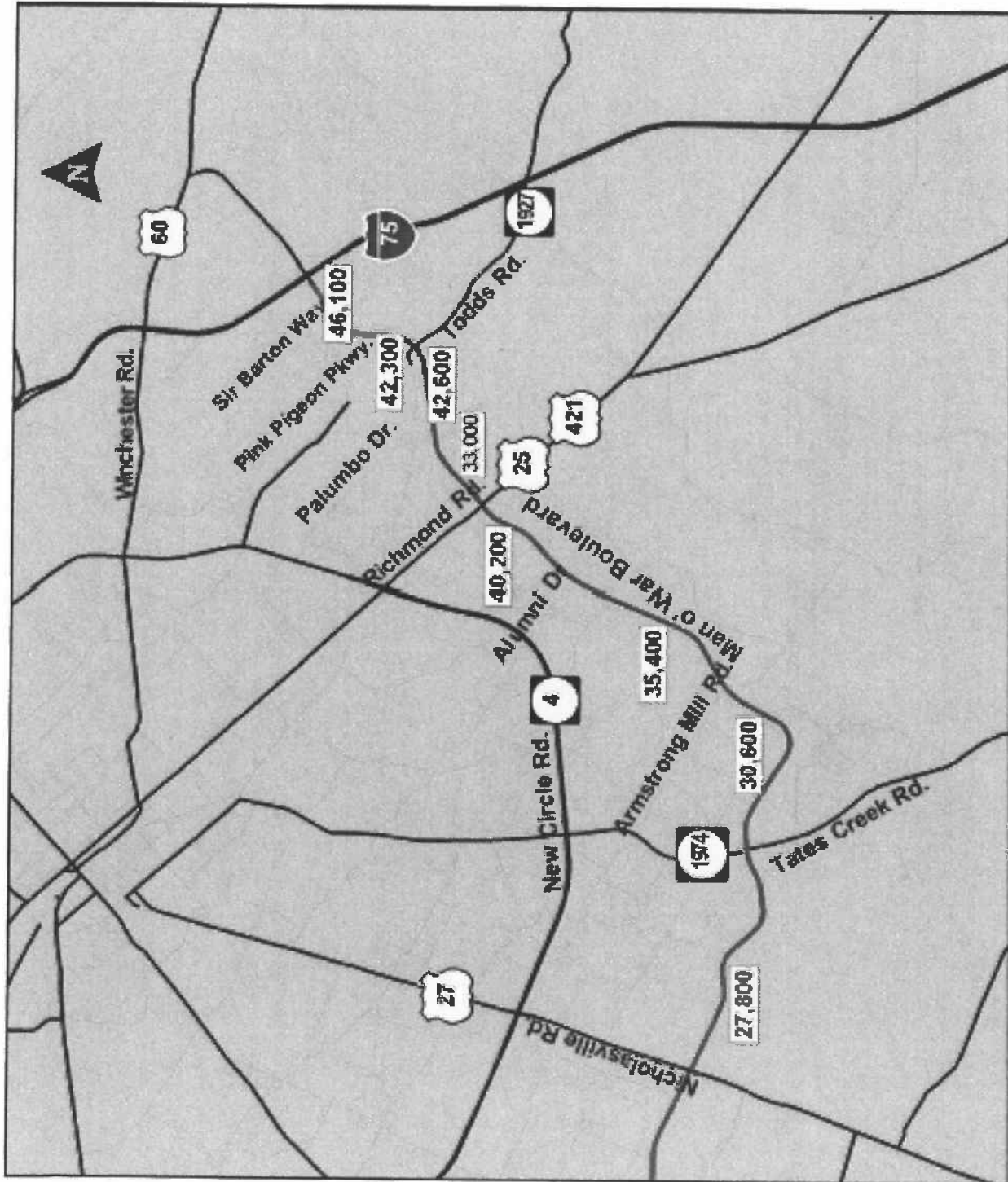


Figure 3. Current Average Daily Traffic (ADT)

Sec. 18-44. Truck routes.

Ky. 4--New Circle Road is hereby designated as the truck route for through traffic, and no truck without a local destination shall use any other route except to gain ingress and egress to Ky. 4.

(Ord. No. 3909, § 1, 7-2-59; Ord. No. 4665, § 1, 6-13-63; Ord. No. 254-67, § 1, 10-13-67; Ord. No. 298-69, § 1, 12-11-69; Ord. No. 122-87, § 4, 6-25-87)

Date: June 23, 2008

To: Mayor, Jim Newberry, mayor@lfucg.com
Council Members, CouncilMembers@lfucg.com

From: Gordon Huffer

Re: Large truck traffic on Man O War Blvd.

My name is Gordon Huffer and I own a home at 1181 Tanbark Rd. I have lived there since 1989. This is the first time in my life that I have contacted the Mayor or a Council Member or felt compelled to register a complaint concerning life in Lexington. However, that time has come and I feel the need to seek help from you.

My home backs up to Man O War Blvd. and needless to say, traffic on Man O War has increased year after year. I feel quite sure that those who decided that a "Boulevard" was needed years ago, did not envision it to be an "outer bypass". They certainly would not have placed curbs and sidewalks along it and then traffic signals at almost every intersection. Obviously, we can't change that situation now, but I do need your help with a problem that can be "fixed". That problem is large truck traffic running behind all the homes that back up to Man O War Blvd. from Nicholasville Road to Richmond Road.

The problem really started after Man O War Blvd. was opened up to I-75. Prior to that time, large semi-trucks from the freight depot in Jessamine County would travel in on Nicholasville Rd. to New Circle Rd. and then travel out on one of the main arteries. This would take them through commercial areas and not through residential areas. That has all changed. Now these semi-trucks including other large trucks such as dump trucks, concrete trucks, heavy equipment trucks, and the list goes on and on are traveling behind our homes. We are talking about hundreds of trucks weekly that travel behind our homes. The noise from these trucks is deafening. The

main semi-truck traffic starts around 5:30am, but is 24 hours daily problem. The dump trucks and concrete trucks are also mainly coming from Jessamine County (Catnip Hill) and on any given day, there will be 30 - 40 trucks, times two (going & coming back) that drive behind my home. My back door is approximately 50 feet from the road way and some homes on Man O War are within 25 feet. I invite you to have a meeting on my patio and you will find that you can not have a normal conversation or be heard even sitting close to each other. We have a swimming pool in the back yard and can not enjoy it for the truck noise, I have been told by a realtor friend that property values on homes that back up to Man O War Blvd. have been affected drastically.

What would it take to fix this problem? I feel it would be quite simple. Do not allow large truck traffic on Man O War Blvd. from Nicholasville Rd. to Richmond Rd. Trucks that weigh 6,000 pounds and over would be required to travel on streets that are commercial and not through residential areas. They would go back to using New Circle Road.

I would very much like to receive a reply from the Council and Mayor's office concerning this matter and hear your suggestions. I would also be very happy to meet with the Council or any Member and provide additional information if needed.

Thank you in advance for your prompt attention and hopefully a remedy in this matter.

Gordon Huffer
1181 Tanbark Rd.
Lexington, KY 40515
859-273-1181
gdh39@qx.net

Services Committee
Lexington Fayette Urban County Council
200 East Main Street
Lexington, KY 40507

February 22, 2009

Dear Services Committee Members:

This letter is submitted to express our awareness of wide neighborhood area support for the proposal to remove on street parking and install a center turn lane on 1300' block of Alexandria Drive.

Earlier we initiated efforts to bring about this change due to traffic congestion and safety issues concerning both pedestrians and drivers using the 1300 Block of Alexandria Drive. There have been numerous minor accidents and some injuries, many going unreported.

We encourage the proposed change as very cost-effective and one that will increase safe passage of both vehicles and pedestrians (many of them children) through what is a seriously congested stretch of Alexandria Drive.

Sincerely,

Todd Strecker, President
Calumet Area Neighborhood Association

LEXINGTON-FAYETTE URBAN COUNTY COUNCIL
Memorandum

COPY

TO: Ron Herrington, Director
Division of Traffic Engineering

FROM: Peggy S. Henson
Peggy S. Henson
11th District Councilmember

DATE: December 9, 2008

SUBJECT: Request for Parking Restrictions

At a recent meeting for neighborhood representatives hosted by the Mayor, Todd Strecker with the Calumet Area Neighborhood Association presented the attached request to restrict parking on Alexandria Drive. Please review the request and advise if changes can be made to improve traffic safety in this area.

Thank you for your prompt attention to this matter.

attachments

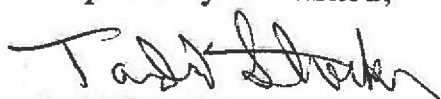
Calumet Area Neighborhood Association
1408 Parterre Court
Lexington, KY 40504

December 03, 2008

A proposed change within our overall neighborhood "zone."

Due to traffic safety and congestion problems we request on-street parking be eliminated on Alexandria Drive from address numbers 1300 to 1400 by yellow painting the curbs and posting of no parking signage. Further, we request that traffic engineering consider re-striping the street area described to provide for a center turn lane into and out of the adjacent properties.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Todd Strecker", written in a cursive style.

Todd Strecker, President

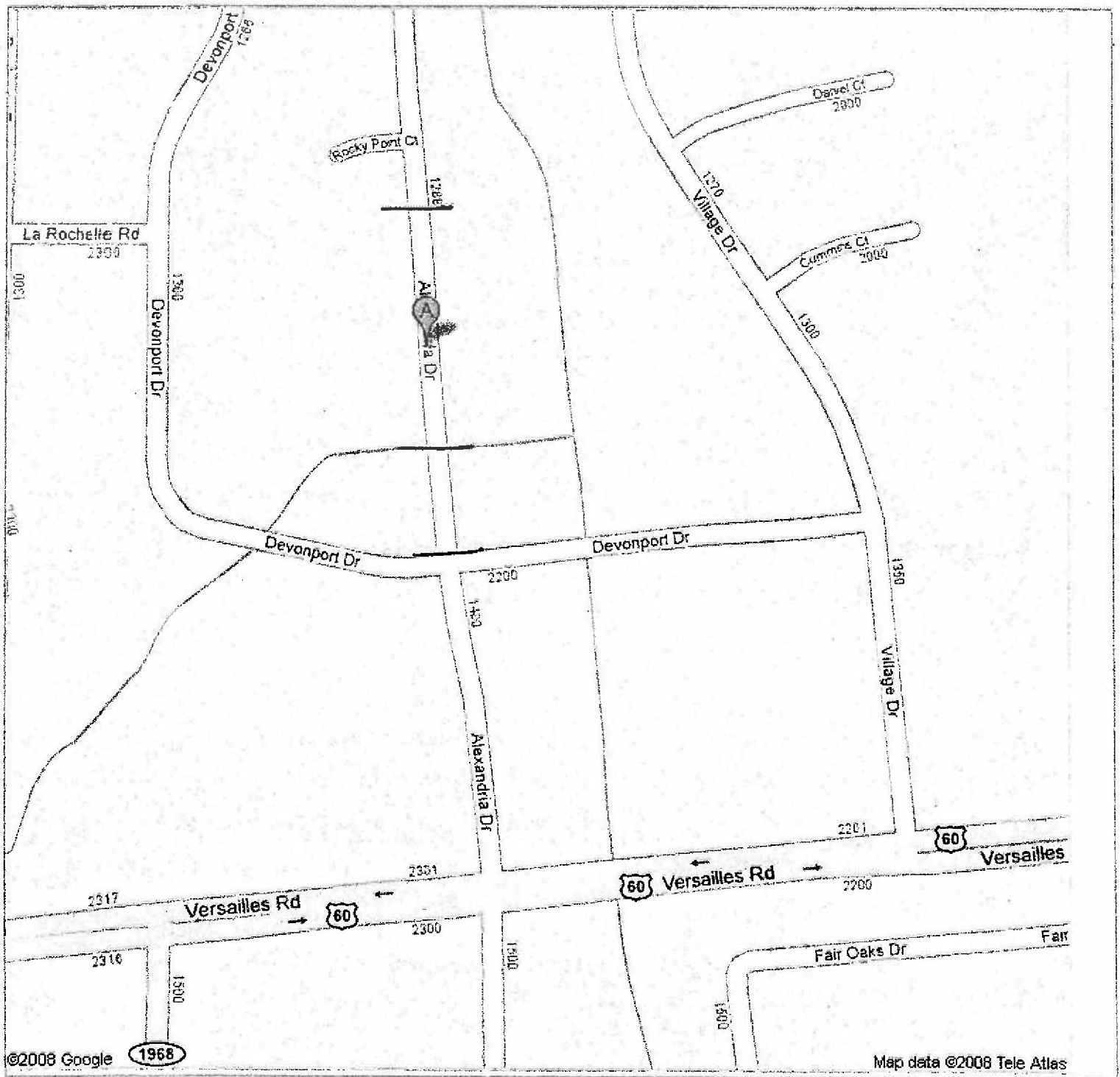


Address **1325 Alexandria Dr**
Lexington-Fayette, KY
40504

Get Google Maps on your phone



Text the word "GMAPS" to 466453



To Whom It May Concern:

The management of Crystal Springs Apartments at 1321, 1341, and 1369 Alexandria support the initiative of Councilperson Henson to remove on street parking and installing a center turn lane on the 1300 block of Alexandria Drive. This would solve two issues 1) the poor visibility when exiting the parking lots, and 2) the loitering for narcotics and prostitution that occurs around the vehicles parked along the street and in front of the apartment complexes. It would also increase the visibility of the building from the street. This in return should decrease the amount of graffiti showing up on the front of the buildings.

If you have any questions regarding this matter, please feel free to contact us at 859-281-6688.


Crystal Springs Apartment Management

FEB-23-2009 MON 03:06 PM BUREAU OF PATROL

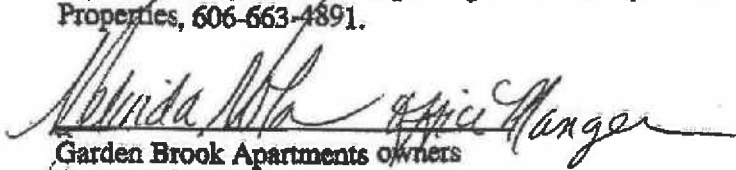
FAX NO. 8594252335

P. 02/02 15

To Whom It May Concern:

The owners/management of Garden Brook Apartments at 1340 Alexandria support the initiative of Councilperson Henson to remove on street parking and installing a center turn lane on the 1300 block of Alexandria Drive. This would solve two issues 1) the poor visibility when exiting the parking lots, and 2) the loitering for narcotics and prostitution that occurs around the vehicles parked along the street and in front of the apartment complexes. It would also increase the visibility of the building from the street. This in return should decrease the amount of graffiti showing up on the front of the buildings.

If you have any questions regarding this matter, please feel free to contact us at Rednour Properties, 606-663-4891.


Amanda M. Hanger
Garden Brook Apartments owners
Rednour Properties

1300 Block - Alexandria Drive

Lexington, Kentucky

Alexandria Dr

Devonport Dr



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0 37.5 75 150 Feet

1 inch equals 75 feet

From: Robert Bayert
Sent: Friday, February 20, 2009 8:48 AM
To: Marwan Rayan
Cc: Kevin Wente
Subject: FW: Services Committee: 1300' Block of Alexandria

17

Marwan- This should reduce the possibility of the 4-way stop locking up and seems like a reasonable action to me. It also looks to be entirely a Traffic Engineering function. Would be curious what the northerly extent would be, as far as transitioning the new striping.

RAB

ICE STORM 2003

Report and Critique

Public Utilities Task Force

February 15 and February 16, 2003 brought to Lexington, KY and other parts of the Central Bluegrass the worst ice storm in recorded history. The ice wrecked havoc with trees and with many wires providing electrical, telephone and cable service. Almost all of the units of the Lexington Fayette Urban County Government, the various utilities and the citizens responded immediately. At first, the extent of the devastation was not appreciated but quickly the enormity of the problem asserted itself. The responses through the Emergency Operations Center and through the disaster and emergency response plans of the utilities were promptly activated. The extent of the damage was such that full services were not restored for ten days.

The National Weather Service and the KY State Climatologist reported 2.37 inches of freezing rain beginning on the 15th of February and extending into the 16th with temperatures remaining below 32F. (See Attachment A) This was equivalent to over two inches of ice. Dr. Stuart A. Forster of Western Kentucky University and the KENTUCKY Climate Center researched the past available records and it conclusively showed, based on actual ice accumulation, reports of power outages and time to restoration of service, that this was the worst storm in recorded history. The February 8&9, 1994 ice storm resulted in 20,000 homes with out power compared to this storm with over 132,000 in Fayette County. Dr. Stuart cited the 1951 storm as the greatest before this with 1.75 inches of ice measured in Bowling Green with much less in Lexington.

Many public services were immediately affected by the severe accumulation of ice, which downed many trees, which in turn took many utility power lines and closed many roads. The freezing temperatures persisted which prevented the spontaneous melting of the ice. The electric utility, KU/LG&E, indicated that 115,000 of their 169,000 customers in Fayette County were without service. In addition, Bluegrass Energy and Clark County Energy Co-op had 15,000 Fayette County customers without service. The government made immediate response by opening the Emergency Operations Center early on the 16th of February. The various LFUCG departments, with the help of the Commonwealth of Kentucky and various military units, began simultaneous rescue and relief efforts. The utilities that were involved primarily were the three electric utilities, the telephone company, and the cable company. These services were coordinated with frequent press conferences produced through the Mayor's office and the EOC. These were broadcast on GTV3 and the radio. The extra cost to the various activities amounted to:

KU- \$22.5 million

Alltel \$7.9 million

Insight \$2 million

Bluegrass Energy \$1.6 million

LFUCG \$5,088,679 with probable 75% payback by FEMA and 12.5% by the KY Department of Emergency Management. The net cost to the LFUCG will then be \$688,035.

Mayor Teresa Ann Isaac assigned review and critique of the disaster and the community's response from the public and private agencies to the Public Utilities Task Force.

Recommendations will be made for new procedures and arrangements to help in future disasters as well as a report of the various activities of the private and public agencies.

The Task Force members as reconstituted by this administration are listed.

(See attachment B) The first meeting was held on March 7, 2003. A series of questions were suggested and refined by David Stevens, Jerry Southers and Robert Starkweather. These questions were then circulated to the agencies and utilities with request for oral and written responses. At the meeting of the Task Force March 21, 2003, these were received. Additional questions were formulated and forwarded for written replies. A public meeting was held March 25, 2003 in the council chambers. Attendance included about ten citizens, members of the Council and the PUTF, and representatives of the utilities. Follow-up meeting of the Public Utilities Task Force (PUTF) was held on June 25 with review of the information collected and discussion of possible recommendations. At the public meeting, several speakers indicated their gratitude to the electric utilities for the prompt response and the evident good attitude. The most consistent comments were about poor communications and the lack of adequate tree trimming preceding the storm.

Also the PUTF has reviewed the reports made by KU/LG&E, Bluegrass Energy and Alltel to the Public Service Commission. These reports can be found on the Public Service commission web site at www.psc.state.ky.us (Index of Utilities with Ice Storm Damage).

ELECTRIC UTILITIES

The February 2003 Ice Storm was more severe than any winter storm in Central Kentucky recorded history. Freezing rain and ice in Central Kentucky continued for nearly thirty-six (36) hours, accumulating more than two (2) inches of ice on wires, electric poles and trees. The weight of the ice was more than eight times the structural design for the electrical system infrastructure. Trees located within and outside the right-of-ways collapsed from accumulated ice and eventually fell into utility lines disrupting service for days. Kentucky Utilities, Blue Grass Energy and Clark Energy Cooperative that serve the citizens of Fayette and surrounding counties reported extensive damage to their facilities. The storm led to numerous customer calls, complaints and service being disrupted for days to thousands of households within Fayette County.

Phone lines leading into the Urban County Government's LexCall were flooded with increased volumes of calls from citizens concerned with service interruptions. The Mayor's Office, Council members and their staffs were also inundated with calls, faxes and emails from citizens requesting information, voicing complaints and seeking help to have their service restored.

Immediately after the storm hit, the Mayor and Council requested daily briefings by all major utilities that served the citizens within Fayette County. These briefings became one of the primary sources for information to our constituents. Hundreds if not thousands of citizens sat glued to their battery-powered radios to get updated information from the briefings. Many citizens were without electric, phone and cable service for days due to the nature of the storm.

Although the natural gas utilities were not as affected, households that heat with gas were affected because electricity was required to operate the fans and blower assemblies on their heating units. Clark Energy Cooperative has only 100 meters within Fayette County and service to all customers was restored by midweek of the storm.

Given the variation in the number of customers served by each electric utility, subsequent comments contained within this report will be primarily focused on Kentucky Utilities. Blue Grass Energy and Clark Energy Cooperative would be welcomed to provide feedback on any comments or recommendations subsequently contained in this report. A list of questions that were developed from the Utility Task Force discussions and feedback from constituents are included. (See Attachment C) This listing was mailed to each electric utility but includes comments submitted by only Kentucky Utilities. Both Blue Grass Energy and Clark Energy Cooperative did not complete the questionnaire but elected to submit a copy of the response that was filed with the Public Service Commission of Kentucky at the Commission's request for all regulated utilities affected by the ice storm. Reports filed by Blue Grass Energy, Clark Energy Cooperative, as well as other regulated utilities may be viewed on the Internet via URL link: http://psc.kv.gov/psc/hot_list/ice_storm/ice_idx.htm.

CUSTOMER CONCERNS

Based on complaints from constituents and discussions between task force members, there seem to be recurring or common themes as they relate to service restoration during the ice storm by Kentucky Utilities. The primary concerns can be addressed under the following categories:

- Communications
- Disaster Plans
- Remote Call Centers
- Service Restoration Process
- Tree-Trimming Policies
- Safety and Damaged Property

Communications: Although KU did a good job of having employees available during the daily briefings there still exist the need to constantly communicate with customers in specific areas. For example, many customers were awaiting service restoration only to find out that they needed to contact a contractor to repair the service and/or meter base to their home before restoration could be completed. KU in their filing with the PSC also confirmed and concluded from the Lessons Learned, "*customers generally do not understand where KU's responsibility ends and theirs (the customers) begins.*" Even more discouraging for those customers that had been out of service for several days was that they had to remain without service until they secured the services of an electrical contractor to repair damages to the mast, entrance cable below the mast, or meter base before KU could energize the customer's service. Also an electrical inspection was required after each repair. This added an additional step to customer's responsibility. We applaud KU for recognizing and including this, as a top priority of future communication needs.

Instances were reported where outage information previously reported to office personnel was not being provided to company and contractor crews on a timely basis. Customers complained that when they spoke with KU field personnel working in their area and inquired as to when

service would be restored, workers stated that they did not have outage reports for their area. The task force was also informed that other types of inconsistent information between office and field personnel were being provided to KU customers that created confusion. For instance, contract crews were informing KU customers that the company had lost the Master Grid Plans for the city and that no one knew where the stations were located. When this subject was addressed with KU representatives the task force was informed that grid plans had not been lost and that all field and contractor personnel were scheduled for training that focused on communicating with KU customers.

Disaster Plans: KU utilizes and maintains a comprehensive storm and restoration plan. This is an integrated operating plan that incorporates into the outage plan resources both internal and external, identification of critical infrastructure (circuits, stations, substations, etc.) restoration priorities and is reviewed, updated, and ultimately approved annually by operational leaders and the company's senior management. Historically, the details of the plan have been restricted to internal use because of the sensitive information contained in the plan. KU's disaster plan is considered to be a "living" document because components of the plan change and are updated as experiences and Lessons Learned improve with each major storm. The general plan is filed as part of KU tariff.

The task force is not recommending that KU's Storm and Restoration Plan be released in entirety to the public but request that an overview of the plan could be shared with customers so that the public would be apprised of how KU staffs for major disasters, at what point outside crews are brought in, and what the specific priorities are when restoration of service is taking

place. If KU would publicize a general knowledge of the restoration plan this communication would go a long way to reduce confusion for their customers.

Remote Call Centers: The KU and LG&E call centers operate together as a single virtual call center. The three call center locations in Lexington, Pineville, and Louisville were connected in 2001 so that representatives in any location can answer calls. The technology utilized enables all three of these call centers to operate as if they were located in one physical location. The ability to operate separate geographical locations as one physical location is referred to as a virtual call center. Employees staffing is variable with "on-call" representatives standing by when major outages occur. Each call center can be staffed to match the volume of calls. KU reported that on February 15th, 50,000 calls, the highest one-day-call volume in company history was achieved. KU also utilizes an Integrated Voice Response Unit (IVRU) and calls from this system were also included in the 50,000 calls.

The task force can see the advantages of utilizing a virtual call center. This configuration allows for improved customer response time, and provides for greater staffing flexibility during major outages. Potentially, the closer a call center is located to the "epicenter" of a disaster, the greater the likelihood is that infrastructure may be at risk, as was the case with the Lexington call center during the ice storm. However, from the customer's perspective the task force was advised that during the storm Lexington customers whose calls were routed to Louisville or Pineville felt as though call center representatives were not familiar with locations, especially private streets and roads in the Lexington-Fayette area. Many customers also felt that part of the delays in having their service restored was attributed in part because the remote call centers

could not find their location. One utility task force member stated that from personal experience she knew that it took three days for the utility to locate customers on Northwind Road. Current maps and all pertinent information should be available to the workers in all the call centers.

Service Restoration Process: KU directs storm restoration based on the combination of critical community organizations such as hospitals, fire, police, physicians, etc., and the number of customers out on each circuit.

The Priority Levels established are as follows:

- I. Essential Health and Safety Uses (including Hospitals, Life Support Equipment, Police Stations and Government Detention Institutions, Fire Stations, Communication Services, Water and Sewage Services and Transportation and Defense-related Services)
- II. Critical Commercial and Industrial Use
- III. Residential Use
- IV. Non-critical commercial and industrial use
- V. Non-essential uses (including but not limited to outdoor flood and advertising lighting, show-window and display lighting, parking lot lighting above minimal levels, elevator and escalator use in excess of minimums, etc.)

During the daily briefings that KU representatives provided to LFUCG the analogy that restoration efforts followed a pattern that could be compared to the design of human arterial circulation with aborization of the major vessels from the aorta to arteries to arterioles to

capillaries. Customers were unaware of KU's restoration priorities. Many customers complained and could not understand why service crews would drive past their neighborhood without stopping to restore their service.

KU's customers were also confused when circuits would be reenergized to neighbors across the street from where they lived but yet they remained without electricity. The Utility Task Force can not overstate the importance of a KU communication plan that would better educate customers before, during and after a major outage occurs. During major outages, customers want and need information about their service so that they will be able to provide alternative solutions to their living arrangements until service can be restored. The task force would urge KU to continue to seek communication methods so that customers would be better prepared for and have a greater understanding of KU's Service Restoration Process.

The Utility Task Force is also recommending that KU continue to locate an employee at the LFUCG's EOC office during major outages so that timely, consistent and updated information between the utility and government can be shared with citizens.

LG&E and KU are in the installation stages of a new \$30M outage management system called Centricity. This is an impressive system that can handle large volumes of information from customer calls, isolate areas with reported problems and predict within tolerances where the trouble areas may be. Once deployed, a centralized dispatching responsibility for the entire KU service territory will be established. When operational and refined, this system should help to improve the restoration process by reducing outage time and provide customers with better outage information.

Tree Trimming: The need for trimming varies by weather, by growing season, species of tree, the extent of previous trimming and geographical locations. One of the major complaints from KU customers has been the perceived lack of aggressive tree trimming program within Lexington. The company reports that they balance the need for trimming against reliability, cost and impact on the customer. KU states that their goal is to achieve a 3.5 to 3.9-year trim cycle and that this goal is achieved by specific trimming practices as outlined below:

- Most 12kv urban areas are trimmed after three growing season.
- Some 4kv are allowed to grow four years and then are trimmed.
- Rural areas, where more ground-to-sky clearance can be obtained, average four-to-five-year cycles. KU informed the task force that tree trimming practices had little, if anything, to do with the extent of the damage experienced in the service territory. The damage was a direct result of the inordinate ice loading. Some lines were pulled down by the weight of the ice directly on the lines: others were damaged when poles or trees snapped under the tremendous weight of the ice. In many instances, trees were entirely uprooted as a result of the heavy ice and saturated soil.

When the task force requested annual tree trimming budgets, actual dollars spent, including calculations for the number of circuit miles cleared on an annual basis KU responded that their company did not track or budget tree trimming on a county-by-county basis. KU would only confirm that during the period of 2001 and 2002 KU's system-wide tree-trimming cycle-for Lexington and across the state-had averaged between 3.5 and 3.9 years.

Constituent complaints that were submitted to LFUCG indicated that many of the downed lines were the result of KU's lack of an aggressive tree-trimming program. A former KU employee with 30 years experience in field operations stated that, "Lexington has always taken a less aggressive approach to trimming trees." The former employee also advises that many of the problems were allowed to persist when disgruntled customers would complain to the corporate office when the tree trimming company wanted to trim trees in the company's right-of-way. Ultimately, tree trimmers were advised to not trim the customer's trees or trim the tree if requested by the customer. KU representatives also confirmed during the daily briefings that in the past, trimming within the City of Lexington had presented problems with certain customers.

The task force recognizes the importance of an effective tree-trimming program to support KU's goals of achieving high quality of service at the lowest practical costs. In the future the task force is recommending that perhaps KU arborists can work with LFUCG's arborists to help resolve tree-trimming customer issues. Especially where customers are reluctant to have their trees trimmed even though such action could affect other customers on their same circuit.

Safety and Damaged Property: KU was asked what operating procedures they had utilized during the storm to prevent damage to the customer's property prior to restoring service. The company responded that employees had walked each circuit three times to look for damage and protect customer's property. Also, when customers had called in to report an outage, employees advised the customer to check for damage to the service entering their home. If customers reported damage KU disconnected the service so it could be repaired and made safe before the line was reenergized.

The weather conditions and location of KU's facilities can occasionally result in damage as part of the restoration process. When possible, the work is completed manually by climbing a pole. However, when machinery and equipment are required to achieve restoration, property damage can result. If damage occurs and a mutually agreeable solution with the customer cannot be achieved, then the customer is provided with KU's outside Risk Management group to adjust claims.

During the storm, a couple incidents were reported that involved fire damage to customer's premises, but the majority of damage reported was associated with the customer's entrance facilities, (damaged mast, entrance cable and meter base pulling away from the customer's home). As previously mentioned when KU field personnel discovered damage to the customer's installation, service was discontinued and the customer was required to have the damage repaired and inspected before service would be restored. Damage to customer facilities created additional delays to having their service restored.

The task force would ask KU to investigate a better service entrance design for keeping the customer facilities intact during future ice storms or severe weather. Refer to Repair Responsibilities (See Attachment D) which illustrates a diagram of KU's and the customer's facilities for a typical residential service. Presently KU utilizes a type of "squeeze-on" to connect the service drop from the pole to the entrance cable. Has KU considered using a type of squeeze on that would separate under excess weight from ice, stress from high winds or if a tree limb were to fall onto the service drop thus allowing the customer's facilities to remain intact? Conversely, are there better methods that would secure the customer facilities under

extreme weather conditions? Given the number of electric utilities within the United States this problem would be a good subject to discuss with other utilities to share information and possibly obtain "best practices" comparisons.

ALLTEL -

The February ice storm caught not only Alltel but also all in the Bluegrass area unprepared for the mass devastation. On the positive side Alltel was quick to call in outside help, from both outside contractors and sister companies in other states.

CALL CENTER OPERATION

Lexington residents were unaware that trouble calls were not received in Lexington. This was immediately apparent to initial callers as repair center personnel were not aware of the extent of damage. The normal outage response of "we will have you back in service within 24 hours" was still being given the second day into the aftermath, and "Oh, you've had an ice storm down there", were indicative of an initial breakdown in internal corporate communications and employee training/information. Once this was corrected and additional repair center personnel were called in operations tended to work more smoothly.

Apparently under normal conditions Lexington trouble calls are automatically routed to two or three trouble reporting centers. When the severity of the storm was realized, company personnel devoted one center, Twinsburg, Ohio, to handle Lexington calls.

The company reports that normally repair center personnel are able to download daily work activity to each field tech's hand held unit. The techs are usually assigned to a particular area and under normal conditions this apparently works. Due to the immensity of the damage the company went to an alternate plan.

Reports containing specific customer addresses were received in the Lexington command center daily from the Twinsburg repair center. These were converted to a detailed map that clustered the service outages by neighborhood and were used to prioritize repair crews to "blitz" those neighborhoods. The crews worked both reported outages as well as downed service drops discovered during the neighborhood canvass.

Alltel's service restoration policy during mass outages is to devote their initial efforts to critical needs (emergency services such as hospitals, fire, and police, other government services associated with recovery efforts, other businesses necessary to support the recovery efforts, and those customers that have indicated they have a medical condition requiring service) followed by those areas with the largest concentration of trouble calls. With power outages many people were unaware that their telephones may be out of service also, either because their phone system was power dependent or they had moved to other locations where power was available. This is a contributing factor as to why some heavily damaged areas were not repaired until later.

There was some public misunderstanding concerning a statement that power had to be restored before telephone crews would work an area. This scenario could be true on main distribution runs where downed power and telephone lines might be in close proximity; however downed drops in many instances could be and were reconnected if there was no power hazard.

Recommendations -

Alltel indicates that additional training will be provided repair service call center personnel so they will be more prepared to provide customers estimates of repair times. Since these service

call centers are at some distance from Lexington, part of the additional training should include more emphasis on Lexington's primary transportation arteries and neighborhood locations. Alltel takes the position that this is not a requirement to dispatching appropriate employees to fix customer service trouble. Committee testimony indicates this may not be a proper assumption. Repair call center personnel at a distant location, even with telephone number and address references, could benefit from such information.

Consideration should be given to extending out of service credit to those in disaster areas even though it was unreported. By the company's admission they restored numerous outages before the customer was aware of any service outage. It can be assumed that due to the extensive damage, such services were disrupted longer than the 24 hours that Alltel uses as a benchmark for applying service credit.

Added emphasis should be placed on relocating new or changed out facilities to underground locations. There is very little validity in continuing the old policy of following power location. Telephone companies and other communications providers in many areas of the country are taking the lead and burying facilities, even though there is a negative cost differential in underground versus aerial construction. This move toward buried facilities is especially true where a high concentration of fiber optics cabling exists. Additionally, while co-location on poles continues, it is not unusual to see power distribution on one side of a street or in the rear easement while telephone is fed from another location. As noted in Alltel's response to committee questions, telephone and other utilities generally locate facilities in new subdivisions

underground. It is the committee's feeling that this policy should be a requirement in all new subdivisions.

The Lexington Chamber of Commerce polled their members for suggestions. Lexington's industrial/commercial complex recommended that some improved form of forecasting service restoration times be provided to them for use in better scheduling personnel requirements, and where possible to use in determining hours of operation. This has been suggested to Alltel and they claim it wasn't an issue for most large customers. Comments to the Task Force indicated otherwise.

GENERAL COMMENTS ABOUT OTHER UTILITIES

No reports were received from KY American and Columbia Gas Co and there were no complaints relative to their services.

The telephone company, Alltel, and the cable company, Insight Communications, actively participated in all the meetings and answered all the questions posed to them. Both indicated that restoration of service to customers was dependent on the electric utilities prior service restoration before they initiated theirs. Alltel reported 52,000 calls and 51,000 repairs. Insight waived charges for one week to compensate for loss of service. The "Broadband System" has a separate power supply for that signal so that service was continued. The company has a policy of placing underground service in new subdivisions following the lead of the telephone company whether it is underground or on a pole. The cable call center for Lexington is located in Lexington but because power was lost at the headquarters during the initial phase, calls were diverted to the Louisville center.

UNITS OF THE LFUCG

The Lexington Fayette Urban County Government was directly involved in many divisions and Departments. The Mayor and the Division of Environmental and Emergency Management coordinated the EOC and have made the recommendation that the news conferences continue in the council chambers. The Mayor's office also recommends that the Public Information Staff summarize these conferences and fax these reports to all the media outlets. The news conferences will be replayed on GTV3 between the conferences and at least one radio station will be encouraged to cover the news conferences live so that battery operated radios will receive the information. Written releases will be bilingual, both in Spanish and English. The conferences should be limited to 20 minutes.

Ms. Patricia Dugger of DEEM recommends that a permanent Emergency Operations Center be established so that it can initiate its functions immediately. In addition, this EOC should be shared with other organizations, such as the U of Kentucky, so that response can be coordinated among all necessary parties. Emergency shelters need to be designated beforehand in order to properly provide for supplies, transportation and especially the medical needs such as physician coverage. Better public information should be provided regarding the role of the Federal Emergency Management Agency's role and its documentation requirements as the work is done to enable later reimbursement.

The Department of General Services reported on the important role played by Property Management, primarily with collection and disposal of debris. Fleet Services used 40,000 gallons more of fuel related to the ice storm than the previous year. Fortunately, ice damage to city property was minimal. However, Parks and Recreation had significant problems with downed trees in parks. Parks helped open recreation shelters in schools and community centers

and helped with debris removal. The debris removal from Parks continued for many months with both Park's staff and contract help. A schedule was done for all 12 Council districts and work continued as staff and contractors permitted. Debris removal and Park clean up continued until the 4th week of May.

Public Safety reported from its various divisions. The Division of Police calculated a cost of \$200, 000 extra associated with ice storm response. Service calls related to lack of utilities and the Bureau of Traffic was involved with outages of signals at many intersections serving arterial roads.

The Division of Fire and Emergency Services reported a 493% increase in Fire runs to 1590 for February 16-24, 2003. One half of the fire runs were electrical and the other one half were related to temporary heat sources such as kerosene heaters. Public education about the use of such devices would help reduce incidence of fires. Emergency Medical Services for the same period made 693 runs which represented a slight increase over the expected number. The cost of all of Fire's increased activities was calculated to total \$57,000.

Streets and Roads reported that the street tree ordinance needs enforcement as many trees at risk fell. This division with help of hired contractors cleared various streets of the fallen trees. Debris was estimated to be 150,000,000 pounds. It would create a mound of debris 3 feet wide and 3 feet high stretching from Lexington to Knoxville. The Department of Public Works recommends that the government consider providing an appropriate landfill for debris as the present one will be closed in the near future and alternate arrangements for debris disposal need to be made.

GENERAL OBSERVATIONS FROM CITIZENS

Many reports were received from individual citizens concerning their difficulties. Primary problems were lack of communication with the various utilities. Many citizens called repeatedly without response. When contact was made with a live person they were given assurance that their problem would be attended to, but it was not. A common theme was lack of a realistic timetable for restoration of service. Most citizens recognized the extreme destruction associated with the disaster but could not make appropriate plans to deal with their situation without better intelligence concerning the restoration effort.

RECOMMENDATIONS

1. Review with all utilities the location and operation of their call centers. Remote centers prove to be satisfactory if call center personnel are attuned to the problem so they can provide knowledgeable responses. It is imperative that these centers have current knowledge of the disaster and current knowledge of Lexington, KY.
2. Evaluate the design and implementation of a new mechanism for connecting electric power to the building served. A breakaway system that would not disrupt the customer's internal system might be feasible in preventing fires after reconnection.
3. Establish a permanent Emergency Operations Center. This center should have appropriate location, equipment, and proper communications, back up power, trained and designated personnel and coordination with the necessary third parties.
4. Plan for emergency shelters. This would require locations, supplies, and arrangements for the right personnel to staff such as physicians designated in advance.

5. Publicize disaster plan and provide adequate public education. In some way the government, the medical community, the utilities and the citizens need to know the plan before the disaster.
6. Continue the format of the press conferences with the improvements suggested.
7. Proper execution of tree trimming. Citizens object to this but it needs to be done and is a shared responsibility of the government and the utilities.
8. Determine how to compensate the utility customers for loss of service.

November 11, 2003

ATTACHMENTS:

- A. Historical Ice Storms Affecting Lexington, KY and the surrounding region,
Kentucky Climate Center, Western Kentucky University
- B. Financial Summary of LFUCG and the Ice Storm
- C. Members of the Public Utility Task Force
- D. Diagram of electrical connection to house
- E. Task Force questions and answers for KU

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ICE STORM QUERIES FOR PUBLIC UTILITIES & VARIOUS LFUCG UNITS

Kentucky Utilities

- 1. Given the magnitude of the Ice Storm of 2003, what were the lessons learned and also what changes have your company identified that will result in improved service for the citizens of Fayette County?**

Preliminary "lessons learned" during the 2003 Ice Storm include:

- Validation of the substantial multi-year investments KU and LG&E have made in preparation to deploy an outage management system based on GPS throughout the utility – starting in Lexington in the 4th Quarter of 2003. These systems will provide enhanced restoration and outage management and more detailed information.**
- Addition of full-time Spanish-speaking call center representatives & Spanish translation of briefings, materials and other communications for all communications channels.**
- Mast information (safety & responsibility) is now made available on the corporate web-site and communicated even more frequently than in past through the bill envelope.**
- GIS coordination with city established and now made permanent.**
- Public affairs/Government liaison established and now made permanent.**

- 2. The most frequent complaints dealt with communications between utilities and their customers. What areas of communications have your company identified that needs to be improved? Also, what initiatives have/will your company institutes to improve communications during major storms or outages for the future?**

As cited in the response to Question 1, refinements to communications include:

- Addition of full-time Spanish-speaking call center representatives & Spanish translation of briefings, materials and other communications.**
- Mast information (safety & responsibility) now made available on web-site and communicated even more frequently than in past through bill envelope.**
- GIS coordination with city established and now made permanent.**
- Public Affairs/Government liaison established and now made permanent.**

3. Please define your company's definition of a major outage? Does the definition relate to duration, number of customers or some other criteria as prescribed by the Public Service Commission?

As a matter of procedure, the Public Service Commission currently requires that electric utilities make notification if outages affect more than 500 customers for a period of more than four hours.

Problems of that magnitude, however, can typically be addressed swiftly by "normal" company staffing, scheduling and resource levels.

Those emergencies and outages that require a major reallocation of manpower and other company resources to restore service in a timely manner are considered to be "major".

4. Disaster Plan Inquiries:

- Does your company have a Disaster Plan in place and if so, when was the latest revision date?
- How effective was the Disaster Plan during the ice storm?
- What areas of your Disaster Plan have you made or will you make changes to, subsequent to the Ice Storm of 2003?
- Is your Disaster Plan on file with the Kentucky Public Service Commission?
- Is your Disaster Plan available for public inspection and distribution? If not available for public inspection and distribution, would you provide a copy on a confidential basis to the Mayor's office for coordination purposes as required?
- When was the decision made to call in contractor crews?

KU and LG&E Energy have a comprehensive storm and restoration plan. Assessment, communications, response, and resources are identified within the plan.

We anticipated the weather, prepared for it with advance communications and a marshalling of resources, and then implemented our restoration efforts according to the plan. Company and contract crews were contacted before the storm actually commenced.

The emergency plan is reviewed, updated, and approved annually by operational leaders and the company's senior management.

Beginning with a solid plan—and implementing it well—enabled us to mobilize and manage such substantial resources effectively.

The emergency plan is a dynamic document and is produced for internal operation use. Updates and changes are made on a regular, annual basis, but interim updates

driven by events and opportunities for lessons learned (such as the ice storm) are made between annual reviews. Accordingly, each version has a very limited shelf-life. Company personnel dispatched to the Emergency Operations Center in times of emergency operate from the current version of the plan.

Additional liaison for government and emergency officials in Central Kentucky has also been added on a permanent basis to enhance coordination with the city and emergency agencies.

5. Call Center inquiries

- What is the rationale for utilizing remote call centers vs. local call centers?
- Do you have a tracking system in place that provides the number of complaints and type of complaint?
- When a customer contacts your company how do you determine the customer's location? What if the customer contacts you via a cell phone, from a relative's location, or a neighbor's phone can your system quickly and accurately identify the customer's proper location?
- How do you know if a "pattern" is developing indicating a major problem?
- If a tracking is utilized, can you provide the following data:
 - i. The number of calls that were made from the customers located within Lexington and Fayette County?
 - ii. What was the response time after the customer contacted your company?
 - iii. Are customers put on hold, held in Queue, or sometimes dropped when the communication lines are maxed out?
Please respond to the following data request: If so, does your system track these types of calls?
 - iv. What is your policy for returning calls during an outage?
- What system does your company utilize to handle the increased volume of calls? Was the system used a manual (paper) system or computer based? How effective was your system during the storm? What are the plans for future communication systems in the customer contact areas?
- Does your company plan to implement or upgrade existing systems within the near future? If not, then please discuss why upgrades are not needed.
- Could you develop a separate contact resource for businesses to aid in more effective emergency planning by large users of your service? Currently they must rely on the same source that individuals use, even though they are in a position of having to schedule several hundred

employees as well as major deliveries and dealing with out of town suppliers.

All of our call centers are Kentucky based -- located in Lexington, Pineville and Louisville. In early 2000 we connected these call centers together so that we could take calls in Louisville for KU customers and in Lexington and Pineville for LG&E customers -- thus improving response time and service for our customers.

This configuration benefits customers during emergency situations due to the extra backup available when storms hit one area and not another. For example, during a severe storm in Louisville during the summer of 2002, agents in Louisville were forced to evacuate the Call Center due to a tornado warning in the immediate area. During their 15 minute absence, the agents in Lexington and Pineville were able to take Louisville outage calls and better serve our customers.

Likewise, during this latest ice storm our call center reps in Louisville were able to take outage calls for our KU customers.

We track both the volume and nature of all customer inquiries and/or complaints to ensure that each is addressed promptly and thoroughly. Customer issues that can be addressed immediately by the Customer Service Representative are not entered into the tracking system, but all complaints that are directed to our Customer Inquiry group are entered and reported.

The Customer Inquiry group directs the complaint to the appropriate line-of-business manager and copies the Director of that group on correspondence. The manager contacts the customer within 24 hours to discuss the issue and maintains contact at least once every 72 hours until the issue is resolved.

The best way for our customers to report an outage or downed wires is to call our 1-800 number. We also have a local number that Lexington areas customers can call (255-0394).

When we receive a call the customer can utilize our IVRU -- an automated system which is very helpful during emergency situations. This system enables customers to enter their phone number (using their home phone, another "land line", or a cell phone) where the outage occurred and the system matches that number to a street address. The customer simply confirms that the match is correct and is thus able to enter their outage electronically. If the match is not correct, the customer is transferred to a call center representative to report their outage.

Our IVRU system and/or representatives immediately forward all reported outages to our Electric trouble department. This group then monitors the number and location of outages, and uses this information to assess the severity, patterns and possible cause of the outages.

If the IVRU call queue is filled, then these overflow calls are transferred to 21st Century. 21st Century is a third-party provider who maintains an exact replica of our IVRU. Calls flow to them if our call line capacity is full to help ensure that customers can report an outage without undue delay.

To enable callers to obtain information about the outage and restoration efforts, Call Center managers record a brief "front end" message that callers hear when calling about an outage. This information is updated regularly and is designed to let callers know where outages are located, what actions are under way, and, if feasible, an estimated restoration time. This satisfies many callers' need for information and reduces the number who choose to hold on the line to speak with a representative.

Call centers located outside of the immediately affected areas allow us, during times of emergency or severe damage to a single area, to leverage phone company infrastructure and general employee access to the facilities to assure good customer service.

Potentially, if facilities are damaged or external conditions make it difficult to bring in resources, then service levels could be impacted. The closer a customer is to the "epicenter" of a disaster (as Lexington was in this case), the more damage there is likely to be to the infrastructure—ours and that of the communications utilities, the city (streets & roads, police, fire, etc.) and, therefore, more potential impediments to repair and restoration.

For perspective, during the big storm that hit Louisville last summer, we took 63,000 calls over a 58 hour period. Here we took 50,000 calls in the 1st day which is the highest one day volume we have on record.

In terms of the duration of the storm, number of customers affected, and extent of damage to the electric system, the February 2003 Ice Storm was more severe than any winter storm in the Commonwealth's recent history.

The process and system in place accommodated the huge increase in call volumes generated by the storm. Some physical components – such as communications lines themselves that were damaged and failed – will have additional "redundancies" built in.

For example, on Sunday, KU's 1-800 number had rolling problems to our IVRU overflow provider.

On Tuesday, our fiber line went down (was broken in two places) and limited our ability to transfer calls between locations.

Also on Tuesday, an AT&T T1 line went down for 90 minutes, which prevented us from transferring calls between locations. No calls were lost but representatives in Louisville couldn't answer KU calls for 90 minutes.

During the storm recovery process, average time before speaking with an agent for outage calls was only 4.33 minutes during the worst part of the storm on the first day, and was then managed at an average of 33 seconds for the next 13 days.

For perspective, during the storm of 1994, there was no "call center" and KU had 16 lines available at Stone Road. If those lines were full, customers received a busy signal.

This year, KU in Lexington had 3 dedicated T1 lines through AT&T, 3 dedicated T1 lines through Verizon, and 3 dedicated T1 General Use lines for a total capacity of over 210 lines.

The company assigns "Account Representatives" to our largest customers with extensive and/or unique energy needs (Toyota, Fayette County Schools, University of Kentucky, Lexmark, etc.) to proactively help manage their energy needs.

Two years ago, the company instituted a "Business Service Center" (BSC) based at One Quality Street to provide a direct channel to our mid-size and smaller business customers.

Since the launch of the BSC, KU has conducted an extensive communication campaign to make business customers aware of the services the BSC can provide. That campaign has included messages on the bill and in the bill envelope and special mailings containing brochures, magnets and information cards.

During the storm, the BSC answered more than 8,000 outage calls and call levels are running 48% above last year – demonstrating the increasing awareness among many business customers.

In addition, the company will continue to aggressively communicate the benefits of the BSC to business customers and will seek assistance from the Chamber of Commerce in sharing that information – and how to contact us (859-367-1200 for Lexington-area, 800-383-5582 across the state) – through Chamber publications and meetings.

6. Please describe the process flow for resolving outage complaints. Beginning with notification from the customer up through and including follow-up that the problem has been resolved.

At Stone Road, our "SCADA" system instantaneously indicates a circuit is "locked out." In that case every customer on that circuit is without power.

To report an outage, customers call a customer service representative (CSR) in the call center or report their outage information with our automated reporting system.

- Either the CSR or the automated system enters outage information into our "trouble" system.
 - Outages are then aggregated to determine magnitude of the trouble area. The case of the 2003 Ice Storm, however, was unique in that the damage was so severe and spread across such a huge area.
 - Crews are then dispatched to restore service via radio and cell phone.
 - In "normal" emergencies and outages, we do often follow up with calls to ensure customers who have reported outages have power restored, but the sheer numbers involved in this case made that impossible.
7. There has been concern and anxiety in the community about the merger of KU and LGE. Specifically related to the availability of the service restoration workforce assigned to Lexington and Fayette County. Please respond to the following data request:
- Could you provide the number of employees by classification that were assigned to the operation and maintenance function within Fayette County before the merger and presently?
 - When was the decision made to call in contract crews?
 - Do service crews and call center personnel have up to date circuit maps for use in responding to outage reports
 - Can you identify the various operation and maintenance work functions that have been outsourced or shifted to outside contractors as opposed to in-house company employees?
 - Do you have organization charts detailing employee counts before and after the merger? Specifically in the areas of Customer Service, Transmission, Distribution and other Energy Delivery Organizations?
 - What is the current corporate presence within Lexington and Fayette County and how is the merged company structured?
 - Please provide a synopsis of EON and its other subsidiaries within the USA.

While major changes have occurred since their merger within the KU and LG&E administrative workforces (accounting, finance, human resources, information technology, etc.) the number of field or physical workers has not changed significantly. However, the number of available resources has increased.

When the 2003 ice storm occurred, KU had about 20 fewer linemen and line-techs in the Lexington area (the company's "Lexington Operations Center" manages operations for Lexington, Versailles, Midway, Lawrenceburg and Georgetown) than in 1994. But, as a result of the KU/LG&E merger, on the first day of the 2003 storm, KU had in excess of 100 more employee linemen and line-techs available than it had -- as a stand-alone company -- to deal with the 1994 storm.

To augment that work-force, contract crews, KU crews from across the state and additional LG&E crews were called in as the storm was approaching -- and more

heavily concentrated in the Lexington area as the storm subsided and it became clear that Central Kentucky was the hardest hit area.

Each crew and crew member involved in the recovery had the specialized skills required to do the difficult restoration work, received extensive safety training before they began that rigorous work, and had company personnel managing them and providing up-to-date system maps.

The KU/LG&E move to a variable work force did not adversely impact the effectiveness of the restoration effort. In fact, the use of contractors and the implementation of an emergency response plan that utilizes them enabled KU to respond to the storm quickly and effectively while helping to maintain KU's low electric rates for customers. KU called on over 1,800 contractors to supplement their existing work force. The existing work force was used to coordinate contractor crews, assure safety, and effectively restore the system. The flexibility provided by having strong strategic suppliers enabled KU to ramp up and perform restoration work efficiently.

KU is headquartered in Lexington, maintains a significant office and operational presence here and is a subsidiary of LG&E Energy, headquartered in Louisville. KU remains one of Central Kentucky's largest employers and an active and committed corporate citizen.

Through the activities of its employees, company community activities and charitable contributions, the company is dedicated to helping the communities it serves.

E.ON is the world's largest investor owned utility and has numerous electric and gas subsidiaries throughout Europe and, through KU and LG&E Energy, in the United States. E.ON has no other major, on-going businesses in the U.S.

A copy of E.ON's most recent Annual report and a link to its corporate website are included as addenda (http://www.eon.com/index_entry_en.html).

The restoration effort was directed by Kentuckians for Kentuckians, out of KU's Stone Road and Midway facilities and the customer call centers in Lexington, Louisville and Pineville. Senior executive management was in Lexington to assist with restoration and communications for the duration of the storm, and to make available any resources required.

8. From a Safety and Property Damage perspective, what operating procedures does KU utilize that would prevent damage to the customer's property prior to restoring service? Explain any responsibility your company has to prevent customer property damage, i.e., during an outage

During the ice storm, we walked each circuit three times to look for damage and protect customers and their property. Additionally, when customers called in to report an outage, we asked that they check for damage to the service entering their home. If they had damage to their individual service, we disconnected that service so it could be repaired and made safe before the line was reenergized.

We respect our customer's property and make every effort to avoid or minimize damage to that property while restoring service. The weather conditions and location of our facilities can occasionally result in some damage as part of the restoration process.

When possible, the work is completed manually by climbing a pole. However, when machinery and equipment are required to achieve restoration, property damage can result.

The company makes every effort to communicate directly with the customer and make arrangements for repairs. We utilize our Right Of Way department as well as our supervision and management team to facilitate the process.

On the rare occasion that we fail to achieve a mutually-agreeable solution with our customer, we provide them with the means to contact our outside Risk Management group to adjust claims.

9. What reports does your company file with the Public Service Commission regarding the level of service and can you furnish the LFUCG with copies? Please provide copies of outage reports filed with the PSC for the Ice Storm 2003.

In addition to arranging field visits and ride-alongs with restoration crews for PSC Commissioners and staff, KU conducted daily telephone briefings sharing the same information provided – simultaneously – with the Mayor, City Council, emergency management personnel from the city, the public and the media. No written reports were filed in conjunction with these telephone briefings. However, on May 15, 2003, KU filed a comprehensive overview of the storm impact and restoration efforts. A copy of that report is included as an addendum to this response.

The PSC, at its discretion, may review any aspect of each utility's performance. In addition to the industry-wide measures on outage duration and frequency, customer complaints and PSC field audits serve as benchmarks for service. KU ranks in the top quartile in the nation in all these performance categories.

10. Tree Trimming Inquiries:

- What are your policies and/or procedures for tree trimming?
- What changes have been made in company policies/procedures since the merger with LG&E and EON?–

- Are you considering changes to your tree-trimming program since the ice storm and if so, what would the proposed changes be?
- Does your company benchmark with other similar utilities within the USA to try to establish best practices? If not, do you plan on establishing such practices?
- What is the current tree-trimming schedule?
- How do you resolve conflicts with the property owner?
- What rights do you have per the easements granted to your company?
- Do you coordinate your work with the LFUCG arborists?

KU has an effective tree program which meets all current industry standards. KU's tree trimming program has not been altered by the company's association with E.ON.

Overall, KU currently averages a 3.5- to 3.9-year trim cycle:

- Most 12kv urban areas are trimmed after three growing seasons.
- Some 4kv are allowed to grow four years, and then are trimmed.
- Rural areas, where more ground-to-sky clearance can be obtained, average four- to five-year cycles.

Seven of the 11 Company Utility Arborists who supervise this work are accredited as Certified Arborists by the International Society of Arboriculture (ISA). All of the company arborists maintain herbicide licenses. Company representatives serve on the City's Tree Board and coordinate efforts through that body and on an as needed basis.

The company benchmarks its operations against industry best practices and trims in accordance with ISA's recommendations and also by "Pruning Trees Near Electric Utility Lines" by Dr. Alex Shigo, formerly Chief Scientist of the U.S. Forest Service.

For this storm, tree trimming practices had little, if anything, to do with the extent of the damage experienced in the service territory. The damage was a direct result of the inordinate ice loading. Some lines were pulled down by the weight of ice directly on the lines; others were damaged when poles or trees snapped under the tremendous weight of the ice. In many instances, trees were entirely uprooted as a result of the heavy ice and saturated soil. In any of those cases, more severe tree trimming would not have reduced the potential for damage.

The company's rights and responsibilities related to easements and tree-trimming are set forth in the City's Right of Way and Tree Trimming Ordinances.

11. The LFUCG requests the following data be provided for a two (2) year period, on an annual basis. For this reporting period please include data for calendar years ending 12/31/01 and 12/31/02. If the information below has been provided from other submitted reports or data please advise:

- The number and type of complaints within Lexington and Fayette County.
- Annual budgets for tree trimming expenditures
- Actual dollars spent, including calculations for the number of circuit miles cleared on an annual basis.
- The number of power outages and duration within Fayette County affecting more than 100 contiguous customers for each outage.
- O&M actual dollars spent to provide required maintenance to infrastructure within Fayette County. (Transmission, Distribution, Station and Sub-station facilities)
- O&M, Capital or other dollars spent to upgrade infrastructure within Fayette County. (Transmission, Distribution, Station and Sub-station facilities)
- The total number of employees, by classification, for your employees working within Lexington and Fayette County during normal operations.

Much of the specific information that is the subject of this question is not available because KU does not budget or expend resources with regard to political boundaries. As was evident during the ice storm, KU's system does not mirror Lexington's street map, its political boundaries (such as Council Districts), or even county borders.

KU's "Lexington Operations Center" at Stone Road manages the company's operations in Lexington – and across a major portion of Central Kentucky, including Fayette, Woodford, Scott, and Jessamine Counties, and portions of Franklin and Bourbon Counties.

KU's system is designed to most effectively, efficiently and safely deliver low-cost energy to its customers – in Lexington and all across Kentucky.

The threshold distinction between an infrastructure designed to deliver energy – combined with the labor force and resources arrayed to most effectively manage and maintain that system – and the geo-political boundaries of Lexington and Fayette County impacts virtually each aspect of this question.

For example, KU does not track – or allocate – O&M or capital dollars on a county-by-county basis. It is done based on the system and its requirements. In some cases those needs are general and impact the entire system, and other needs are specific to a customer or set of customers nearby – or hundreds of miles away. For example, transmission upgrades made to portions of the system physically located in Woodford, Jessamine or Franklin County – may have a greater impact/value for customers in Fayette County.

Similarly, the number of KU employees working in Fayette County varies from one day to the next. The fluctuation is driven by the needs of the system (maintenance,

construction, repair, etc.), by the needs of our customers, and, as we saw in February, also by weather.

The total number of employees currently working in the Lexington operations area is approximately 360.

KU does not track customer complaints by county, but in 2001 the company recorded 88 complaints among its 500,000 customers across the state. KU recorded 89 complaints in 2002. Credit-related complaints – including customers who have had service disconnected for non-payment or are denied service for outstanding debts for previous service – and outage complaints make up the majority of all complaints.

Similarly, tree-trimming information is not tracked or budgeted by county, but in 2001 and 2002 KU' system-wide tree-trimming cycle – for Lexington and across the state – has averaged between 3.5 and 3.9 years.

Finally, while KU does not track outages of "100 contiguous customers" or by county, by industry standards for outage frequency (SAIFI) and duration (SAIDI), KU ranks in the top quartile of all utilities in the nation in reliability.

Conclusion

In terms of duration of the storm, number of customers affected, and damage to the electric system, the February 2003 Ice Storm was more severe than any winter storm in the Commonwealth's recent history. Freezing rain and ice accumulation in Central Kentucky continued for nearly thirty-six hours and caused interruption of electric service to 141,000 KU customers and 5,000 LG&E customers.

The ensuing restoration effort was also unprecedented. Restoration efforts began immediately. Resources working the restoration ramped up rapidly, with over 2,000 KU, LG&E, and contractor crews participating in the restoration effort by week's end. Within a week, all but 9,000 KU customers were restored. Final stages of the restoration, including post-restoration work, continued for several weeks.

Although the Company's response to the storm was immediate and effective, the Company continually strives to improve operations. A critical review and self-assessment of emergency response activities was undertaken, and several action items were identified for improving the preparedness and/or effectiveness of the Companies for system emergencies. Each of the issues is being addressed to assure continued award-winning customer service to our customers.

Attachments:

http://www.eon.com/index_entry_en.html

http://psc.ky.gov/agencies/psc/hot_list/ice_storm/ice_idx.htm

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[Back to web version](#)

Tuesday, Feb 10, 2009

Posted on Sun, Feb. 01, 2009

Did we learn lessons from '03 storm?

By Andy Mead
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The questions of the week:

"When will the power be back on?"

"How slick are the roads?"

"When will schools reopen?"

And the big, overriding query as we appreciated the beauty and suffered the inconvenience of The Great Ice Storm of 2009:

"Have we learned anything — *anything* — since the Great Ice Storm of 2003?"

Residents weren't sure. Officials, for the most part, said yes.

"Absolutely," said Pat Dugger, director of Lexington's Division of Emergency Management. She cited an aggressive tree-trimming effort by Kentucky Utilities that she said resulted in fewer power outages, and the city's efforts to establish informal channels to get information to people who don't speak English.

(Lexington consulting arborist Dave Gabbard agreed with Dugger about the tree-trimming, but he came at it from a different direction: "They're doing a better job, but it's not good for the trees.")

Dugger pushed for a permanent Emergency Operations Center after the 2003 ice-over, but that idea hit a snag last year after the cost ballooned from \$23 million to \$42 million. It could have been used last week, she said. "It would put Lexcall and 911 in same building with us, so there's not as much disjointed information."

After the 2003 storm, Lexington police bought four portable light towers that were invaluable this time around, Chief Ronnie Bastin said.

At first, the towers lit dark intersections where officers directed traffic. On Thursday, traffic engineers figured out a way to use the generators from the light towers to power the traffic signals.

KU officials said they took a giant step between the storms by getting rid of an old outage tracking system that used a large wall map with pushpins. In its place: a \$30 million computerized system.

Lexington also is in better shape this time around because two-thirds of the electrical wires and poles were replaced six years ago — and because a lot of weak trees and branches came down in '03.

But the state's largest electric company said the massiveness of last week's storm left it struggling not only with reconnections, but with how much information it could, and should, share with customers.

For the customers, the "lessons learned" answer differed significantly depending on whether they were in a cold, dark house, or one where the furnace kicked on regularly and televisions and computers had juice.

Beth Lowe, a retired high school English teacher, lives on Mentelle Park, a one-block Lexington street where the power failed in '03, but for the most part stayed on in '09. One reason the block fared better this time, Lowe said: "The big trees are gone."

She also said there were better advance warnings about last week's storm, and that helped people prepare. "I went to the grocery Monday and bought stuff for the rest of the week instead of just a couple of days," she said. If fact, she didn't need to scrape her car windshield and leave the street until Wednesday, and that was to buy a printer ribbon.

Down the block, Mike Friedman had a full house last week — kids visiting his children because they had no power in their homes. Six years ago, it was his children seeking shelter elsewhere as he and his wife started a fire, cordoned off

rooms and rolled out sleeping bags.

Was he more prepared this time?

"We're a little better insulated," he said. "But do we have a generator and gallons of water stored like we're supposed to? No."

John and Nancy Cirigliano, who raise lambs and horses on a farm off Winchester Road in Lexington, couldn't see that KU had learned anything in the last six years. John Cirigliano said the company's tree-trimming efforts left overhanging limbs that fell on the power line to his house, leaving him without power. More infuriating, he said, was calling a number and hearing a recorded voice advising him that getting reconnected could take up to two weeks. "I'm just flabbergasted that KU wouldn't be prepared, and that they don't seem to be calling in as many crews from other states," he said. "And, I mean, two weeks."

State hit harder this time

Although they both produced broken limbs and power lines, the storms of '03 and '09 were quite different. The '03 ice storm was worst in Lexington, where it seemed that virtually everyone was without power. A state-record 2 inches of ice on trees and limbs knocked out electricity to 132,000 homes and businesses in the city, some for a week or more.

The '09 storm left half an inch of ice in Lexington, and fewer than 45,000 homes and businesses lost power. But the '09 storm spread ice across a much wider swath of Kentucky. That put it right up there with the epic storms of 1951 and 1994, said Stuart Foster, the state climatologist. A record 700,000 homes and businesses lost power.

In a way, Foster said, we got off easy last week. Both the '51 and '94 storms were followed by subzero temperatures; in 1994, the all-time state record of -37 degrees was recorded in Shelbyville.

Did KU measure up?

The '03 ice storm spawned two assessments — one by a Lexington task force and another by the Kentucky Public Service Commission.

Dr. David Stevens, a former Urban County councilman who spearheaded the Lexington effort, wondered last week whether KU was following a recommendation that it provide more information to local officials and customers. He also questioned why reconnections were taking so long.

The PSC report said utilities should consider creating "restoration information" Web sites showing the area served by each electrical circuit. The status of each circuit could be indicated by a color — green for fully operational, yellow for partly operational and red for out of service. The PSC also envisioned that the site would list the time and date of expected power restoration, and the number of crews working in a particular area.

Some utilities come close to that. Clark Energy, for example, put lists of where crews were working.

And KU says that in a smaller weather event — say, a summer thunderstorm — it can provide much more specific information to customers through its phone system.

But last week, only general information was available on computer screens that customers could see.

By Wednesday, the web site for E.ON U.S. (www.eon-us.com), the parent company of KU and Louisville Gas and Electric, showed a state map with color codings for power outages by county.

By Thursday, the information was available for LG&E customers by ZIP code. By Friday, Lexington and Central Kentucky ZIP code information was on the site. That information was put up as fast as the company could get it ready, KU spokesman Cliff Feltham said.

And there was a lot of internal debate.

"There are discussions of 'Would customers want us to identify their neighborhood as a place that is dark?'" and therefore ripe for burglary, Feltham said.

He admits to being somewhat "fuzzy" about specific areas in the daily briefings held by Lexington officials. In response to questions about the vague estimate of two weeks to fully restore service, Feltham said that is the best the company can do, considering the extreme circumstances.

Nearly 4,000 people are working to get things back to normal in KU and LG&E territories, he said. But they are working on what was more than 16,000 downed lines, and working in and around trees encased in ice.

Warmer weather this weekend won't necessarily make things better. Limbs freed of ice could spring up, breaking more

power lines and sending more homes into darkness.

Reach Andy Mead at (859) 231-3319 or 1-800-950-6397, Ext. 3319.

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[Back to web version](#)

Tuesday, Feb 10, 2009

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For Lexington, a rerun of '03 nightmare

By Andy Mead and Steve Lannen
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The crack of wood breaking, the clatter of ice and limbs hitting the ground. Then silence. The lights are out.

For Lexington, it was the rerun of a cold, dark nightmare.

Ray Garman and his wife, GiGi, sounded like severe-weather veterans as chain saws whirled and buzzed outside their dark home on East Main Street.

"We're used to it. We did 71/2 days last time," Ray Garman said. He was referring to the February 2003 ice storm that paralyzed much of Lexington for a week.

An estimated 36,500 homes and businesses were without power at 6 p.m. Wednesday in Lexington.

More power losses were expected Wednesday night as tree limbs surrendered to the weight of ice, but the city seemed to escape the worst of the weather that whacked Kentucky. Statewide, at least 525,000 were without power Wednesday, compared to 281,000 in 2003.

This time, we knew the drill.

At the Garmans', limbs from a large pin oak and a power pole lay in their front yard. Ray Garman hiked to a service station for gas for their generator. They also fired up the kerosene heater they purchased after the '03 storm.

Mayor Jim Newberry and Pat Dugger, director of the city's Division of Emergency Management, said people seemed more prepared this time around. Officials also said that, because so many weak trees fell in the '03 storm, there are fewer around to cause problems.

With the closing of Fayette County schools, the University of Kentucky and a number of offices, traffic was light. On side streets, getting from one place to another often meant weaving around drooping limbs. Two to three dozen roads were at least partially blocked.

At least 40 traffic lights weren't working. Police directed traffic at most of them; the others became impromptu four-way stops.

There were many instances of people helping others pull limbs from roadways, or pushing cars when tires would only spin on the snow and ice.

By 2 p.m. Wednesday, the city had activated its Emergency Operations Center to coordinate emergency responses between police, fire and public works. The city also opened a shelter at Paul Laurence Dunbar High School, as well as its community centers, for those who did not have heat.

On Oxford Circle in the Cardinal Valley neighborhood, Michelle Hernandez said her family lost power about 10 a.m. "We're just huddling together," she said.

Police officers and firefighters remained busy. Between 6 p.m. Tuesday and 5:00 p.m. Wednesday, firefighters responded to 260 emergency calls. Roughly half of those were for flooding or electrical fires from downed power lines.

Police responded to 69 non-injury accidents and six minor-injury collisions Wednesday.

In addition, garbage pick-up has been canceled again for Thursday as waste management workers help clear roads. Also, 12 members of the Kentucky National Guard will help clean up debris Thursday, Newberry said.

Heat and electricity were out for almost six hours at the Ballard-Griffith Towers off Jefferson Street. By mid-afternoon, power had been restored to the Griffith Tower, but not in Ballard Tower.

Residents were asked if they wanted to be evacuated. None did.

Serendipitously, each of the 301 residents had received an emergency package last week with a transistor radio, flashlight and extra batteries.

Power was out for hours at the Salvation Army on West Main Street. Plans were made to evacuate the 131 people to Rupp Arena, but the lights came back on.

The Salvation Army's new mobile kitchen prepared to serve meals Wednesday night at the African Kanisa Apartments and Christian Towers, both without power.

Some people chose a city shelter over a cold house. Tom Roark went to Dunbar High to keep warm after waking up and discovering that his power was out.

A tree fell in the back yard of his Clays Mill Road home, knocking out power. It was déjà vu for the cook. Another tree had done the same thing in the 2003 ice storm. "I knew it was going to get worse. Last time it took 10 days," he said.

He set up a cot and was ready to sleep at Dunbar if necessary. If it hadn't been for the shelter, he probably would have slept in his car, he said. "I'm in good spirits. It's great to have a place like this. At least I'll be warm tonight," Roark said.

Charlette Breathett was ready for the electricity to go out long before it actually did, about midnight Tuesday.

When she heard the news reports of possible power outages, she put on thermal underwear and made sure she had batteries for her radio, lighters for her candles and blankets for her bed.

"They said they suspected widespread power outages," Breathett said. "I suspected I would be one of them."

Breathett braved the cold throughout the night, but by morning, she was ready for some assistance. She called the Red Cross, and they sent a vehicle to take her from her Eastland Parkway home to Dunbar High, where she planned to stay until the electricity is back on. "I'm just appreciative of the warmth and the snacks," she said. "This is a great thing."

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[Back to web version](#)

Tuesday, Feb 10, 2009

Posted on Sun, Feb. 08, 2009

Are buried power lines feasible in Kentucky?

By Andy Mead
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"Bury the Damned Power Lines Already."

A group with that name sprang up on the social networking site Facebook a week and a half ago, shortly after ice-laden trees started crashing through the lines that carried electricity to more than 700,000 Kentucky homes and businesses.

The group quickly grew to more than 1,000 members, most from Louisville and Lexington, but at least one from as far away as Australia.

Some of the early postings bashed utility companies for allowing bad weather to create the state's largest-ever natural disaster.

But the discussion soon turned more thoughtful. Some suggested that putting power lines underground would be an excellent "shovel-ready" project for the economic stimulus package being debated in Washington. Others argued that personal costs, such as spoiled food and the purchase of generators, should be added to the equation of whether overhead lines should be buried. There was a thread debating whether electric utilities should be publicly owned.

A recurring theme: if people want power lines buried, they should be willing to pay.

As it turns out, that can be a staggeringly expensive proposition.

And, although stringing lines on poles dates back to the late 1800s, there doesn't appear to be a practical 21st-century energy delivery system on the horizon that doesn't require running a line into your house.

A 2006 study by the Edison Electric Institute, an association of utilities, looked at previous studies and performance records. The bottom line: burying lines can cost \$1 million a mile — about 10 times the cost of overhead lines. That could drive electric rates up 80 percent to 125 percent.

And those estimates might be low.

The North Carolina Utilities Commission has estimated that it could cost \$3 million a mile. For that entire state, it said, the job could cost \$41 billion and take 25 years.

The Kentucky Public Service Commission has conducted no such study here.

Andrew Melnykovich, the commission's public information officer, said that even with the power outages caused by the remnants of Hurricane Ike last September and the worse problems caused by the ice storm, "you still have to question whether it is cost-effective to bury lines to avoid these kind of outages."

Lexington was mostly spared by Ike, and the costs of the recent storm have not been compiled.

But the ice storm that paralyzed the city in 2003, knocking out power to more than 130,000 homes and businesses, ended up costing Kentucky Utilities \$23 million in repairs.

KU has 2,900 miles of overhead distribution lines in Lexington's urban services area. At the \$1 million-a-mile estimate, burying the lines could equal the cost of 126 of the 2003-magnitude storms.

A homeowner can have the line from the nearest pole to a home buried. But burying the lines for an entire neighborhood — say, for example, Chevy Chase — could be difficult, because not everyone would go along with paying the extra price.

"We could not very well have one house with above-ground service and five houses in a row with underground followed by two houses above ground," KU spokesman Cliff Feltham said.

Even if an entire neighborhood did agree, Feltham said, the lines would have to be above ground somewhere between

that area and the power plant. Transmission lines, which carry heavy voltage loads, are even more expensive to bury because they generate heat and need to be encased in a coolant.

Many people see underground lines as an alternative to trimming trees.

But Melnykovych says that burying lines in an established neighborhood could be extremely disruptive.

He advises that people look at what is under and around existing lines and imagine a trench going there.

"People will say, 'Well, if you bury the lines, you don't have to trim my tree.' No, but you may have to tear the tree out to get the line underground."

Underground power lines aren't susceptible to falling trees or limbs, but they are not trouble-free.

The Edison Electric study says that underground lines have fewer power outages. But when they happen, they tend to last a lot longer.

The study's "bottom line" is that the reliability is uncertain and not worth the cost.

The most "substantial benefit" of burying lines, the study says, is improved aesthetics.

There are some moves toward putting existing lines underground.

In North Carolina, the utilities commission gave Duke Energy the go-ahead for a pilot program in three towns. Duke spokesman Andy Thompson said the towns haven't yet been chosen, but it appears that not many lines will be buried. Duke will spend \$1.3 million a year for three years, with the towns matching that amount.

Louisville Mayor Jerry Abramson asked Louisville Gas & Electric last week to look into burying some lines. He said he wanted the PSC to provide a forum. Melnykovych said the PSC takes a broader, statewide approach, but that it would attend a Louisville meeting if invited.

There was interest in burying lines in Lexington after the 2003 storm. An Urban County Council committee discussed the issue, but apparently nothing came of it.

As Lexington grows, however, its electric grid is becoming more underground because lines in new subdivisions usually are buried.

In 2003, 15 percent of KU's lines were buried. That has increased to 27 percent. For Blue Grass Energy, which serves part of southern Fayette County, the percentage of underground lines grew from 65 to 75. Blue Grass has a higher portion of underground lines because it covers more newer neighborhoods.

It is the developer's decision whether lines will be overhead or buried, but they almost always choose to bury them these days, said Chris King, the city's planning director. It is more expensive, but the costs are passed along to home buyers.

Energy alternatives

The choices for getting power into your home are, for the most part, limited to overhead or buried wires.

Andy McDonald of the Kentucky Solar Partnership said there might be dozens — but certainly not hundreds — of people in Kentucky who live in homes that are off the electric grid altogether.

Someone who works hard to reduce the need for electricity and spends \$10,000 to \$30,000 for solar cells, a wood stove and a propane refrigerator can get by without a power line, he said. Equipping the average home could top \$100,000.

Alternative-energy experts see a future where many more renewable sources of energy would be used, but that still would be delivered over wires.

"Even in the future, we will have power lines," said Yuan Liao, who teaches a class in power generation and distribution at the University of Kentucky.

Researchers at MIT, using an idea developed by Nikola Tesla in the late 1880s, have been able to cause a light bulb's light to glow across the room without using wires.

But Lexington native Scott Hubbard, former director of NASA's Ames Research Center and current professor of aeronautics and astronautics at Stanford University, said that form of energy is not viable for longer distances.

The military is looking into orbiting solar collectors that could send microwaves from space to positions in, for example,

the mountains of Afghanistan, where they could be converted into electricity.

But if that eventually works, Hubbard said, it would be suitable only for remote locations.

The solution to avoiding widespread power failures from storms is tree trimming and education, the utilities say.

Cathryn Gibson at Blue Grass Energy said her company will start stressing the need for clear rights-of-way very soon, while memories of dark, cold houses are fresh.

Feltham at KU said the biggest problems are where "huge forest trees" have grown up along back-yard property lines, and residents don't want them trimmed.

"Now that we have had two ice events in Lexington, it offers us some leverage," he said.

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**ASSESSMENT OF
ELECTRIC UTILITIES RESPONSE
TO THE
FEBRUARY 2003 ICE STORM**

**BY
THE KENTUCKY PUBLIC SERVICE COMMISSION
FEBRUARY 6, 2004**

PREFACE

This Ice Storm Assessment Report reviews the impact of the February 2003 ice storm on electric transmission and distribution systems (the "Utilities") along the storm's path as it moved through Kentucky. Differing approaches used by the various utilities in dealing with the storm are reviewed and suggestions are made for improvements and "best practices" in system design and operation.

The team made use of studies conducted by other utilities and regulatory bodies in their attempt to lessen the damaging consequences of reoccurring ice storms of this magnitude. Findings and recommendations presented in this assessment utilize the knowledge and experience of Kentucky Public Service Commission (KPSC) staff. Ideas and suggestions offered in this assessment are not at this time binding on utilities.

This assessment will be read and reviewed by a diverse audience of regulators, legislators and staff, news media, utility personnel and consumers. Therefore, it attempts to provide background and resource information in a usable format that everyone can understand and use.

Above all, the KPSC staff wishes to acknowledge the tremendous sacrifices made by the men and women who provided the numerous days and weeks of unselfish work to see that power was quickly and safely restored. We also thank affected consumers for their many acts of kindness, assistance and understanding and for their patience.

The most welcome and rewarding statement that can be made about this disastrous storm is that all affected utilities adhered to professional and safe work ethics and practices throughout the storm restoration process, with the result that no workers or customers suffered severe injuries as a result of damaged utilities or during restoration work.

Kentucky Public Service Commission Staff

EXECUTIVE SUMMARY

Following the February 2003 ice storm, the Kentucky Public Service Commission ("KPSC") Staff reviewed storm responses and recovery efforts of the regulated utilities¹ that were most severely affected. This review assessed all aspects of utility response, from disaster planning and preparedness through the final stages of restoring service to customers. The utilities responded to requests for information from Commission staff concerning their forecasting, response planning, damage assessment, mobilization, repair activity, and customer service before and during the ice storm, as well as their general operation and maintenance practices and overall emergency preparedness. Staff reviewed the data, and where necessary, reviewed supplementary documentation requested during the review process. This assessment relies upon and draws from the provided documentation, utility inspections, site visits, and interviews with utility personnel, and upon the knowledge and experience of the KPSC staff. The report contains the results of this review. It includes lessons learned, changes made by the utilities as a result of the ice storm, and additional recommendations made by the KPSC staff.

The storm's path crossed central Kentucky during the late night hours of February 15, 2003. Utility damage was experienced along a line beginning in Hardin County running through Lexington to Ashland and Greenup County. At approximately 10:30 PM the ice started layering onto all exposed surfaces in the Lexington area. Radial ice approximately 2 inches thick was deposited along much of the storm track. The storm was one of the most severe to occur in Kentucky in the last century.

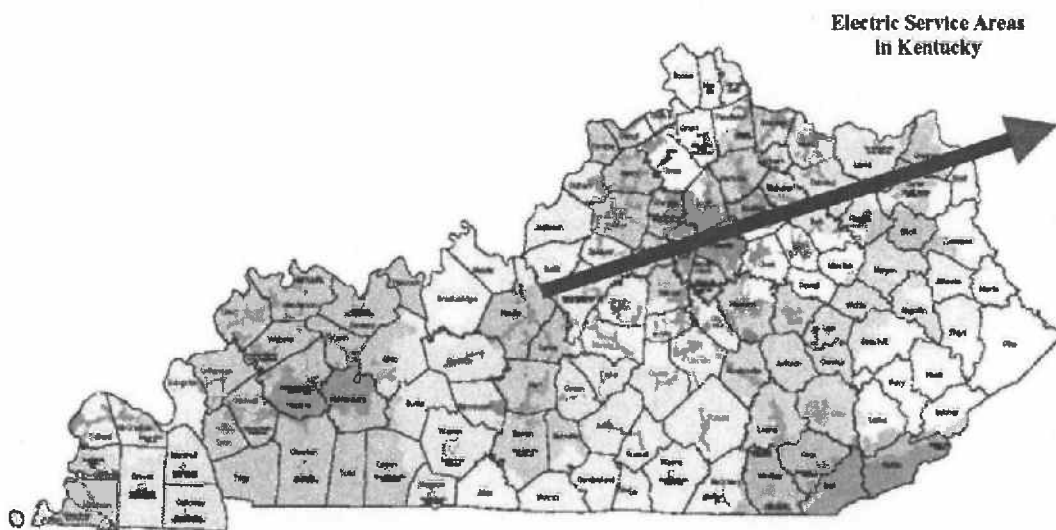


FIGURE 1: February 15 & 16 Ice Storm Track Across Kentucky

¹ Alltel, BELLSOUTH, Blue Grass Energy, CInergy (UHL&P), Clark Energy, Fleming-Mason Energy, Grayson RECC, Inter-County Energy, Kentucky Power, LGE/KU, Licking Valley RECC, Nolin RECC, Owen Energy and Salt River Electric.

The table below indicates the extent of damage the storm caused on Kentucky's regulated utilities.

<u>UTILITY</u>	<u>CONSUMERS OUT</u>	<u>PERCENTAGE OUT</u>	<u>POLES REPLACED</u>	<u>TRANSFORMERS REPLACED</u>
Alltel	24,436	9 %	701	N/A
BELLSOUTH	2,103	0.1 %	32	N/A
Blue Grass	15,000	31 %	165	53
CINergy	8,000	6 %	0	0
Clark	16,860	70 %	74	75
Fleming-Mason	17,348	80 %	397	151
Grayson	16,000	100 %	850	180
Inter-County	3,259	14 %	1	0
Kentucky Power	17,000	10 %	275	93
Kentucky Utilities ²	146,000	30 %	547	236
Licking Valley	5,300	32 %	40	5
Nolin	1,658	6 %	2	1
Owen	3,190	7 %	2	0
Salt River	5,000	13 %	23	5
<u>TOTALS</u>	281,154	8 %	3,109	799

CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

The KPSC staff concludes that the utilities were adequately prepared for the February 2003 ice storm, given its extreme severity, and that the utilities' restoration efforts were diligent, effective, and well managed on the whole. The utilities' performance, though not flawless, was commendable. The utilities have made changes in their outage prevention and restoration programs, which the Commission staff endorses. Additional changes recommended by the Commission staff that should improve these practices are detailed on the following pages.

Finally, the assessment concludes that the utilities' line workers and field personnel deserve special recognition for their part in the restoration effort. These men and women spent long hours performing dangerous tasks under difficult conditions in order to restore power to hundreds of thousands of Kentuckians. They can be proud of their achievements and assured of the public's gratitude.

¹ Alltel, BELLSOUTH, Blue Grass Energy, CINergy (UHL&P), Clark Energy, Fleming-Mason Energy, Grayson RECC, Inter-County Energy, Kentucky Power, LGE/KU, Licking Valley RECC, Nolin RECC, Owen Energy and Salt River Electric.

² The total includes 5,000 customers of LG&E, KU's sister company.

KEY FINDINGS

The assessment by the Commission staff resulted in the following key findings:

1. The severity of the ice storm, as measured by the number of customer outages and damage to distribution facilities, was unprecedented on a statewide basis.
2. Trees or limbs falling onto distribution lines caused the majority of outages during the ice storm. There is a direct correlation between the proximity of trees to utility lines and the integrity of the lines. Adequate right-of-way maintenance and tree trimming are essential in order to minimize the number and severity of outages due to storms. However, even more aggressive trimming would have had little effect in lessening the devastation of this major storm.
3. The cost of the restoration estimated by the utilities was approximately \$22.5 million for KU and approximately \$24.7 million for the other utilities combined. The majority of the electric cooperatives expenses are eligible for Federal Emergency Management Administration ("FEMA") reimbursement.
4. A major point of frustration among some local officials was the difficulty in obtaining information about the progress of restoration in specific areas. There were no means available of conveying real-time information about restoration efforts. Utility internet sites were of limited use to customers and news media reports during the restoration process, but potential exists for this medium. Communication problems with local officials were particularly evident in portions of the KU service territory outside Fayette County. Some local officials reported difficulty in reaching KU management during the first 24 to 36 hours of the storm event.
5. The regional utility equipment and supply providers seemingly did an excellent job obtaining and delivering all needed supplies (poles, wire, transformers & hardware).
6. KPSC staff had difficulty at times making contact with utility management in a timely manner.
7. The utilities have appropriate procedures in place for making advance plans for severe weather events and obtaining restoration assistance from other utilities (i.e. Mutual-Aid Agreements). Their plans were disrupted to some extent in this case because the storm unexpectedly increased in intensity and breadth as it moved through the state. Also, most neighboring utilities were hesitant to release their force and contract crews until they were certain that the ice would not be damaging to their own system.
8. Some of the affected utilities had not reviewed and updated their Emergency Operation Plan ("EOP") recently.
9. Some of the affected utilities did not have access to information concerning available contractors and equipment rental services.

10. The utilities' efforts to deal with the high volume of telephone calls they received were commendable, but additional resources should be allocated to this purpose by the utilities in general.
11. As a result of the ice storm, a need for improved communications with Spanish-speaking customers was identified.
12. Assertions have been made that improvement in the design, inspection and maintenance of the utilities' electric distribution systems would make them less vulnerable to major storms. While there may be isolated areas that need improvement, the assessment did not indicate that significant outages during the ice storm were attributable to the design or age of the distribution systems or to pre-existing conditions on the systems. Similarly, areas of underground utilities were not locally affected but possibly experienced outages due to damage of overhead facilities that provided incoming power or phone service. The conversion from overhead to underground utilities, while being a possible tool to reduce future storm damages, is very difficult to economically and operationally justify except in specific instances. This subject is much too complex to be included in this assessment to any greater extent.
13. Increasing the use of alternate feeds, as proposed by some customers, would not be of significant benefit in reducing outages during storms of this magnitude. Similarly, greater use of distributed generation would be of limited benefit in reducing weather-related outages.
14. Assertions have been made that some of the utilities assigned fewer restoration workers to certain areas than to other parts of their service territory that incurred similar damage from the ice storm. The assessment indicates that the ice buildup in some areas peaked later than in other areas and was greater than anticipated.
15. This assessment found no discrimination among geographical areas by any of the utilities in their storm restoration efforts. There were fewer restoration workers per outage in some parts of the utilities' systems during the first day of storm restoration due to several factors, including the fact that the ice storm began on one side of the area and passed across the utilities territory. Consequently, the first available off-system resources were deployed in population centers where initial damages were defined. The utility assessment teams must ensure that all population centers are included in the initial assessment. KU initially focused nearly all of its resources in Fayette County delaying restoration of power in the communities of Anderson and Woodford counties. The restoration efforts were also controlled by the limited access due to road closings and travel restrictions.
16. The utilities' restoration priorities of addressing safety-related situations, emergency services, and critical infrastructure needs, and then to restore service to the largest numbers of customers in the shortest period of time were deemed appropriate by KPSC staff.

17. Predicting restoration times for customers is a very difficult and unreliable process. Customers tend to be very frustrated when they find themselves still without power at the predicted restoration time. Their anxiety can be alleviated somewhat by the utilities' ability to provide accurate status updates of the existing outages to the extent practical and to educational preparedness/training of the customer prior to such conditions.
18. At the time their power lines were damaged by the storm, or at the time their power was restored, a small percentage of customers suffered property damage because of open neutral conditions or other related service abnormalities. Prudent inspections prior to re-energizing lines, good communications with local electrical inspectors and public awareness can reduce or prevent such instances in the future.
19. Kentucky's electric utilities have emphasized safety precautions that should be taken around downed power lines. The message, which was emphasized from the outset during the ice storm, clearly has taken hold in the public consciousness, as evidenced by the absence of any injuries caused by downed lines.
20. There was some delay by utilities in communicating the fact that property owners are responsible for repairs to property connections. It was learned that customers generally do not understand where the utility's responsibility ends and theirs begins.
21. Tree trimming or removal of trees near power lines by property owners themselves or their contractors resulted in two fatalities shortly after the restoration was completed.
22. The utilities' line workers and field personnel deserve special recognition for their extraordinary work during the restoration effort. The safety record of all line workers, tree crews, and other personnel is to be commended. Despite the long duration of the ice storm restoration process, and work being conducted in very hazardous conditions, there were no serious injuries or accidents reported to the KPSC. Commission staff congratulates the utilities in their attention to safety during the restoration process.

RECOMMENDATIONS

The Commission staff makes the following recommendations based upon their findings and experience that should improve the utilities' prevention and restoration practices. In addition, the utilities have identified lessons learned from the storm and are implementing changes as well. The Commission staff has reviewed these changes and endorses them.

1. In planning for future storms utilities should make every effort to ensure that an adequate number, based on the individual utilities' need, of telephone lines are available to customers for incoming calls to the call centers, as well as having sufficient queue size for efficient management of the call volume imposed by major storms. The number of customers is steadily increasing; thus, the utilities cannot appropriately assume that the February 2003 Ice Storm is the worst storm they will ever face. Telephone systems and call center personnel adequate to meet the requirements of the February 2003 Ice Storm may not be sufficient for future planning purposes.
2. The addition of Spanish-speaking employees to customer service and public communication staffs should be considered.
3. The utilities should give additional attention to right-of-way maintenance and system inspections to maintain and improve system reliability. Consideration should be given to the clearing of rights-of-way versus merely trimming. A proper balance must be attained between aesthetic benefits to the community and the risk of substantial societal costs associated with the types of major storms to which Kentucky is vulnerable. All utilities should carefully examine their tree-trimming practices and their interpretation, as well as enforcement of those practices to determine whether improvements can be made to minimize the risk of damage to utility distribution systems during storms.
4. A below-ground-line pole inspection and treatment program should be ongoing at the industry recommended interval.
5. A program to replace all excessively aged and/or damaged conductors is highly recommended.
6. It is noted that the use and installation of "bundled conductor" for primary feeders has been on the increase for several years. KPSC staff recommends that the engineering design criteria for this construction be reviewed to ascertain that adequate safety/overload factors are being used in light of the increased ice loading that Kentucky has experienced in recent years. The increased ice loading subjects the mounting bracket on each pole to extreme stress. Failure of a single bracket can initiate a cascading mechanical failure of adjoining structures such as the one occurring near Fayette Mall in Lexington during the 2003 ice storm.

7. A high degree of emphasis should be placed on R/W clearing and inspection / maintenance for three-phase feeder circuits. In general, if these circuits remain intact and energized the remainder of the distribution system can be repaired/re-energized much sooner.
8. The utilities should develop, continually maintain, update and review their Emergency Operations Plans (EOP).
9. The utilities should continue their policy of providing increased assistance to customers with medical needs. As storms approach, the utilities should contact medical alert customers, or their caretakers, at the earliest time the impact and extent of a major storm becomes known to the utilities and encourage them to make alternative shelter arrangements. The utilities should continue to evaluate each storm, seek customer feedback, and determine the most effective means of contacting medical alert customers.
10. The Commission staff recommends that the utilities ensure that elected officials in all areas of their service territory have a means of access to information regarding storm restoration progress.
11. A storm preparedness position or contact employee should be established at each utility. This person should be responsible and accountable for establishing, reviewing and maintaining the utility's disaster preparedness and restoration procedures. This person should also make regular contact with the Kentucky Emergency Management offices in their territory. They could also serve collectively with their peers on a statewide disaster planning/restoration task force.
12. The utilities should make an effort to detect and eliminate improper or damaged neutral and/or grounding connections during the power restoration process. In particular, utilities should inspect their distribution tap lines for connections that may have the neutral disconnected from the utility's main line neutral (this is known as an "open neutral" condition) or other similar circumstances. Prudent inspections prior to re-energizing lines, good communications with local electrical inspectors, and public awareness can reduce the number of incidents resulting from damaged customer service lines.
13. An inspection and all necessary follow-up work should be conducted for aerial crossings of limited access highways. It should be ascertained that all such crossings are in accordance with the National Electrical Safety Code (NESC) requirements that they be constructed to meet Grade B standards.
14. Each utility should at least have a limited working relationship with two or more construction contractors providing services in the state. This allows for much quicker and smoother emergency assistance when needed. It would also be

beneficial to have a working agreement or Storm Work contract in place with all details such as billing, crew size, safety rules, etc. agreed upon in advanced.

15. Information about the customer's responsibility for repairs to property connections, and proper inspection of those repairs, should be a point of emphasis in initial communication efforts in future events that damage significant numbers of property connections. Improving customer education about their responsibility will help utilities restore power safely and decrease customer frustration.
16. Utilities should consider establishing "Restoration Information" Web sites that could convey the information about the status of restoration efforts in specific areas.
17. Safety during extended storm cleanup should be a public information point of emphasis.
18. Utilities should monitor local media and respond as quickly as possible to misinformation. In the initial stages of a disaster, it may be worthwhile to make company officials available to as many as possible of the media outlets conducting call-in shows in order to insure that correct information reaches the public. Because this likely would overwhelm the regular media relation's staff, it may be worthwhile to provide media training to a number of other personnel who could fulfill this function in case of emergency.
19. Utilities should consider conducting briefings and facility tours for members of the media in order to familiarize them with disaster response. This could be an event linked to the onset either of winter or the spring severe storm season. Topics covered could be mutual aid agreements, pre-positioning of material, disaster plans and safety issues.
20. In major disasters affecting utilities, the KPSC, working in close cooperation with the affected utilities, should quickly take an active role in informing the public about safety issues, restoration efforts and other areas within its purview. KPSC staff should be available as needed to reinforce and supplement communication efforts by utilities. The KPSC also should make a spokesperson available as needed at media briefings in the affected area.
21. The communications from the utilities through the KPSC to the Kentucky Emergency Operations Center in Frankfort were efficient particularly after an email reporting method was established. It is recommended that the KPSC staff review the update forms annually and the contact lists to ensure their accuracy.
22. Commission Staff should amend its periodic utility inspection program to include ascertaining that the utilities' Emergency Operations Plans have been adequately reviewed.

Services Committee Items

February 24, 2009

<u>Item</u>	<u>Referred By</u>	<u>Date Referred</u>	<u>Status</u>
2003 Public Utilities Ice Storm Task Force	Gorton	2-13-09	Mar 09
Private Solid Waste Providers	Gorton	2-13-09	Spring 09
Remove on street parking and install center turn lane on 1300' block of Alexandria	Henson	1-16-09	Mar 09
Dog Tethering/Chaining	Beard	10-28-08	Sub Committee Meeting
Sign Ordinance	Myers	9-9-08	Spring 2009
Man O War Truck Traffic Restrictions	Feigel	8-19-08	Police Mar 09
Multi-Way Stop Glendover Dr @ Valley Rd	Beard	7-8-08	Petition Drive
Virtual Fake Speed Humps	Ellinger	7-1-08	Traffic Engineering Feb/March
Employee Automobile Usage and Reimbursement	Blues	5-13-08	General Services Reviewing
Zandale Storm Water Ditch	Beard	11-20-07	
Traffic Safety: Streets Adjacent to Christ the King Church	Feigel	10-23-07	NTMP

Vicious Dogs Item (cont)	Moloney		Status
	Referred By	Date Referred	
New Rack Ordinance	Lawless	5-15-07	Self Policing Policies
Door to Door Peddlers	Stinnett	2-27-07	Mar 09
Imposing Fines for ROW Signage	Myers	11-14-06	
Citizens' Advocate Standards	Myers	2-14-06	Merged with Citizens' Advocate Policy/Procedures Task Force
Curb Replacement Program	Gorton	3-12-05	