

ELECTRIC DISTRIBUTION COMPANY SERVICE OUTAGE RESPONSE AND RESTORATION PRACTICES REPORT

Report Responding to the Joint Motion of
Vice Chairman Tyrone J. Christy and Commissioner Pizzingrilli

Prepared by the
Bureau of Conservation, Economics and Energy Planning
Wayne Williams, Ph.D., Director
and the
Office of Communications
Tom Charles, Manager

April 2009

Table of Contents

	<u>PAGE</u>
<u>Section 1 – Introduction and Overview</u>	
Background	1
<u>Section 2 – Analysis of Responses to Questions</u>	
Question No. 1	2
Question No. 2	4
Question No. 3	5
Question No. 4	6
Question No. 5	7
Question No. 6	9
Question No. 7	10
Question No. 8	10
Question No. 9	11
Question No. 10	12
<u>Section 3 – Recommendations</u>	
General	14
Proposed Policy Statement	16
Proposed Regulations	19
<u>Section 4 – Conclusion</u>	21
<u>Appendix A – Motion</u>	
Joint Motion of Vice Chairman Tyrone J. Christy and Commissioner Kim Pizzingrilli	
<u>Appendix B – Responses</u>	
EDC Responses to Commission Question Nos. 1-3	

Section 1 – Introduction and Overview

Background

On September 14, 2008, Hurricane Ike mixed with a cold front and produced 80-mph winds in Western Pennsylvania that left more than 300,000 customers without power and caused damage to the area's electric system. The last customer remaining out of service due to this event was restored on September 22, 2008.

Given the magnitude and duration of the event, the Commission found it necessary to conduct a statewide evaluation of aspects of electric distribution company (EDC) storm response, service restoration and customer communication practices. On September 25, 2008, pursuant to Section 331(b)(4) of the Public Utility Code, 66 Pa.C.S. § 331(b)(4), the Commission directed staff to undertake a study of these issues. All eleven EDCs regulated by the Commission provided responses to 10 directed questions relating to outage preparedness and communications. The Joint Motion of Vice Chairman Tyrone J. Christy and Commissioner Kim Pizzingrilli is attached as Appendix A.

At the Commission's direction, two public input hearings were held before Administrative Law Judge Mark Hoyer in Cranberry Township on October 9 and 10, 2008. The hearings were sparsely attended by members of the general public. About eight residents spoke at the two meetings. For the most part, the residents who did speak praised the efforts of the utilities and emergency responders in restoring service given the size of the storm and number of outages. However, the residents did say the utilities need to improve communications to the public.

On November 12, 2008, and January 6, 2009, supplemental responses to additional data requests were filed by several EDCs.

Section 2 – Responses to Questions

Question No. 1. All electrical distribution companies shall provide the number of personnel employed as line or substation repair crews for each of the years beginning with 1998 and up to and including 2007 and shall indicate whether those personnel are utility employees or utility contractor employees.

Appendix B contains each EDC's response to this question.

When we analyzed the data provided, we did so by not only reviewing the manpower magnitude and trends, but also by reviewing the data in the context of the restructuring rate cap and subsequent rate requests. Distribution rate increases occurred as follows: PPL Electric in January 2005 and January 2008, Duquesne Light in January 2007, Wellsboro in January 2008 and Citizens in February 2008. Distribution rate decreases were effective for Met Ed and Penelec in January 2007.

With this backdrop in mind, we must note that many of the EDC Lineman and substation worker counts were significantly lower after the EDCs completed restructuring. For example, PPL's lineman count dropped from 525 in 1998 to 420 in 2004. PPL attributed this drop to becoming more efficient under capped rates and a greater reliance on mutual assistance. PPL's lineman count has stayed fairly level since its distribution rate cap was lifted. In 2007, the Company reported 435 linemen on staff. PPL's level of staff electricians has been steady since 1998 as well. Initially, when PPL's reliability indices are reviewed in conjunction with the reduction in lineman data, there appears to be a decline in SAIFI and CAIDI performance. However, when an adjustment is made to account for the varying weather experienced over the years 1994 to 2007, PPL appears to be providing a fairly steady level of reliability performance.

Next, we turn to the three FirstEnergy companies. These three companies have been under Commission scrutiny for reliability related issues over the past several years. A review of the data filed by these three companies reveals that the number of linemen at Penelec dropped from 385 in 1999 to 291 in 2004, MetEd's linemen count dropped from 238 in 1999 to 207 in 2004 and Penn Power's linemen count dropped from 88 in 1999 to 76 in 2004. A concurrent reduction in substation workers occurred for each company as well. Starting in 2005, we see an increase in both categories of employees for the FirstEnergy companies and recently (January 2009) all three FirstEnergy companies achieved their reliability standards for the first time in many years. It is no coincidence that FirstEnergy staffing levels increased in 2005 after the Commission Order in November 2004 at I-00040102 (Investigation regarding the Metropolitan Edison Company's, Pennsylvania Electric Company's and Pennsylvania Power Company's Reliability Performance).

In summary, while there was a decrease in the number of linemen and substation staff after rate caps went into place, it appears that all EDCs do at this time have sufficient linemen and substation workers to provide adequate and reliable electric service.

There is however an issue related to EDC staffing levels that is currently being addressed by the Commission's Bureau of Conservation, Economics and Energy Planning (CEEP) and Audits and the EDCs themselves that we will simply note here. This is the issue of the aging workforce. When the age distribution of the EDCs' linemen and substation workers is reviewed, it is apparent that a large contingent of workers will be needed to replace those workers that are near eligibility for retirement. We believe the EDCs should continue to work with the Commission and its staff to ensure the adequacy of each EDC's linemen and substation employee levels.

Question No. 2. All electrical distribution companies shall provide the following details concerning mutual aid received for outage restoration for each of the years beginning with 1998 and up to and including 2007.

Appendix B contains each EDC's response to this question.

The utility crews that the EDCs utilize to supplement their restoration workforce typically come from companies that are members of the Mid-Atlantic Mutual Assistance (MAMA) group.

The MAMA group was formed during Y2K to review utility preparedness. The MAMA group's mission is to provide a forum to ensure safe, effective, coordinated regional restoration efforts in the best interest of the customers and to develop a better understanding and communications with first responders, local officials and regulatory agencies. Restoration assistance from the MAMA group utilities typically allows utilities to add a temporary complement to its workforce during times when its system capabilities are fully stressed. It is not cost effective for a utility to add a similar full time permanent complement to its workforce, since that additional complement would only be truly needed at times of severe weather and would be fairly idle the remainder of the time.

Commission staff does review a utility's workforce complement on a regular basis. As an example, the Commission's Bureau of Audits performed a Stratified Management and Operations Audit of PECO in June 2006. Audits incorporated a review and analysis of PECO's Electric Operations staffing levels relative to the trend of using full-time equivalent employees and contractors for Electric Operations into the PECO Stratified Management and Operations Audit.

Commission staff has found the use of the MAMA group to be a valuable asset to Pennsylvania EDCs. We do however wish to maintain the ability to monitor the use of Pennsylvania assets in the assistance of other states and ensure that our jurisdictional

EDCs are not relying too heavily on MAMA assistance for electric outage restoration. In order to facilitate this ongoing review process, we recommend the Commission consider amendments to the regulations at 52 Pa. Code § 67.1 relating to notification procedures.

Question No. 3. All electrical distribution companies shall provide for each of the years beginning with 1998 and up to and including 2007 the Pennsylvania inventory levels kept on utility property of the below listed equipment related to storm restoration.

- a. **Utility poles**
- b. **Utility pole crossarms**
- c. **Transformers used for the provision of residential service**
- d. **Length of primary wire**
- e. **Length of secondary wire**
- f. **Length of service drop wire**

Appendix B contains each EDC's response to this question.

As with the lineman and substation staffing data, when we analyzed the equipment data provided, we did so by not only reviewing the magnitude and trends, but also by reviewing the data in the context of the restructuring rate cap and subsequent rate requests.

Prior to discussing the responses to the inventory question, we must note that neither the PUC's emergency response team, nor the PUC's reliability review team can recall or document any storm situation where Pennsylvania's EDCs delayed restoration of customers due to a material shortage.

While Commission staff's experience and review of the supplied data suggests that there is not a shortage of outage restoration materials and supplies, some of the data trends raise questions.

The first trend of note is associated with Duquesne Light. Duquesne Light's inventory increased significantly in 2005 and 2006, the years that Duquesne Light would have used for historic test years in its rate proceeding that became effective in January 2007. Duquesne's outage numbers dropped correspondingly in 2005 – 2007. We find it statistically interesting that while Duquesne Light was providing service reliability at a benchmark level during its rate cap years, the level of investment and quality of service significantly increased in the years leading up to and after the distribution rate cap expired.

We note similar recent increases in the FirstEnergy companies' materials and supplies data. However, we attribute these increases more to the increased reliability oversight the Commission has exerted, beginning with the 2004 reliability investigation.

In contrast, PPL, Wellsboro and Citizen's each had distribution rate increases, but did not report inventory build ups prior to the rate proceedings. In fact, some of the asset groups for these companies actually have demonstrated a decline in recent years, while reliability indices have been maintained at acceptable levels.

In order to continue to review the restoration material and supply levels maintained by the EDCs, we recommend the Commission consider amending its regulations at 52 Pa. Code § 67.1.

Question No. 4. What method or methods of communication with customers was used in this outage, or if not affected by this storm, would have been used in the event of an outage?

The EDCs reported that during an outage they work with local officials and the local news media – print, radio and television. FirstEnergy and PECO use field operatives as well to communicate.

Most of the EDCs use a company Web site to provide regular updates to residents and if available an automated calling system. The utilities report a high volume of visits to the Web sites during outages suggesting that the media uses the Web site and residents may be checking the status of their home electrical service from another location such as work.

Methods used to communicate outage information:								
	Company Website	Contact Local Media	Operate Call Center	Automated Calling	Field Operatives	Radio	Contact Local Officials	IVR
Allegheny Power	X	X	X			X		
Citizens Electric	Planned	X	X	Planned		X	X	X
Duquesne	X	X	X			X	X	X
FirstEnergy	X	X	X	X	X	X	X	X
Orange & Rockland	X	X	X	X		X	X	X
PECO	X	X	X	X	X	X	X	X
PPL	X	X	X	X		X	X	X
UGI		X	X			X	X	
Wellsboro		X	X			X	X	X

We agree with their methods, but generally feel that more proactive, coordinated responses should be considered. This will be addressed further in the recommendations portion of this report.

Question No. 5. Have you considered use of 21st Century technology in reaching out to customers, keeping in mind that they are without electricity? Why or why not?

Due to the existence of an Ohio-based company named Twenty First Century Communications that offers utilities services in emergency communications and outage

management, many of the utilities answered the question related to use of that specific company rather than use of modern technology as was intended.

Those companies who addressed the use of modern technology did indicate that they do use newer technology related to customer communications including the ability to provide wake-up calls to customers who request the service. The more rural EDCs indicated that technologies such as e-mail or text messaging might be unreliable for their area. Some EDCs said they were evaluating new technology but thought it might be too challenging to acquire sufficient secondary contact information such as e-mail or wireless phone numbers.

Does company review 21st Century Technology for potential application?	Yes	No	
Allegheny Power	X		
Citizens Electric	X		
Duquesne	X		
FirstEnergy	X		*1
Orange & Rockland	X		*2
PECO	X		*3
PPL	X		
UGI	X		*4
Wellsboro	X		*5

1 - 21st Century Call Center, global messaging, reverse IVR

2 - Currently reviewing 21st Century's Mutual Assistance Routing System for possible implementation

3 - 21st Century telephone system to handle large volumes of customer calls, Automated Meter Reading to "ping" as tests during outages

4 - Due to rural territory, technologies such as email, texting, etc. may be unreliable and unusable, especially during outages

5 - Currently evaluating new technology but see potential challenge in customer acquiring email, cell phones, etc.

We agree with their methods, but generally feel that the EDCs should be exploring increased use of modern technology such as e-mail, text messaging and automated dialing when communicating with their customers during an outage. This will be addressed further in the recommendations portion of this report.

Question No. 6. Assess whether technological enhancements in communications can be made to keep the public better informed as utilities respond to the operational issues involved in resolving emergency situations such as reverse 911, e-mails or text messages.

Only two companies (FirstEnergy and PECO) reported use of an automated dialer system for communicating with customers. Pike County Light & Power is the only EDC to indicate the use of e-mail to communicate with customers while PECO was the only EDC to use text messaging. Three EDCs (Duquesne, PPL and Wellsboro) were researching the use of automated dialing systems, e-mail and text messages.

Does company utilize new communication tools such as:	Reverse 911	Email	Text Messages
Allegheny Power	Researching		
Citizens Electric	No	No	Planned
Duquesne	Researching		
FirstEnergy	Yes	No	No
Orange & Rockland	No	Yes	No
PECO	Yes	No	Yes
PPL	Researching		
UGI	No	No	No
Wellsboro	Researching		

*1

1 - Piloting a webcam project to provide more information, considering retention of customer email and cell phone numbers

Again, we generally feel that the EDCs should be giving serious consideration to the increased used of modern technology such as e-mail, text messaging and automated dialing when communicating with their customers during an outage. This will be addressed further in the recommendations portion of this report.

Question No. 7. Do you have a crisis communications plan in writing for outages? If yes, please attach a copy.

All of the EDCs indicated that they have written crisis communications plans, which were provided.

	Company has a crisis communication plan	Plan is attached to company response
Allegheny Power	Yes	Yes
Citizens Electric	Yes	Yes *
Duquesne	Yes	Yes
FirstEnergy	Yes	Sample **
Orange & Rockland	Yes	Yes
PECO	Yes	Yes
PPL	Yes	Yes
UGI	Yes	Yes
Wellsboro	Yes	Yes

* Redacted Version (proprietary)

** Full database is 1,000+ pages (demonstration available upon request)

We recognize that the EDCs have crisis communications plans in writing, but from this review, it is unclear if any of the plans are National Incident Management Systems (NIMS) compliant or if they are in line with any other nationally-accepted standards set forth for communicating during an emergency. Recognizing that effective communication is critical, NIMS establishes nationally-accepted protocols for timely communication of accurate information during an incident. This will be addressed further in the recommendations portion of this report.

Question No. 8. What is the proactive outreach (i.e. direct contact or through media) conducted by your utility to keep customers informed of conditions, restoration times and tips for staying safe during an outage?

All of the EDCs use the media as a means of communicating with consumers and talk directly with local officials during an outage. Six EDCs (the FirstEnergy companies, Pike County Light & Power, PECO and PPL) will contact consumers

directly. While Seven EDCs (Duquesne, the FirstEnergy companies, Pike County Light & Power, PECO and PPL) provide updates for consumers using their Web site. The companies also indicated that they provide safety tips and outage preparation information in company newsletters distributed to customers.

Companies proactive outreach methods include:		Direct Contact	Media Communication	Website	Local officials	
Allegheny Power		Yes	Yes	Yes	Yes	
Citizens Electric		No	Yes	No	Yes	*1
Duquesne		No	Yes	Yes	Yes	
FirstEnergy		Yes	Yes	Yes	Yes	
Orange & Rockland		Yes	Yes	Yes	Yes	
PECO		Yes	Yes	Yes	Yes	
PPL		Yes	Yes	Yes	Yes	
UGI		No	Yes	No	Yes	*2
Wellsboro		No	Yes	No	Yes	

1 - Safety tips provided in company newsletters

2 - Periodic information for outage preparation provided in company newsletters

We agree with their methods, but generally feel that more proactive, coordinated responses should be considered. This will be addressed further in the recommendations portion of this report.

Question No. 9. How are restoration times communicated to the PUC, customers, county emergency management agencies and media? Do you have a single-point of contact for this information?

All of the EDCs indicated that they use common methods to communicate to consumers, the media and the PUC about restoration times (call centers, the media and direct contact with the PUC).

How is restoration data transmitted to customers, media, and PUC				
	Call center/ Hotline	Public Service Announcement/ Media	Direct Contact with PUC	Is there a single point of contact for restoration information?
Allegheny Power	Yes	Yes	Yes	Yes
Citizens Electric	Yes	Yes	Yes	Yes
Duquesne	Yes	Yes	Yes	Yes
FirstEnergy	Yes	Yes	Yes	Yes
Orange & Rockland	Yes	Yes	Yes	Yes
PECO	Yes	Yes	Yes	Yes
PPL	Yes	Yes	Yes	Yes
UGI	Yes	Yes	Yes	Yes
Wellsboro	Yes	Yes	Yes	Yes

While all of the EDCs reported a single point of contact for restoration information, this was not necessarily the experience during the September outages. For three of the EDCs affected in the September storm, seven different people were quoted in various newspapers over one day of coverage. This will be addressed further in the recommendations portion of this report.

Question No. 10. What is the procedure if a customer receives a busy signal on your outage line? On your customer service line? Are they called back? Do they receive an automated message? Are your customer-call systems tested to be able to receive and process calls from a significant number of your customer base in a short period of time and how many calls can your customer call center receive at one time?

While nearly all of the EDCs (with the exception of UGI) offer interactive voice response, only four EDCs (the FirstEnergy companies and PECO) track busy signals and offer to call the customer back if they receive a busy signal. Limited overflow service also is available (Duquesne, Pike County Light & Power and PECO) while four

companies (Duquesne, FirstEnergy, Pike County Light & Power and PPL) offer customized messages for consumers.

Response if customer receives busy signal:						
	Are busy signals tracked?	Are there company callbacks?	Overflow Service	Customized Messages	IVR - Interactive voice response	
Allegheny Power	No	No	IVR	Yes	Yes	
Citizens Electric	No	No	IVR	No	Yes	
Duquesne	No	No	Yes	Yes	Yes	*1
FirstEnergy	Yes	Yes	No	Yes	Yes	*2
Orange & Rockland	No	No	Yes	Yes	Yes	
PECO	Yes	Yes	Yes	No	Yes	
PPL	No	No	No	Yes	Yes	
UGI	No	No	No	No	No	*3
Wellsboro	No	No	No	No	Yes	*4

- 1 - Capacity rarely reached
- 2 - No busy signals received during Sept. 2008 event
- 3 - Capacity rarely reached
- 4 - Customers are called after restoration to ensure success

Again, we generally feel that the EDCs should be giving serious consideration to the increased use of modern technology that will allow them better tracking of customer calls during outages. This will be addressed further in the recommendations portion of this report.

Section 3 – Recommendations

General

While participation in the public input hearings held a month after the outages was limited, during the outages many residents were frustrated with a lack of answers from their utilities about when service would be restored or the conflicting information they were receiving. The Commission understands that it takes time to restore power after a severe unexpected storm. However, keeping an open, predictable line of communication with consumers could have gone a long way toward easing some of the frustrations expressed by the public.

The utilities did not utilize the principles of the National Incident Management System and its Incident Command System. These principles include making certain the message is consistent, using one spokesperson for an information release and providing predictability to the release of updated information. The EDCs should consider utilizing a Joint Information System/Joint Information Center that organizes all of the information throughout the utility into one unified message with one person to deliver that message at predictable timeframes to the public, media and others.

We understand that customer service representatives will be dealing with the public during outage situations. Also, linemen and other people working in the field will encounter customers with questions about restoration of service. The message to the public and media should be the same no matter which public service representative or department of the utility residents contact. During the September 2008 incident, we found that different information was being gleaned from different segments of the utility (consumer services representatives, linemen, field staff and media contacts). This caused confusion among consumers, media and the Commission.

A single set of talking points or informational sheets with a uniform message should be distributed to all within the EDC who may have contact with the public in any

capacity. The uniform message should be updated regularly at predictable/scheduled times. Media releases, talking points and other information should be shared with the Commission's Office of Communications, its Emergency Preparedness Coordinator and the local Emergency Management Agencies.

Also, it's evident that specific times should be established for release of information to the media with an opportunity for open dialogue and questions – possibly through an in-person media availability conducted by the EDC spokesperson. The PUC has established such protocols for receiving updates for outage information from the EDCs. The Commission's Office of Communications then uses those predictable times to share with the media when the next update on the number of people without service will be available. The same should be done by the EDCs in communicating with the public. Establishing a regular schedule for information updates allows the public and the media to know specifically when new, updated information will be available. Again, adherence to the NIMS standards for release of public information would alleviate these concerns.

Beyond a consistent message from the EDC, we see a benefit to working across jurisdictional boundaries. The NIMS-based Joint Information System/Joint Information Center would apply to efforts to work with other utilities in coordinating a message. According to the NIMS standard, those contributing to joint public information management “do not lose their individual identities or responsibilities. Rather, each entity will contribute to the overall unified message.”

We also believe that modern technology is being under-utilized by the EDCs. Automated dialing systems, e-mail or text messaging would prove to be effective communication tools for customers. While we recognize these technologies are only recently emerging, they are tools that should be utilized. Customers could opt to provide cellular telephone or home telephone numbers for calling or the other information. Customers who opt to participate in such a program would then know that they can receive updated information at a set interval or if their estimated restoration

time has changed by more than two hours. With that said, we know that not everyone is plugged into the digital age. In focusing on the use of emerging technology, EDCs should not abandon outreach using traditional communication networks such as radio.

We understand that the success of the use of modern technologies such as e-mail and text messaging depends directly on the consumers' willingness to provide that secondary-contact information. However, we believe sufficient customer interest in receiving timely information during an outage exists, leading to a willingness by those customers to voluntarily provide secondary-contact information such as e-mail and text-messaging addresses to the EDC.

We also believe that the increased use of technology lends itself to the EDCs creating and maintaining a section of their Web site specifically dedicated to outages. While it is admirable that some of the EDCs are able to provide real-time, customer-specific outage-related data on their Web sites, we understand that type of specificity is too cumbersome for certain utilities. However, we recommend that the Commission require the EDC's to dedicate a part of their respective Web sites to presenting outage information where customers could at the very least get regular updates of the number of customers without service by geographic area and estimated restoration times.

Proposed Policy Statement

On November 9, 2006, the Commission finalized a policy statement relating to unscheduled water service interruptions and associated actions (52 Pa. Code §69.1602 adopted December 15, 2006, effective December 16, 2006, 36 Pa.B. 7624). The document and its advice applied only to jurisdictional water and wastewater utilities, but the information contained within the policy statement provided solid guidance for all jurisdictional utilities. While the information found during the investigation leading up to the policy statement was served on all jurisdictional utilities including the EDCs, the final policy statement was not. Given the communication methods and reaction of consumers

from the September 2008 outages, it seems the lessons learned from that investigation should be considered by EDCs.

Therefore, staff recommends that the Commission consider adopting a policy statement for the EDCs similar to the one adopted on November 9, 2006, for the jurisdictional water utilities.

The proposed policy statement outlined below will provide guidance to the industry regarding the types of public notice necessary to meet the reasonableness standard in the Public Utility Code at 66 Pa.C.S. § 1501. This proposed policy statement will help ensure that actual, timely notice to customers is provided by EDCs whenever any event disrupts service and/or potentially endangers public safety. The proposed policy statement includes a series of acceptable methods for improving the timeliness and effectiveness of notice to electric customers during an outage. In addition, the proposed policy statement provides guidelines for public notice templates and notice to Commission personnel.

§ 69.1901, Policy Statement of Utility Service Outage Public Notification Guidelines.

(a) In the event of a service interruption, the following acceptable methods of public notification should be considered and utilized as appropriate:

(1) Fax/e-mail notification to local radio and television stations, cable systems, newspapers and other print and news media as soon as possible after the event occurs. These notifications must provide relevant information about the event, such as the affected locations, its potential impact including the possible duration of the outage, and a description of actions affected ratepayers/occupants should take to ensure their safety, with updates as often as needed. Updates should be provided on a predictable, regular schedule for the duration of the event. The Commission's Office of Communications and Emergency Preparedness Coordinator should also receive these notifications

(2) Use of the utility's own Internet Web site and 24/7 emergency phone line and integrated voice response system to provide relevant information about the event, such as the affected locations, its potential impact and estimated duration, and a description of actions affected ratepayers/occupants should take to ensure their safety, with updates as often as needed.

(3) Automated dialer system (outbound dialing) notification to affected ratepayers'/occupants' landline or wireless phones. Updates should be provided at regular intervals or if the estimated restoration time should change by more than two hours.

(4) Other types of direct or actual notice, such as doorknob flyers distributed to affected ratepayers/occupants with actions affected ratepayers/occupants should take to ensure their safety, when feasible.

(5) E-mail and text message notification to affected customers who have opted to receive notice through use of these methods.

(6) Coordination with state and local emergency management agencies as needed to use the emergency alert system for qualifying situations.

(7) Create a section of the company Web site dedicated to presenting outage information where regular updates of the number of customers without service by geographic area and estimated restoration times are available. Depending on EDC-system limitations, this could be as simple as a PDF or spreadsheet file of information that is updated at regular intervals.

(b) Utilities should strive to adopt National Information Management Systems (NIMS) and its Public Information System that strives to organize all information throughout the utility into one, unified message.

(1) EDC crisis communications plans should be in writing and every attempt should be made to be consistent with the nationally-approved NIMS standards.

(2) If more than one EDC is affected in the same geographic region, strong consideration should be given to implementing the NIMS-based Joint Information System/Joint Information Center. This would allow for coordination and integration of information across jurisdictions, especially on universal messages such as actions residents should take to ensure safety.

(3) The EDCs should have public notice templates prepared in advance to be available when needed to avoid wasting critical time developing materials when confronted with an emergency situation. The notices should cover many possible scenarios from safety and shelter information, estimated restoration times and times when updated information will be provided.

(c) To ensure that the public is informed, if possible, utilities should consider having a knowledgeable contact person stationed in the area of the outage during the emergency to communicate to the public and media on behalf of the company. Regular media updates should be scheduled at predictable times.

(1) A single point of contact should be established as the sole media spokesperson for the utility for that time period. During extended outages, a secondary-media spokesperson could be utilized as the sole contact for a specific period of time.

(2) Talking points or informational sheets should be provided to customer service representatives, linemen and others who may come in contact with the public during the course of the outage to strive toward consistency of message. This information should also be shared with the Commission's Office of Communications and its Emergency Preparedness Coordinator.

Proposed Regulations

As stated previously in this report, we recommend revisions to Commission regulations on service outages at 52 Pa. Code 67.1, *et seq.* This section should be opened for review, specifically the written notification section § 67.1(b). Additional required information should be considered in § 67.1(b). This additional information is typically requested by the Bureau of Fixed Utilities Services (FUS) for major events. Much of this information is already reported to FUS on a consistent basis in the outage reports filed by certain EDCs, although voluntarily. Additional required information should include:

- The utilities' weather reports, outlooks or scenarios and forecasts for the day before, and day of the interruption of service incidence if the outage was caused by a weather event
- The total number of outage cases and trouble cases (non-outage) by county
- The number of utility and contractor crews and personnel received as mutual aid
- A description of damage to equipment (replaced transformers, poles, spans of wire, pipes or valves for water and gas utilities, electronic equipment for telephone utilities)
- A historical ranking of the outage in terms of the number and duration of outages and examples of two comparable storms or events and the outage number and duration of those storms or events.

This information is available to the EDCs and some of them already report this information voluntarily. We do however, recognize that 52 Pa. Code § 67.1 applies, not only to electric, but to gas, water and telephone utilities holding certificates of public convenience. We believe the additional information requested may be of use in reviewing the outage response of telephone, gas or water/wastewater utilities. The issue of whether the additional reporting requirements should be limited to EDCs can be addressed during the review procedure.

While not directly addressed in the Joint Motion, we also recommend reviewing the Commission's regulations on reportable accidents. This proposed change provides focused direction to the EDCs concerning the types of safety and emergency information that this Commission needs to ensure that safe and reliable service is provided to the citizens of this Commonwealth. The Commission's regulations at 52 Pa. Code § 57.11 (electric), § 65.2 (water/wastewater), and § 59.11 (gas), which deals with reportable accidents, should be opened for review with one expectation being a simpler, more uniform approach to reporting standards and a second expectation of closing the loop on the ultimate cause and result of reported accidents.

Further clarification on what is a reportable accident is needed as is a consistent approach for all utilities. For example, any injury involving utility facilities is reportable for water, but for electric utilities the injury must be such as to cause the person to be out of work for a certain amount of time. A simpler, more uniform approach would be to require reporting of any injuries that require an ambulance or emergency room visit. Also, in order to close the loop on the ultimate cause and result of reported accidents, in addition to the required UCTA-8 form, the Commission should require utilities to file a copy of the final internal investigation report (or other similar report) when it becomes available.

Section 4 – Conclusion

In the aftermath of Hurricane Ike, the Commission directed that its staff conduct a statewide evaluation of aspects of electric distribution company storm response, service restoration and customer communication practices.

Both the Commission staff and EDCs perform best practice reviews after each storm response to identify areas of improvement. Over the years, both parties have worked well together to improve emergency outage response to the citizens of the Commonwealth of Pennsylvania.

Commission staff believes that this Joint Motion is an opportunity to memorialize some reporting practices that have been developed between staff and the EDCs over the years and an opportunity to implement some new practices.

We recommend that the Commission consider acting on the general recommendations, the proposed policy statement and the proposed regulations discussed in the body of this report.

Appendix A – Motion

PENNSYLVANIA PUBLIC UTILITY COMMISSION
HARRISBURG, PENNSYLVANIA 17105-3265

Electric Distribution Company Service Outage Response and
Restoration Practices

PUBLIC MEETING
September 25, 2008
SEPT-2008-C-0008
Docket No. _____

JOINT MOTION OF VICE-CHAIRMAN TYRONE J. CHRISTY AND
COMMISSIONER KIM PIZZINGRILLI

As the remnants of Hurricane Ike met a cold front, higher than predicted winds hit portions of Western Pennsylvania on September 14 and 15 that resulted in significant damage to the electric distribution system. The high winds brought down trees, which damaged numerous electric lines and poles and also caused other electric infrastructure damage. All of this resulted in an extended loss of electric service for more than 300,000 Pennsylvanians.

In the aftermath of this event, utilities moved to restore service, with priority being given to repairs that could restore critical care customers, such as hospitals and nursing homes, and the largest number of customers in the most prompt and responsible manner. Utilities also invoked mutual aid agreements, in which line repair personnel from unaffected utilities travel to the site of the outages and assist in the restoration of service. The Pennsylvania Emergency Management Agency, to which the Commission is a support agency under the State Emergency Operations Plan, monitored the scope of the outage and the progress of restoration, and provided regular updates to other government agencies. All customers had service restored as of September 22. The work efforts of the utilities to restore service were appreciated as they encountered numerous dangerous situations. Unfortunately, one New Jersey utility employee who was assisting as part of mutual aid died in the course of restoring service.

The Commission maintains and enforces standards and procedures for the safety and reliability of the electric transmission and distribution system in Pennsylvania. 52 Pa. Code § 57.191, *et seq.* Consistent with these regulations, the affected utilities will provide reports on their storm response to the Commission. These reports will include specific information on restoration times, restoration procedures, preparations in advance of the storm, response times, clean up, and remediation. As with any outage, the Commission reviews the reports and evaluates whether the utility responded to the outages appropriately, whether they were adequately prepared and whether they were in compliance with the Public Utility Code and regulations. Typically, the Commission evaluates these reports, and directs individual utilities to take any additional measures to improve reliability if appropriate.

BH

However, given the magnitude and duration of these recent outages, we find that it is necessary to conduct a statewide evaluation of aspects of electric distribution company storm response, service restoration, and customer communication practices. We will therefore, pursuant to Section 331(b)(4) of the Public Utility Code, 66 Pa.C.S. § 331(b)(4), direct staff to undertake a study of these issues. As an initial step in this proceeding, we will direct that all jurisdictional electric utilities review and respond to the attached questions within 15 days of the adoption of this motion.

We also find that it is appropriate to conduct a public input hearing on this matter. We will therefore direct the Office of Administrative Law Judge, with the assistance of the Office of Communications, to schedule at least one public input hearing in the area affected by the recent power outages within two weeks. This hearing will provide an opportunity for utilities, government agencies, and emergency service providers to share information. It will also provide an opportunity to affected customers to share their experiences and how they could best be notified of outage related information during future incidents.

THEREFORE, WE MOVE THAT:

1. The Law Bureau prepare a Secretarial Letter, with a copy of this motion, and the directed questions, to be served on all jurisdictional electric distribution companies.
2. Electric distributions companies file a response to these questions and data requests with the Commission's Secretary's Bureau within 15 days.
3. The Office of Administrative Law Judge, with the assistance of the Office of Communications, schedule a public input hearing to be held in the affected area within two weeks of today.
4. Upon the completion of the review of the information collected pursuant to this proceeding, the Bureau of Conservation, Economics and Energy Planning, with the assistance of other appropriate staff, will prepare a report on this matter that will include recommendations for future action, including changes in policies and regulations governing electric service reliability.

September 25, 2008
Date


TYRONE J. CHRISTY, VICE-CHAIRMAN


KIM PIZZIGRILLI, COMMISSIONER

Directed Questions to Electric Distribution Companies

1. All electrical distribution companies shall provide the number of personnel employed as line or substation repair crews for each of the years beginning with 1998 and up to and including 2007 and shall indicate whether those personnel are utility employees or utility contractor employees.
2. All electrical distribution companies shall provide the following details concerning mutual aid received for outage restoration for each of the years beginning with 1998 and up to and including 2007.
 - a. The company name and location of origin for each mutual aid provider for the year, whether from another utility or a utility contractor.
 - b. The number of times each mutual aid provider was utilized during the year and the number and type of personnel provided for each incident.
3. All electrical distribution companies shall provide for each of the years beginning with 1998 and up to and including 2007 the Pennsylvania inventory levels kept on utility property of the below listed equipment related to storm restoration.
 - a. Utility poles
 - b. Utility pole crossarms
 - c. Transformers used for provision of residential service
 - d. Length of primary wire
 - e. Length of secondary wire
 - f. Length of service drop wire
4. What method or methods of communication with customers was used in this outage, or if not affected by this storm, would have been used in the event of an outage?
5. Have you considered use of 21st Century technology in reaching out to customers, keeping in mind that they are without electricity? Why or why not?
6. Assess whether technological enhancements in communications can be made to keep the public better informed as utilities respond to the operational issues involved in resolving emergency situations such as reverse 911, e-mails or text messages.
7. Do you have a crisis communications plan in writing for outages? If yes, please attach a copy.

8. What is the proactive outreach (i.e. direct contact or through media) conducted by your utility to keep customers informed of conditions, restoration times and tips for staying safe during an outage?
 9. How are restoration times communicated to the PUC, customers, county emergency management agencies and media? Do you have a single-point of contact for this information?
 10. What is the procedure if a customer receives a busy signal on your outage line? On your customer service line? Are they called back? Do they receive an automated message? Are your customer-call systems tested to be able to receive and process calls from a significant number of your customer base in a short period of time and how many calls can your customer call center receive at one time?
-

Appendix B - Responses

EDC Answers to Question No. 1:

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Duquesne										
Overhead Workers	224	251	256	221	212	219	206	221	230	225
Underground Workers	61	62	60	69	60	60	51	52	51	50
Substation Workers	61	72	76	55	57	56	56	61	56	63
Troubleshooter & Traveling Operator	48	55	55	53	56	61	58	57	56	58

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Penelec									
Linemen	385	374	323	321	308	291	297	319	319
Substation	101	102	97	95	89	73	76	79	79

	1999	2000	2001	2002	2003	2004	2005	2006	2007
MetEd									
Linemen	238	232	207	194	197	207	214	223	223
Substation	66	66	68	68	67	56	72	69	69

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Penn Power									
Linemen	88	76	68	71	72	76	75	77	86
Substation	27	20	20	20	19	19	20	21	20

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
PECO										
Aerial Linemen	427	410	399	400	422	399	418	423	426	419
Underground Linemen	130	108	113	108	110	102	69	76	78	71
Transmission/Substation	136	131	126	132	134	127	119	116	119	131
Energy Technicians	165	101	100	100	98	101	97	97	93	99

EDC Answers to Question No. 2:

Number of Times the Company Utilized Mutual Aid*

Company	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Allegheny Power	n/a	n/a	n/a	n/a	n/a	n/a	13	18	17	26
Duquesne Light	0	0	2	0	8	2	0	0	0	4
MetEd	n/a	n/a	n/a	n/a	n/a	35	1	7	13	22
Penelec	n/a	n/a	n/a	n/a	n/a	10	0	15	7	15
Penn Power	n/a	n/a	n/a	n/a	n/a	0	0	0	0	1
FirstEnergy - PA**	n/a	n/a	n/a	n/a	n/a	0	14	18	1	0
PECO	7	24	2	10	17	11	8	22	42	15
PPL	2	5	0	0	9	11	3	6	1	20
UGI	0	0	0	0	0	0	0	0	0	0
Citizens	0	0	0	0	2	2	0	0	0	0
Pike	0	10	4	3	6	6	5	8	9	9
Wellsboro	0	0	0	1	0	5	3	0	0	1

* Number of times utilizing each mutual aid provider, not number of incidents per year utilizing mutual aid providers

**FirstEnergy could not break down the assistance provided by PA operating company for these mutual aid providers

EDC Answers to Question No. 3:

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Duquesne										
Utility Poles	N/A	1,812	1,700	1,381	1,303	1,570	1,492	2,252	2,531	1,114
Crossarms	N/A	N/A	N/A	N/A	N/A	786	367	2,005	2,580	1,557
Transformers	1,000	2,099	2,345	1,610	1,095	1,291	518	932	1,124	1,036
Primary Wire (ft)	20,914	48,858	22,030	21,075	74,122	35,010	148,030	116,274	167,050	203,705
Secondary Wire (ft)	125,575	76,038	91,317	113,654	79,123	88,161	381,686	445,433	451,294	677,816
Service Wire (ft)	250,221	224,948	227,723	202,376	226,437	322,547	375,863	706,587	690,375	845,679

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Wellsboro										
Poles	38	105	63	56	85	63	59	43	75	75
Crossarms	69	169	45	48	47	37	76	71	116	116
Transformers	83	87	92	59	72	50	94	70	109	109
Primary Wire (ft)										
Overhead	36,470	59,019	41,818	36,473	23,001	30,905	27,790	23,667	15,564	15,564
Underground	14,790	32,400	21,744	21,370	17,751	14,520	13,480	15,685	16,554	16,554
Secondary Wire (ft)										
Overhead	3,364	3,859	5,218	8,729	5,624	7,540	4,970	2,918	1,274	1,274
Underground	2,105	2,995	420	600	2,106	1,575	2,180	1,040	3,150	3,150

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Penn Power										
Poles	N/A	N/A	N/A	N/A	N/A	45	341	378	344	221
Crossarms	N/A	N/A	N/A	N/A	N/A	278	465	482	437	343
Transformers	N/A	N/A	N/A	N/A	N/A	214	387	475	366	203
Primary Wire (ft)	N/A	N/A	N/A	N/A	N/A	88,309	132,749	256,584	205,283	146,363
Secondary & Service Wire (ft)	N/A	N/A	N/A	N/A	N/A	45,938	68,149	39,410	35,396	250,620

EDC Answers to Question No. 3:

	1998	1999	2000	2001	2002	2,003	2,004	2,005	2,006	2,007
MetEd										
Poles	N/A	N/A	N/A	N/A	N/A	478	883	939	649	1,066
Crossarms	N/A	N/A	N/A	N/A	N/A	1,871	954	2,880	2,620	2,871
Transformers	N/A	N/A	N/A	N/A	N/A	1,302	1,158	1,453	1,429	705
Primary Wire (ft)	N/A	N/A	N/A	N/A	N/A	481,981	740,965	924,402	1,080,818	822,877
Secondary & Service Wire (ft)	N/A	N/A	N/A	N/A	N/A	122,089	112,833	119,264	155,104	145,203

	1998	1999	2000	2001	2002	2,003	2,004	2,005	2,006	2,007
Penelec										
Poles	N/A	N/A	N/A	N/A	N/A	937	1,328	2,716	1,877	1,425
Crossarms	N/A	N/A	N/A	N/A	N/A	1,817	1,962	3,080	5,990	4,918
Transformers	N/A	N/A	N/A	N/A	N/A	1,480	1,500	2,268	2,125	1,367
Primary Wire (ft)	N/A	N/A	N/A	N/A	N/A	2,188,372	1,144,986	1,457,540	1,736,557	1,060,321
Secondary & Service Wire (ft)	N/A	N/A	N/A	N/A	N/A	146,828	294,998	279,820	262,266	163,423

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
PECO										
Poles	700	700	700	700	700	700	700	700	700	700
Crossarms	2,600	2,800	2,600	2,700	3,000	2,600	2,600	2,700	3,000	2,600
Transformers	N/A	N/A	2,426	2,794	2,765	2,727	2,832	3,564	3,204	3,412
Primary Wire (ft)	N/A	N/A	1,140,145	1,419,401	1,144,512	1,136,531	1,401,367	1,424,072	1,400,353	1,429,009
Secondary Wire (ft)	N/A	N/A	236,715	233,764	227,681	191,156	167,789	168,286	211,390	176,816
Service Drop Wire (ft)	N/A	N/A	455,494	453,227	378,623	353,898	383,849	373,575	334,854	433,466

EDC Answers to Question No. 3:

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
PPL										
Poles	1,495	971	1,094	1,002	1,168	965	1,090	970	821	951
Crossarms	1,955	1,324	2,067	1,257	1,265	1,273	1,536	1,689	1,310	1,285
Transformers	4,192	3,315	3,057	2,861	2,906	3,026	1,750	2,778	2,647	2,632
Primary Wire (ft)	577,907	965,952	1,172,530	671,673	771,246	580,852	757,850	516,899	518,748	739,319
Secondary Wire (ft)	183,609	124,432	142,416	108,818	164,786	121,530	147,180	111,639	115,725	137,646
Service Drop Wire (ft)	579,823	602,432	631,598	386,440	400,407	235,991	290,364	215,445	263,657	420,520

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
UGI										
Poles	94	95	106	96	105	128	95	128	175	117
Crossarms	142	113	36	23	44	127	40	321	190	212
Primary Wire (ft)	96,573	70,075	52,506	61,645	111,169	125,620	88,083	95,475	107,471	107,750
Secondary Wire (ft)	12,740	12,404	27,227	18,421	17,243	15,423	24,766	16,693	21,156	19,175
Service Wire (ft)	8,598	20,003	11,832	13,315	13,637	11,849	15,195	21,129	7,392	4,827
Transformers	509	465	440	577	568	459	471	682	525	439

	2003	2004	2005	2006	2007
West Penn					
Poles	2,394	1,953	1,830	1,665	1,138
Crossarms	3,910	3,482	2,542	2,270	3,442
Primary Wire (ft)	558,214	688,043	588,488	426,650	526,315
Secondary Wire (ft)	503,185	461,366	503,185	253,055	293,293
Service Wire (ft)	101,749	84,775	175,475	112,828	125,280
Transformers	4,288	3,894	3,455	3,213	3,462