



Testimony of Ms. Bobbi Kilmer
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to the
Committee on Transportation and Infrastructure Subcommittee on
Economic Development, Public Buildings and Emergency
Management
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Introduction

Chairman Barletta, Ranking Member Carson, and members of the Committee, thank you for inviting me to testify today on how electric cooperatives manage the consequences of a power outage. Regardless of the cause, getting power restored as quickly and as safely as possible requires advance thinking and planning well before the actual event. My name is Bobbi Kilmer and I am testifying today on behalf of the Claverack Rural Electric Cooperative and the National Rural Electric Cooperative Association.

Electric cooperatives prioritize preparing and planning for recovery efforts so that when disaster does strike, the impacts are minimized for our member owners and the local communities in which they reside. Knowing what to do, who to call and how to proceed is imperative and requires coordinated efforts in the public and the private sectors.

Claverack Rural Electric Cooperative delivers electricity to member owners in northeastern Pennsylvania. Our primary service territory includes Bradford, Susquehanna and Wyoming counties, with additional members in the bordering counties of Lackawanna, Luzerne Sullivan, Tioga and Lycoming. We provide electric service to 18,693 active accounts. Incorporated in 1936, Claverack is headquartered in Wysox, PA, and maintains district offices in Susquehanna and Wyoming counties. We serve primarily residential members and average less than six consumers per mile of line. Our electric distribution system includes 20 substations and 2,784 miles of electric distribution lines. We receive service from Penelec's (a First Energy company) sub-transmission system at 34.5 KV and distribute electricity to our consumer members via our 12.47 KV distribution system.

Claverack is governed by a board of 9 directors who are elected by the membership of the cooperative. Electric cooperatives are private, independent electric utilities, owned by the members they serve. Democratically governed businesses, electric cooperatives are organized under the International Co-operative Alliance or Rochdale Principles, anchoring them firmly in the communities they serve and ensuring that they are closely regulated by their consumers. Cooperatives are governed by a board of directors, which sets policies and procedures that are implemented by the cooperatives' professional staff.

Claverack is a member of the National Rural Electric Cooperative Association (NRECA), the service organization dedicated to representing the national interests of cooperative electric utilities and the consumers they serve. NRECA represents more than 900 not-for-profit consumer-owned rural electric utilities that provide electric energy to over 42 million people in 47 states or 12 percent of electric customers. Electric cooperative service territory makes up 75 percent of the nation's land mass.

Because we are owned by the members we serve, electric cooperatives reflect the values of our membership, and are uniquely focused on providing reliable energy at the lowest reasonable cost. We are accountable to our owners and those same owners are the customers who depend on us to provide power in rural areas.

National Versus Local Events

Prior to discussing how our industry prepares for or responds to a loss of power, it is important to note there are differences between an event that impacts the nation or a large region

versus a local event. The North American power grid is a huge, complex machine with built-in redundancy that spans the entirety of the United States, Canada and even parts of Mexico. Its function can be impacted at different levels by many different types of events or threats, from natural events like Geomagnetic Disturbances (GMDs) caused by solar or severe earth weather to man-made malicious threats like physical attacks, including electromagnetic pulses (EMPs), or cyber attacks.

Due to the expanse of the system as well as the threat environment, the electric sector addresses risk management through a defense-in-depth approach. This includes preparing for and preventing what we can, while at the same time planning for response and recovery.

Most events impacting electric power supply tend to impact a community or a region – not the bulk power system as a whole. However, planning for recovery at a national level for widespread destructive events is necessary in a world where terrorists and nation states have an eye toward harming our critical infrastructure. Existing industry efforts to enhance resiliency, such as spare and recovery transformer programs, leveraging government resources and mutual assistance networks can be applied to national or local recovery events. Efforts aimed at bolstering reserves of strategic transformers, such as the plan the Department of Energy (DOE) was instructed to draft when the FAST act (P.L. 114-94) was signed into law at the end of 2015, will be complimentary to industry-led efforts already underway to establish spare equipment programs to help in the event of a national catastrophe or an act of war against the homeland. Importantly with a national level event, while our society depends on electricity to function, our systems are reliant on other systems including transportation systems for our fuel, water systems for cooling, and telecommunications for operations. When dealing with events coordination with all these systems is imperative.

Mutual Assistance Agreements

Electric cooperatives have a unique and effective approach to emergency management and disaster recovery - following a disaster, cooperatives will rapidly deploy support staff and equipment to emergency and recovery zones to assist sister cooperatives. The national network of transmission and distribution infrastructure owned by electric cooperatives has been built to federal standards enabling line crews from any electric cooperative in America to provide emergency support, secure in their knowledge of the system's engineering.

In Pennsylvania, our cooperative statewide organization, the Pennsylvania Rural Electric Association (PREA), and the 13 Pennsylvania cooperatives coordinate mutual assistance amongst themselves first, ensuring a shared situational awareness. Mutual Assistance Agreements are a formalization of arrangements that have historically been made informally among cooperatives to help each other when disaster strikes. NRECA maintains a database where a listing of cooperatives and municipally owned systems that have signed mutual assistance agreements can be found. The vast majority of NRECA member electric cooperatives have signed the agreement.

PREA member cooperatives also have mutual assistance agreements in place with a number of municipal and investor-owned utilities. The most important of these agreements is one with the FirstEnergy companies of Jersey Central Power & Light, Metropolitan-Edison, Penelec,

and West Penn Power. Electric cooperative crews in Pennsylvania have provided assistance to the First Energy companies on several occasions.

PREA is also involved with a national emergency work plan group. This group was started by statewide cooperative organizations in Louisiana and Mississippi. Participation in this group provides Pennsylvania cooperatives direct access to representatives of cooperatives in over 20 states. PREA requests out-of-state mutual assistance and coordinates the response from Pennsylvania member cooperatives to an out-of state request for help through this group. Mutual assistance coordination calls are organized prior to and during weather events. This national network is extremely helpful during large scale events. For example, in preparation for Hurricane Sandy in 2012, electric cooperatives in Pennsylvania secured crews from Florida to assist in restoration efforts. These crews were headed north even before the storm had passed and they remained in Pennsylvania assisting with power restoration efforts. Over the years, crews from Claverack and other Pennsylvania member cooperatives have travelled to other states such as Louisiana and Ohio to provide assistance.

Public Private Partnerships/Unity of Effort

Critical infrastructure protection is a responsibility shared by the electric industry and government. The federal government, in conjunction with local and state agencies, has a law enforcement responsibility and a national security mandate. Moreover, the federal government is privy to threat information that can help industry protect critical infrastructure assets. The industry owns and operates the critical infrastructure, is expected to maintain reliable operation of that infrastructure, and has the operational expertise to do so. Receiving threat information, both classified and unclassified, enhances our ability to protect critical infrastructure.

Electric utilities have spent decades creating redundancies to enhance the security measures they have adopted, but threats to both physical and cyber security are evolving. Given these evolving threats, industry continues to work together along with federal, state, and local security and law enforcement agencies to enhance the physical security of its critical infrastructure.

At the national level, the Electricity Sub-Sector Coordinating Council (ESCC) was formed to serve as the principal policy-level liaison between the electric industry leadership and government. The ESCC is composed of 30 utility CEO's and trade association leaders representing all segments of the electricity industry – including NRECA. The ESCC works at the highest levels of the federal government to coordinate policy-level efforts to prevent, prepare for, and respond to, national-level incidents affecting critical infrastructure. These efforts include planning and exercising coordinated responses, ensuring threat information is communicated quickly to government and industry stakeholders, and deploying government technologies on utility systems that improve situational awareness of threats. The ESCC also serves an advisory role with the Electricity Information Sharing and Analysis Center (E-ISAC)

Additionally, at the local level, our statewide organization participates in annual meetings of the Pennsylvania Public Utility Commission (PA PUC) Critical Infrastructure Interdependency Working Group. This group consists of all utilities and services that would be affected should a major event occur within Pennsylvania including the Department of Homeland Security and disaster response services. The PA PUC and the Pennsylvania Emergency

Management Agency (PEMA) provide Pennsylvania cooperatives access to all state departmental group services that may be needed during a major event, such as the Pennsylvania Department of Transportation for assistance such as snow plowing and road closure information. Our Statewide also interfaces with the Pennsylvania Department of Revenue to secure travel waivers for non-IFTA (International Fuel Tax Agreement) tagged cooperative vehicles to enable their passage across state lines during certain events. This facilitates cross state mutual assistance.

Crisis Communication Lines

Electric cooperatives take the protection and security of their consumer-members' assets very seriously. One challenge has been ensuring appropriate information sharing among government and the industry prior to and during an incident.

In Pennsylvania, our statewide association's mutual assistance coordinator communicates with Pennsylvania State Agencies, such as PEMA and the PUC. During major events, the statewide requests information such as outage counts and locations from the distribution cooperatives and provides this information to the PEMA/PUC. This data, along with information from the jurisdictional Pennsylvania power companies gives the PEMA/PUC situational knowledge of a storm's impact and enables them to coordinate activities for public safety. This information is then shared by PEMA with the government as necessary and appropriate. The information that is requested from individual cooperatives includes: outage reports for PEMA use; crew counts, outage locations and estimated restoration schedules; and the need for mutual assistance as well as the availability of crews to provide assistance to other utilities.

Knowing your community

At Claverack, we work closely with our county Emergency Management coordinators. In addition to participating in events such as "table-top" emergency exercises, we remain in contact with these offices during events. We provide a map on our website that provides information about outages which is often utilized by emergency management personnel in evaluating the need for services such as emergency shelters and ice distribution within local communities. In the event the internet is unavailable for any reason we have back up plans to manually engage by phone as we did prior to the internet. We also work with local chapters of the American Red Cross, and other local human service agencies to assist our members. Social media is utilized to provide updates on outages and to issue safety reminders. We also have contacts with local radio and television stations in the event we need to broadcast information.

During Hurricane Irene and Tropical Storm Lee which swept through Pennsylvania in 2011, we were reminded of the importance of redundancy and preparedness in our 21st century communication systems. Major flooding in parts of our service territory resulted in thousands of power outages. Our headquarters building also experienced an outage in our telephone and internet service due to the loss of a river crossing by the local telephone company. We were able to use cell phones and cellular hot spots for internet connectivity. Many roads were inaccessible which would have made travel difficult or impossible for our employees to get to work. Fortunately, we have dedicated employees who remained at the cooperative in advance of the storms and many who remained at the cooperative during the course of outage restoration.

Following that event we took steps to further strengthen our communications systems. Discussions with our local phone carrier helped them to identify an alternate path to provide phone service. We have also strengthened our internet service and continue to look for back-up systems in addition to the cellular network.

Our communication systems are important in our operations. While we still use traditional radio and telephone systems, the internet and cellular networks are of increasing importance. We use traditional low band radio systems to reach our crews in the field and we use the internet to manage much of our outage coordination. The internet is also important in our flow of information to and from our members, emergency management agencies, and the general public. Though we do have back up plans in place to manage outage events without the internet, when it is functioning we utilize it to enhance our reach to the public and inform the government.

Electric cooperatives know their communities. We live and work in the neighborhoods where we serve. Our board members and our employees are personally acquainted with the fire chiefs, the township supervisors, the county commissioners and community volunteers. We leverage these relationships and our local knowledge to better serve our members. While a rural electric cooperative such as Claverack may not have the resources of a large utility, you can be sure that this sense of community and accountability along with the strength of our cooperative network will serve our rural residents well in the event of an emergency.

Planning for events

We test our business continuity and disaster recovery plans annually. Components of the plan include confirming communication channels for key contacts, reviewing our methodology for assessing the situation and determining appropriate courses of action. Our business information system vendor maintains a copy of our data which is updated every 24 hours. A copy of our database can be delivered to any site with secure internet access so that if our buildings or servers were destroyed or unavailable, we could serve our members at a remote location. We understand that cybersecurity challenges are growing daily so we must remain vigilant in order to protect our data and networks.

Staff from our information technology department have participated in Pennsylvania's Department of Homeland Security Task Force since its inception. We prioritize the protection of our cyber assets. Claverack is a small distribution utility and we are not connected to the bulk power system. Nonetheless, we follow industry best practices in protecting our operational data as well as our business and member information. Some examples include the use of technological barriers such as network firewalls and the segregation of operational and business networks. We also utilize proactive scanning, intrusion and detection programs, and network monitoring to identify security vulnerabilities. We recognize the human risk in keeping our systems safe so we require all employees to complete cyber training on an annual basis.

Utilizing the planning

Our cooperative has experienced many situations where advance planning and coordination resulted in a shorter power restoration time and a safer environment for both our crews and members. While we pride ourselves on always being prepared, because we know that emergencies can happen at any time, predicted weather events help us to put our plans into

action and learn how to improve. We saw this just a few weeks ago with a weather bulletin issued by our statewide emergency response center on a Friday afternoon advising us of the potential for high winds over the course of the weekend. Upon receipt, we doubled checked crew availability, ensured that trucks were stocked, and that we had adequate staffing at our on-call center. We also confirmed the availability of crews from our tree removal contractor and our line construction contractor who routinely perform work on systems throughout the year. These relationships are important not only to perform work in a cost effective manner but in having these additional resources available for emergency outage events. On Sunday morning, our outage map reflected over 3,000 outages spread across our entire system after a night of fierce wind. Our statewide emergency response center was already engaged, requesting outage and crew availability information from all cooperatives. At the time, we had all hands on deck assisting in the restoration and had activated our outage management team in the office to oversee the storm response. Our website outage map was continuously updated in order to keep emergency management agencies informed of our situation. With one phone call we were also able to secure additional crews from our neighboring electric cooperative.

Annually, the cooperatives in Pennsylvania are provided with an Emergency Resource guide that contains important operational information about each cooperative. This guide contains contact information, radio frequencies, information regarding system voltages, conductor types and sizes, special working conditions, special equipment & tools and spare substation transformers and moving substations. Having this information readily available helps foreign crews in understanding the characteristics of the system they are assisting plus it gives us information in the event we need to quickly secure additional equipment or transformers.

In this particular case, we were able to predict restoration within 24 hours. Therefore, there were elements of our emergency plans that we did not have to implement such as securing sleeping accommodations for outside crews, coordinating with local emergency management officials for warming shelters, or reaching out to suppliers for extra materials. Following every major event we review what worked and what we could do to improve our readiness and response in the future.

Conclusion

In closing, I thank you again for inviting me to testify. Electric cooperatives across the country learn from each experience, we learn how to protect our systems better, how to become more resilient. Serving our member-consumers we have learned how to restore power in extremely difficult circumstances. I hope that my comments have helped the Committee to understand the types of preparations that the rural electric cooperatives take in order to protect our members from power outages. I look forward to your questions.