

Testimony of David Quier

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PPL Electric Utilities

Good morning. My name is David Quier, and I am Director-Operations for PPL Electric Utilities. I appreciate the opportunity to discuss PPL's response to Winter Storms Riley and Quinn, which had such a strong impact on this area in March.

I'll discuss the storms' impact on our coverage territory, with a focus on Monroe County. I'll review the actions we took before, during, and after the storms to respond to system damage and restore operating conditions to normal.

And, I'll discuss some areas where we're focused on improving our storm response, based on what we've learned from these events. We seek to be a learning organization, always aiming to improve and deliver the best service to our customers.

The impact

Winter Storm Riley entered our service territory in the early hours of March 2. At the height of impact, the storm produced more than 16 hours of gusts over 40 miles per hour, with peak gusts of up to 60 miles per hour.

We saw significant tree damage caused by high winds and heavy wet snow. Accessibility was an issue in some locations and we worked with state and local agencies to clear roads and improve access to work areas. Storm damage consisted primarily of downed primary lines, broken poles, and broken cross-arms from tree impact.

On March 7, with restoration work from Riley still under way, Winter Storm Quinn brought 8 to 12 inches of snow to our territory, along with wind gusts of 25 to 30 mph. Winter Storm Quinn added another 130 to 220 individual cases of trouble to our remaining outages, and also slowed our response to remaining Riley outages.

All told, the storms knocked out power to more than 261,300 of our 1.4 million customers, and resulted in more than 2,800 individual locations needing repair. The storms, combined, rank as the ninth-worst storm event in PPL Electric Utilities' history. The final customers were restored in the early morning hours of March 10, though the vast majority of customers were restored well before that.

Monroe County was particularly hard hit. The storms caused more than 48,960 outages, representing more than 75 percent of PPL's total customers in Monroe County (about 63,850). Monroe County also saw 108 individual cases of trouble – the second-highest total in PPL's 29-county service area, trailing only Lehigh County.

The preparation

PPL's storm preparations began on Feb. 28, when we began to model potential outages and verify the availability of staffing and contractors on our system.

As the storm approached, we worked to augment our shift workers and pre-stage personnel in both the field and our storm command centers. We activated those regional command centers on March 2; each remained open until restoration work was complete in its region.

Also as part of storm preparation, we took part in calls with mutual assistance agencies, through which we obtain crews from other utility companies as available. PPL has existing relationships with two regional mutual assistance groups (North Atlantic & Southeastern Electric Exchange) and relied on these relationships to bring in additional crews and resources as quickly as possible.

Formal calls arranged by these mutual assistance groups began on Feb. 28 and continued through March 8. Non-local crews arrived between March 2 and March 7 and remained on our system until all customers were restored.

We increased staffing at our customer call centers, shared storm information and expectations in media interviews, and posted storm preparation information in advance on our social media channels and website (ppllectric.com). We also reached out to county emergency management agencies, and kept the PUC informed on our preparations.

Of course, PPL works year-round to strengthen its system for storms and periods of high demand. Activities such as tree trimming near power lines, replacement of aging equipment, reconstruction of lines, and installation of automated smart grid technology all helped reinforce our network for the impact of Riley and Quinn.

We estimate that our investments in strengthening transmission lines alone prevented 50,000 to 100,000 outages from Winter Storm Riley. For comparison's sake, during Superstorm Sandy, we had 13 transmission-related outages that caused more than 57 million minutes lost. In Winter Storm Riley, we had two transmission-related outages that caused 200,000 minutes lost. We also had 25 percent fewer tree-related trouble cases in Riley than we did during Sandy, even though the two storms had similar wind gust levels.

Trees are the largest cause of storm-related outages, and we've enhanced our tree-trimming and removal efforts along transmission and distribution lines in recent years. We trim to the amount allowable by our agreements with property owners. Where permission is available, we'll also remove hazard trees – dead, dying or heavily leaning – that are not located in rights of way.

The response

In addition to our own employees, PPL used local contractors, non-local contractors, and mutual assistance crews. Also, we returned 38 employees who had been supporting Hurricane Maria/Irma restoration efforts in Puerto Rico on Tuesday, March 6, to support Riley restoration. They were immediately available to work.

More than 1,900 field workers, including mutual assistance from 12 states, assisted us in making repairs. That's more than triple our normal field workforce. Overall, about 3,000 people supported our storm recovery efforts. The weather conditions did slow restoration efforts in some areas. Safety of our workers and contractors is a top priority and these storms presented dangerous working conditions which caused some delays. We were able to complete all repairs without any worker injuries.

Accessibility was also an issue in some locations and we worked with state and local agencies to clear roads and improve access to work areas.

We worked with multiple local partners, including EMAs and fire companies. PPL proactively sent a representative with the Monroe County EMA to help coordinate information and resolve problems. The representatives we send to EMA offices have phone contact with employees managing field operations.

In restoring service, we followed our established priorities:

1. Highest priority is given to 911 No Light and Power Service Problem issues that pose immediate risk to public safety.
2. Then, we assign crews to transmission outages that pose immediate risk to the stability of the bulk electric power system.
3. Next, priority is given to critical infrastructure enrolled in our Vital Facility program. Facilities in this program include acute care hospitals, county emergency management facilities and 911 call centers, critical cell towers that serve EMA and 911 call center functions, major water or wastewater treatment facilities, and prisons.
4. In addition, county emergency management agencies may escalate trouble orders that have an impact on public safety or public safety resources. These may include nursing homes, water treatment facilities, sewage treatment facilities, road ways and intersections.
5. Next, we prioritize transmission and substation outages that serve a large number of customers.
6. Finally, outages with the highest customer counts are dispatched first to crews. For outages with similar customer counts, higher priority is given to the outage with the longer duration.

We kept the public informed in several ways: through news releases, media interviews, social media, and our website. In addition, we held daily calls for state and local elected officials during the height of the storm restoration to keep them informed of our efforts and to answer their questions.

Estimated restoration times (ERTs) are a key part of our communications with customers, legislators, regulators and the media. We understand that all our stakeholders expect prompt and accurate assessment of when their power will be restored, and that they often must make decisions based on that information.

In major storm situations, PPL does not issue ERTs until we have a chance to assess the scope of repairs. Then, we issue estimates by region, giving the date and time when the final customers in each area will be restored. We'll revise our estimates each day as we review the work to come. And, finally, crews provide ERTs from the field when they arrive at a repair site.

In this storm, ERTs in the Northeast region, which includes Monroe County, were suppressed on March 2 at 8:49 a.m., which means we stopped providing automatically generated restoration estimates. We commonly take this step in major storms, recognizing that estimates generated without on-site assessment of repairs will likely be inaccurate.

On the early afternoon of March 3 we set an area restoration estimate of 11 p.m. on March 7, which meant that we expected the final customers in the area to be restored at that time. This information was posted on our outage website, sent to customers via our PPL Alerts service, and shared with news media and on social media.

As a final step, field crews provided location-specific restoration times once they arrived at work sites and assessed the necessary repairs.

We were able to restore many customers by the original restoration estimate. However, repairs for a relatively small number of customers continued in the Northeast region until March 10. This was due to a variety of reasons, including accessibility problems and other delays caused by Winter Storm Quinn. Also, some repair jobs proved to be more challenging and extensive than original assessments indicated, with multiple poles and spans of wire down.

What comes next

We are always looking for ways to improve our operations and storm response. We've studied the storms at length in the months since March, and have talked with local leaders and agencies. Based on this, we have identified areas where we can improve our response to future storms.

Many communities have expressed concerns related to line and debris removal and road closures. Some have asked if we can better coordinate with other utilities – like phone and cable companies – so all downed wires in an area can be quickly restored and roads can be re-opened. Others have asked to better open lines of communication with municipal leaders and PennDOT so major roads get first priority for the clearance of downed wires.

We agree that improved communication and coordination should be explored. We plan to discuss the subject of cross-utility collaboration with the Pennsylvania Electric Distribution Company Storm Restoration Best Practices Working Group. (Currently, our crews will move other utilities' wires out of a roadway or temporarily tie them up when restoring a downed electric line.) We are also open to working with municipalities and PennDOT to develop ways to identify and clear critical roads while maintaining our outage response priorities.

We also are exploring ways to more effectively deploy our assessors – people who perform the initial evaluations of repair jobs – and contractors during storm response. We want to approach the assessment phase the same way we approach restoration – pre-arranging resources and getting assessors into the field as quickly as possible – so we can cut the length of time we spend on assessment from days to hours. We're also aiming to simplify the reporting process for assessors so they can complete each job more quickly, while still providing the information we need to assign crews.

With regard to contractors, we're looking for ways to improve our work flow with them that will allow them to be more productive.

Finally, we will continue to invest in our grid to make it more reliable and resilient, and to reduce the impacts of storms. Our past investments in new technology and equipment, along with tree trimming, have significantly reduced the number of outages on our system. Continued improvement is our goal.

Again, we at PPL appreciate the opportunity to meet with you and discuss our storm response.