



TESTIMONY
TO THE
SENATE DEMOCRATIC POLICY COMMITTEE
SUBMITTED BY
DUQUESNE LIGHT COMPANY
September 29, 2020
11:00 am

DUQUESNE LIGHT COMPANY'S RELIABILITY AND PREPAREDNESS

Chairwoman Boscola, Chairman Santarsiero, members of the Senate Democratic Policy Committee. On behalf of Duquesne Light, thank you for the opportunity to provide our perspective on how Duquesne Light is strengthening reliability for our customers and preparing to deal with potential threats to our system, especially as we head into the winter months of 2020. We appreciate the Committee's willingness to examine this issue.

My name is Kevin Walker. I serve as the Chief Operating Officer (COO) of Duquesne Light Company (DLC), an electric distribution company (EDC) operating in Allegheny and Beaver Counties and serving 600,000 customers.

Duquesne Light Company

For more than 140 years, Duquesne Light has remained committed to providing safe, reliable electric service. A major part of this is ensuring that our electrical infrastructure delivers power safely and reliably to the homes and businesses in the communities we serve.

Consistently ranked among the best utilities in the state in reliability and in the top quartile in customer satisfaction nationwide, Duquesne Light invests resources to ensure that our infrastructure is able to meet the current and future demands of our customers. Counted among those customers are top technology and manufacturing companies, hospitals, research facilities and world-renowned colleges and universities.

It is that reliability and how we are preparing for the future that I would like to discuss before the Committee today.



Changing Weather and Our System

As you are well aware, over the past several years we have seen an increase in storm activity and inclement weather, both in our region and across the country. More specifically, from 2015 through 2020, there have been increases in the average, minimum, and maximum temperatures observed, wind speed (five-minute and two-minute data), total inches of precipitation, and the number of days with precipitation.

In order to address issues related to these changes, we have incorporated new technology and made significant improvements to our system. Perhaps one of the most notable improvements has been distribution automation. DLC installed over 1,400 intelligent pole top devices, allowing our System Operators to perform a significant amount of distribution switching remotely, reducing the need for field employees to manually perform the switching. Many of our customer interruptions are now momentary in nature as a result of this significant investment.

These types of improvements contribute to DLC consistently achieving benchmarks for the three measures of reliability: the System Average Interruption Frequency Index (SAIFI), the Customer Average Interruption Duration Index (CAIDI), and the System Average Interruption Duration Index (SAIDI).

In addition to technology improvements, DLC's Vegetation Management team works year-round to safely minimize vegetation impacts—a contributing factor to many service interruptions.

Changing weather patterns in our region has led to an increased growth rate in the vegetation in proximity to our transmission and distribution facilities. To reduce disruptions in service, our Vegetation Management team has consistently minimized on-ROW (Right-of-Way) vegetation. Off-ROW vegetation continues to pose issues for DLC, and while I can't speak for everyone, I am certain my colleagues joining me here today also face many of the same challenges. We are constantly examining these challenges, evaluating strategies, and working to mitigate the off-ROW tree problems in our service territory.

When a customer flips their light switch, they expect the lights to come on without any issue or delay – it is our mission to deliver that peace of mind for our customers. We will continually work to improve our system to better manage the threats these increasingly severe weather-related events pose.

Reliability Drivers

Within Duquesne Light's service territory, we have over 7,200 miles of distribution lines and more than 212,000 utility poles, among other equipment and facilities, such as transformers and substations.



Since 2016, the **top three categories** of sustained system interruptions have contributed to an average of 78% of the duration of the overall interruptions that DLC customers experience. Causes of sustained interruptions are: storms (27%), off-ROW trees (27%), and equipment failures (24%). These are also the leading contributors to the *frequency* of outages our customers experience.

Storms and off-ROW trees – our two leading causes of sustained interruptions — are more difficult to prevent. While we are limited in our ability to prevent a storm from creating service disruptions for our customers, we do proactively address overgrown or hazardous vegetation that may pose a potential threat to our facilities. In doing so, our overhead power lines remain free and clear so the power can keep flowing. We also track the performance of our equipment, proactively inspect and perform repairs or replace equipment as necessary, and maintain our readiness to respond to service-affecting events so service interruptions remain at minimal levels.

Readiness

A key part of maintaining our level of readiness is the systematic inspection of our facilities.

Duquesne Light performs ongoing inspections of our transmission and distribution facilities at regular intervals. Using specialized tools and technology, DLC crews routinely inspect the transmission system in our 800-square mile service territory. After inspections are complete, our crews perform corrective maintenance, including repairs and replacements.

In addition to regular inspections and maintenance of DLC's high-voltage transmission system, we also perform regular inspections and maintenance on our distribution facilities. These include our wood poles, overhead lines and transformers, automatic service restoring devices, pad-mounted transformers and underground equipment. Additionally, our Vegetation Management team implements regular inspection and maintenance cycles to minimize the effects vegetation has on our facilities.

Duquesne Light is currently working on a number of projects to prepare for whatever Mother Nature may bring during the winter months. All of these projects are scheduled to be completed prior to the winter season fully setting in. In an effort to improve our operational flexibility, we constructed a new distribution circuit that is energized from one of our existing substation facilities.

Additionally, we've started several other projects that involve replacing aging infrastructure. This includes two distribution line replacement and voltage conversion projects, resulting in the improvement of approximately 35 circuit miles of distribution infrastructure; the replacement of approximately three miles of overhead cable; replacement of underground cable and 90



transformers at seven underground residential plans; and the replacement of ten distribution circuit breakers at three substations.

In a year unlike any other, I would be remiss if I didn't discuss DLC's response to reliability as it relates to critical infrastructure needs through the COVID-19 pandemic. We understand that providing reliable electricity on a day-to-day basis is essential, especially so while in the midst of the global pandemic. We not only power homes and businesses, we power hospitals, water treatment facilities, research and educational institutions, and emergency operations.

From the beginning of the COVID-19 pandemic, we realized that while we perform these inspections and preventive maintenance year-round, the need to minimize interruptions at these facilities during a public health crisis was more important than ever. In addition to our traditional annual inspection and maintenance cycles, DLC elected to perform targeted inspection and maintenance on critical circuits that serve essential healthcare and life-sustaining services as well as utility partners within our service territory. We moved to around-the-clock field operations to improve response times for interruptions, reprioritized work and deferred many planned outages to limit customer interruptions, while continuing the necessary work required for the safety of customers and the community.

Keeping the power on each day is more than our responsibility, it is core to our mission and part of who we are to our community. We have, and will continue to, prioritize hospitals, natural gas distribution facilities, water treatment plants, and other crucial facilities serving the homes and businesses in our service territory so they have the power they need to fully serve the Greater Pittsburgh area.

On the Horizon

As we look to the future and how we can proactively address and resolve issues to further limit service interruptions, we put a number of projects in place to improve the service we provide to our customers.

One of those efforts includes our series of Underground Residential Distribution (URD) rehabilitation projects. These projects focus primarily on upgrading our distribution system by installing new underground cables in existing ducts, and replacing submersible equipment with new pad mounted devices. We proactively replace this equipment so we can meet future energy demands in our region.

Duquesne Light has an important role to play in the communities we serve; not least of which is to be a good, safe neighbor. As our community continues to develop and thrive, we are committed to providing exceptional service and reliability to our customers, while increasing the overall resiliency of the electric grid.



An example of this commitment is the work we began earlier this year on a new substation in the Oakland neighborhood of Pittsburgh. The Riazzi Substation is more than critical infrastructure, it is an investment in the community. It will feature proven technology, industry-leading safety measures, and a façade that incorporates an aesthetic designed to appeal visually to those passing by. This substation is an important investment as demand for electricity is projected to grow alongside new office, residential and hospital development in the area.

Similarly, we are planning to replace a transmission line that serves the communities between our substation in Crescent Township and our substation located on Brunot Island (BI), located in the Ohio River, just west of downtown Pittsburgh. Through this project, we will replace some of the company's oldest infrastructure, as well as infrastructure damaged by landslides caused by recent severe weather.

Each of these initiatives – the addition of the Riazzi Substation and the design and technology upgrades of the BI Crescent project – will help to deliver reliable, affordable and safe energy more efficiently to homes, businesses and communities throughout our region.

Another major milestone for Duquesne Light is the implementation of our Outage Management System (OMS), which is scheduled to be in service by the fourth quarter of 2022. The OMS will allow us to quickly identify trouble on our distribution system by predicting where the trouble is, based upon outage notifications, and provides us with technology to communicate more proactively with our customers, allowing for more timely updates about estimated time of restorations (ETR).

With a focus on customer engagement, DLC is leveraging social platforms that allow us to target local neighborhood networks to communicate with customers about planned and unplanned outages. We are also in the process of retaining a vendor that will support a Customer Preference Center, enabling us to deploy customized outbound communications according to a customer's own preferences, whether email, text, or voice. We are aligning that effort with our OMS initiative to be more targeted when it comes to communicating about outages, while still communicating broadly about outages that may be impacting wider areas. In recent weeks, during periods of extreme heat and summer storms, we also delivered customer contact emails that conveyed valuable safety and storm preparation information.

While we are excited about the new technology we are implementing, we believe our biggest investment is made in our skilled and dedicated workforce. We recently bolstered our Troubleshooter team with 20 new personnel. These employees are some of our most highly trained experts who are deployed during storms, emergencies, and who help triage emergent issues. They are essential front-line workers who isolate trouble on our system, so we can safely and quickly restore power to our customers.



To maintain a consistent workforce pipeline, we partnered with the Community College of Allegheny County (CCAC) as part of our Electrical Distribution Technology (EDT) workforce development program. The EDT program is essential to maintaining a skilled and dedicated workforce in all areas of our field trades, including our line workers.

On April 15, 2016, DLC filed a Long Term Infrastructure Improvement Plan (“LTIIIP”) with the Public Utility Commission. The LTIIIP provides for accelerated replacement of DSIC-eligible property to support and fulfill the goals of Act 11, which are aimed at constructing, installing, rehabilitating, improving, and replacing portions of the Pennsylvania electric distribution system in an accelerated time frame to the betterment of Pennsylvania electricity customers. The LTIIIP supports and enhances our continuing efforts to sustain a high level of reliability and safety that could otherwise suffer due to normal degradation of facilities that occurs with time and natural environmental stresses.

Approved by the PUC in 2016, Duquesne Light’s LTIIIP includes five asset programs and nine initiatives. The asset programs include factors used to identify the need for the project – average age of the asset, scope of the project—including the number of units to be replaced or improved over the six year plan—the approximate location by geographic region for the projects, and the annual expenditures for 2017 through 2022 for each asset class. The asset programs address aging assets on DLC’s distribution system which are approaching the end of their expected useful life.

Duquesne Light’s LTIIIP has successfully aided the Company in maintaining the reliability of the overall distribution system and enhanced the reliability of assets repaired and replaced under the LTIIIP initiatives. For example, the 4kV elimination initiative significantly improved SAIDI performance with respect to equipment failures. We believe this is directly attributable to reducing the age of our infrastructure.

After implementing our first LTIIIP, we now understand what infrastructure improvements should be prioritized in order to maximize the impact of our investments. Based on this experience, we plan to file a second LTIIIP that focuses further on efforts to improve distribution system reliability, and reduce the types of equipment failures that have the greatest effect on the frequency and duration of customer outages.

Conclusion

As we move forward and look to the future, we anticipate a gradual emergence from the unusual restrictions and conditions posed by the COVID-19 pandemic. The threat from changing weather patterns, on the other hand, will likely continue to pose challenges of a more severe and unpredictable nature. While our emphasis on safety will not change, and other threats may



emerge, the last six months have given us many lessons learned and have allowed us the opportunity to examine and improve our operational processes.

We are dedicated to a process of continuous improvement. The success of our business is closely tied to the health and prosperity of the communities we serve – when our communities thrive, we thrive, and when they struggle, we share in that struggle. By investing in our transmission and distribution system, we empower our customers to invent and invest. Delivering safe and reliable electricity is key to making this possible.

In closing, Duquesne Light is focused on providing the highest level of service, and ensuring that everyone has a safe and reliable supply of power, 24-hours-a-day, 365 days-a-year. We are committed to investing in infrastructure and technology that enable us to meet the increasing demand for energy in the region. While our infrastructure has served customers well for decades, we will continue to maintain the levels of service and reliability our customers have come to expect from Duquesne Light.

Again, Chairwoman Boscola and Chairman Santarsiero, thank you for allowing me to join you here today. On behalf of my entire team at Duquesne Light, I would also like to offer my sincere thanks to you, Committee members, and staff for providing us with this opportunity to offer our perspective and insight on the issue of electricity reliability in the Commonwealth. At this time, I am happy to respond to questions from members of the Committee.