

Pennsylvania Summer Reliability

MET-ED

1. Keys to Success

A. Reliability Enhancement Programs

In 2013, Met-Ed continues to implement reliability improvement initiatives to “storm proof” or “harden” its three-phase distribution backbone. These initiatives include aggressive tree-trimming and circuit-condition assessments. To minimize the number of customers affected by an outage, Met-Ed continues to add protective equipment, such as fuses and reclosers, across the system. In June, Met-Ed’s Smart Grid Distribution Automation system (described below) was commissioned, allowing automated fault isolation and switching.

DOE Distribution Automation Project: Smart Grid Modernization Initiative –

In June 2013, this project was commissioned which includes thirty-two circuits across eleven substations in the York operating area. Sixty-three reclosers have been installed across this footprint, enabling automated isolation of faults and automated switching for staged outage restoration. The project includes voltage control capabilities through the installation of eighty-five voltage sensors and forty nine capacitors in the Smart Grid footprint.

Met-Ed also continues to add remotely controlled sectionalizing devices to enable prompt restoration during outages. These initiatives, combined with targeted substation and distribution asset condition assessments, targeted corrective maintenance, aggressive tree trimming, and application technology, will further improve reliability for Met-Ed customers. Met-Ed is confident that its 2013 plans will continue to have a positive impact on reliability.

B. Preventative Maintenance Programs

Well-established maintenance programs, such as the Vegetation Management Program, ensure the existing system will continue to operate in a safe and reliable manner. Met-Ed also employs maintenance programs aimed to specifically address worst performing circuits and identified line segments where reliability issues may exist.

Capacitor Inspections – As of June 1, Met-Ed inspected all line capacitor banks and completed all necessary repairs or replacements to ensure at least 98% availability.

Substation - As of June 1, Met-Ed inspected all substation capacitor banks and completed all necessary repairs or replacements to ensure 100% availability.

Aerial Patrols – Two aerial maintenance patrols are conducted annually in Pennsylvania to inspect transmission facilities. The purpose of the routine patrols is to ensure the integrity of in-service transmission lines to maintain safe and reliable service. The first aerial patrol of transmission lines in Met-Ed was completed in May and the second will be completed by year-end.

Pennsylvania Summer Reliability

MET-ED

C. Capacity Planning

Met-Ed's electric delivery system is able to serve customers' needs without problems as a result of the ongoing system enhancements and the hard work of employees and contractors. The weather is again expected to be the primary driver of customer demand this summer.

The energy efficiency and conservation programs offered to customers as part of Met-Ed's compliance with Pennsylvania Act 129 are also reducing overall demand. Residential Programs include Appliance Turn-In, Energy Efficient Products, Energy Efficient HVAC Equipment, Residential New Construction, Home Performance, and Limited Income Energy Efficiency. Non-Residential Programs include Commercial and Industrial ("C&I") Equipment – both Prescriptive and Custom.

Met-Ed does not foresee significant concerns with system delivery capacity during the upcoming summer based on its performance during last summer's heat wave ongoing enhancements to reliability and load-bearing upgrades, and customers' adoption of energy efficiency and conservation opportunities.

2. 2012 Storm Update and Lessons Learned

In calendar year 2012, Met-Ed experienced one major event, which resulted in the largest and most destructive weather-related occurrence in the Company's history. During any weather event, safety remains the number one priority.

Throughout coordination efforts, working safely and efficiently is the main objective. Regional conference calls are executed to plan and prepare logistics. Effective planning allows for the precise deployment of crews, supplies, and equipment. Employees are also staggered around the clock to maximize productivity.

After each major storm event in 2012, Met-Ed leadership conducted post storm review meetings to identify and disseminate lessons learned to be used for improving the emergency response plan. The following were identified as lessons learned during those meetings:

- Met-Ed is continuing to focus on finding ways to provide increasingly accurate information to the community regarding estimated times of restoration ("ETR") based on the amount of storm damage.
- Met-Ed is purchasing off-road equipment to improve overall territory access.
- Met-Ed is evaluating the potential use of helicopters to patrol transmission and sub-transmission systems during major events.
- Met-Ed is placing a focus on operational improvements to prioritize road clearing for storm coordination efforts as needed.
- Met-Ed has conducted a review of local employees to ensure accurate placement in the proper storm response organization based on skill sets, levels of expertise, experience.

Pennsylvania Summer Reliability

MET-ED

3. 2013 Summer Readiness

A. Capacity Additions

- **115 kV Harley Davidson to Pleasureville line** - Met-Ed rebuilt a 2.4 mile circuit section to add transmission capacity to the greater York area.
- **13.2 kV line near Frystown** - Met-Ed constructed a new 4 mile section to serve a new industrial park.
- **115 kV Capacitor installation at Pleasureville** - The new capacitor was installed to address voltage concerns in the event of a N-1-1 contingency situation. The capacitor allows the transmission system to maintain voltage magnitudes at acceptable levels.
- **Northkill 230 kV to 69 kV Substation** - This project will add 168 MVA of capacity to Met-Ed's sub-transmission system this summer.

B. Transmission Preparedness

Met-Ed conducts an annual transmission readiness review with transmission operations to discuss the capability and reliability of the system for the summer. The Company's detailed review did not reveal any significant issues for the summer of 2013. Based on the system conditions modeled, the Met-Ed transmission system is expected to sufficiently support the forecasted peak summer loading.

In addition, PJM has operational procedures identified to effectively control and mitigate contingency outage conditions on the transmission system. Met-Ed has operational procedures outlined to implement any PJM required actions and to mitigate contingency conditions on the lower voltage systems (<100kV). During the system assessment a voltage stability analysis was conducted and produced acceptable Power-Voltage response curves.

C. Event Preparedness

Preparation and Planning – Planning and preparation work is initiated days before a storm strikes. As part of those efforts, Met-Ed's in-house meteorologists closely monitor weather data and track storms to assess the potential impact on the electrical system and service area.

If it is determined that a storm could potentially disrupt service, Company leadership and operations managers hold conference calls and conduct meetings to evaluate the need for forestry, hazard responders, damage assessors and line crews as well as supplies and equipment. This core management team also evaluates the need for additional crews from other affiliated operating companies, as well as outside utilities and contractors. Depending on the magnitude of the storm, staging areas are organized to prepare for the efficient deployment of crews and equipment.

Pennsylvania Summer Reliability

MET-ED

Refresher Training – All employees with storm response roles (hazard responder, hazard dispatcher, storm analyst, etc.) have received appropriate refresher training in preparation for the summer storm season.

4. Storm Response

A. Outage Restoration Strategy

In the early stages of service restoration, hazard responders go into the field to locate damage to the electric system and identify electric hazards – such as downed and potentially energized wires – and then remain at those locations to protect the public until linemen safely isolate or clear the hazard. Next, forestry crews clear fallen trees and branches as well as other debris so utility workers can repair and re-energize power lines.

Once debris has been cleared from the affected areas, service is initially restored to high-voltage transmission equipment, lines and substations, because they supply power for local distribution systems. After that, crews focus on restoring service on a high-priority basis to hospitals, critical care, life-support facilities, and critical first responder facilities. Focus is then placed on repairs that will bring the greatest number of customers back in service. Next, repairs that restore service to individual customers occur.

B. Communications and Outreach

External Affairs managers establish communications with emergency management agencies (“EMAs”), local officials and regulators in advance of and throughout a storm to keep them apprised of preparation and planning efforts. Communications representatives also contact the media to enlist their help in encouraging customers to prepare for the likely storm events and provide information on who to call if they lose power. Proactive email alerts and phone messages are initiated to key stakeholders, critical care, and well water customer alerting them to the potential for extended power outages. These efforts and face-to-face outreach are closely aligned with our service restoration efforts. The company also provides safety messages via newspapers, radio, and as online banner ads.

Enhanced Communication Efforts

Met-Ed refined its outage website to improve customer communications. The primary improvement is the addition of the “24/7 Power Center” outage maps, which provide up-to-the-minute outage information to customers, the news media, and public officials. The user-friendly outage map provides the ability to search outages by state, county, community, or zip code on a computer or mobile device. Customers can also report a service interruption or view safety tips and other critical information by utilizing links on the map.

Met-Ed is continuing to focus on ways to provide accurate information to the community regarding estimated times of restoration (“ETR”) based on the amount of storm damage.

Pennsylvania Summer Reliability

MET-ED

In addition, Met-Ed administered community focus groups involving key representatives from local townships, communities, and county governments. As a result, a lesson learned from the storm review was the importance of sending daily communications to township management during major storm planning process. This will allow for the continued implementation of our proactive, comprehensive communications strategy – including social media – for reaching customers and media outlets.

New Technologies for Customers

During major power outages, Met-Ed uses its Twitter account, @Met_Ed, to provide timely information including the number of customers restored to service, the number of customers remaining without power, updates on restoration efforts, electrical safety reminders, and resources for additional assistance including water and ice distribution locations. In 2013, the Company trained additional social media support staff to assist with storm communications and respond to customer service inquiries during “blue-sky” days. Additionally, in June 2013 the Company launched a Facebook page at www.facebook.com/MetEdElectric.

Early in 2013, the company launched a Met-Ed smartphone app for Apple® iPhone® and Android™ devices and a mobile website that is accessible by using a smartphone to visit the FirstEnergy website (www.firstenergycorp.com). The app and website provide customers with easy, on-the-go access to information and services regarding their electric accounts.

In March 2013, FirstEnergy introduced two additional technologies that made it easier for customers in Pennsylvania to receive information. Customers can now subscribe to receive alert notifications via email or text message which contain information about invoices, weather conditions that may impact electrical service, or updates on reported outages. Customers can also use text messaging to report outages, request updates on restoration efforts, and make inquiries about their accounts.

In May 2013, the 24/7 Power Center outage maps were enhanced to display individual outages, as well as the best-available estimated restoration time and the cause of the outage. The company also implemented a new feature that allows customers to view their personal outage status – including the best-available ETR and cause of outage – by logging in to the full website or the new mobile website.