

Pennsylvania Summer Reliability

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1. Keys to Success

A. Reliability Enhancement Programs

West Penn Power has programs and processes in place to continually address and enhance distribution reliability. West Penn Power's Vegetation Management program is in place with plans to further increase reliability based on the number of customers per circuit. In addition to the Vegetation Management program the company has instituted a Danger Tree Program, which consists of removing or significantly reducing in height, diseased, or damaged trees located outside the boundary of the right-of-way that may pose a threat to service reliability or the integrity of the line. West Penn Power has also initiated Zone 1 vegetation reviews to minimize the effects of identified danger trees on the system. West Penn Power is confident that its 2013 plans will continue to have a positive impact on reliability.

West Penn Power has a formalized circuit lockout review process in place. This review allows engineering to identify both proactive and reactive solutions to reduce future lockouts on circuits. An example of one of these solutions is the installation of cutouts on un-fused taps.

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. West Penn Power 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, West Penn Power inspected all line capacitor banks and completed all necessary repairs or replacements to ensure at least 98% availability

Mobile Substations – West Penn Power completed a review of the status of its mobile substations and other spare equipment. This included inspections of the mobile trailer, transformer and breaker. Spare equipment includes voltage regulators and substation cooling items such as transformer fans.

Aerial Patrols – Two aerial patrols are conducted annually in Pennsylvania to inspect transmission facilities. The purpose of 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 West Penn Power was completed in May and the second will be completed by year-end.

C. Capacity Planning

West Penn Power's electric delivery system is able to successfully serve customers' needs as a result of the ongoing system enhancements and the hard work of employees

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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 West Penn Power'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.

West Penn Power 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 customer's adoption of energy efficiency and conservation opportunities.

2. 2012 Storm Update and Lessons Learned

In calendar year 2012, West Penn Power experienced one major event resulting from severe weather in June 2012. 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, West Penn Power leadership conducts post storm review meetings. The meetings were utilized 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:

- West Penn is implementing additional training opportunities, including outage management order processing during Storm Drills.
- West Penn Power 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.
- West Penn is evaluating the potential use of helicopters to patrol transmission and sub-transmission systems during major events.
- Operational improvements to prioritize road clearing will be incorporated into storm coordination efforts as needed.

3. 2013 Summer Readiness

A. Capacity Additions

- **Osage-Whiteley Project** – This project involves approximately 14.5 miles of double circuit, 138kV transmission line which will connect Osage Substation in Monongalia

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County, West Virginia to the Whiteley Substation in Greene County. This segment will also interconnect with the 502 Junction Substation.

- **502 Junction Substation Project** - 500/138kV transformer and associated 138kV breakers will interconnect the Osage Whiteley 138kV line for added transmission support in Greene County. This substation work has been completed, and will be energized in August 2013.

B. Transmission Preparedness

West Penn Power 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 West Penn Power Transmission system is expected to sufficiently support the forecasted peak summer loading.

In addition, PJM has adequate operational procedures identified to effectively control and mitigate contingency outage conditions on the transmission system. West Penn Power has adequate 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 is initiated days before a storm strikes. As part of those efforts, West Penn Power'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.

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.

D. Other Preventative maintenance activities

- **230/46 kV transformer at Carbon Center Substation** – In June, West Penn Power addressed a transformer contingency issue by installing a spare 230/46 kV transformer at Carbon Center Substation in Elk County. This unit will enable the company to react to system outages in the Saint Mary's and State College areas.

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4. Storm Response

A. Outage Restoration Strategy

In the early stages of service restoration, hazard responders go into the field to assess 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

West Penn Power 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. This 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.

In addition, West Penn Power 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 the major storm planning process. This will allow for the continued implementation of our proactive, comprehensive

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communications strategy – including social media – for reaching customers and media outlets.

New Technologies for Customers

During major power outages, West Penn Power uses its Twitter account, @W_Penn_Power 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. In the future, West Penn Power expects to expand its social media outreach with the launch a Facebook page. In addition to these improvements, an additional series of new technologies were introduced on other platforms.

Early in 2013, the company launched a West Penn Power 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.