

Pepco Community Bulletin

Feeder 15197 - Serving the Crestwood and Petworth Communities

Issue 6 - August 2007 - Final Edition



Background Overview of Feeder 15197

For the past two years, residents have expressed concern regarding the level of service provided by Pepco. The supply line, Feeder 15197, serves the communities comprising Crestwood and part of Petworth (a map is available at <http://www.crestwood-dc.org/>). To remedy the problem, Pepco is committed to investing approximately \$1.8 million to take the necessary steps to improve the current level of service.

Feeder 15197 originates in Northeast D.C. at the Fort Slocum Substation, on North Dakota Avenue, N.E., and extends for 11.9 miles into Northwest D.C. along Nicholson Street, NW, Missouri Avenue, NW, and Allison Street NW, between Kansas Avenue, NW, and 14th Street, NW, 14th Street, NW between Webster and Ingraham Streets, NW and Webster Street, NW between 14th and 18th Streets, NW.

While part of the feeder is underground, sixty-six percent (66%) is overhead, and travels through a maze of trees. Many times outages are caused by tree branches falling onto overhead lines, wind/lightning, street level accidents, animals coming in contact with energized equipment and accidents from digging into buried lines.

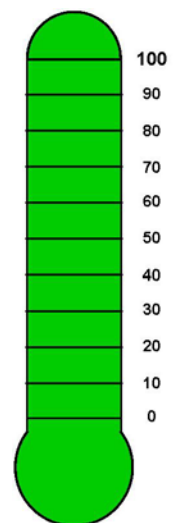
In 2005, Feeder 15197 was identified as a priority feeder, based on the frequency and duration of outages. Pepco reported this finding to the Public Service Commission and took corrective actions that included:

- Installing automatic circuit recloser (ACR), an automatic sectionalizing device.
- Installing additional fuse protection at various locations along the route of the feeder.
- Replacing deteriorating equipment, such as cross arms.
- Installing animal guards.
- Installing lightning arresters and animal guards at various locations.
- Installing tree wire along 17th Street NW.

In that same year, 55% of the feeder's outages were due to tree limbs and storms. In 2006, 45% of the outages were due to trees and storms, following the improvements outlined above.

As a result, Pepco has undertaken a number of more comprehensive improvements and upgrades to improve feeder reliability. The variability of weather from year-to-year, and the increasing age of already mature trees in the area preclude our ability to predict the expected improvement in reliability performance. Nonetheless, Pepco is confident that the planned improvements will significantly reduce the types of outages recently experienced on the feeder.

Overall Project Status



**100%
Complete**

New Meters Coming to DC

Soon District residents will be able to test the industry's latest metering technology, and save money on their electric bills. The pilot program, known as SmartPowerDC, is a two-year pilot program funded with \$2 million from Pepco. Once the program is in full swing, approximately 1,500 DC residents will be randomly selected to have a free "smart meter" installed in their homes. Smart Meter technology gives customers more control over how they spend their utility dollars, and sends real-time usage and outage information to Pepco. This means Pepco will know immediately when electric service is down, and customers will not get estimated electric bills.

Half of the participants selected will also receive "smart thermostats" that will give customers information about real-time electricity prices and running usage so they can adjust their own consumption, and save money. The price of electricity can vary depending on the time of day and season. Summer rates at peak hours are as high as 64 cents per kilowatt-hour. During non-peak hours it can cost as little as 7 cents.

Some customers will even get day-ahead pricing information on their thermostats so they can make the decision to consume less electricity, and delay activity and save money. Others will have advance information about peak-hours, on "critical peak" days when temperatures soar, or drop drastically. Rebates will be offered to some customers who reduce consumption. And in the case of outages, customers will not have to tell Pepco that electric is off because the meter will immediately notify the company. Fifty-thousand homes across America already have the technology. Pepco has already begun installing smart metering technology in the District.



Smart Meter



Smart Thermostat

Special Thanks from Pepco

This being our final issue, we say a very special thanks to all those served by Feeder 15197. Over the past months, we have worked hard to promptly make the necessary upgrades to our infrastructure to ensure the efficient and safe delivery of a vital resource. Your patience, understanding, and support of this \$1.8 million infrastructure upgrade has been most welcomed and appreciated. On the following page, a graph details our efforts. We intend to build on these improvements by strengthening our working relationship with the DC Department of Transportation on vegetation management to keep our lines free and clear. Pepco President Thomas Graham, Vice President Pepco Region Vincent B. Orange, Sr. and Public Affairs Representative Kimberley Johnson personally invite your input on the quality of service following this final newsletter.

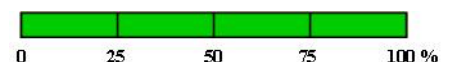
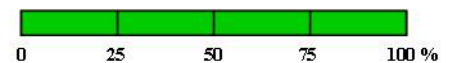
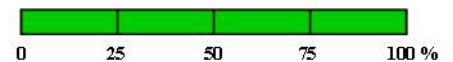
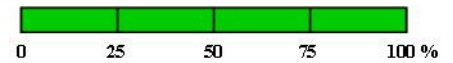
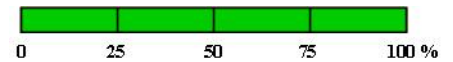
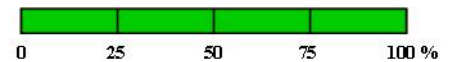
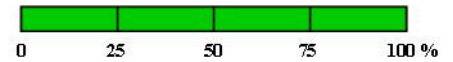
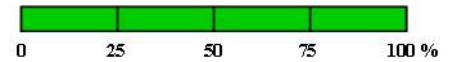
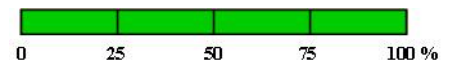
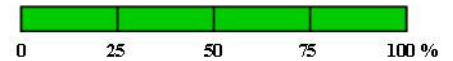
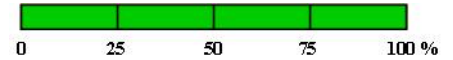
Please contact Kimberley Johnson at 202-872-2477 or krjohnson@pepco.com with your comments.

Project Overview of Feeder 15197

The following corrective actions began the week of November 20, 2006:

- Inspected equipment in 71 manholes along 9th Street, NW, and re-taped the connections and splices.
100% Completed
- Replaced approximately 8,000 feet of underground cable along 9th Street between Allison Street, NW and Nicholson Street, NW. Estimated completion was February 2007 – actual completion was January 23, 2007.
100% Completed
- Replaced approximately 20,000 feet of bare wire overhead lines with tree wire.
100% Completed
- Reroute trunk of feeder avoiding trees and install pre-assembled aerial cable (PAC) along Madison Street, NW, 4th Street, NW, and Missouri Avenue, NW.
100% Completed
- Replace the existing open wire of the main trunk with pre-assembled aerial cable (PAC) along Allison Street, NW from 9th to 14th Street, NW, and 14th Street, NW from Allison Street, NW to Webster Street, NW, and Webster Street, NW from 14th Street, NW to 17th Street, NW and 17th Street, NW from Webster Street, NW to Decatur Street, NW.
100% Completed
- Replace existing bare wire with tree wire and fuse as a lateral along 17th Street, NW.
100% Completed
- Replace four (4) existing manually operated gang switches with SF6 remote operated switches.
100% Completed
- Relocate automatic circuit recloser (ACR) to Webster St. between 17th & 18th Streets, NW.
100% Completed
- Trim / remove 20-25 trees identified as requiring immediate attention.
100% Completed
- Address 12 other tree issues (5 removals).
100% Completed
- Pepco's Vegetation Management is working with the DC Department of Transportation Urban Forestry Administration (UFA) to resolve approximately 8 remaining issues.
100% Completed

Project Status



Glossary of Terms

Animal Guard: A non-conductive device installed on energized electrical equipment to minimize customer outages due to animal contact.

Automatic Circuit Recloser (ACR): Remote control device monitored and operated by the Control Center designed to detect faults on the feeder downstream, and open to isolate faults from the rest of the feeder, thereby reducing the number of customers affected. The ACR also attempts to automatically reclose circuits because many of the faults are temporary and usually fall clear. In instances where faults do not clear themselves, the ACR will remain open until crews make repairs.

Cross Arm: A non-conductive assembly (usually wooden) for supporting electrical wires on a utility pole.

Directional Pruning: remove branches from a tree in such a way to encourage new growth in a particular direction and away from overhead conductors.

Fail: an apparently healthy live tree can "fail" (break, split, tear or uproot due to wind or ice load).

Feeder: An electrical line that carries a large block of power from the substation to the customer. This includes overhead as well as underground facilities.

Fuse: A safety device used to protect an electric circuit against excessive current.

Gang Switch: A switch manually operated by field crews to isolate faults, or to restore customer load.

Lateral: A tap/wire off the main trunk of the feeder serving the smaller areas, protected by a fuse.

Lightning Arrester: Protective devices for limiting surge voltages due to lightning strikes or equipment faults or other events, to prevent damage to equipment and disruption of service (also called surge arresters). These devices are installed on many different pieces of equipment such as power poles and towers, power transformers, circuit breakers, bus structures, and steel superstructures in substations.

Manhole: An underground utility vault used to house electrical and other utility equipment.

Pre-assembled Aerial Cable (PAC): A type of insulated overhead cable which is more robust than standard overhead wire and is better able to withstand falling tree limbs.

SF6 Remote Switch: A switch that is monitored and operated via remote control by the Control Center to isolate or restore customer load.

Smart Meter: Meter that measures customer electric usage and communicates through a wireless link back to Pepco. Smart Meters work in conjunction with Smart Thermostat technology.

Subordination Pruning: A gradual removal of a limb or lead of a tree over a period of growing seasons, in order to allow other part or parts of tree to dominate.

Tree Wire: An insulated overhead wire used to withstand incidental tree contact, particularly in heavily wooded areas.

Uproot or Wind-throw: when a tree topples over due to insufficient structural root support.



A PHI Company

Should you have any questions or concerns, you may contact Kimberley Johnson
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202-872-2477, or krjohnson@pepco.com