

# Pepco Community Bulletin

**Feeder 15197 - Serving the Crestwood and Petworth Communities**

Issue 4 - May 2007



Memorial Day Edition • Memorial Day Edition • Memorial Day Edition • Memorial Day Edition • Memorial Day 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.

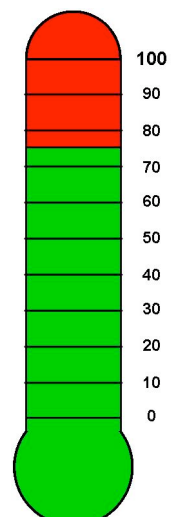
In 2005, Feeder 15197 was identified as a priority feeder, based on the frequency and duration of outages. Pepco reported this finding to the Public Service Commission and took corrective actions that included:

- Installing automatic circuit reclosers (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



# May is Electrical Safety Month

## *Safety Tips to Share with Your Friends and Neighbors*

- If you see a downed wire, stay away and call Pepco's Downed Wires number 202-872-3432.
- If you plan on doing any digging, **call 811**, the national "One Call Notification System" number, so that any utility lines can be marked.
- Remind children to stay away from electric facilities such as substations, transmission towers and pad-mounted transformers.
- When carrying long or tall items, such as ladders, tree saws and pool cleaning equipment, hold them parallel to the ground. Look up before you raise them into the air to be sure they're clear of any power lines.
- Remember that electricity can move through conductive materials, such as water, metal, wood, aluminum, string and plastics.
- Stay away from overhead lines. Be watchful when trimming trees or working near the electrical connection to your property.

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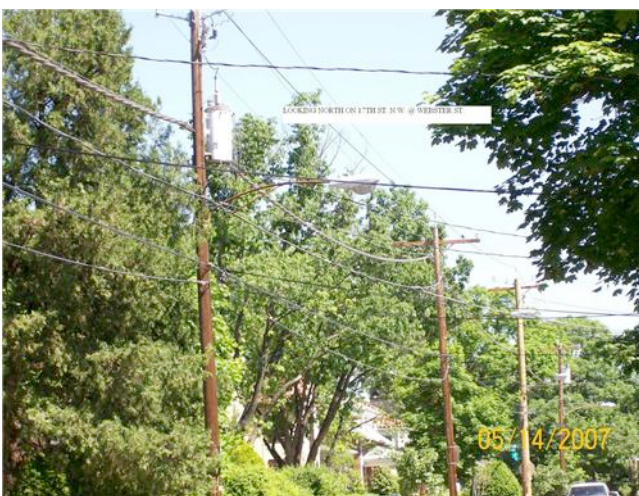
## Meet the newest member of Pepco's Service Fleet



One of the latest additions to our 2,000-vehicle fleet is Pepco's new environmentally friendly hybrid bucket truck that is whisper-quiet in hybrid mode, and reduces the cost of fuel and curbs greenhouse gas emissions.

With the new hybrid PHI now has a mix of more than 80 alternative-fueled trucks and several hybrid cars and SUV's in our fleet. Thirty additional hybrid cars and SUVs will join the fleet this year, with about half already ordered.

## Some of the crews working on improvements during May 2007



## Current Status of Feeder 15197

Recent improvement work completed on this feeder has resulted in a significant reliability improvement. Pepco will continue monitoring the performance of this feeder to determine the overall effectiveness of the initiative.

Pepco appreciates your patience, and welcomes any feedback on how we can deliver better service. Please contact Kimberley Johnson at 202-872-2477 or [krjohnson@pepco.com](mailto:krjohnson@pepco.com) with comments.

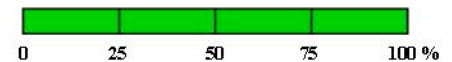
## Project Overview of Feeder 15197

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

### Project Status

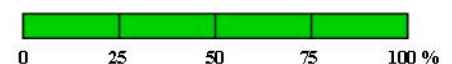
- Inspected equipment in 71 manholes along 9<sup>th</sup> Street, NW, and re-taped the connections and splices.

**100% Completed**



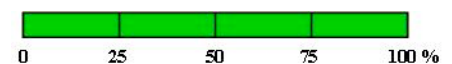
- Replaced approximately 8,000 feet of underground cable along 9<sup>th</sup> Street between Allison Street, NW and Nicholson Street, NW. Estimated completion was February 2007 – actual completion was January 23, 2007.

**100% Completed**



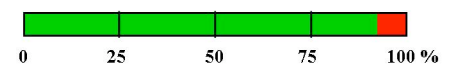
- Replaced approximately 20,000 feet of bare wire overhead lines with tree wire.

**100% Completed**



- Reroute trunk of feeder avoiding trees and install pre-assembled aerial cable (PAC) along Madison Street, NW, 4<sup>th</sup> Street, NW, and Missouri Avenue, NW.

**90% Completed**



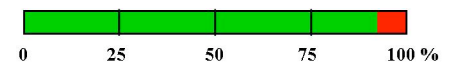
- Replace the existing open wire of the main trunk with pre-assembled aerial cable (PAC) along Allison Street, NW from 9th Street, NW to 14th Street, NW, and 14th Street, NW from Allison Street, NW to Webster Street, NW, and Webster Street, NW from 14th Street, NW to 17th Street, NW and 17th Street, NW from Webster Street, NW to Decatur Street, NW.

**60% Completed**



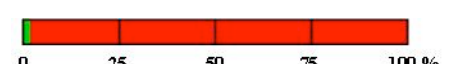
- Replace existing bare wire with tree wire and fuse as a lateral along 17th Street, NW.

**90% Completed**



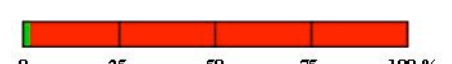
- Replace four (4) existing manually operated gang switches with SF6 remote operated switches.

**Engineering design is completed, pending construction work.**



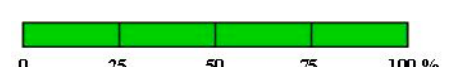
- Relocate automatic circuit recloser (ACR) to Webster St. between 17th & 18th Streets, NW.

**Engineering design is completed, pending construction work.**



- 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% of issues were resolved**



## 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.

**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.



Should you have any questions or concerns, you may contact  
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202-872-2477, or [krjohnson@pepco.com](mailto:krjohnson@pepco.com)