Legislative and Government Affairs Committee

Presentation to the Mayor's Power Line Undergrounding Task Force

September 26, 2012

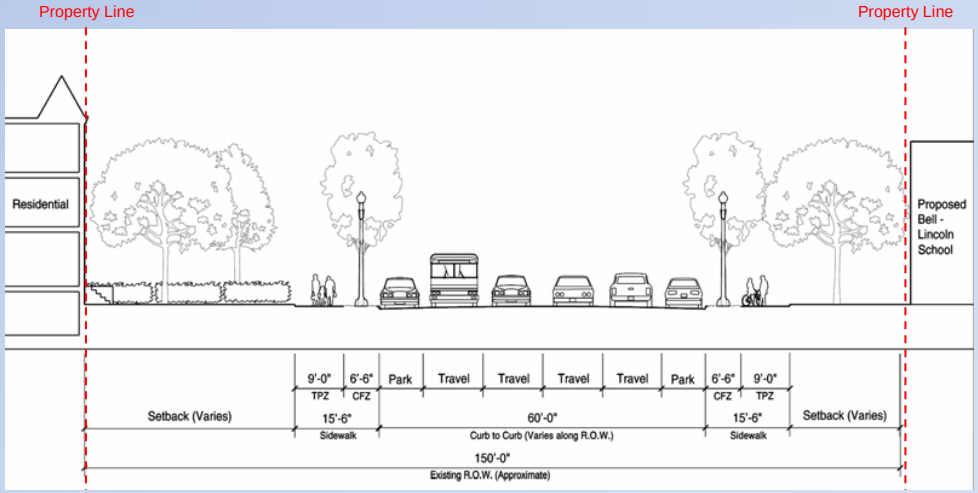
Areas Covered

- Public space regulations (DDOT)
- Tree policies (DDOT, PSC)
- Current overhead lines and undergrounding policies, laws, and tariffs (PSC)
- Intergovernmental coordination (OCA)

Public Space Regulatory Overview (DDOT)

DDOT controls public space

- Public space, or the right of way [ROW], includes the road, sidewalk & green space between the property lines on either side of the street
- Stewardship of this space includes permitting private use



Public space regs are in DCMR 24

- Title 24 - Public Space and Safety
- The key elements of DDOT utility regulation are also found in Title 24
    1. ROW Occupancy Permits
    2. Public Space Permits
        - For utility work in the ROW
    3. Coordination on major projects

ROW Occupancy Permits

- Authorize utilities to install conduit/pipe/wires in public space to serve customers [Title 24 – 3302]
  - Renewable every 20 years
- ROW rental rates: Sub-surface = $1.06/linear foot; Aerial = $1.59/linear foot

FY2012

Pepco paid $22.5M in ROW rental fees

Split evenly between:

- 7.0M feet of aerial wire
- 10.7M feet of sub-surface wire

Utility Easements – an alternative right to occupancy

- Easements confer a more permanent right than the revocable rights in a permit
  - but utility easements are rare in the District
- DDOT negotiates easement agreements in consultation with General Counsel

Public Space Permits

- For construction in the ROW, users must apply for, and obtain, two permits:
  1. Construction Permit [Title 24 – 3403]
     - Answers the question: *What type of work?*
     - Mechanism for ensuring *quality*
  2. Temp. Occupancy Permit [Title 24 – 225]
     - Answers the question: *When and where?*
     - Mechanism for maintaining *traffic flow*

Alternative

The Mayor, or designee, may issue a *Special Permit* for work in the ROW; with terms and conditions at the discretion of the Mayor

- Reserved for projects deemed to be "in the public interest"

Other permits and fees

- Steel plate permits
  - Each steel plate deployed in public space, for more than five days, is subject to a fee [Title 24 - 225.1(p)]
- Public Inconvenience Fee [PIF]
  - Conducting a project in public space, for more than 30 days, triggers the PIF [Title 24 - 225.1(c)]

Permitted work is executed in keeping with Title 24

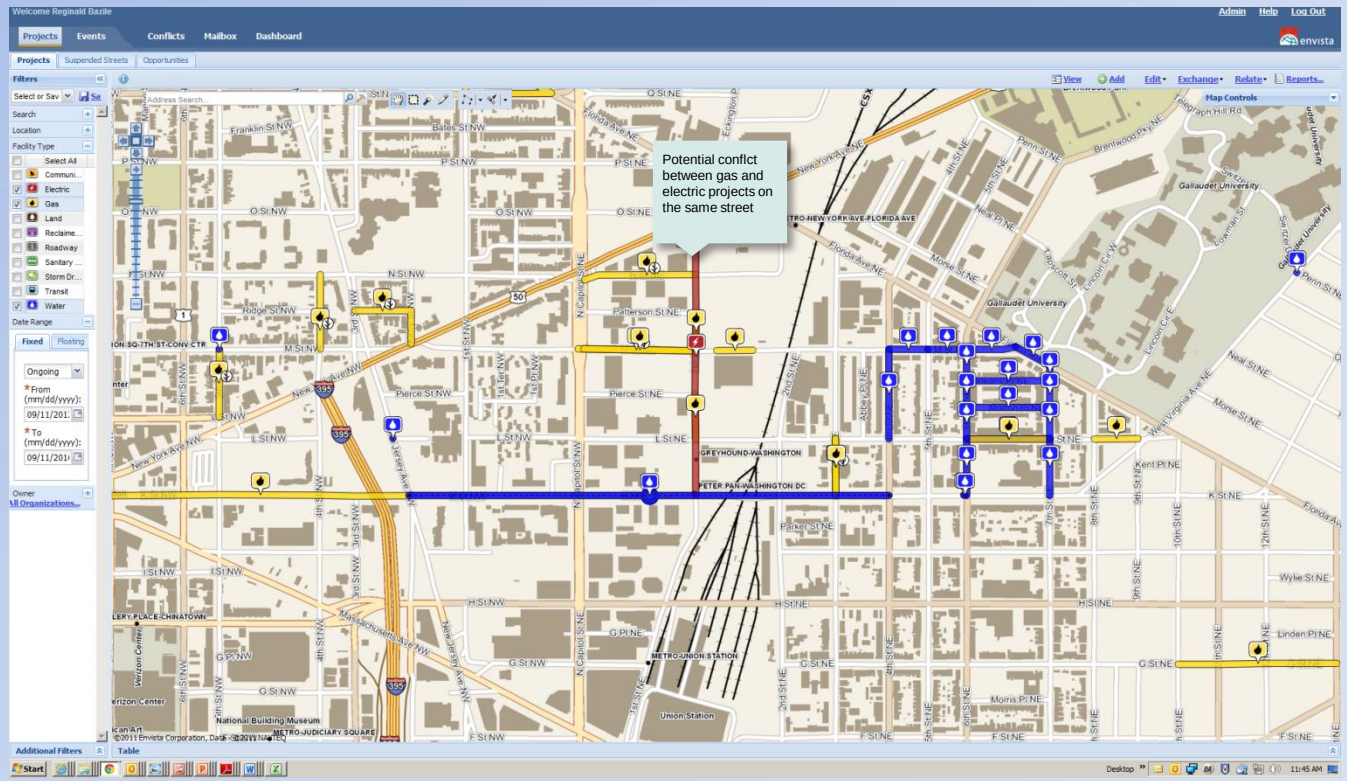
- Title 24 controls over construction in public space include:
  - Perform work per DDOT Standard Specifications [Title 24 -3403.7]
  - Restore the ROW upon completion of excavation [Title 24 - 3404.1]
  - Warrant restorations for two years [Title 24 - 3404.8]
  - Guarantee performance thru payment of a deposit [Title 24 - 3405.1]

Coordination on major projects

- DDOT and the utilities maintain a Two-Year Plan of major [+15 day] projects [Title 24 – 3401]
- If utilities plan work in the same area, they must coordinate & share costs [Title 24 – 3401.10]
  - Title 24 outlines DDOT actions to encourage cooperation…
    - Designate a lead utility for the project
    - Issue a joint permit to the utilities
    - Direct utilities to use same contractor for restoration

Two year planning is done via Envista, an online tool

www.envista.com/



Summary – DDOT utility regulation

- The three key elements of DDOT utility regulation
  1. ROW Occupancy Permits
  2. Public Space Permits
  3. Coordination on major projects
- These controls implement regulations set forth in DCMR Title 24

Potential levers to encourage undergrounding

- Promote undergrounding vs aerial facilities
  - Adjust permit fees
  - Adjust ROW rental fees
- Reduce permit costs
  - Designate undergrounding work as DDOT projects
  - Modify/relax/waive requirements
  - Issue Special Permits
- Share construction costs
  - Capitalize on overlaps w/DDOT projects
  - Encourage cost sharing among utilities
  - Leverage Envista as a planning tool

Tree Trimming Overview (DDOT)

Trees are part of DDOT's stewardship of public space

- DDOT's Urban Forestry Administration [UFA] protects and promotes the interests of trees
- UFA staff, and contractors, perform the following forestry activities
  - Pruning
  - Planting
  - Removal

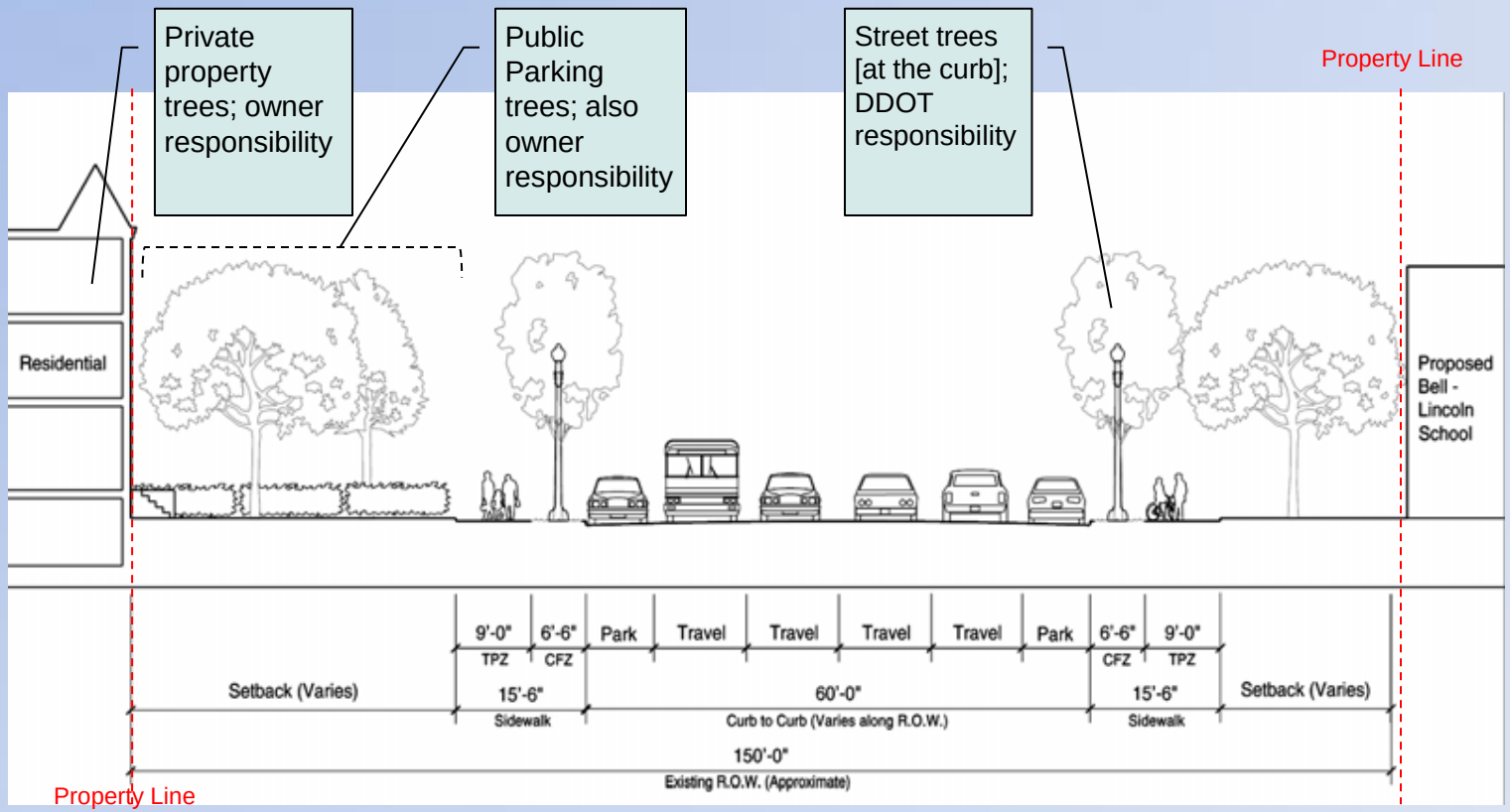
Schedule of UFA Services

- **Pruning**
  - Street trees are on a five year inspection cycle, and pruning is planned asap; based on identified need

- **Planting**
  - DDOT plants 4,000+ street trees each year
  - The planting season extends from November to May

- **Removal**
  - Completed as needed; based on funding
  - Removals arise from any of the following:
    - UFA's proactive evaluation of tree health
    - Resident service requests
    - Storm-related damage

Public vs. Private Responsibility



Storm response for trees that fall across boundaries

Tree falls…	Tree removal…
• From private space into public parking	☐ Abutting property owner responsibility
• From private space into public space • From public parking into public space	☐ DDOT removes portion of tree in public space; balance is property owner responsibility
• From public space into public space • From public space into private space • From public space into public parking	☐ DDOT removes entire tree

Note: *All* removals subject to Pepco make-safe

District street trees enjoy legal/regulatory protection

- Key legislative and regulatory documents related to the tree canopy include…
  - The Urban Forest Preservation Act of 2002 [The Tree Bill]
  - DCMR Title 24
  - Standard Specifications for Highways & Structures, Section 600 [The Blue Book]

The Tree Bill

- Removal of healthy street trees requires notice to residents
- Forestry added as permit requirement
- Increased fines for damaging trees and established tree fund to support forestry
- Title 2 protected private property trees from unauthorized damage
  - Fines = $5,000/tree; $15,000 for Special Trees

Title 24 extends tree protection to permitted use of ROW

- Permit holders must project street trees per DDOT Standard Specifications, [Title 24 -3403.7]
- Trees w/circumference of 55" or more, including those in pvt space, protected as Special [Title 24 – 3700]
  - Fine = $100/inch of circumference [Title 24 – 3704.1]
  - w/proper notice, utilities may remove Spcl Trees w/out a permit[Title 24 – 3705.1]

Summary – DDOT tree regulation

- Tree protection is codified in the Tree Bill and the DCMR
- DDOT, Pepco, and property owners each play a role in care of the tree canopy
  - Responsibility depends on location
- Pepco is restricted from tree work on private property without owner's consent

Potential levers for improving storm response

- Pepco make-safe processes
- Simplify tree removal/trimming authority for storm events
  - Emergency authority
- Streamline process for prop owner consent
- Expand hazardous tree definition
- Fund and expand use of growth retardant, other measures

Vegetation Management Plan for Utility Tree Trimming (PSC)

Vegetation Management Plan for Utility Tree Trimming in the District of Columbia

- Commission Order No. 13431, approved November 19, 2004
  - This Order established the Tree Trimming Working Group and charged it with establishing a process and plan for a vegetation management program that balances the need for reliable service, sound arboricultural practices, and the aesthetic value of the District's trees. Representatives from the Office of the People's Counsel (OPC), Pepco, the District Departments of Transportation and Public Works, and the Commission comprised the working group.

Vegetation Management Plan for Utility Tree Trimming in the District of Columbia

- Pepco's Vegetation Management Plan, filed March 17, 2005
  - Pepco, on behalf of the Tree Trimming Working Group, filed with the Commission a Vegetation Management Plan consisting of the following activities:

1. **Routine Scheduled Pruning** – Routine pruning removes an amount of growth typical for a two-year period, which varies depending on the health, location, and species of the tree. Scheduled pruning focuses on limbs below and alongside electric lines. Generally, above line pruning is minimal and is done to maintain clearance for proper operation of electric facilities. Routine pruning is performed under a blanket permit from the Urban Forestry Administration (UFA). Pepco provides the UFA with a list of work it has scheduled and UFA provides written objections to the schedule within 2 weeks. Any non-objectionable scheduled pruning will continue as planned.

Vegetation Management Plan for Utility Tree Trimming in the District of Columbia

- Pepco's Vegetation Management Plan – Continued

2. **Storm Hardening or Removal of Trees** – Storm hardening refers to additional tree pruning, beyond that performed under Routine Scheduled Pruning, on circuits that have been identified to be susceptible to damage during storms. Storm Hardening is focused on the removal of overhanging limbs and adding clearance alongside wires so the circuit can withstand higher winds without contact between the tree and lines. Unlike Routine Pruning, Storm Hardening must be approved by the UFA, with possible input from the relevant ANC, prior to any work starting.
3. **Topping Trees for Removal** – Dead, diseased, or hazardous trees directly beneath or in close proximity to distribution wires that have been identified by the UFA for removal are topped by Pepco so that the tree can be removed without violating approach standards. UFA provides Pepco with a list of trees to be topped for removal while Pepco develops a schedule for topping the trees. Alternatively, Pepco may de-energize the lines prior to tree removal work by DDOT and therefore negate the need for the tree to be topped. Pepco closely coordinates with UFA the scheduling of any line de-energizing to minimize the impact on customers.

Vegetation Management Plan for Utility Tree Trimming in the District of Columbia

- Pepco's Vegetation Management Plan – Continued

4. **Private Tree Removal** - Privately owned trees identified for removal by homeowners that are in the vicinity of distribution wires will be topped so that they may be removed without violating OSHA approach standards. Alternatively, provisions mat be made to de-energize the wires until the tree is removed. UFA provides no oversight of trees on private property unless the tree to be topped or removed is a Special Tree as defined in the Urban Forest Preservation Act of 2002.

5. **Emergency Maintenance Pruning** - Pepco will remove trees and limbs that fall and become entangled within wires during storm events. Pepco will notify DDOT when an emergency occurs and emergency work is performed.

Vegetation Management Plan for Utility Tree Trimming in the District of Columbia

- Commission Order No. 13847, approved December 21, 2005
  - The Commission found that the Tree Trimming Working Group developed a comprehensive Vegetation Management Plan designed to help reduce vegetation related power outages, interruptions and shortages; therefore, it approved the plan, which directed Pepco to comply with DDOT directives regarding pruning and removal.

Vegetation Management Plan for Utility Tree Trimming in the District of Columbia

- Commission Order No. 15568, approved October 7, 2009
  - This Order evaluated Pepco's 2009 Consolidated Report. The Commission requested supplemental information including a continuous improvement plan to achieve the reliability and outage restoration performance of the best (quartile) performing comparable utilities in certain benchmarking studies.

- Pepco's Comprehensive Reliability Plan, filed September 30, 2010
  - In response to Order No. 15568, Pepco filed its Comprehensive Reliability Plan. The Plan detailed six reliability initiatives, including an Enhanced Integrated Vegetation Management Plan (EIVM). The EIVM program is made up of several components, including the identification of hazard trees; the removal of weak tree species; the removal of overhanging limbs; the removal of fast growing trees, vines, and shrubs growing under the substation supply and distribution lines; and the selective application of herbicide. The Commission issued a Data Request to Pepco seeking to understand the EIVM program's relationship to the Vegetation Management Program approved by the Commission in 2005. Pepco responded that the 2005 plan remains in place and is complemented by the EIVM.

Current Overhead Lines and Undergrounding Policies, Laws, and Tariffs (PSC)

Prepared by: PSC

Current Overhead Lines and Undergrounding Policies, Laws, and Tariffs

- District of Columbia Comprehensive Plan
  - The District's Comprehensive Plan contains a policy regarding the undergrounding of electric distribution lines. The policy seeks a "[p]lan for the undergrounding of electric distribution lines throughout the District to provide increased reliability of service and enhanced aesthetics and safety" as well as an "equitable means to cover the high costs associated with undergrounding." (10-A DCMR § 1314.7)
  - It must be noted that the Comprehensive Plan is comprised of objectives and policy, and although it is promulgated by the Office of Planning and codified as a municipal regulation, it does not carry the force of law.
  - The Comprehensive Plan underwent major revisions in 2006 and another round of minor revisions in April 2011.

Current Overhead Lines and Undergrounding Policies, Laws, and Tariffs

- D.C. Code § 34-1901.01 – Additional telegraph and telephone wires prohibited on streets ; extensions.
  - The Mayor of the District of Columbia shall not permit or authorize any additional telegraph, telephone, electric lighting or other wires to be erected or maintained on or over any of the streets or avenues of the City of Washington; provided, that the Mayor of the District may, under such reasonable conditions as he may prescribe, authorize the wires of any electric light company existing on July 18, 1888, and then operating in the District of Columbia, to be laid under any street, alley, highway, footway or sidewalk in the District, whenever in his judgment the public interest may require the exercise of such authority, such privileges as may be granted hereunder to be revocable at the will of Congress without compensation and no such authority to be exercised after the termination of the 50th Congress.
  - This statue effectively banned overhead distribution systems within the City of Washington as its boundaries existed on July 18, 1888, which encompasses portions of Wards 1, 2, and 6.

Current Overhead Lines and Undergrounding Policies, Laws, and Tariffs

- Pepco's General Terms and Conditions for Furnishing Electric Service in the District of Columbia
  - Section 10 of Pepco's General Terms and Conditions governs service connections installed for structures in the District of Columbia
  - **Residential Structures –** For new residential construction, the normal service connection will be supplied underground.
  - **Commercial-Industrial Structures –** For new services, the service cable will normally be installed underground unless the Applicant's premises are such that construction of underground lines would serve no aesthetic purpose.

Standards for the Inclusion of Assets in Rate Base

- When a utility files its application to change rates, it will include a budget covering construction projects completed or that are in progress during the test year for which it seeks rate base treatment.

- The Commission, OPC, and other intervenors review the budget and supporting information to determine whether the projects and the associated costs are reasonable.

- If a project is challenged, the burden then shifts to the utility to prove that the asset is eligible to be included in rate base.

- Traditionally, there are two tests for including an asset in rate base
  - Is the asset used and useful to the utility in providing service?
  - Was the utility's decision to invest in the asset prudent?

Standards for the Inclusion of Assets in Rate Base

- Used and Useful – Only those assets used to provide utility service are included in rate base.

- Prudence – An asset is included in rate base if the utility's decision to invest in that asset was prudent. The prudence review is based on information the utility had, or should have had, at the time the relevant decisions were made.
  - Assets may be excluded completely or only to the extent the Commission finds the investment to be imprudent.

Overview of Pepco's Recent Undergrounding Proposal

- Pepco filed it Selective Undergrounding proposal on March 9, 2012

- Selective undergrounding is an expensive endeavor that can easily cost $3.0-3.5 million per mile of feeder placed underground. Because of the significant investment involved, Pepco filed with the Commission a Petition for a Declaratory Order approving its method and criteria for selectively undergrounding portions of its distribution system. As the Company stated in its Petition, recovery of prudently incurred costs associated with selective undergrounding is crucial to the Company's plan to move certain feeders underground; therefore, Pepco wants the costs associated with selective undergrounding to be accepted as distribution plant in service and given rate base treatment and cost recovery.

Overview of Pepco's Recent Undergrounding Proposal

- Basic Principles
  - Pepco relied on a few basic principles in developing its selective undergrounding criteria.

1. **Selective undergrounding in the District will be for reliability improvement only and not for aesthetic reasons**.
   - Pepco appreciates that some neighborhoods may seek to replace its overhead distribution system with underground facilities, but the Company's immediate focus is on improving the reliability of its electric service.

2. **The selective undergrounding effort will target mainline or primary circuits, and not laterals, secondary services, or individual service drops.**
   - Relying on the Shaw Report, the Company decided that focusing on primary circuits is the most cost-effective way to increase service reliability as more customers are impacted from improvements made at this level.

Overview of Pepco's Recent Undergrounding Proposal

- Basic Principles – Continued

3. **The Company will complete other reliability work in addition to undergrounding done on any feeder chosen for selective undergrounding.**
   - Citing the Shaw Report again, Pepco concludes that a cost-effective selective undergrounding program would combine aggressive vegetation management, hardening of key outage-prone equipment, and limited undergrounding of key circuits.

Overview of Pepco's Recent Undergrounding Proposal

- Feeder Selection Process
  - Using those basic principle as a guide, Pepco developed a process to select feeders for undergrounding. The process involves the following four steps:

1. **Data Analysis**

- In this step, outage information and historical data such as the priority feeder lists and feeder lockout statistics along with weighted customer counts are used to select candidate feeders.

2. **Engineering Judgment**

- Once a pool of candidate feeders is selected, further analysis is done to ensure that the types of outages experienced by these feeders would be remedied by replacing portions of an overhead mainline feeder with underground construction.

Overview of Pepco's Recent Undergrounding Proposal

- Feeder Selection Process - Continued

3. Constructability

– Feeders passing the Data Analysis and Engineering Judgment step receive field reviews and detailed design work to ensure that the portions of the main line selected for undergrounding are indeed the best candidate, that undergrounding will produce the greatest improvement, and that there are no significant impediments making undergrounding impracticable or unfeasible.

4. Final Quantitative Analysis

– Feeders passing the first three steps have certain historical benchmarks recalculated with the assumption that outages along portions of feeders placed underground did not occur. These (hopefully) improved benchmarks are then subjected to a sensitivity analysis to make the new recalculated benchmarks more indicative of future performance.

Overview of Pepco's Recent Undergrounding Proposal

- Based on this selection process, Pepco determined that the best candidates for selective undergrounding were portions of Feeders 14200 and 14900.

Feeder 14200

– The Company plans to underground 4,118 feet of overhead conduit on Feeder 14200. The portion to be undergrounded is located along Michigan Avenue, NE from Monroe Street, NE to North Capitol Street, NE and along Monroe Street, NE from Michigan Avenue, NE to 9th Street, NE. Pepco estimates that it will take approximately 10 months to complete the conduit, manhole, and cable work at a cost of $4,560,000*.

Feeder 14900

– Pepco has completed design work to underground 1,600 feet of the overhead circuit that runs along Oregon Avenue, NW from Nebraska, Avenue, NW to Beech Street, NW. Pepco estimates that it will take approximately 4 months to complete the conduit, manhole, and cable work at a cost of $1,300,000.

* Total project cost following Contributions In Aid of Construction is $3,738,000.

Overview of Pepco's Recent Undergrounding Proposal

- Commission Order No. 16763, approved April 27, 2012

  In Order No. 16763, the Commission denied Pepco's petition for a declaratory order approving its method and criteria for selective undergrounding for the following reasons.

Commission Response to Pepco's Basic Principles

- The Commission found that it was "favorably disposed" towards the Company's principle that it would not base selective undergrounding decisions on aesthetic concerns and instead focus solely on reliability improvements. We agreed with the logic of this approach as it echoes the Commission's recognition that reliability is a top concern among District ratepayers.
- As to Pepco's second principle – restricting selective undergrounding to mainline primary portions of feeders – the Commission agreed that mainline outages can affect large numbers of customers; however, frequent outages on lower voltage laterals could also have a significant cumulative impact on customers. Since the Commission is currently engaged in an effort to identify neighborhoods within the District with severe reliability issues and consider specific ways in which those issues may be solved, we were not inclined to approve criteria that may exclude solutions that may answer the reliability needs of a particular neighborhood.

Overview of Pepco's Recent Undergrounding Proposal

Commission Response to Pepco's Basic Principles – (Continued)

- For its third guiding principle, Pepco stated that it would complete other reliability work (aggressive vegetation management and the hardening of key equipment) in addition to the undergrounding done on selected portions of a feeder. First, we failed to see how this principle had any unique application to selective undergrounding. We expect that Pepco already undertakes reliability work on feeders as performance dictates and that such work will continue regardless of whether the feeder has been chosen for selective undergrounding. Second, when the above-ground remediation occurs concurrent with, instead of prior to, undergrounding, it is difficult to assess the cost-effectiveness of the undergrounding (*e.g.*, whether subsequent reliability improvements are due to the above-ground work or feeder undergrounding).

Overview of Pepco's Recent Undergrounding Proposal

Commission Response to Pepco's Selective Undergrounding Process

- **(Data Analysis) -** The Commission determined that the priority feeder list is not a good tool to use to determine initial eligibility for undergrounding as it ignores outage causation. For greater accuracy, the Commission suggested Pepco use a cumulative list of feeders associated with its Most Susceptible Neighborhoods, either on a stand-alone basis or in combination with its priority feeder list.

- **(Engineering Judgment)** - This step proposed nine criteria as applied to candidate feeders, one of which focused on reviewing past remedial efforts to a feeder to ensure that a comprehensive best effort to improve reliability had occurred before expensive undergrounding work is proposed. The Commission cited a recent MD-PSC Order which found both the standards and funding of Pepco-MD's Vegetation Management Program to be deficient. The MD-PSC's findings raise the possibility that Pepco-DC's inability to remediate feeder outages in certain neighborhoods through its Vegetation Management Program alone may be due to the program's design and implementation. Pepco's petition failed to convince the Commission that all or the majority of the feeders on either the Priority Feeder List or those associated with Most Susceptible Neighborhoods are incapable of mitigation through properly designed vegetation management.

Overview of Pepco's Recent Undergrounding Proposal

Commission Response to Pepco's Selective Undergrounding Process - (Continued)

- **(Constructability) –** This step leaves substantial room for subjective judgment as many of the terms Pepco uses lack concrete definitions, which increases the chance this step facilitates arbitrary, and not objective decision making.

- (**Final Quantitative Analysis) -** It's not clear from Pepco's petition whether the ultimate goal of this step is to forego selective undergrounding if similar or greater levels of reliability improvement can be achieved at lower costs on other parts of its distribution system. Given the high costs associated with undergrounding, Pepco may have a difficult burden to meet if cost-effective reliability improvements are the litmus test for selective undergrounding.

  For these reasons, the Commission denied Pepco's petition for a declaratory order approving its method and criteria for selective undergrounding; however, the Commission's decision **does not** prevent Pepco from moving forward with its plans to underground all or portions of any feeder on its distribution system. Should Pepco decide to complete these projects, it can seek cost recovery for these projects in its next rate proceeding before the Commission.

Overview of Pepco's Recent Undergrounding Proposal

- **Pepco's Motion for Clarification, filed May 7, 2012**
  - While providing its analysis of Pepco's criteria for selecting potential feeder segments to be placed underground, the Commission cited an Order from the MD-PSC which criticized the Company's vegetation management practices – particularly its failure to switch from a two-year pruning cycle to a four-year pruning cycle in Maryland. Based on the Maryland-PSC's findings, the Commission opined that Pepco's failure to solve overhead outage problems through vegetation management solely may be due to the design, implementation, or funding of the plan.
  - Shortly after the Commission rendered its decision on Pepco's Petition, the Company filed a Motion for Clarification. The Motion argued that Pepco lacked the authority to adopt a four-year pruning cycle and asked the Commission to clarify whether the Company should seek authorization from the Commission and the UFA to shift to a four-year pruning cycle.
  - In response, the Commission propounded a series of questions asking the Company, among other things, to identify statutes, regulations, or other directives prohibiting the transition to a four-year pruning cycle.

Overview of Pepco's Recent Undergrounding Proposal

- **Potential Barriers to a Four-Year Pruning Cycle**

- Pepco identified the following as barriers to it switching to a four-year pruning cycle:
  - The November 3, 2004 UFA policy directive attached to the Vegetation Management Plan. The directive provides that "Pepco['s] routine (2 years of growth) tree trimming will continue as scheduled. approved by the Commission; and
  - Commission Order No. 13847 (approved December 21, 2005), which directs Pepco to "comply with DDOT's directives regarding removal and pruning.

- The Commission recently received Pepco's answers and is considering this information as it crafts a response.

Interjurisdictional Coordination (OCA)

Prepared by: PSC

- **Maryland Executive Order**, issued by Governor O'Malley on July 25, 2012
  - Requires the Governor's Energy Advisor, the Power Plant Research Program, the Maryland Emergency Management Administration, and the Maryland PSC to solicit input and recommendations on undergrounding and other infrastructure improvements to strengthen the power grid

  - Requires Governor's Energy Advisor (Abigail Hopper) to provide recommendations for legislative changes, regulatory reforms, and other policy changes within 60 days

- Metropolitan Washington Council of Governments (COG)
  - Chief Administrative Officers Committee
  - Energy Advisory Committee