



## DC Power Line Undergrounding

Community Hearings

Presented by: Caryn Bacon, Pepco and Keith Foxx, DDOT

Date: July 22, 2014

# Agenda

---

- Background and History
- Task Force Evaluation and Recommendations
- Triennial Plan
- Triennial Plan Summary
- Current Overhead System
- Paying for the DC PLUG Initiative
- Community Facts
- What You'll See

# Background and History

---

- Severe weather events, especially those between 2010 and 2012, challenged the electric system's resiliency
  - Severe thunderstorms
  - Snow-mageddon
  - Hurricane Irene
  - Derecho
  - Hurricane Sandy
- Mayor's Executive Order established a Task Force to evaluate options to improve resiliency during severe weather events
- Task Force members represented a broad cross section of stakeholders (District Government, OPC, Pepco, other utilities and citizen representatives)
- Electric Company Infrastructure Improvement Financing Act of 2014 (Act) became law on May 3, 2014

# Task Force Evaluation and Recommendations

---

- The Task Force used a model to analyze outage data and service value to the community for all overhead feeders in the District of Columbia
- Feeders are primary distribution power lines that provide service to approximately 1,100 people within a neighborhood
- The recommended criteria for choosing which feeders would be moved underground include:
  - Average of outage frequency (SAIFI)
  - Duration of outages (SAIDI)
  - Economic impact
- The final recommendation is to move underground the primary lines of the least reliable feeders in Wards 3, 4, 5, 7 and 8
- Pepco's existing reliability enhancement program will be continued in all wards.

# Triennial Plan

---

- The Act created a unique public-private partnership between Pepco and DDOT to bury overhead lines to significantly improve electric service during severe weather conditions
- In accordance with the Act, Pepco and DDOT filed a joint Triennial Plan on June 17, 2014 covering the three-year period 2015-2017. The next Triennial Plan will be filed in 2017.
- Under the Triennial Plan, DDOT will construct the underground facilities and Pepco will install the underground electric distribution for 21 currently overhead feeders affected by outages
- Triennial Plan also includes the DC PLUG Education Plan and a commitment to District business contracting and resident hiring

# Triennial Plan Summary

Year	Feeder	Ranking	Ward	# Custs Served	Estimated Total Cost
1	<b>308</b>	<b>1</b>	<b>3</b>	<b>590</b>	<b>\$11,687,949</b>
	15001	13	4	1,344	\$26,048,749
	14093	10	5	946	\$34,231,400
	14261	4	7	1,279	\$23,512,340
	15177 <sup>(1)</sup>	8	8	2,223	\$40,780,050
	<b>Year 1 Total:</b>				<b>6,382</b>

2	<b>75</b>	<b>11</b>	<b>3</b>	<b>287</b>	<b>\$10,868,172</b>
	<b>394</b>	<b>14</b>	<b>3</b>	<b>295</b>	<b>\$10,003,495</b>
	<b>467</b>	<b>6</b>	<b>3</b>	<b>427</b>	<b>\$9,479,476</b>
	15021	30	4	2,047	\$28,849,138
	15701	25	5	2,842	\$14,782,712
	14008	26	5	1,038	\$19,486,420
	368	18	7	627	\$12,070,813
	15707 <sup>(2)</sup>	3	7	3,104	\$41,263,358
	14758	9	8	2,131	\$19,199,215
	<b>Year 2 Total:</b>				<b>12,798</b>

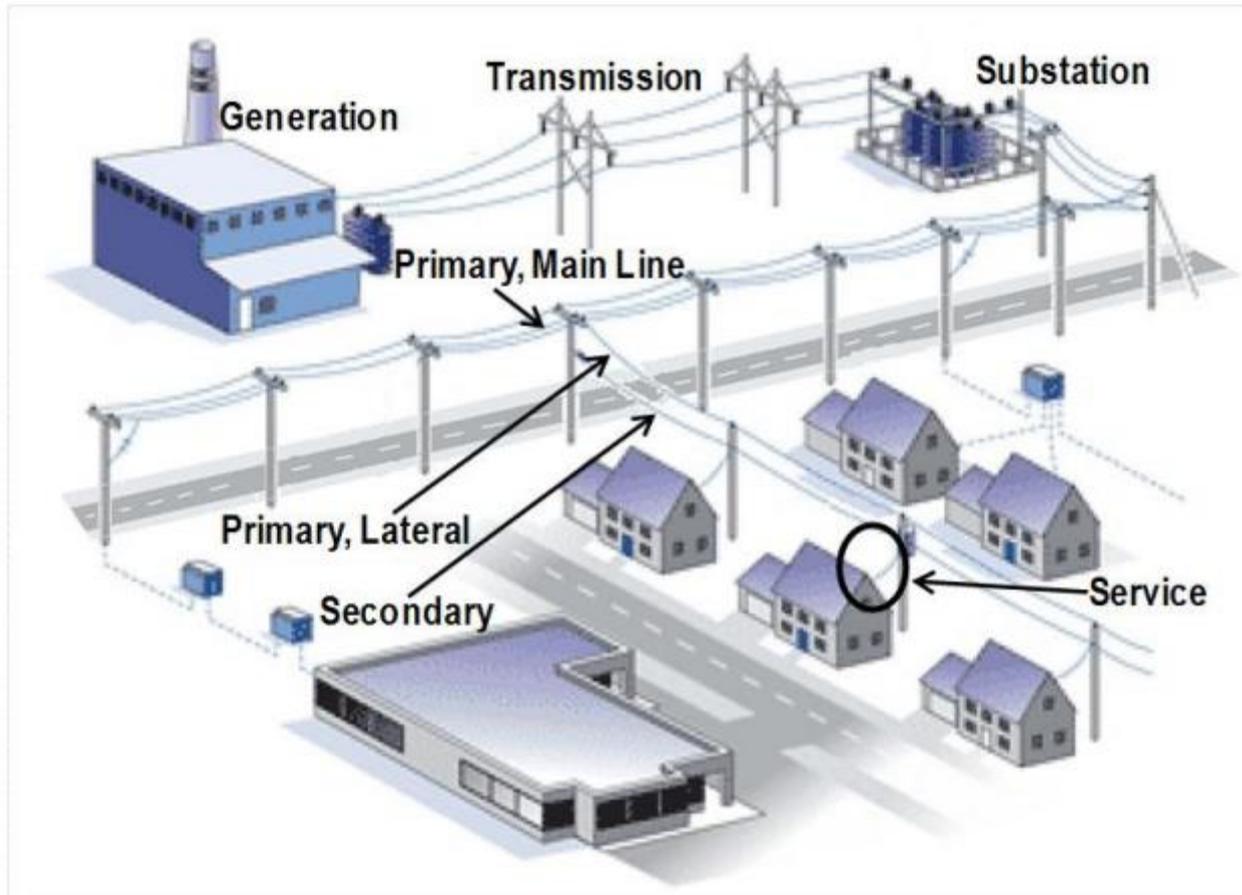
3	<b>14136</b>	<b>22</b>	<b>3</b>	<b>983</b>	<b>\$5,493,159</b>
	<b>15944</b>	<b>21</b>	<b>3</b>	<b>715</b>	<b>\$19,688,647</b>
	<b>14766</b>	<b>19</b>	<b>3</b>	<b>715</b>	<b>\$10,341,696</b>
	14014	27	5	1,956	\$34,449,976
	15013	29	5	992	\$23,230,947
	15130	34	7	1,937	\$10,921,457
	15166	16	8	2,140	\$27,681,744
	<b>Year 3 Total:</b>				<b>9,438</b>

**Total Estimated Costs (3 Years)      \$434,070,913**

<sup>(1)</sup> Feeder construction projected to carry over into Year 2

<sup>(2)</sup> Feeder construction projected to carry over into Year 3

# The Current Overhead System



# Paying for the DC PLUG Initiative

- The total \$1 billion DC PLUG initiative will be funded by three sources
  - \$500 million – funded by Pepco
  - \$375 million – Bonds issued by the District
  - \$62 to \$125 million – funded through DDOT
- Two surcharge mechanisms will be added to the customer's bill
  - The Triennial Plan, filed on June 17, 2014, will establish a surcharge to cover Pepco's investment in the initiative
  - The Financing Plan, to be filed on August 1, 2014 will authorize the issuance of \$375 million in bonds by the District and establish a surcharge to cover the payments on the bonds.
- The estimated monthly bill impact on the average residential customer is:

	<b>Triennial Plan</b>	<b>Financing Plan</b>
Year 1	\$ .18 per month	Pending
Year 2	\$ .52 per month	Pending
Year 3	\$ .91 per month	Pending

- Residential Aid Discount (RAD) Customers will be exempt from both of the DC PLUG surcharges



# Community Facts

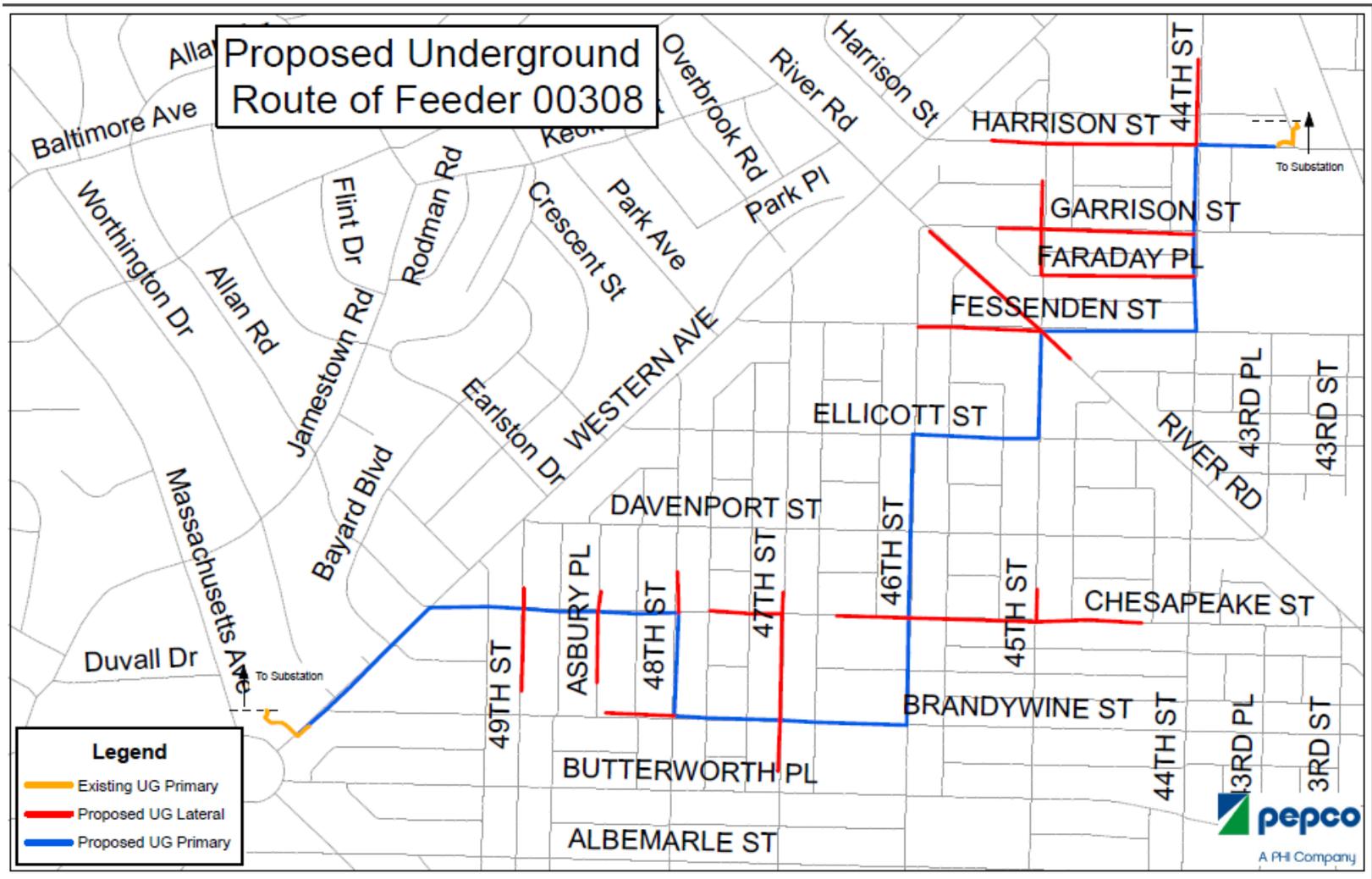
---

- Provided are handouts detailing the work to be performed in your ward, including:
  - Feeder and year of construction
  - Ward
  - Neighborhoods
  - Description (percent residential/commercial)
  - Length of feeder (percent overhead and percent underground)
  - Number of customers

## Proposed Scope of Work- Example Feeder 00308:

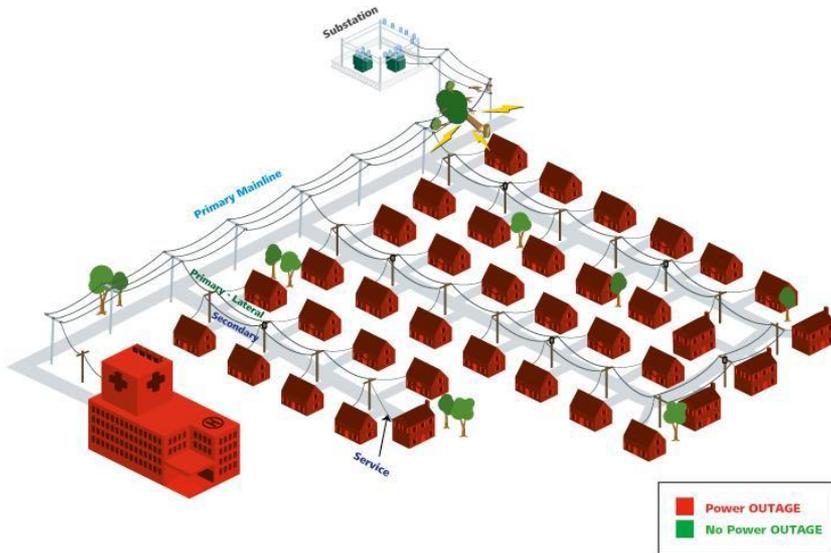
- Remove existing overhead primary wire and transformers
- Install approximately 60 manholes
- Install approximately 8 underground tap holes
- Install approximately 3.4 miles of duct bank in an underground trench
- Install ancillary civil equipment including associated paving milling
- Install approximately 75 transformers
- Install approximately 5 switches
- Install approximately 2 miles of mainline cable
- Install approximately 4.6 miles of lateral cable
- Install ancillary electrical equipment including cable supports, joints and insulators

# One Line Diagrams- Example

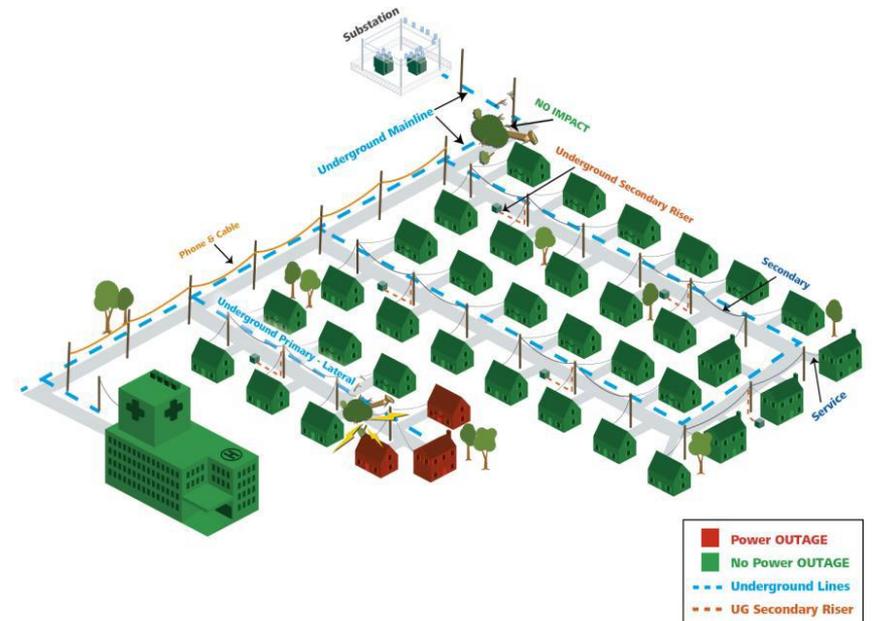


# What You'll See

## EXISTING OVERHEAD SYSTEM



## PROPOSED UNDERGROUND PLAN



# What You'll See

- Above Ground

Before



After



# What You'll See

- Construction Phase
  - Coordination of capital improvement projects with other utility partners and within DDOT, as well as, with developers
  - Certified Arborist from DDOT's Urban Forestry Administration will review all DC PLUG plans
  - Any disturbed areas will be restored to original condition by contractor



# What You'll See

- Construction Phase (cont'd.)
  - Work Time Restrictions: Louder construction activities prohibited from the earliest work hours and cease before evening hours. Normal allowable work hours are 7:00am to 7:00pm. Saturday hours, if applicable, are 9am to 5pm. No work on Sundays.
  - Traffic Impacts may include lane closures, parking restrictions and safe pedestrian detours.

